Dispositional Mindfulness and University Adjustment: The Mediating Role of Coping Self-Efficacy

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Abstract

Academic (AC) and personal-emotional (PE) adjustment to university are important for students' success in university. Therefore, there have been calls to identify protective factors that can enhance students' AC and PE adjustment to university. Dispositional mindfulness (DM) is known to be associated with AC and PE adjustment to university. However, despite studies showing associations between DM and AC and PE adjustment, less is known about the underlying mechanisms explaining this relationship. Coping self-efficacy (CSE), which is one's confidence in executing a coping strategy in response to a challenging situation–a precursor in determining one's choice of coping strategy–has been independently found to be related to DM, AC and PE adjustment to university. Therefore, building on these findings, in an exploration of the potential relationship between DM, CSE and AC and PE adjustment to university, this thesis sought to investigate a possible indirect effect of DM on AC and PE adjustment to university through its impact on CSE (emotion-focused CSE (EM-CSE) and problem-focused CSE (PR-CSE)). Given that the second year of university is a focal period in adjusting to university as it is associated with increased AC and PE challenges as students adjust and readjust to university, this study recruited a sample of second-year students. The current thesis has three main objectives: a) to examine the associations between DM, EM-CSE, PR-CSE, AC adjustment, and PE adjustment to university in the second year of university, b) to assess the potential indirect effect of DM on AC adjustment through EM-CSE and PR-CSE, and c) to assess the potential indirect effect of DM on PE adjustment through EM-CSE and PR-CSE. To this end, 65 university students (M_{age} = 19.57, SD = .78, 77 % women) were recruited in the Winter semester of their second year of university. The participants completed online measures assessing their DM, AC and PE adjustment to university, as well as their EM-CSE and PR-CSE. The results of a Pearson's

bivariate correlation coefficients revealed that all variables were significantly and positively correlated with each other, except for EM-CSE, which was not significantly correlated with AC adjustment. Moreover, the results of a series of four mediation analyses indicated that there were direct effects of DM on AC and PE adjustment and that PR-CSE partially mediated the relationship between DM and AC as well as PE adjustment. However, regarding the mediating role of EM-CSE, it only partially mediated the relationship between DM and PE adjustment as EM-CSE did not mediate the relationship between DM and AC adjustment. In brief, the results shed light on the role of CSE as a likely underlying mechanism through which DM is related to better AC and PE adjustment to university. Results enhance our understanding of the importance of CSE in the relationship between DM and AC and PE adjustment to university—with particular importance of PR-CSE in explaining this relationship. These findings have theoretical implications in advancing our understanding of the underlying mechanisms through which DM predicts adjustment to university. It can also have clinical implications for mental health professionals working with university students and program developers who design wellness activities to enhance students' AC and PE adjustment to university.

Résumé

L'adaptation académique (AC) et l'adaptation personnelle-émotionnelle (PE) à l'université sont importantes pour la réussite des étudiants universitaires. Par conséquent, des appels ont été lancés pour identifier les facteurs pour améliorer l'adaptation des étudiants dans les milieus de l'AC et l'PE à l'université. La pleine conscience dispositionnelle (PD) est connue pour être associée à l'AC et de l'PE à l'université. Cependant, malgré des études qui montrent des associations entre la PD et l'ajustement dans les milieus de l'AC et de l'PE, nous en savons moins sur les mécanismes sous-jacents expliquant cette relation. L'auto-efficacité d'adaptation (LEA), qui est la confiance d'une personne dans l'exécution d'une stratégie d'adaptation en réponse à une situation difficile - un précurseur dans la détermination de son choix de stratégie d'adaptation - s'est avérée indépendamment liée à la PD, de l'AC et de l'PE à l'université. Par conséquent, en s'appuyant sur ces résultats, dans une exploration de la relation potentielle entre la PD, LEA, l'AC et l'PE à l'université, cette thèse a cherché à étudier un effet indirect possible de la PD sur l'AC et l'PE à l'université à travers son impact sur le LEA (LEA centré sur les émotions (EM-LEA) et LEA centré sur les problèmes (PR-LEA). Étant donné que la deuxième année d'université est une période focale dans l'adaptation à l'université, car elle est associée à des défis accrus en matière d'AC et d'PE à mesure que les étudiants s'adaptent et se réadaptent à l'université, cette étude a recruté un échantillon d'étudiants de deuxième année. La thèse actuelle a trois objectifs principaux : a) examiner les associations entre PD, EM-LEA, PR-LEA, l'AC et l'PE à l'université en deuxième année de premier cycle, b) évaluer l'effet indirect potentiel de la PD sur l'AC via EM-LEA et PR-LEA, et c) évaluer l'effet indirect potentiel de la PD sur l'PE via EM-LEA et PR-LEA. À cette fin, 65 étudiants universitaires (M_{age} = 19,57, SD = 0,78, 77 % de femmes) ont été recrutés au semestre d'hiver de leur deuxième année d'université. Les

participants ont rempli des mesures en ligne évaluant leur niveau de PD, AC et PE à l'université, ainsi que leur EM-LEA et PR-LEA. Les résultats des coefficients de corrélation bivariés de Pearson ont révélé que toutes les variables étaient significativement et positivement corrélées entre elles, à l'exception de l'EM-LEA, qui n'était pas significativement corrélé avec l'AC. De plus, les résultats d'une série de quatre analyses de médiation ont indiqué qu'il y avait des effets directs de la PD sur l'AC et l'PE et que PR-LEA a partiellement médié la relation entre la PD et AC ainsi que l'PE. Cependant, en ce qui concerne le rôle médiateur de l'EM-LEA, il n'a que partiellement médié la relation entre la PD et l'PE, car l'EM-LEA n'a pas médié la relation entre la PD et l'AC. En bref, les résultats mettent en lumière le rôle de LEA en tant que mécanisme sous-jacent probable par lequel la PD est lié à une meilleure AC et PE à l'université. Les résultats améliorent notre compréhension de l'importance de LEA dans la relation entre la PD, l'AC et l'PE à l'université, avec une importance particulière de la PR-LEA pour expliquer cette relation. Ces résultats ont des implications théoriques pour faire progresser notre compréhension des mécanismes sous-jacents par lesquels la PD prédit l'adaptation à l'université. Cela peut également avoir des implications cliniques pour les professionnels de la santé mentale travaillant avec des étudiants universitaires et des développeurs de programmes qui conçoivent des activités de bien-être pour améliorer l'adaptation des étudiants à l'AC et à l'PE à l'université.

