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**Stress in Tenure-Track and Non-Tenure-Track Faculty: What We
Know and Where We Are Going**

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Know and Where We Are Going**

by

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Dedication

This master's report is dedicated to the hard-working teachers, instructors, supervisors, and program directors who work as non-tenure-track faculty at universities. Without this group of individuals, the American college system would not exist. I thank all lecturers, adjunct faculty, and contingent faculty, who have dedicated their own lives to providing instruction to the next generations of thinkers, for how much they have shaped and continue to influence American academic culture. I would not be here today without their guiding hands, patience, and optimism for my future, and I imagine this story could be told a thousand times over across students and universities throughout the Western educational system. You are cherished, respected, and valued. Thank you.

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A great deal of research has over the last fifty years has examined chronic stress in the workplace across numerous vocations. Relatively little has been studied in the context of university professors, and even less still has been examined in non-tenure track faculty (NTTF), individuals who seek academic work contingently and fill teaching, supervising, researching, and mentoring roles. This report outlines the extant knowledge on professor stress in university faculty, ultimately focusing on the experiences of NTTF. Research into professor stress in the following domains are outlined: workplace factors, multicultural and sexual minority concerns, gender, and disparities in treatment and payment. Additional stress factors may affect NTTF that are not experienced by all university professors, such as perceived social status (PSS), workplace isolation, and incivility from students. Exploratory research into and implications of NTTF stress are discussed, and future research directions and possible clinical interventions for NTTF stress are suggested.

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Chapter One: Overview

Over the past four decades there has been an increasing amount of attention paid to vocational stress, coping, and health across multiple fields of work including teachers and helping professionals (McCarthy, Lambert, & Reiser, 2014). However prolific this division of research has been, there remains a paucity of research into the stress and experiences of university faculty members. American novelist and professor John Gardner wrote on the topic, “Professors are to education as goldfish are to water; they swim in the water but never think to study it” (Gardner, as cited in Gmelch, 1993, p. 15). Within this area of research there is an even larger dearth of information on the experiences of non-tenure-track faculty (NTTF), university-employed individuals who occupy teaching, research, or supervising roles without the intent to obtain tenure status (Reevy & Deason, 2014). The purpose of this report is to outline the somewhat limited information available on the stress and related experiences of university faculty, ultimately focusing on NTTF. This report will suggest that the area of university faculty and chronic stress is an important one because of the numerous demonstrated consequences of chronic stress on mental, physical, and occupational well-being (Aldwin, 2011) and that, within the area of NTTF research, the hierarchical system of employment may contribute to a previously undiscussed chronic stressor in the faculty workplace (Singh-Manoux, Adler, & Marmot, 2003).

Faculty stress and related coping is a valuable area of future research exploration. Past research has shown that burnout and compassion fatigue are common in helping professions like psychology (Ackerley, Burnell, Holder, & Kurdek, 1988), nursing (Sprinks, 2015), and teaching (McCarthy, Lambert, O’Donnell, & Melendres, 2009). The career of a university faculty member is somewhat similar to these professions in that multiple demands are placed on the

individual, often without the necessary resources to approach specific stressors. According to Lazarus (1965), perceived stress is the product of a cognitive appraisal of any situation that places demands on an individual. Demands must be met with appropriate resources for the individual to perceive a challenge that, although may be time-consuming or difficult, will ultimately be within that individual's grasp. However, when resources are not perceived as sufficient enough to meet demands, an individual perceives stress. This model, focusing on the cognitive appraisal of stressors and available resources, highlights the importance of individual differences in appraisals (Aldwin, 2007). For example, one person might rate receiving an additional task at work as relatively uneventful during her day if she has enough resources to cope with the additional requirement, whereas another person might see the addition as a huge roadblock if he perceives a lack of available resources to meet this demand.

The dynamics of this example would change depending on the nature of the stressor itself. Short-term stressors, like immediate problems in the workplace, temporary physical illness, or even death of a loved one, are often referred to as acute stressors because the individual experiencing them can predict that, barring complications, they should abate relatively quickly (Stroebe & Stroebe, 1987). Lazarus (1965) showed evidence of the undesirable effects of acute stress, such as bereavement, associated with greater mortality and morbidity (Stroebe & Stroebe, 1987). In contrast, chronic stressors do not abate quickly, lingering in the background of one's personal and work life, taxing the allostatic load across long periods of time (Aldwin, 2011). In the above example, a chronic stressor might be the individual who is being harassed at work by a coworker day in and day out. Research into the consequences of chronic stress has been prolific over much of the past century, and the past thirty years has seen a tremendous amount of growth (Aldwin, 2011). Chronic stressors, in particular, bring with them the

possibility of long-term, unresolved conflicts and multiple, uncontrollable demands placed on the individual (Aldwin, 2011). The effects of short-term acute and long-term chronic stressors have been discussed in literature across numerous contexts.

For example, research (e.g., Tillett, 2003; Healy & Tyrrell, 2011) has addressed the effects of short-term, acute stressors in helping settings. The human body is remarkably flexible when it comes to adapting to acute, short-term stressors (Burks & Martin, 1985). An argument has been made that the body is skilled at adapting to short term stressors often with relatively few long-term consequences, especially when discussing acute stress and later emotional health (McGonagle & Kessler, 1990). As such, acute stress will not be the focus of this report. In comparison, chronic stressors that do not abate and continue across time are more taxing on the allostatic load and have been shown to relate to long term health consequences (Aldwin, 2011; McEwen, 1998, 2004). The effects of chronic stress are a prolific area of research in the broad field helping professions but have been studied less so in the context of professors (Reevy & Deason, 2014; Gillespie, Walsh, Winefield, Dua, & Stough, 2001). Studies examining the effects of chronic stress in NTTF are almost non-existent (Reevy & Deason, 2014).

Chronic stress has been shown to relate to a plethora of deleterious syndromes including: mood disorders (Calabrese, Molteni, Racagni, & Riva, 2009); difficulties with sleep (Winwood & Lushington, 2006); weight gain (Dallman et al., 2003); psychosomatic symptoms (Cropley & Steptoe, 2005); vocational burnout (Lazarus, 1995; McCarthy, Lambert, O'Donnell, & Melendres, 2009); and decreased perception of social support and sense of well-being (Lepore, Evans, & Schneider, 1991). With so many physical and emotional outcomes related to chronic stress, it raises concerns not just about the individual's health, but the ability of chronically stressed university professors to act as first-line educational instructors and interventionists

(Gillespie, Walsh, Winefield, Dua, & Stough, 2001). Studies about the relation of chronic stress to work productivity in other professions, such as middle management, have demonstrated that, as chronic stress increases, productivity, accuracy, and enthusiasm deteriorate (Peter & Siegrist, 1997). Meta-analyses examining this relation across numerous studies and vocations have replicated the findings (Siegrist, 2008).

This report will begin by overviewing the literature on professor stress and coping. Then, it will address environmental factors that have been studied in the context of professor stress as well as intrapsychic and social-cognitive factors that are related to professor stress. Specifically, this report will discuss workplace factors, role expectations, gender, sexual identity, and other minority factors, and the financial structure of higher learning and related stressors. Following that, the discussion will focus on NTTF and their varied experience, including discussion of potential social-cognitive factors that relate specifically to their health, like perceived social status. The final point in the literature review will discuss the currently explored ways to intervene in NTTF stress in the workplace. This report will end with a discussion on research implications and areas of research development, such as extending the literature to focus more on social-cognitive factors and related health in NTTF, looking at the emotional and mental well-being of NTTF from a broader context, and developing contextually-appropriate interventions for NTTF stress.

Chapter Two: Literature Review

Overview of Chronic Stress in Faculty

Research suggests that chronic stress affects work productivity and emotional well-being of university professors at large (i.e., the corpus of literature that studies both tenure-track and NTTF) but is currently limited in information as to the factors that apply to NTTF in specific (Reevy & Deason, 2014). Recent social movements in the media and within educational communities (e.g., Sacaro, 2014; Swarns, 2014; Cholo, 2015) have voiced concerns about the often silent, contextually-specific stressors that NTTF face at universities, but questions from critics remain about the specificity and uniqueness of these claims of distress (Brennan & Magness, 2016). For example, some have questioned whether financial and budget constraints that often affect NTTF are not found in all large places of employment (Brennan & Magness, 2016). Furthermore, critics have argued that, beyond extending full faculty salaries and benefits to NTTF, which would cause large-scale financial instability in the university environment, there are relatively few solutions to these alleged stressors (Brennan & Magness, 2016).

Hierarchical systems of employment, like those found in universities in the professor ranking system, implicitly label those at lower rankings as being less in power. In one large-scale epidemiological study, *The Whitehall-II Study*, researchers collected data on the social ranking of civil service workers in the United Kingdom and various emotional and physiological health outcomes, such as depression and heart disease (Singh-Manoux, Adler, & Marmot, 2003). The authors (2003) found that individuals lowest in self-perceived social ranking had the highest incidence of heart disease, even when controlling for other factors. They argued that those in lower positions of power experience a type of contextual and chronic stress because of their de facto minority status and presumed access to fewer resources (Singh-Manoux, Adler, & Marmot,

2003). This trend has been demonstrated in both humans as well as other primates (Sapolsky, 1984). There is little reason for researchers to suspect that this trend would be any different in academia, yet little attention has been given to this phenomenon in the past. Also, there is little reason why NTTF would not experience broad stressors mundane to all university professors as well as stressors belonging to their minority status. To understand the significance of these interactive stress factors, one must examine the broad picture of university professor stress and related coping.

Workplace Factors and Faculty Stress

In terms of stress, much of the literature on university professors at large has focused on workplace factors that either contribute to stress pathogenesis or stress resiliency. For example, research has looked at the workplace environment for chronic stressors (e.g., Peter & Siegrist, 1997; Colligan & Higgins, 2008). Administrative bureaucracy and red tape has been found to be a salient environmental factor in professor stress in multiple studies suggesting that workplace infrastructure contributes to the stress of employees in university settings (as cited in Gmelch, 1993). Excessive time pressures without the resources to meet the requirements have been found to be related to professor stress in that, the more unrealistic time constraints professors faced, the more the reported perceived stress over periods of time (as cited in Gates, 2000).

Relatedly, Cladellas and Castello (2011) examined university professors to look for a link between time requirements and commitments and reported stress and health concerns. They found that professors who had classes in the early mornings or late afternoon reported significantly more stress and health worries than those who held classes during the middle of the day. They argue that this is an important consideration for faculty who have to teach during atypical business hours because cognitive strain and stress are related to burnout.

Research into tenure-track professors has revealed a positive correlation between publication pressure and stress (Tijdink, Vergouwen, & Smulders, 2013). Tijdink et al. (2013) polled 437 university medical training professors across eight training hospitals to examine a potential link between professor self-reported well-being and perceived publication pressure. They found a strong and significant relation between perceived publication pressure and burnout. The authors argue that, for many professors, publication pressure is perceived as a distraction from teaching and other duties, often viewed as something they have to endure to continue working in their chosen field.

Likewise, research has also found a positive correlation between increased research and teaching responsibilities and stress in research faculty (Winefield & Jarrett, 2001). Winefield and Jarrett (2001) examined the link between stress and work-related factors in university professors such as teaching load, perceived staff support, budget cuts, and others. In line with Karasek's (1979; Karasek & Theorell, 1992) model of job stress, the authors (2001) maintain that any occupation in which there is high demand placed on an individual but also high autonomy/control will not create stress for the individual. They found that stress was positively related to increased academic demands, like increased teaching and research load, in university professors while controlling for trait anxiety and job satisfaction. But this doesn't explain all possible sources of stress because work schedule and external factors cannot be the sole contributions to professor stress (Karasek & Theorell, 1992). Regardless of the large amount of autonomy granted to professors in their careers, it would seem that additional factors were at play in creating stress for university professors (Winefield & Jarrett, 2001).

Another phenomenon pertinent to academic career research is the relation between stress and incivility in the workplace (Cortina, Magley, Williams, & Langhout, 2001). Incivility (e.g.,

disrespect, condensation, open hostility, defiance, etc.) is related to increased psychological distress in the literature when it comes from coworkers or managers (Cortina, Magley, Williams, & Langhout, 2001). In teaching or other helper settings, incivility can come from the recipient of the service as well as coworkers. Research has shown that students in higher education settings can demonstrate incivility towards instructors by disrupting class, using cell phones, or leaving early (Nordstrom, Bartells, & Bucy, 2009). It is likely that professors whose classroom environments are chronically chaotic or even hostile perceive greater stress in their workplace.

Intrapsychic and Psychosocial Stress Factors and Faculty

Lazarus (1995) argued that environmental effects, like classroom hostility, cannot account for all of the variability in stress across individuals. Intrapsychic and psychosocial factors are also important when discussing faculty stress. Past research has shown in both university faculty and teachers, high self-expectations and self-imposed measure of achievement are positively correlated to stress and more likely to lead to burnout (Clark, 1973; Alexander, Adams, & Martay, 1983). Navarro, Mas, and Jimenez (2010) looked at stress and burnout in professors using a mediating model to link perceived social competence, environmental stressors, and stress/burnout symptoms. Mediation models explain how or why two variables are related by examining an intervening factor between two others (Fairchild & MacKinnon, 2009). In this example (Navarro, Mas, & Jimenez, 2010), the authors tested whether workplace factors (factor A) worked through perceived social competence (mediating variable) to affect burnout symptoms (factor B). They found that perceived social competence, a social-cognitive factor, mediated the link between external, workplace factors and both depersonalization and stress. This suggests that social cognition, or the way in which individuals think when in certain social contexts or situations, affects the way in which instructors regulate stress. Combinations of

cognitive traits, factors, or beliefs make it more likely that an individual experiences stress when paired with certain social or cultural expectations (Ashforth & Mael, 1989). Thus, role expectations and demands are examples of factors that have a social-cognitive component (Ashforth & Mael, 1989).