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Contribution of Authors

I am the primary author of this thesis. I acknowledge that the conceptualization of the present thesis was done in collaboration with my supervisor, Dr. Heath, and senior mentors of the DAIR team at McGill University, Dr. Joly and Ms. Mettler. I wrote all chapters in the present thesis with editing and support from Dr. Heath. I cleaned the data and ran the analyses with support from senior team members and mentors (Ms. Mettler, Ms. Petrovic, Dr. Joly, and Ms. Böke) who provided consultation and editing support for the Methodology and Results chapters. The data used in the present thesis and the analyses were supported by Drs. Heath and Joly, Ms. Petrovic, and Ms. Mettler

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Chapter 1: Introduction

Emerging adulthood, which begins around the age of 18 and ends in one's late twenties (Arnett, 2000, 2007; Arnett et al., 2014), is considered a pivotal period in development that can strongly shape and impact the rest of one's adulthood years (Wood et al., 2018). It is a period marked by rapid transitions such as living on one's own for the first time, starting new relationships and changing romantic partners, relocating, and attending university in pursuit of higher education (Arnett, 2016; Salvatore, 2018). In particular, adjusting to university is one of the prominent challenges many emerging adults need to navigate to achieve academic success. While attending university is an exciting time for many emerging adults, which can open doors for later opportunities in attaining future careers and upward social mobility (Autor et al., 2008; Statistics Canada, 2021; Torche, 2011), the stress associated with adjusting to university can pose a myriad of adverse effects on students' mental health (e.g., Cage et al., 2021; Mofatteh, 2020; Olasupo et al., 2018; Park et al., 2020). The stress can in turn inevitably hinder their academic and future career success if left unattended (Pascoe et al., 2020). In fact, a survey among 58 Canadian campuses showed that 59.5% of respondents reported academics as "very difficult to handle or traumatic", while the factor that was most frequently reported to negatively affect academic performance was stress (41.9%) to the point where 23.7% of respondents indicated having been diagnosed with anxiety 12 months prior to data collection (American College Health Association, 2019), which speaks volumes to the emotional and academic challenges students face when adjusting to university. Given the high rates of stress among students as they adjust to university and considering that not adjusting well to university during emerging adulthood years can have mental, as well as financial, and economic consequences for students and the society at large, the specific areas in which students struggle when adjusting to

university as well as ways in which students can have a smoother adjustment experience warrant further examination.

The main two intrapersonal areas, that are closely related, in which emerging adults particularly have difficulty as they adjust to university center around academic performance (e.g., obtaining good grades) (Credé & Niehorster, 2012) as well as personal and emotional variables (e.g., feeling stressed and overwhelmed) (Park et al., 2020). These two constructs are intertwined, such that not adjusting well in one domain can inversely affect the other. Emotional factors play a critical role in one's learning (Tan et al., 2021), and therefore it may not be possible to improve academic adjustment without helping individuals adjust emotionally. It is important to note that not adjusting well in the above domains can ultimately increase the chances of dropout among university students. For example, in a study among 1301 students in Northern Spain, Bernardo et al. (2016) demonstrated that those who adjust well in social and academic domains tend to persist in completing their university studies. Furthermore, the results of a report published by the National Academies show that 43% to 86% of students with a diagnosed mental health problem drop out of university (National Academies of Sciences, Engineering, and Medicine, 2021), which demonstrates how critical emotional factors are in adjusting to university as they are related to the risk of dropping out of university. Thus, given the importance of the academic and emotional factors in adjusting to university, and with universities actively seeking new ways to support student well-being and academic success (e.g., American Council on Education, 2020; Chessman & Taylor, 2019; Harris et al., 2022); it is crucial to gain more insights into how students can have a smooth academic and emotional adjustment to university.

Experiencing mental health difficulties is widespread during early years of university during emerging adulthood years (Duffy et al., 2020; Solmi et al., 2022). At the same time, the risk of dropping out of university is markedly higher in the first two years of university (Parkin et al., 2009). Therefore, special attention has been placed on the early years of university in the university adjustment literature as most students who do not adjust well to university may drop out by the end of the second year of university. Much of the literature has focused on the experiences of first-year students (Whittle, 2018). However, there is evidence that second-year students, or "neglected middle children", face tremendous challenges as they readjust to university (Gahagan & Hunter, 2006)— a phenomenon first documented in the 1950s referred to as the "sophomore slump" (Freedman,1956; Lemons & Richmond, 1987; Schaller, 2010; Vaughn & Parry, 2013). For instance, a study in the U.K showed that second year students report the highest levels of anxiety compared to the other years as their workload increased while much of the resources were concentrated on helping first-year students (Macaskill, 2012). In summary, given the range of emotional and academic challenges students face as they adjust to university, especially in the first two years of university, more attention has been placed on identifying factors that can positively affect adjustment to university. To this end, increasingly over the past decade, universities have promoted the use of mindfulness to enhance student adjustment and well-being (e.g., Dawson et al., 2020; Chiodelli et al., 2022; Galante et al., 2018; Moeller et al., 2020; Vilvens et al., 2021) and recently, there is some emerging evidence of the direct link between mindfulness and student adjustment to university (e.g., Dong et al., 2021; Mettler et al., 2019).

Mindfulness has gained prominence in recent years as a factor enhancing student well-being and adjustment to university. Mindfulness is defined by Jon Kabat-Zinn as "the awareness

that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). Mindfulness can be classified into two forms: dispositional (trait) mindfulness and state mindfulness (Brown & Ryan, 2003; Tang et al., 2016). Dispositional mindfulness refers to one's innate tendency to be mindful (Brown & Ryan, 2003), whereas state mindfulness refers to experiencing mindful states momentarily at a given time (Tanay & Bernstein, 2013). It is important to note that when practicing mindfulness, state mindfulness increases, and with regular practice of mindfulness over time, state mindfulness can translate into increasing dispositional mindfulness (Kiken et al., 2015). Therefore, dispositional mindfulness is not fixed and can be developed with practice, which provides a great opportunity to intervene in the event one reports low levels of dispositional mindfulness. Previous studies showed that among university students, higher dispositional mindfulness is associated with less distress (e.g., Sousa et al., 2021; Tomlinson et al., 2018) and less perceived stress (Zimmaro et al., 2016). Similarly, the results of a meta-analysis by Carpenter et al. (2019) showed that higher dispositional mindfulness is linked to less negative affect. Moreover, brief mindfulness practices among first-year students were shown to lead to better university adjustment, especially in regard to emotional adjustment (e.g., Ramler et al., 2016). Regarding academic performance specifically, studies indicate that dispositional mindfulness is associated with better grades among undergraduate engineering students (e.g., Bellinger et al., 2015). Dispositional mindfulness can increase students' adaptability, which in turn can bring about better grades (Elphinstone et al., 2019). Furthermore, dispositional mindfulness is related to better performance during exams in a sample of pre-medical students (Hearn & Stocker, 2022). Moreover, dispositional mindfulness has been shown to predict better overall adjustment to university among undergraduate students including both emotional and

academic adjustment (Mettler et al., 2019). However, despite a growing body of literature documenting the protective role of dispositional mindfulness on university students' emotional and academic adjustment, less is known about the underlying mechanisms through which dispositional mindfulness can affect academic and emotional adjustment to university.

Given there is a need to better understand the mechanism through which mindfulness brings about positive outcomes (Keng et al., 2011), different studies have tried to shed light on the underlying mechanisms of mindfulness in educational settings. For example, Mrazek et al. (2013) demonstrated that increase in reading performance on a GRE test following a two-week mindfulness practice was mediated by lower mind-wandering among students who reported being easily distracted prior to the intervention. Regarding dispositional mindfulness, in a sample of first-year Chinese undergraduate students, Dong et al. (2021) showed that resilience, as measured by the Chinese version of the Connor-Davidson Resilience Scale (Connor & Davidson, 2003) which broadly assesses one's general psychological resilience and adaptability in coping with challenges, mediated the relationship between dispositional mindfulness and university adjustment. Also, stress is thought to mediate the relationship between dispositional mindfulness and cognitive functions, which are closely related to academic performance (McBride & Greeson, 2021). Related to stress and resilience, is the way individuals cope with stress and their confidence in effectively managing stressful situations, or coping-self-efficacy (Chesney et al., 2006). Given that coping-self efficacy is related to both dispositional mindfulness (Heath et al., 2016) and university adjustment (Joly, 2020), there is grounds to speculate that coping self-efficacy may mediate the relationship between dispositional mindfulness and academic and emotional adjustment to university. To date, only limited studies have looked at the mediating role of coping self-efficacy and dispositional mindfulness in academic settings. In a study of

Iranian students, Fallah (2017) found that coping self-efficacy partially mediated the association between dispositional mindfulness and anxiety regarding speaking a foreign language among a sample of undergraduate students. Similarly, Luberto et al. (2014), in their study of psychology undergraduate students reported that coping self-efficacy mediated the relationship between dispositional mindfulness and regulating emotions. Therefore, it may be possible that dispositional mindfulness predicts better university adjustment outcomes in the areas of emotional and academic adjustment through its impact on students' coping self-efficacy beliefs.

In summary, given the high rates of academic and emotional adjustment difficulties during this critical period in development, in the first two years of university, particularly in the second year of university, it is important to examine factors that can enhance students' academic and emotional adjustment to university to ensure their well-being and academic attainment. Dispositional mindfulness, which can be developed through the practice of mindfulness, has been found to predict academic and emotional adjustment in university students; however, the mechanisms underlying this relationship is not clear. Previous research has shown that dispositional mindfulness is positively associated with emotion-focused coping self-efficacy (e.g., coping with a difficult situation by targeting one's emotional reaction to it) and problem-focused coping self-efficacy (e.g., actively trying to overcome a challenging situation by approaching the problem at hand rather than suppressing the unpleasant feeling it creates). In turn, coping self-efficacy is related to university adjustment. Therefore, examining the potential mediating role of emotion focused and problem focused coping self-efficacy in explaining the relationship between dispositional mindfulness and academic and personal-emotional adjustment to university warrants further examination.

Thus, the overarching goal of the current study is to examine the possible indirect effect of dispositional mindfulness on university adjustment via coping-self efficacy. More specifically, this thesis aims to assess a) the associations between dispositional mindfulness, emotion-focused coping self-efficacy, problem-focused coping self-efficacy, academic adjustment, and personal-emotional adjustment to university among a sample of second-year undergraduate students and b) the potential mediating role of coping self-efficacy domains (i.e., problem focused and emotion-focused coping self-efficacy) in the relationship between dispositional mindfulness and academic and emotional adjustment.

The current thesis is an original contribution being the first to examine the mediating role of coping self-efficacy domains (emotion focused and problem focused) in the relationship between dispositional mindfulness and adjustment to university in the areas of academic and personal-emotional adjustment in the second year of university.

In compliance with McGill University's thesis guidelines, this thesis follows as a traditional monograph structured thesis. The second chapter provides a thorough review of the literature on emerging adulthood, adjustment to university especially in the second year of university with a focus on academic adjustment and personal-emotional adjustment, dispositional mindfulness, and coping self-efficacy. The chapter ends with a with an overview of the objectives and hypotheses. Chapter 3 describes the methods and data analytic plans, and chapter 4 presents the results. Finally, chapter 5 provides a discussion of the findings, discusses limitations, future direction, theoretical as well as practical implications, and ends with a conclusion.

Chapter 2: Literature Review

The current chapter will provide a review of the literature. First, it will begin by briefly discussing what emerging adulthood is, its importance, and the difficulties associated with this developmental period. Then, it will discuss the challenges of adjusting to university during emerging adulthood years, especially in the areas of academic and personal-emotional adjustment. Following that, adjustment to university in the second year of undergraduate studies will be reviewed. Next, mindfulness, dispositional mindfulness, and the underlying mechanisms of mindfulness' effectiveness will be provided. Additionally, self-efficacy, and in particular coping self-efficacy, and its associations with adjustment to university and mindfulness will be reported. Finally, the chapter will end by giving an overview of the objectives of the current study.

Emerging Adulthood

Emerging adulthood is a distinct period in development, between adolescence and adulthood, which begins in one's early 18s and ends around the age of 29 (Arnett, 2000, 2007; Arnett et al., 2014). It is a period marked by rapid transitions, such as starting and changing romantic relationships, starting new friendships, relocating, living on one's own for the first time, and starting university in pursuit of higher education (Arnett, 2016; Salvatore, 2018). This "in-between" period (Arnett et al., 2014) can also greatly determine the course, and impact the rest of one's adulthood years (Wood et al., 2018). Therefore, given the importance of this critical stage in development, and a host of rapid changes that happen during this time, any areas in which emerging adults have challenges warrant further examination, one of which is adjusting to university.