At least some of professor stress could potentially stem from the multiple workplace role demands placed on university professors that spill over across role boundaries (Gmelch, Wilke, & Lovrich, 1986). Professors have multiple roles, likely serving as teachers, advisors, researchers, mentors, and colleagues, to name a few. This plethora of roles creates a complex, interwoven network of strains as various roles demand the individual's time, energy, and cognitive reserves, allowing stressors to spill over across domains.

Alternatively, some have argued that multiple roles allows for individuals to utilize strengths to compensate for weaknesses in some roles or areas, usually suggesting that workplace strengths can balance home life weaknesses or home life strengths can balance workplace weaknesses (Staines, 1980). For example, an individual who does not feel efficacious in parenting may lean on his strength as a researcher at work. Others have noted that neither spillover theories nor compensation theories completely explain the interaction between work roles and home life roles (Clark, 2000). They argue that there is a dynamic interaction between workplace and home life roles that both spill over and compensate across boundaries (Clark, 2000).

Role demands that bleed over from the home and into the workplace have frequently been studied through gender comparisons. Bolger, DeLongis, Kessler, and Wethington (1980) examined heterosexual dyadic couples to see if home stressors affected self-reported workplace stress and vice versa for both men and women. They found gender differences in stress

suggesting that men were more likely to ruminate on home stressors at work. They also found that there were no gender differences in rumination on workplace stressors at home. Although they did not examine university faculty, there may be gender differences in self-reported stress in faculty as well. Taken with Gmelch, Wilke, and Lovrich's (1986) findings, one interpretation is that role-related stress effects are cumulative, increasing with the amount of roles required of an individual, and there may be gender differences in this phenomenon.

Gender and Other Minority Factors and Faculty Stress

Results in the area of gender and related stress in university faculty do not produce a consistent trend (Gmelch, 1993). Some studies have found that men in academia experience significantly more stress than women. For example, Tung (1980) examined the stress of men and women employed at universities in different workplace domains: conflict mediating, role-based, boundary-spanning, and task-based (time restraints). He reported that men experienced more stress in three out of four work domains: conflict mediating, role-based, and boundary spanning. The only domain without a significant difference was task-based (time restraints), suggesting that men and women experienced a similar amount of stress over time-related demands. In contrast, other studies (e.g., Lovano-Kerr & Fuchs, 1982) found that women in academia reported more time-related stress than did men. Boyenga (1978) similarly found that it was actually women who experienced greater work role-related stress than did men. Women in academia experience more cumulative stress at the workplace because they are more likely to act as providers for family and children and they are more likely to serve on task forces and committees at the workplace (Gmelch, 1993; Smith, Anderson, & Lovrich, 1995; Hart & Cress, 2008). Still, at least one study has found that university professors (in this case, NTTF) are more

similar across genders in self-reported stress factors than are members of the general population (Reevy & Deason, 2014).

Findings regarding the intersection of other minority factors and professor status are clearer. For example, when compared to white faculty members, black faculty members are less likely to receive tenure, have lower salaries, and perceive more chronic stress in the workplace (Gmelch, 1993). Likewise, LGBTQ faculty members face chronic stressors related to their sexual identities in the workplace. Openly gay, lesbian, bisexual, transgender, and queer faculty members often report stressful encounters that range from open hostility from students or university employees, to microaggressions, to tokenism, the idea that, as the sole non-heterosexual faculty member on staff or in a department, they somehow represent all LGBTQ people (LaSala, Jenkins, Wheeler, & Fredriksen-Goldsen, 2008). This heightened visibility in a teaching classroom or on university committees can be stressful to individuals involved. When it comes to the intersection of multiple minority factors, women of color are more likely to perceive stress in university settings for a variety of reasons including receiving lower salaries (Patitu & Hinton, 2004).

Income and Faculty Stress

Just as women professors of color are more likely to perceive stress from lower salaries, similar sources of stress can be found in many vocations, like universities college teaching and research, especially when there is a noticeable inequality in payment for services. Gender-based income disparities have been and continue to be a contributing factor to faculty stress. Women faculty members have traditionally been paid less than their men counterparts, and this trend has been documented historically (Gmelch, Wilke, & Lovrich, 1986). Although the gap has narrowed since 1970, as of 2016, this trend remains the norm, with women faculty members

earning roughly 79% of what men earn in similar appointments (AAUW, 2016). In fact, in some states such as Louisiana, women in university settings can expect to earn 65 cents to every dollar that a man earns in the same position.

Lower income is not merely a gender issue, but one that affects whole family systems. As of 2016, the majority of women (63%) are responsible for earning more than a quarter of the income for their family unit (AAUW, 2016). Given that traditional gender roles place women as the primary caregivers for families, women employed in academia face not only the stress of having a lower income than men, but the added pressure of allotting those limited resources to various family-related expenses. Working women earn less and are more likely to spend this income on the family than on leisure (Pahl, 1990).

The traditional presumption that women should remain primary caregivers while simultaneously holding a job positions can contribute to stress too (Miner-Rubino & Cortina, 2004). Those that deviate from traditional expectations might meet suspicion or disdain from friends and family. These expectations also prime the use of microaggressive language towards women who voice concern about the wage gap (AAUW, 2016). For example, one argument consistently lobbied against women is that it is their life choices that limit their income, and, therefore, it is their own fault that they experience greater stress. Research suggests that, even when controlling for decisions in college major, vocational direction, and other life choices, women still earn on average 12% less than men during the ten years after college graduation (Blau & Kahn, 2006). It is not merely their own choices that shape women faculty's salaries. Injustice has a hand in this phenomenon. Taken with the potentially greater stress of time-pressure constrains (Lovano-Kerr & Fuchs, 1982), work roles (Boyenga, 1978), and stigma of being in a traditionally male-dominated workplace (Major & O'Brien, 2005), the stress of lower

income likely contributes to the subjectively more stressful workplace environment for women in academia.

Financial Obstacles in University Settings

However, women are not alone in their financial concerns in academia. At a macro-perspective, fiscal concerns are common in the greater higher educational academic community at large (Oloff, Palacios, Johnson, & Leachman, 2013). Years of federal budget cuts on educational funding following the 2008 economic recession has left state government educational budgets stretched thin (CBPP, 2010; 2013). At the time of this writing, states are spending on average nearly 30% less on education than they were in 2008. According to the Center on Budget and Policy Priorities (CBPP; 2013), some states have even gone as far as to reduce expenditure by 50% per student. Decreased national and state funding for education has left universities with the predicament of finding ways to balance this budget on their own. One solution has been to increase tuition for students, a trend noticed across the U.S of the past eight years. Another has been to radically cut expenses, even to the detriment of educational quality (Oloff, Palacios, Johnson, & Leachman, 2013). Some universities, like those in the University of California system, have raised tuition over 32% across a three year time period while laying off adjunct and part-time instructors (CBPP, 2010). Other states such as Florida have followed suit, cutting expenses drastically, eliminating positions, and laying-off employees. Out of university teaching faculty, contingent and other NTTF are up first on the chopping block during educational downsizing (Reevy & Deason, 2014).