Although attending university is an exciting time for many, one that can open many opportunities in attaining future careers and upward social mobility (Autor et al., 2008; Statistics Canada, 2021; Torche, 2011), it is also a highly stressful time for some (American College Health Association, 2019; Linden & Stuart, 2020). The stress and the challenges of attending university have been associated with a host of alarming rates of mental health difficulties among students (Cage et al., 2021; Mofatteh, 2020; Olasupo et al., 2018; Park et al., 2020). These mental health difficulties can potentially negatively affect academic performance and result in dropping out of university (National Academies of Sciences, Engineering, and Medicine, 2021). In fact, in a survey among 58 Canadian campuses, 59.5% of the students surveyed reported academics as "very difficult to handle or traumatic", 41.9% reported *stress* as a main factor adversely affecting their academic performance followed by 68.9% of the respondents who indicated feeling overwhelming anxiety (American College Health Association, 2019). At the same time, emerging adulthood years have been associated with a peak in the incidence of mental health problems (e.g., Kessler et al., 2007; Solmi et al., 2022). Therefore, special attention needs to be given to emerging adult students' emotional and academic adjustment as they try to adapt to university to ensure their well-being and academic success.

Adjustment to University During Emerging Adulthood

Adjustment to university can be broadly defined as how well a student adapts to the demands of university life. It is "the degree to which students are able to quickly and effectively adapt to the various challenges encountered in the new college environment" (Credé & Niehorster, 2012, p. 134). University adjustment is a multifaceted process and can be classified into four areas of academic adjustment, personal-emotional adjustment, social adjustment as well as attachment to one's institution (Baker & Siryk, 1999). It is important to gain more insight on

university adjustment as it is closely related to student retention (e.g., Baker & Siryk 1999; Credé & Niehorster, 2012; Napoli & Wortman 1998) as poor adjustment to university can negatively affect academic success and ultimately increase chances of dropout (Bernardo et al., 2016). Therefore, exploring the areas in which students have difficulty adjusting to the demands of university life is warranted.

The areas in which emerging adults particularly face challenges when adjusting to university center around personal and emotional factors (e.g., feeling stressed and overwhelmed) (Park et al., 2020), social (e.g., leaving behind established friendships and family ties when relocating to university) (Herpen et al., 2020; Worsley et al., 2021), academic performance and achievement (e.g., obtaining good grades) (Credé & Niehorster, 2012), and satisfaction with the choice of university and program (Van Rooji et al., 2017). Of the four constructs mentioned above, issues concerning academic and personal-emotional adjustment are among the main areas in which students report difficulty that can ultimately lead to dropping out of university (e.g., Behr et al., 2021; Eisenberg et al., 2009; Hjorth et al., 2016; Houston & Cook, 2003; Respondek et al., 2017). Moreover, learning is inherently an emotional process (Schutz & Davis, 2000) and academic adjustment and emotional adjustment are highly associated with each other (e.g., Mettler et al., 2019). Research findings show that students who have challenges adjusting to university in the academic domain tend to report emotional adjustment problems as well (Duchesne et al., 2007). Therefore, it is important to gain more insight on academic and emotional adjustment issues that university students face as they adapt to university.

Academic adjustment: academic adjustment refers to how well a student can adjust to and cope with the different academic demands of university (Baker & Syrik, 1999). According to Baker and Syrik (1999), university adjustment encompasses four constructs: motivation towards

pursuing higher education, applying study strategies to succeed academically, performing well academically, and satisfaction with the overall academic environment. Using Baker and Syrik's Student Adaptation to College Questionnaire (The SACQ; 1999), a longitudinal study in Canada that followed students from their last semester of high school to the end of their second year in university found that although most students maintained high academic adjustment throughout the study, a small percentage of students (10%) showed a declining trajectory (Duchesne et al., 2007). More than half of the students who declined in academic adjustment were also declining in their personal-emotional adjustment (Duchesne et al., 2007).

A closely related factor in examining academic adjustment is students' grade point average (GPA). In the most comprehensive meta-analytic review of the SACQ measure (Baker & Syrik, 1999) to date, Credé and Niehorster (2012) reported that GPA was most strongly associated with the academic adjustment subscale of the SACQ measure. They indicated that academic adjustment is a strong predictor of students' GPA (Credé & Niehorster, 2012), which echoes earlier findings showing academic adjustment is associated with academic performance as measured by GPA (McGillian, 1987 as cited in Baker & Syrik, 1999). Furthermore, in a large-scale study of 14,464 university students, Allen et al. (2008) concluded that better performance, indicated by higher first year GPA, was significantly related to the risk of dropping out of university in the third year of university.

In another example, in a study in the United Kingdom, researchers demonstrated that difficulties with courses and academics were a main reason that second year undergraduate students terminated their studies (Webb & Cotton, 2019). Moreover, in a large nationwide survey of more than ten thousand university students in Germany, difficulties with the academic demands of university were a main reason for dropping out of university (Behr et al., 2021).

Thus, the examples above illustrate how academic adjustment to university is critical for student retention and academic attainment.

Given the importance of adjusting to university in the area of academics, with students reporting alarming rates of difficulties handling academic demands (American College Health Association, 2019), and academic adjustment strongly linked to academic achievement (e.g., Páramo Fernández et al., 2017) and academic maladjustment closely related to contemplation about terminating studies (Webb & Cotton, 2019), there is a need to pay more attention to academic adjustment in undergraduate students as well as factors that can enhance it. For example, in a study in Europe, using the SACQ measure (Baker & Syrik, 1999), Valenti and Faraci (2021) examined predictors of academic adjustment to university in a sample of Italian students. They reported that self-efficacy beliefs and problem and emotion-focused coping strategies predicted better academic adjustment to university (Valenti & Faraci, 2021). Moreover, in a quasi-experimental study of first-year undergraduate students in Iran, Michaeli Manee et al. (2015), demonstrated that there was significant enhancement in students' academic adjustment, as measured by the SACQ (Baker & Syrik, 1999), from pre to post intervention for students who participated in a seven-week program on stress management and coping, communication skills, and self-awareness. Thus, it seems that academic adjustment is a modifiable construct that can be enhanced.

In order to fully understand academic adjustment, one should note that other elements such as psychological factors play a critical role in students' academic adjustment. For instance, in a study in Israel, students with higher psychological capital (e.g., self-efficacy, hope, optimism, and resiliency) reported better academic adjustment (Hazan Liran & Miller, 2019).

Therefore, student success cannot be expected by academic adjustment alone without taking into account student adjustment in the personal-emotional domains.

Personal-emotional adjustment: personal-emotional adjustment refers to an intrapersonal construct that focuses on students' psychological as well as their somatic problems that can arise due to emotional distress as they adapt to university (Baker & Syrik, 1999). It "reflects the degree to which students are experiencing stress, anxiety, and/or physical reactions (e.g., sleeplessness) to the demands of the college environment" (Credé & Niehorster, 2012, p. 135). Therefore, although personal-emotional adjustment is a distinct construct that solely focuses on students' personal and emotional adjustment, it is also highly related to mental health and well-being. In fact, research shows that numerous psychological measures are associated with personal-emotional adjustment to university (Baker & Syrik, 1999; Credé & Niehorster, 2012). For example, the state and trait anxiety measure (Spielberger, 1983) is significantly correlated with the personal-emotional adjustment to university subscale (Adan & Felner, 1995). Moreover, scores on The Mental Health Inventory (Veit & Ware, 1983) are robustly correlated with scores on the personal-emotional adjustment to university subscale (Flescher, 1986 as cited in Baker & Syrik, 1999).

Results obtained by using the SACQ's personal-emotional subscale of university adjustment revealed that students who seek counselling services tend to be the ones who score low on personal-emotional adjustment to university (Credé & Niehorster, 2012). Moreover, low levels of personal-emotional adjustment are strongly associated with depression, as well as a likely barrier in seeking help when faced with academic challenges, which can result in poor academic performance (e.g., Credé & Niehorster, 2012). Therefore, it seems that there is a relationship between low personal-emotional adjustment to university and poor mental health.

Given the close associations between personal-emotional adjustment to university, as measured by the SACQ (Baker & Syrik, 1999), and mental health, it can be helpful to understand the magnitude of mental health difficulties students experience while attending university. In Canada, in a recent survey conducted by the American College Health Association, 51.6% of the students surveyed reported that 12 months prior to data collection they felt so depressed that it hindered their functioning with 23.7% indicating having been diagnosed with anxiety in the past 12 months, and 16.4% having seriously considered suicide (American College Health Association, 2019). It is important to note that if mental health difficulties are left unattended in this focal developmental phase, they can develop into severe and lasting mental illnesses in later stages of one's adulthood years (Carver et al., 2015). With mental health difficulties high (e.g., Mortier et al., 2018) and rising (e.g., Auerbach et al., 2018; Lipson et al., 2022) among university students, and students with emotional problems more likely to drop out of university (e.g., Eisenberg et al., 2009; Hjorth et al., 2016), it is important to examine what can contribute to personal-emotional adjustment to university.

To conclude, experiencing personal-emotional and academic difficulties when attending university is common. Furthermore, not adjusting well in the personal-emotional and academic domains is related to the risk of dropping out of university (e.g., Parkin et al., 2009). Although much of the literature regarding university adjustment has focused on the experiences of first-year students given the host of abrupt changes they face as they transition into university (e.g., van der Zanden et al., 2018), there is growing evidence that later years of university are associated with more stress (e.g., Böke et al., 2019), such as the second year.

Second year of undergraduate studies: Second-year university students report greater anxiety regarding academics and difficulties regulating their emotions (Stewart et al., 2016).

They show less satisfaction with university compared to first-year students (Sterling, 2018), and appear to have increased thoughts about dropping out of university (e.g., Webb & Cotton, 2019). Although there is limited literature specifically on the second year of university, difficulties of second-year students are quite well-known since Freedman (1956) coined the term "sophomore slump" to refer to this phenomenon. Since then, other studies further documented the existence of "sophomore slump" among second-year students (e.g., Lemons & Richmond, 1987; Schaller, 2010; Vaughn & Parry, 2013).

In Canada, in a study among undergraduate chiropractic students, Meckamalil et al. (2022) showed that the one-week prevalence of symptoms of anxiety and depression was the highest among second-year students compared to students in other years. Similarly, in a cross-sectional study in a sample of nursing students in Israel, second year students reported the highest levels of stress, as well as the lowest satisfaction with their program, compared to final year students due to having difficulty coping with the demands of their program (Admi et al., 2018). Moreover, in a study in the United Kingdom, second-year students reported more procrastination compared to other students (Stewart et al., 2016). Overall, second-year university students are still in the process of adjusting and re-adjusting to university. They face different types of stressors due to increased demands of their programs and courses (Macaskill, 2012) and choosing a major (Tobolowsky, 2008) while most higher education institutions focus their resources on helping first year students transitioning into university (e.g., Macaskill, 2012). Therefore, more attention needs to be given to second-year university students or "neglected middle children" (Gahagan & Hunter, 2006) who are in the "forgotten year" of university (Hunter et al., 2010; Tobolowsky, 2008).

In summary, academic and emotional adjustment to university are among major concerns for higher education institutions. Given that most undergraduate students are emerging adults, and this critical stage in one's development can have long-term effects for the rest of one's life, it is imperative to examine factors that can enhance students' academic as well as their emotional adjustment to university, increase their well-being, and enhance their academic achievement. Consequently, researchers have been looking into protective factors that can enhance adjustment to university.

Mindfulness

Mindfulness has been found to be a protective factor for a host of psychological difficulties and is related to better well-being (Querstret et al., 2020; Taylor et al., 2021; Tomlinson et al., 2018; van Agteren et al., 2021). In recent years, its effects have been studied in educational settings (Carsley et al., 2018; Dawson et al., 2020; McConville et al., 2017). Mindfulness has its roots in Buddhism and in the West its study started with the work of Jon Kabat-Zinn, who founded the Mindfulness Based Stress Reduction (MBSR) program, which aimed to reduce pain perceptions in patients with chronic levels of pain (Kabat-Zinn et al.,1985; Kabat-Zinn, 2013). Kabat-Zinn defines mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). Since Kabat-Zinn, more researchers have tried to shed light on the nature of mindfulness, such as understanding that mindfulness can be both a state and a trait (disposition) (Brown & Ryan, 2003; Tang et al., 2016).

In the early days, mindfulness research was mostly focused on studying mindfulness practices (Baminiwatta & Solangaarachchi, 2021). However, with time, researchers went beyond studying the practice of mindfulness and sought to shed more light on the underlying nature and

mechanisms of mindfulness (Baminiwatta & Solangaarachchi, 2021). For instance, research identified that mindfulness can be categorized into two forms: state mindfulness and trait or dispositional mindfulness (Brown & Ryan, 2003; Tang et al., 2016). As the name suggests, state mindfulness is the temporary experience of mindfulness states at a given time (Tanay & Bernstein, 2013). On the other hand, dispositional mindfulness is best defined as one's natural tendency to be mindful (Brown & Ryan, 2003). Research has found that when an individual practices mindfulness, their state mindfulness increases, and with regular practice and over time, increases in state mindfulness can lead to increases in dispositional mindfulness (Kiken et al., 2015). Ameli et al. (2020) illustrated this in their randomized clinical trial study (RCT) of health care professionals and found that after attending five sessions of a mindfulness practice program, participants reported higher state mindfulness at post-test and increases in dispositional mindfulness at follow-up, 13 weeks after the intervention ended. Moreover, in a recent study among graduate students, students' levels of dispositional mindfulness increased significantly after participating in a once-a-week mindfulness session for four weeks (Krumholz et al., 2021). Thus, unlike many traits that are fixed, dispositional mindfulness is malleable, subject to change given that it is a construct that can be enhanced through practice.