Non-Tenure-Track Faculty: Employment, Income, and Complications

This phenomenon has important ramifications for professor stress, in particular NTTF stress. Universities have traditionally relied heavily on contingent faculty to occupy teaching,

supervision, and support roles because tenured professors often spend a large portion of their time in activities other than teaching. When harsh budget cuts are imposed on universities, these contingent faculty run the risk of losing their job (Reevy & Deason, 2014).

Contingent faculty already face financial hardship that many tenured faculty do not experience. The average tenure-track faculty makes an income of approximately \$71,000 per year, has medical and retirement benefits, and has increased job security due to the tenure system (Flaherty, 2015). Meanwhile, the average NTTF makes considerably less because much of their salary is paid out at approximately \$2,700 per course taught, averaging to around \$21,600 per year, around the average income of some graduate student stipends. Even long-term teaching faculty in senior positions (who are still NTTF) make around \$51,000 per year without benefits if they teach four classes, still considerably lower than their tenure-track colleagues. Some reports suggest that even veteran NTTF are paid less than entry-level assistant professors (Ehrenberg & Zhang, 2005).

There has recently been an outburst of media articles focusing on social justice for NTTF, calling into question the fact that universities traditionally pay adjuncts considerably less than their tenure-track colleagues, offering them fewer benefits and little to no job security (Appiah, 2015; Sanchez, 2014; Fruscione, 2014). These individuals call to attention the income and benefit disparities that NTTF experience in the workplace, arguing for increased awareness of inequity while pressuring for financial reform. Their position is that, in pursuit of social justice, universities need to do better, offering contingent faculty more workplace and financial stability given their expertise.

In contrast, other authors like Brennan and Magness (2016), in their seminal and influential article on NTTF and financial stress, posit that there are numerous obstacles to

overcome if universities were to increase NTTF wages and benefits, perhaps placing too much of a financial strain on universities for them to continue functioning the way they do. One point in their argument is that universities have more important tasks to accomplish before extending benefits and higher wages to NTTF. They argue that universities are often held to high standards by the public at large when it comes to social justice initiatives and that there is only so much universities can do at once due to limited resources, suggesting that priority be given to other ventures like making college more affordable for low-income students. The authors even go as far as to note that NTTF remain in their appointed positions despite recent strikes and protests for fair wages, implying that these faculty are not motivated to move onto other potential careers yet are motivated to protest their current situation. Their controversial implication is that NTTF may have lost perspective in their employment expectations because they have the right to leave if they are unhappy.

Comments and suggestions like these may exacerbate the stress of NTTF. Literature in the area of social support has shown that work environments which devalue the perspectives of an individual low in power may reduce that individual's sense of self-worth (Cutrona & Russell, 1987). Environments which undermine an individual's sense of self-worth serve as a type of chronic stressor, likely contributing to NTTF's stress. It would seem that microinvalidations like those made by Brennan and Magness (2016), which imply that NTTF can simply find employment outside of academia, could potentially contribute to the subjective stress in NTTF. Despite this, Brennan and Magness (2016) offer numerous other important considerations.

Financial restraints at universities in the United States are constant and nebulous. If funding is taken from one division of a university, another undoubtedly experiences cutbacks. They argue that NTTF are financially more of a responsible decision in terms of university hiring

initiatives because the university can hire more adjuncts part-time than they can hire tenure-track professors. Universities may be attempting to meet teaching and instruction expectations within budget constraints (Brennan & Magness, 2016; Reevy & Deason, 2014). According to Brennan and Magness (2016), extending full-tenure benefits to NTTF would drastically reduce the number of adjunct instructors, ultimately harming the student. The essence of the argument is that universities are being responsible by offering NTTF lower wages. There is also the issue of maintaining student tuition to faculty salary in terms of course offerings. If tenure-track benefits were to be extended to NTTF, the course structure and degree sequences for students would have to be altered to accommodate the lack of funding for enough course instructors. Request from NTTF for increased benefits may upset the delicate balance of university budgets.

That is not to suggest, however, that all NTTF are actively seeking tenure-track benefits and employment requirements, and some types of NTTF may have relative advantages compared to others. For example, some have argued that there is a fundamental difference between contingent NTTF and full-time NTTF, suggesting that there is little to differentiate between tenured faculty and full-time NTTF because the benefits and work roles have overlap (Chait, 2009). It may be the case that contingent NTTF are the most dissatisfied by the current employment stratification due to decreased access to resources and less employment stability (Chait, 2009; Reevy & Deason, 2014).

It is also important to note that many NTTF elect to enter their respective fields with the intent of remaining off tenure track (Chronister, Gansneder, Baldwin, & Harper, 2001). Some NTTF choose to move with their spouses to another city and take up educational employment that is readily available (Chronister, Gansneder, Baldwin, & Harper, 2001). Others seek employment off tenure-track for various reasons including the following: a disinterest in

research and tenure; increased scheduling flexibility; an interest in workplace challenges, an interest in interacting with large numbers of people; and the potential to seek support from other teachers and like-minded individuals (Feldman & Turnley, 2001). Within certain applied fields like medicine, law, psychology, professional counseling, or some natural sciences, the potential to find alternative or more lucrative sources of income may counteract the need for tenure (Chait, 2009). The vast majority of NTTF, however, cite income as a source of stress within their vocation (Kezar, 2012).

Regardless of NTTF motivations for seeking their vocation, budget and economic restraints keep universities from changing their payment system and from extending tenure-track benefits to NTTF. Recent increased restrictions on governmental stipends to public research universities serve as a great example of the types of obstacles that prevent universities from hiring new employees with tenure-track benefits (Oliff, Palacios, Johnson, & Leachman, 2013). Event though most universities are non-profit, basic economic principles are applicable to this marketplace as well. Business profits usually have to be greater than the business's expenditures. Although this was not always the norm in public universities, increased attention to public university budgets began to be paid during the 1990s as a reaction to publicized criticism that they were spending wantonly during a time of relative economic recession (Geiger, 2000). With increased attention came intensified expectations about how universities manage their budgets and the repercussions they would face should they fail to meet these expectations (Geiger, 2000). Universities are constantly reallocating funds to meet new demands, including teaching and staffing requirements that are contingent on changing student demographics (Geiger, 2000; Brennan & Magness, 2016).