Dispositional mindfulness: Research on dispositional mindfulness has gained more prominence in recent years especially in studies published in North America (Karl & Fischer, 2022). Dispositional mindfulness is defined as one's innate tendency to be mindful (Brown & Ryan, 2003). Dispositional mindfulness has been found to be associated with a variety of positive outcomes (Miao et al., 2018; Sala et al., 2020; Tomlinson et al., 2018). In a systematic review conducted by Tomlinson et al. (2018), the authors reported that dispositional mindfulness was strongly associated with better psychological functioning, cognitive processes (e.g., less

rumination and impulsivity, more adaptive coping), and emotional outcomes (e.g., lower stress, better emotion regulation). Furthermore, in a meta-analysis on mindfulness and eating disorder, researchers demonstrated that there is a negative relationship between mindfulness and eating disorder symptoms (Sala et al., 2020). In another meta-analytic review, the authors showed that mindfulness is closely related to emotional intelligence, which is associated with better psychological functioning (Miao et al., 2018). Although a great body of literature has documented the protective role of mindfulness on various aspects of mental health and well-being in the general population (e.g., Mesmer-Magnus et al., 2017; Tomlinson et al., 2018) and clinical samples (e.g., Wanden-Berghe et al., 2011), mindfulness is related to better outcomes for university students as well.

For university students in particular, mindfulness is related to many positive outcomes. Research findings demonstrate that students who have higher dispositional mindfulness tend to report higher coping-self efficacy (Heath et al., 2016), which is a precursor for changing the ways individuals cope with challenging situations (Chesney et al., 2006). In other words, they have more confidence in their ability to choose an appropriate coping response when faced with challenges. Similarly, in another study of Canadian students, undergraduates who had higher levels of dispositional mindfulness did not tend to rely on using substances (e.g., alcohol or drugs) to cope with stress and were able to quickly return to their baseline levels (in terms of calming themselves following a brief stress induction task) as indicated by their skin physiological response (Miller et al., 2017). Moreover, in Australia, in a sample of undergraduate education students, Hepburn et al. (2021) demonstrated that higher dispositional mindfulness was associated with lower stress and higher well-being scores. Therefore, it seems that dispositional mindfulness reduces students' stress, enhances their confidence in their ability to

cope with stress, and influences their choice of coping by not favouring unhealthy coping strategies.

Although only a few studies have looked at the link between dispositional mindfulness and university adjustment, in a recent study of Japanese undergraduate students, Kuroda et al. (2022) showed that when controlling for students' motivation, an important variable in determining academic adjustment, dispositional mindfulness predicted a range of positive academic functioning variables. More specifically related to university adjustment, Mettler et al. (2019) found that dispositional mindfulness predicts better adjustment to university in a sample of first-year undergraduate students in a large urban Canadian university, above and beyond the other known protective factors of general self-efficacy and perceived social support from friends and family. They reported that there were significant and positive associations between dispositional mindfulness and all subscales of university adjustment in the areas of academic, personal-emotional, social, and institutional attachment to university (Mettler et al., 2019). Although Mettler et al. (2019) established a clear link between dispositional mindfulness and different domains of adjustment to university (academic, personal-emotional, social, and institutional attachment), their study focused only on first-year students and they did not examine the underlying mechanism explaining the relationship between dispositional mindfulness and university adjustment.

In summary, the protective role of dispositional mindfulness is clear in the literature in the areas of student emotional well-being and their academic outcomes. However, it is less clear what the specific underlying mechanisms are through which dispositional mindfulness brings about positive outcomes regarding academic and personal-emotional adjustment to university. Therefore, there is a need to understand through what mechanism dispositional mindfulness is

related to university adjustment, in particular in the areas of academic and personal-emotional adjustment.

Underlying mechanisms of mindfulness' effectiveness: Given the variety of benefits associated with mindfulness, there is a call for researchers to uncover the mechanisms underlying the effectiveness of mindfulness to understand how, and through which variables, mindfulness can lead to positive outcomes (e.g., Keng et al., 2011). To better understand the underlying mechanisms through which dispositional mindfulness affects university adjustment, Dong et al. (2021) conducted a study to examine the mediating role of resilience in explaining the relationship between dispositional mindfulness and university adjustment. To do so, they recruited 765 first-year students in China whereby students completed a survey assessing their dispositional mindfulness as measured by the Chinese version of the Five Facet Mindfulness Questionnaire (Chinese FFMQ; Deng et al., 2011), the Chinese version of the Connor-Davidson Resilience Scale (Chinese CD-RISC: Yu & Zhang, 2007), and the Chinese College Student Adjustment Scale (Lu, 2003 as cited in Dong et al., 2021). Dispositional mindfulness had a direct effect on overall university adjustment that encompassed factors such as learning adjustment, interpersonal adaptability, and physical and psychological adjustment among other factors. Also, the findings revealed that resilience partially mediated the relationship between some facets of dispositional mindfulness (describing and acting with awareness) and university adjustment and fully mediated the relationship between other facets of dispositional mindfulness (observing and non-reactivity) and university adjustment.

Although the results are informative, resilience as measured by Dong et al. (2021), is quite broad and multifaceted and does not allow one to understand what aspect of being resilient exactly mediated these relations. Additionally, given that resilience is a wide-ranging concept,

with no consensus regarding its definition (e.g., Métais et al., 2022; Southwick, et al., 2014), it remains unclear what active ingredient of resilience specifically mediates this relationship. It is possible that one's sense of self-efficacy, which is a component of resilience (e.g., Pillay et al., 2022; Schwarzer & Warner, 2013), may be the active ingredient. Therefore, it is important to examine the underlying components of resilience in order to shed light on the nature of this relationship.