In terms of hiring, adjunct positions without tenure-track benefits are arguably a better return on investment than the alternatives (Baldwin & Wawrzynski, 2011). This is because the vast majority of NTTF positions are funded differently than those designated for tenure-track faculty, which are designed to provide stability and security as a type of long-term investment in the faculty members' research and leadership skills. Whereas tenure-track positions essentially cost universities money, NTTF positions have high return on investment ratios since NTTF are commonly employed as teaching lecturers, instructing large numbers of students at lower salaries (Baldwin & Wawrzynski, 2011). According to the American Association of University Professors (AAUP; AAUP, 2015), the increasing reliance on student enrollment for class funding and reduced governmental funding for higher education primes universities to hire with the goal of spending less to accomplish more (Baldwin & Wawrzynski, 2011). Universities may be choosing to reduce expenditures on teaching for later investment in technology or facilities.

One alternative explanation for this phenomenon could be that universities are making a commitment to undergraduate students despite fiscal uncertainty (Bok, 2006, as cited in Reevy & Deason, 2014). Declining state funding, competition with for-profit colleges, and demand for student services in an increasingly pluralistic and diverse student population has placed a strain on university budgets, and many have responded by reducing the number of tenure-track positions available or instituting hiring freezes (Murphy, 2009; Reevy & Deason, 2014). The increased hiring of NTTF may be a natural outgrowth of educational evolution as universities rise to meet the challenges of accommodating large undergraduate populations with fewer resources.

Another potential reason for the increased reliance on NTTF comes from power dynamics in university settings. When universities grant a professor tenure, they essentially give

that individual power to influence their workplace by allowing them to sit on faculty senates and serve in leadership positions (Chait, 2009). Tenured professors are able to hold the administration accountable for policy change and implementation, thus reducing the power the administration has to make changes in the structure of the university. In contrast, universities that rely heavily on NTTF are able to place the majority of the power within the administration, allowing university governing boards to make the majority of the critical decisions. Because NTTF are essentially contract workers, they cannot necessarily assert their opinions to their employers. This potential shift in the balance of power may be motivating some universities to decrease the number of tenured positions in favor of those that provide essentially a fee per service model (Chait, 2009; Reevy & Deason, 2014). Thus, it is possible that hiring trends have adjusted to redistribute power in university governance.

Non-Tenure-Track Faculty and Stigma

The consequences of these hiring trends have been felt across campuses, professionals, and students. Some positions hold a negative view of NTTF, arguing that the increased reliance on contingent faculty marks a certain de-professionalization of faculty positions, supporting the aforementioned notion that university administrators have chosen to sacrifice quality and academic freedom for quantity of instructors (Benjamin, 2002; Spalter-Roth & Erskine, 2004). Many see this trend as a threat to the tenure system, holding that the tenure process is integral in fostering campus academic creativity and in cultivating new knowledge (Baldwin & Wawrzynski, 2011). The increased reliance on temporary faculty may make it difficult for undergraduate students to form lasting relationships with their instructors (Baldwin & Wawrzynski, 2011). Another concern is that undergraduate education quality suffers when teaching loads are shifted from tenured professors to NTTF (Benjamin, 1998, 2002).

Studies showing that NTTF employment is actually related to decreased quality of education are sparse (Umbach, 2007). A few extant studies (e.g., Benjamin, 1998, 2002; Umbach, 2007) have found a relation between non-tenure track status and lower educational outcomes in undergraduate students. However, other studies (e.g., Chronister & Baldwin, 1999; Baldwin & Chronister, 2001) have demonstrated that NTTF are as efficacious – and sometimes more efficacious – at teaching than their tenure-track colleagues, particularly if the NTTF has a full-time appointment (Baldwin & Wawrzynski, 2011). An argument could be made that, because NTTF might intrinsically value the teaching component of their work more than do some tenure-track colleagues since it is the main focus of their vocation (Nestor & Leary, 2000), they might have superior teaching performance when assessed in some studies (Baldwin & Chronister, 2001).

Despite the lack of clear trends in teaching efficacy, NTTF remain stigmatized amongst some of their colleagues for their chosen vocation (Reevy & Deason, 2014). Moreover, others perceive them as being less qualified for their chosen profession. Educational teaching status is stratified with tenure-track faculty outranking NTTF even in supposed quality of teaching. Stratification like this often is often related to devaluation of the lower members in the social structure, and the increased reliance on low-ranking faculty who may perceive inequity could enkindle a type of chronic stressor in those faculty rarely addressed in the context of the workplace (Barker & Christensen, 1988; Thompson, 2003).

Non-Tenure-Track Faculty and Social Comparison

With NTTF, self-comparison to tenure-track faculty is likely an important factor. Self-comparison involves both self-evaluation and self-enhancement (Suls, 2011). Without a meter to adequately judge social standing, people are driven to socially compare themselves to others

(Suls, 2011). People want to engage in upward social comparisons with competent others in an attempt to be like them and perform as they do. Because ability can be inferred indirectly from performance, comparing oneself to a successful or high-ranking other and finding a match can be one method that individuals work towards self-efficacy and raise coping resources. Indeed, social evaluations that lead to a sense of self-enhancement, in the form of thinking positive thoughts about oneself, can bolster a sense of well-being in the face of stressors (Suls, 2011). It may provide an environment where people can positively problem solve, a strategy based on approaching and attempting to alter the course of a stressful event rather than avoiding or enduring (Heppner & Lee, 2009).

In contrast, downward social comparison can be part of stress pathogenesis. One way that humans compare themselves to others is through the process of perceived social status (PSS) (Demakakos et al., 2008), alternatively called subjective social status, by which an individual engages in a downward or upward social comparison as to how they rank against other people in terms of prestige, resources, and efficacy (Derry et al., 2013). Numerous studies have examined PSS and its relation to physical health and have found that those placed on the bottom of the ladder tend to perceive and experience the worst health and the most stress (Singh-Manoux, Adler, & Marmot 2003; Smith & Jordan, 2014). This has implications for NTTF stress and related coping.

With less representation in faculty senates and other governing boards on campuses, NTTF are less likely to influence university policy and have less academic freedom (Berret, 2008; AAUP, 2013; Reevy & Deason, 2014). In terms of a ranking system, NTTF are often placed somewhere below their tenure track colleagues (Gappa & Leslie, 1993). They usually do not have the power to address matters of concern at the institutional/systemic level. The

hierarchical nature of their workplace potentially leaves NTTF sitting somewhere at the bottom of social status ladder, with less power than their tenure-track colleagues to affect their workplace environment, requirements, or social standing. Brennan and Magness (2016) note that NTTF frequently cite low status in the workplace as an area of concern. Furthermore, NTTF are aware that they are held separate and apart from their tenure-track colleagues through a lack of inclusion in faculty retreats, lack of voice within departmental governing boards, and lack of invitation to participate in the intellectual life of the university (Reevy & Deason, 2014). The very perception that one ranks lower than another in a social hierarchy has ramifications for stress and health from a social-cognition perspective (Adler, Boyce, Chesney, Cohen, Folkman, Kahn, & Syme, 1994). Although increasing attention is being paid to the psychological factors that affect the stress and health of individuals in teaching-based careers (McCarthy, Lambert, & Reiser, 2014), the consequences of low perceived social status on NTTF stress and related coping has yet to be fully explored even though the construct of PSS has been demonstrated to be reliable when predicting health outcomes and disparities.

Perceived Social Status, Stress, and Related Health

The seminal research on PSS was conducted by Jackman and Jackman (1973). The authors collected data using a large-scale, national survey that indexed participant income, access to resources, stock ownership, and other socioeconomic factors to see if access to actual resources was related to higher PSS (called subjective social status in the study) by using multivariate modelling techniques. Their results indicated that objective SES was related to actual access to more resources and higher prestige among peers and that PSS was positively correlated with objective SES. They concluded that it is likely that PSS is an accurate intrapsychic appraisal of access to socioeconomic resources and prestige. Moreover, they argued

that PSS is a stronger predictor of psychological stress than is SES. Because PSS is a broad factor, connecting multiple data points from various facets of an individual's life, it is more general than SES which is reliant on specific factors (e.g., income, availability of employment, likelihood of losing employment, access to promotions, etc.), that, when examined from an economic perspective, must be taken one by one and are, therefore, difficult to generalize. According to the authors, PSS is sensitive to the true imbalance between and across social and economic factors because it is a generalized appraisal of how well they are doing.

The link between actual access to resources and perceived access to resources is critical because of the strong relation between SES and chronic stress and health outcomes. In the seminal *Whitehall-II Study*, Singh-Manoux, Adler, and Marmot (2003) conducted a large scale survey in England with a cohort of 10, 308 participants, each of them a civil servant with a ranking in the government ranging from officers and leadership (high status) to janitors and door holders (low status). Participants were asked to respond to questionnaires about various aspects of their lives including physiological health, mental health, stress, and SES. One of the chief findings of this study was that the individuals low in status with access to fewer resources and a smaller income were three times more likely to die of heart disease than their peers higher in ranking. Similar results indicated a social gradient of disease for cancer, depression, suicide, higher blood pressure, and increased chronicity of stress, all suggesting that those lower in ranking than their peers experienced more health adversity.

To further examine this trend from a biopsychological perspective, Derry et al. (2013) first proposed that those with lower PSS would actually produce more physiological symptoms of distress when faced with a stress-inducing task. They recruited participants and had them complete a series of cognitive tasks followed by psychological and biological assessments,

including salivary sampling. After an in-lab cognitive stress test, those who were lower on self-reported PSS rated their distress as higher when faced with the mental task. More importantly, they also produced more interleukin-6, a biomarker for an immune-inflammation response (Derry et al., 2013). These results suggest that those who perceive lower PSS are likely to also perceive increased stress during cognitive tasks and actually respond accordingly from a physiological standpoint (Derry et al., 2013). Individuals are more likely to react with genuine, biological and psychological stress responses even in laboratory settings if they think that they are low in ranking, and thus, perceive themselves lower in power with fewer access to resources. It is important to note that this cognitive stress task was inorganic and relatively construed by an artificial laboratory environment. People living out their lives are unlikely to naturally encounter abstract reasoning problems designed to be purposefully difficult, like those used in this study. The strongest take away from this research is that psychological stressors can produce quantifiable biomarkers, like interleukin-6, leaving the implication that other types of psychological stressors may interact with PSS in vivo to produce an increased physiological and psychological stress response in humans. When humans perceive a status hierarchy, they are more likely to simultaneously perceive stress.

Given the hierarchical nature of the university environment, it is logical to conclude that university professors, likely to engage in self-comparisons that influence PSS, are at increased risk for the development of stress should they engage in upward social comparisons with their colleagues (Derry et al., 2013). Because the Western university system has institutionalized a categorical status system in the professorship ranks of lecturer, assistant professor, associate professor, and full professor that affects social status, pay grade, and university privileges, it would be difficult for any professor working in this system to resist the temptation to allow

professor ranking to influence PSS. In a related study, Abouserie (1996) polled university professors and academic staff to determine the sources of stress in their workplace. He found significant differences when comparing lecturers to the other rankings of professors in that lecturers experienced more stress than did the other ranks. Although it is tempting to generalize these findings, it is also important to note that this research was conducted almost twenty years ago in the British system of higher education. There is likely a need to replicate these findings in an American educational system in a more current educational environment. Because educational pressures placed on professors in terms of productivity and teaching load have increased worldwide, it may be the case that these findings have shifted to reflect the increased pressures and their relation to professor PSS and stress (Winefield & Jarrett, 2001).

Efforts to Solve These Problems

Even with the increased educational pressures placed on faculty at universities, there has been relatively little discussion as to how to best intervene to stymie the effects of increased stress for both tenure-track and NTTF. In terms of broad intervention, Gmelch (1994) argued that there are numerous cognitive and behavioral strategies that can be utilized by individual faculty members to cope with workplace stress. His (1994) model proposes that individuals can track their cognitive perceptions of stressors to change their responses and, therefore, change the consequences of the stressor. While this may work for certain demographics, it is not known whether these types of interventions work for chronically under-resourced faculty, like NTTF, who may not be able to outsmart uncontrollable workplace or social stressors. There are no outcome data from clinical research trials for these proposed interventions.

Other efforts to improve the situation for NTTF have taken a more systems-focused approach. Unionization is one way for groups in a workforce to advocate for change (Feldman

& Turnley, 2001). To date, there has been an increased push over the last decade for NTTF to unionize, strengthening their voice and power to affect change in the workplace (Purcell, 2007). Although this is one potential solution for increasing the power and social standing of NTTF, it does not solve all of the problems. For one, labor unions are not legal in every state. Second, unions might mitigate some of the problems with income or job security, but as Brennan and Magness (2016) argue, the funds to grant these benefits will likely come from other branches of the university, potentially making it that increased benefits for hired NTTF ultimately reduces the overall funding at the university for additional faculty or educational resources. And third, unions might not address all contextually specific factors that affect NTTD. For example, it is not currently known if unions increase NTTF perceived social status or if they merely act like a type of guard or armor against discrimination or potential negative events.

In conclusion of this chapter, NTTF have arrived at their chosen vocation for numerous reasons, some financial and some pragmatic (Chronister, Gansneder, Baldwin, & Harper, 2001; Feldman & Turnley, 2001). Some NTTF accept and enjoy their daily work, while some find the specifics to be stressful (Chait, 2009). Regardless of the reasons why NTTF entered their chosen field, the fact remains that they are a consistently underserved fraction of professors when it comes to research (Reevy & Deason, 2014). They are not immune to the mundane stressors that effect all professors, such as workplace factors (Peters & Siegrist, 1999; Siegrist, 2008), multicultural and sexual minority concerns (Gmelch, 1993; LaSala, Jenkins, Wheeler, & Fredriksen-Goldsen, 2008), and gender disparities in treatment and payment (Blau & Kahn, 2006; AAUW, 2016). What is known about NTTF includes their chronic financial and job-retention stress and often uphill battle when it comes to workplace respect and validation of their unique experiences (Reevy & Deason, 2014). Despite what is known about NTTF workplace

and social stress, relatively few interventions have been proposed that can ameliorate the effects of their stress (Gmelch, 1994). Future research directions and implications of current findings are laid out in the next chapter of this report, focusing on prospective research applications designed to investigate NTTF and PSS, to better understand NTTF mental health from a holistic viewpoint, and to ultimately intervene in the lives of NTTF experiencing chronic stress.