Self-efficacy: Self-efficacy, which was first conceptualized by Albert Bandura (Bandura, 1977) and refers to how individuals perceive their ability to accomplish desired outcomes, has been shown to predict university adjustment (Ramos-Sánchez & Nichols, 2007; Valenti & Faraci, 2021). Research shows that higher self-efficacy at the beginning of the first year of university can predict better university adjustment at the end of the first year (Ramos-Sánchez & Nichols, 2007). Also, Valenti and Faraci (2021) demonstrated that students with higher self-efficacy scores report better adjustment to university. Similarly, in a longitudinal study, Chemers et al. (2001) found that students with higher academic self-efficacy report better adjustment to university. Moreover, a study among German students showed academic self-efficacy to be a protective factor for student retention in university (Respondek et al., 2020). In the same vein, in a survey of more than one thousand second-year undergraduate students in the United States, respondents who had higher self-efficacy beliefs were the ones who reported higher GPA as well as higher persistence towards completing their degree (Vuong et al., 2010). In addition to being a protective factor for university adjustment, higher self-efficacy is also associated with higher dispositional mindfulness (Klainin-Yobas et al., 2016; Mettler et al., 2019). Much of the literature on university adjustment has focused on general and academic self-efficacy. However, there is some emerging evidence that a distinct type of self-efficacy, concerned with having

confidence in one's ability to cope with challenging situations, called coping-self-efficacy (Chesney et al., 2006), is associated with university adjustment (Joly, 2020). Coping self-efficacy has been also found to be highly positively correlated with dispositional mindfulness (Heath et al., 2016).

Coping self-efficacy

Although research on the role of coping-self efficacy in educational settings is still in its infancy, there is some evidence that coping self-efficacy may play a role in explaining the relationship between mindfulness and university adjustment. Coping self-efficacy can be best defined as one's confidence or certainty in using adaptive coping strategies when faced with difficulties (Chesney et al., 2006). It is based on Bandura's self-efficacy theory (1977) which is concerned with one's beliefs and perceptions of one's ability to accomplish desired outcomes. Although coping self-efficacy is closely related to Bandura's self-efficacy, it is also a construct that taps into Lazarus and Folkman's theory of coping (1984).

Lazarus and Folkman's theory of coping identified two main types of coping strategies that individuals use to deal with a difficult situation: emotion-focused coping and problem-focused coping (Lazarus & Folkman, 1984). Emotion focused coping can be defined as "[a] coping that is directed at regulating emotional responses to [a] problem" while problem-focused coping can be defined as "managing or altering the problem causing the distress" (Lazarus & Folkman, 1984, p. 150). They stated that when dealing with a challenging situation that is within one's control, individuals tend to employ problem-focused coping responses; however, when dealing with a difficult situation that is beyond one's control, then individuals rely on emotion-focused coping strategies (Folkman & Lazarus, 1980). However, before executing any coping responses to a situation, first the individual needs to assess their confidence to see whether they

can rely on using either of these coping strategies, or their coping self-efficacy. Therefore, it can be argued that coping-self efficacy is a prerequisite for one's choice of coping behaviour (Chesney et al., 2006).

Having confidence in being able to cope effectively with challenging situations is a likely precursor in executing an appropriate coping behaviour accordingly. Interestingly, coping self-efficacy is related to both dispositional mindfulness and university adjustment among university students. For instance, in a sample of undergraduate students in the United States, participants who enrolled in a mindfulness-based intervention for eight weeks reported greater coping self-efficacy, especially emotion-focused coping self-efficacy, compared to controls at post-test (Taylor et al., 2022). Thus, it appears that practicing mindfulness may increase one's sense of coping self-efficacy. Moreover, in a sample of language learners in Iran, undergraduate students who scored higher on a measure of dispositional mindfulness tended to report higher coping self-efficacy beliefs and lower anxiety regarding speaking a foreign language (Fallah, 2017). The author found that indeed it was coping self-efficacy that partially mediated the relationship between dispositional mindfulness and anxiety regarding speaking a foreign language (Fallah, 2017). In a study of undergraduate students with and without a history of non-suicidal self-injury, Heath et al. (2016) found that there was a significant and positive association between dispositional mindfulness and coping self-efficacy's emotion-focused and problem-focused subscales. Subsequently, in their work, Joly (2020) demonstrated that coping self-efficacy (emotion-focused and problem-focused coping self-efficacy), is positively and significantly related to overall university adjustment (including both academic and personal-emotional adjustment) among a sample of undergraduate students. Lastly, Luberto et al. (2014), in their study of 180 undergraduate students in the United States, showed that dispositional

mindfulness was associated with coping self-efficacy and coping self-efficacy, in turn, mediated the relationship between dispositional mindfulness and regulating emotions.

In summary, there is growing evidence that coping self-efficacy is related to both dispositional mindfulness and different domains of adjustment to university, particularly in the areas of personal-emotional adjustment and academic adjustment. Therefore, it is plausible to expect that dispositional mindfulness may bring about positive outcomes in academic and personal-emotional adjustment to university via its effect on coping self-efficacy. Therefore, the overall aim of this thesis is to explore the associations between coping self-efficacy (emotion-focused & problem-focused), dispositional mindfulness, and adjustment to university in areas of emotional and academic adjustment and assess the indirect effect of dispositional mindfulness on university adjustment through coping self-efficacy.

Current Study

The overarching goal of this thesis was to examine the potential mediating role of coping self-efficacy domains (emotion focused coping self-efficacy and problem focused coping self-efficacy) in the relationship between dispositional mindfulness and key university adjustment domains (academic and personal-emotional adjustment) among second-year undergraduate students. Specifically, the current study had three main objectives. The first objective was to assess the associations between dispositional mindfulness, emotion-focused coping self-efficacy, problem-focused coping self-efficacy, academic adjustment, and personal-emotional adjustment to university among a sample of second-year undergraduate university students. Based on previous literature it was hypothesized that all variables would be positively and significantly associated with one another. The second objective was to assess the potential mediating role of emotion-focused (objective 2a) and problem-focused (objective 2b) coping self-efficacy in the

relationship between dispositional mindfulness and academic adjustment. It was hypothesized that both coping self-efficacy domains would significantly mediate the relationship between dispositional mindfulness and academic adjustment. The third objective of this thesis was to assess the potential mediating effect of emotion-focused coping self-efficacy (objective 3a) and problem-focused coping self-efficacy (objective 3b) in the relationship between dispositional mindfulness and personal-emotional adjustment. It was hypothesized that both coping self-efficacy domains would mediate the relationship between dispositional mindfulness and personal-emotional adjustment. Given the limited literature on coping self-efficacy domains and their link to dispositional mindfulness regarding academic and personal-emotional adjustment to university, no hypotheses were made in terms of expecting a full or a partial mediation beyond expecting a significant mediation.