Chapter Three: Implications and Future Directions in Research and Application

This report proposes that the corpus of literature on university faculty could be developed in numerous ways and will provide suggestions for research directions and implications for current findings. The focus will be on NTTF research because of their traditionally underserved status and recent emergence in the literature during a time of increased social and political transparency of university administration in the United States. This report suggests development in a few areas. First, gaps in knowledge need to be addressed within this demographic to increase our understanding of the relation between perceived social status (PSS) and physical and emotional health because of the serious health implications of perceiving low social status. Second, research (e.g., Reevy & Deason, 2014) has suggested that there is a need for a more holistic viewpoint of NTTF mental health as it relates to social-cognitive factors, such as isolation or perceived incivility. And last, this report will provide prospective scaffolding for novel interventions aimed to improve the experiences of NTTF on university campuses, an area of research and application previously undiscussed in the broader literature.

Expanding the Literature: Non-Tenure Track Faculty and Perceived Social Status

To begin, the relation between PSS and emotional and physical health is an important consideration for NTTF. Research suggests that individuals who perceive themselves as low in power and low in social status are at increased risk for stress pathogenesis (Singh-Manoux, Adler, & Marmot, 2003). This effect has been noted in civil servants in the United Kingdom (Singh-Manoux, Adler, & Marmot, 2003) as well as in laboratory studies in the United States (Derry et al., 2013). However, the specific relation between PSS and stress in NTTF in the United States has not been studied to date.

The closest related study was conducted in the United Kingdom by Abousserie (1996) over twenty years ago at the time of this writing. Even then, the author (1996) found that the professors who ranked the lowest in power experienced the most stress. Given that governmental funding for education in the United States has become stricter and less bountiful over the past twenty years, it may be the case that the effect found in Abousserie's (1996) study has intensified as additional pressures are placed on NTTF. That is, it may be the case that non-tenured faculty, often first on the chopping block to lose their jobs during budget cuts, find their lower social status to be particularly salient (Reevy & Deason, 2014). If this is the case, NTTF might face similar mental and physical health ramifications seen in other low-status workplace roles (Singh-Manoux, Adler, & Marmot, 2003).

Currently, this research is still theoretical, but existing research models could be tailored to examine this phenomenon. This could be done by using survey methodology, tracking NTTF stress, mental health (e.g., self-reported stress, depression, and anxiety symptoms), physical health (e.g., sleep and insomnia, physical illness, physical pain), and PSS in NTTF across the United States. Social status has been successfully observed and compared to mental and physical health outcomes in prior research using the McArthur Social Status Scale, a self-report scale in which participants rank their social standing on a picture of a ladder relative to their peers (Adler, Ipel, Castellazzo, & Ickovics, 2000). The instructions would need to be modified, requesting that participants rank themselves based on their workplace standing as NTTF relative to tenured faculty. Correlational analyses could be used to determine the relation between PSS and health outcomes, like mood disorders, sleep, and subjective well-being. Findings in previous studies imply that NTTF who rank themselves as having lower social status than their peers will be more likely to also have higher reported instances of stress, depression, mood disorders,

insomnia, and physical illness, and lower well-being (Singh-Manoux, Adler, & Marmot, 2003; Derry et al., 2013; Reevy & Deason, 2014).

Expanding the Literature: A Holistic View of NTTF Mental Health

Second, this report argues that there is a strong need for more research in the area of stress and health in university professors especially as these factors pertain to subjective social status in NTTF. At the time of this writing, there remains a paucity of research in the area of psychogenic factors and professor stress/coping, particularly those examining the experiences of NTTF. Empirical studies relating social-cognitive factors such as status are even rarer still. Numerous studies have related social-cognitive factors and stress to major illness such as cardiovascular disease, emotional exhaustion, reduced well-being, and burnout (Marmot 2006; Navarro, Mas, & Jimenez, 2010; McCarthy et al., 2009). This may be an important direction for future research in terms of preventative healthcare and vocational well-being in university professors.

Furthermore, it is important to understand the experiences and mental health of NTTF from a more holistic viewpoint. Reevy and Deason (2014) argued that the majority of NTTF research has focused on the effects of employing NTTF has had on university teaching outcomes, expenditures, and employment retention. However, much of the emotional and mental health of NTTF remains a mystery, especially in relation to psychogenic or social-cognitive factors. For example, in other areas of research, isolation has been found to relate to increased stress in employees (Colligan & Higgins, 2005). Because NTTF do not often serve on university senates or committees and are often not included in faculty meetings, they may be more likely to perceive isolation in the workplace. If NTTF perceive isolation, they are likely more vulnerable to the development of stress in a way that could be addressed by institutional

intervention. This builds on the findings of Reevey and Deason (2014) which suggested that NTTF who experience chronic stressors which were out of their control were more likely to report higher stress, depression symptoms, and anxiety symptoms.

Another suggestion made by Reevey and Deason (2014) is that there is a dearth of research as to which university workplace factors contribute to NTTF stress and emotional distress. One workplace factor that contributes to stress and is discussed in the literature is chronic incivility in the workplace (Cortina, Magley, Williams, & Langhout, 2001). Incivility in the workplace can contribute to stress across a wide range of careers, including teaching and helping professions (Nordstom, Bartells, & Bucy, 2009). Although this phenomenon has been demonstrated in the broader context of university teaching settings, it has not yet been specifically investigated in NTTF (Nordstom, Bartells, & Bucy, 2009). Because NTTF rank lower than tenured faculty, it may be the case that students show less respect to them act with more incivility. If this were the case, NTTF would also face the added stress of being treated less than by students. It might also be the case that NTTF perceive hostility from other types of university employees, such as support or administrative staff or even tenured faculty. Small occurrences, like being left off faculty webpage directories or not being invited to faculty retreats, may actually be perceived by NTTF as hostility, especially if the workplace is already stressful.

Intervening in NTTF Stress

And finally, these points raise questions as to how best to remediate the chronic stress experienced by NTTF. To intervene effectively, more information on the types of coping skills utilized by professors is required. Furthermore, it may be necessary to delineate which coping mechanisms work for tenure-track faculty and which work for NTTF. Little has been written in terms of interventions aimed at increasing faculty resiliency. Gmelch's (1993) seminal work

entitled *Coping with Professor Stress* remains to this day the only published material specifically written to train professors to engage in more coping skills. The purpose was to provide a broad overview of coping, typical workplace stressors, and even personality factors and then offer CBT-like coping activities and exercises. Modules in book focus on the following: checking one's stress level, identifying stress traps, examining perception and personality, and balancing work and home life roles (Gmelch, 1993).

While this book fosters hope in the treatment of professor stress, it has numerous areas of development. First, it is not empirically supported and has not actually been tested in the population of interest. The cited data largely comes from broad surveys into professor stress conducted by the author during the 1980's which focused on correlations between multiple factors and professor stress. The rationale for why he selected those particular activities is not provided, and there are no outcome data to support their efficacy in any population. Second, the book is already somewhat dated, with many of the citations pulled from the late 1980s and earlier. The U.S. academic environment has changed so much in the last thirty to forty years that some of this data could be outdated, further undermining the suggested interventions' efficacy. And third, the book does not address how to cope with minority status or statuses, the intersection of multiple minority factors, or how to approach intervention from an institutional perspective. There is no mention in the entire book of NTTF and their varied experience.

To begin intervening efficaciously in the lives of professors, more recent data on the experiences of professors and related, updated stress factors must be considered (Reevy & Deason, 2014). Large scale surveys could be used to collect broad data, including information on multicultural factors like race, ethnicity, disability status, sexual and gender identities, and specific roles at work (e.g., administrative, service, tenure status, level of job autonomy etc.).

Other pertinent information includes information on university workplace settings like the following: hours worked, Carnegie ranking of the institution, class size, and workplace atmosphere. Emotional and behavioral data should be collected as well, examining incidences of depression and other mood disorders, anxiety, chronic stress, eating and drinking habits, and sleep hygiene. Social factors such as perceived social support, loneliness, and PSS should be considered as well. Using the data collected in the surveys, informed interventions can build on the work of Gmelch (1993).

For the sake of this discussion, an example can be made from similar data collected by Reevy and Deason (2014) which suggested that NTTF who have a high commitment to the university (defined as how much psychological investment an individual has in the university) are more likely to have higher depression and stress ratings. The authors argue that contingent faculty who are highly invested in their place of employment are more likely to identify with the position and face stress when considering possible loss of work. Gmelch (1993) suggested that faculty delineate which stressors can be removed and which are likely to stay. One might suggest that contingent faculty may experience employment stress on a day to day basis as it somewhat defines contingent or contracted employment status. Thus, it is a stressor that cannot be problem-solved away. Instead, Gmelch (1993) suggests that individuals who encounter these types of stressors employ interventions related to acceptance.

In this vein, Acceptance and Commitment Therapy (ACT) is an empirically-supported intervention that is based on radical acceptance of events, emotions, thoughts, and obstacles (Hayes, Strosahl, & Wilson, 2012). Using mindfulness strategies to decenter from emotional distress, ACT encourages behavioral activation in ways indicative of the individual's values [for a complete explanation of ACT, consider Hayes, Strosahl, and Wilson (2012)]. An ACT-based

intervention could be devised that targets the employment worries of the NTTF with high university commitment found in Reevy and Deason (2014) in a way that is in-line with Gmelch's (1993) suggestions. The aim would be to foster acceptance of the employment stress because the stress itself is not actually bringing NTTF closer to whatever they value. In fact, resistance to distress can lead to greater distress (Hayes, Strosahl, & Wilson, 2012), further pulling these faculty away from what is important to them. It would be important to help these faculty learn to notice when they are confronted with anxiety from an immovable factor and then behave in a way that activates a related value, allowing them to move away from the emotional distress by refocusing their energy.

This intervention could be provided through groups meeting on campuses. Research suggests that ACT-based group interventions are effective for treating chronic stressors, such as pain (Wetherell et al., 2011). Therefore, it may be an acceptable intervention format for addressing other chronic stressors, like constant worry over losing one's job due to budget cuts or position termination. With enough institutional support, a group could meet on campuses and be led by licensed mental health professionals. Modules could be devised that focus on salient issues that relate to both NTTF stress and specific stress factors, like employment worry or low social status. Even though clinical efficacy trials would be needed before implementation, the idea that NTTF can cope with these somewhat existential stressors with the help of group support is hopeful.

Chapter Four: Conclusion

The purpose of this report has been to outline the research in university professor stress while focusing on NTTF and their unique stress experiences. In the tradition of occupational health psychology, much of the literature has focused on workplace factors that predict greater stress in university faculty (Claudellas & Castello, 2011; Reevy & Deason, 2014). Other factors that relate to increased stress in faculty include work role/home role crossover in which stress from the home or work is brought into the other domain (Bolger, DeLongis, Kessler, & Wethington, 1980). Minority factors and the intersections of multiple minority factors are related to higher stress in faculty (Patitu & Hinton, 2004; LaSala, Jenkins, Wheeler, & Fredriksen-Goldsen, 2008). Gender may relate to increased stress, although the research findings in this area are somewhat mixed. In general, the findings suggest that women who are professors face greater stress than do men because of traditional cultural values that place women as the primary caregivers for their families in addition to workplace stress (Paul, 1990). Financial concerns are common throughout much of higher education, but women in particular face gender-based income disparities (AAUW, 2016).

With the increased reliance on contingent faculty due to the shifting governmental budgets for education, universities are relying more and more on NTTF (Reevy & Deason, 2014). Despite this increased reliance, much is still unknown about this subgroup's experiences or the most salient factors in understanding their stress. Social cognitive factors, like PSS, will be important informants in both research and clinical intervention for this group for years to come.

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Vita

Brooks R. Harbison was born and raised in central Texas. During high school, he was heavily involved in music, studying the clarinet and performing with youth orchestras and bands both in Texas and nationally. His first academic love has always been Psychology, and he was fortunate enough to find a mentor in his high school Psychology teacher who encouraged him to dream big and aim high. Upon graduation from high school, Brooks attended the University of Michigan for one semester, studying Music Performance and Psychology. He relocated the following semester, ultimately enrolling at the University of Texas at Austin where he majored in Psychology, completing a minor in English with a focus on Creative Writing.

During this time at U.T. – Austin, Brooks was heavily involved in undergraduate research in the Psychology Department, working with Dr. Laretta Reeves, Dr. Caryn Carlson, and Dr. James Pennebaker, studying research methods with Dr. Charles Holahan, and interning at Dr. Kirsten Bradbury's private clinical psychology practice in Austin, TX. His senior year, he completed an honors thesis, investigating sex differences in the emotional reactions to receiving social support from others. He graduated in December 2012 from U.T. – Austin with University Honors and a B.A. in Psychology with a Certificate in Special Psychology Honors.

Following that, Brooks enrolled in graduate school, first studying Clinical Psychology then later refocusing in Counseling Psychology. He attended a master's program at U.T. – Austin, earning a Master of Arts in Educational Psychology with a specialization in Counselor Education. While there, he worked with Dr. Stephanie Rude and Dr. Chris McCarthy. His current research interests are in emotion regulation, social cognition, and resiliency to the development of mood disorders. He is also broadly interested in Health Psychology. Brooks plans to enroll in the Ph.D. program in Counseling Psychology at the University of Louisville (KY) in the fall of 2016.

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