Chapter 3: Method

Participants

Although there is no agreed-upon, gold standard way of estimating sample size a priori for mediation analyses (Aberson et al., 2020; Pan et al., 2018; Schoemann et al., 2017), G*Power can be used to estimate the minimum sample size needed to detect statistically significant direct effects within a mediation analysis, via an a priori power analysis for a simple linear regression (Faul et al., 2007; Schoemann et al., 2017). Thus, an a priori power analysis using G*Power with a desired power of 80%, a medium effect size, and a .05 criterion for significance, revealed a minimum sample size of 55 participants to detect statistically significant direct effects in the present mediation models. Furthermore, the use of *Web Power* (Zhang & Yuan, 2018), which relies on Sobel test, has been recommended as a helpful approach for estimating the minimum sample size needed to detect statistically significant indirect effects within mediation analyses (e.g., Schoemann et al., 2017; Zhang & Yuan, 2018). Accordingly, a power analysis for indirect effects using *Web Power* (Zhang & Yuan, 2018) was run and revealed a minimum sample size of 65 participants to have 80% power with a 0.05 criterion for significance for paths *a* and *b*. Therefore, the final sample was composed of 65 participants.

Of the final sample (n = 65), 77 % of the participants (n = 50) identified as woman and 23% (n = 15) identified as man. Participants ranged in age from 18 to 21 (M = 19.57, SD = .78). In terms of the sample's faculty of study, the majority belonged to the faculties of Arts (n = 21, 32%) and Science (n = 14, 22%), followed by the Faculty of Medicine (n = 9, 14%), Engineering (n = 7, 11%), Arts and Science (n = 3, 5%), Education (n = 3, 5%), and Management (n = 2, 3%). Additionally, four participants (6%) reported Psychology as their program of study without mentioning in what Faculty they studied. The rest of the participants belonged to the faculties of

Agricultural and Environmental Sciences and Music (n = 2, 3%). Of the total sample, 48% (n = 31) were in STEM fields, 41% (n = 27) belonged to a non-STEM field, and 11% (n = 7) could not be categorized as either belonging to a STEM field or not due to insufficient data. The majority of the students identified as White (68%), followed by East Asian (15%), Middle Eastern (5%), Other (8%), South East Asian (3%), and one person did not report their ethnicity (1%).

Procedure

After obtaining McGill University's review ethics board approval, participants were recruited among two cohorts of first-year students in a large urban university in Canada who indicated their interest to be contacted for future studies. Accordingly, two independent cohorts of students were contacted in the Winter semester of their second year of university. In this cross-sectional study, participants completed online surveys including the Mindful Attention Awareness Scale (MAAS), the two subscales of emotion-focused coping self-efficacy and problem-focused coping self-efficacy of the Coping Self-Efficacy Scale (CSES), and the academic and personal-emotional subscales of the Student Adaptation to College Questionnaire (SACQ) using a secure link and password on Limesurvey.

Measures

Dispositional mindfulness: Dispositional mindfulness was assessed using the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003; See Appendix A). The MAAS consists of 15 items assessing awareness and attention in the moment, or more precisely, the lack of mindfulness in the present moment (i.e., mindlessness). It is the most administered unidimensional test to assess mindfulness (e.g., Hepburn et al., 2021; Park et al., 2013; Ruiz et

al., 2016). It should be noted that given the novelty of the current thesis, being the first study to examine the mediating role of coping self-efficacy domains in the relationship between dispositional mindfulness and university adjustment, only a global unidimensional measure of mindfulness is used in the current thesis as opposed to a multifaceted measure of dispositional mindfulness. This is done to first establish whether such mediating link exists in the first place rather than narrowing the focus to examining different facets of dispositional mindfulness in the case such link cannot be established. Second, in their research with undergraduate students, Heath et al. (2016) found that asking about "inattention" in the MAAS is understood better by students who do not have experience with mindfulness. Third, the MAAS is one of the most widely used measures of mindfulness globally (e.g., Gherardi-Donato et al., 2020). Finally, the MAAS has shown to be a suitable instrument for both non-mediators and those with extensive experience of mediation (MacKillop & Anderson, 2007) making it an ideal measure to assess dispositional mindfulness. Sample items ask questions such as "I find it difficult to stay focused on what's happening in the present" and "I do jobs or tasks automatically, without being aware of what I'm doing". The items are rated on a 6-point Likert Scale, in that 1 is *almost always* and 6 is *almost never*. Higher scores on the MAAS indicate higher dispositional mindfulness. A mean value of all the items is computed and is used to score the measure. The scale has shown good validity for use among university students (Brown & Ryan, 2003). Finally, the measure has been shown to have good internal consistency with a range of Cronbach's alphas from .78 to .92 (Park et al., 2013). In the current study the measure had good internal consistency (α= .89) as indicated by Cronbach's alpha (Cronbach, 1951).

Adjustment to university: The Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999; See Appendix B) was used to determine student adjustment to university.

The SACQ is a standardized test that includes 67 items tapping over 4 subdomains of adjustment to university, including (a) academic (classified into four item clusters that include motivation, application, performance, and academic environment), (b) social (divided into four item clusters that include general social adjustment, other people, nostalgia, and social environment), (c) personal or emotional (which is divided into two clusters of psychological well-being and physical well-being), and (d) institutional attachment (divided into two items clusters of general feelings about being in college and feelings about current institutions). Participants answer the questionnaire using a 9-point Likert scale which ranges from 1 (*applies very closely to me*) to 9 (*doesn't apply to me at all*). Higher scores indicate better adjustment to university. For items for which a high score would indicate lower adjustment (e.g., "I have not been functioning well during examinations") scores need to be reverse scored before computing the total score. For the purpose of this thesis, only the academic adjustment and the personal-emotional subscales were used. Sample items for the academic adjustment subscale (24 items) include statements such as "I really haven't had much motivation for studying lately" which is indicative of a low score on the scale or "I am satisfied with my program of courses for this semester/quarter" which indicates a high score on the scale. Regarding the personal or emotional subscale (15 items), an example of an item that is indicative of a low score is "lately I have been feeling blue and moody a lot" and an example of an item that indicates a high score is "my appetite has been good lately". Regarding internal consistency, the subscales have shown to have good internal consistency with the academic adjustment subscale ranging from .81 to .90 and the personal-emotional subscale ranging from .77 to .86 as measured by Cronbach's alpha. In the present study, internal consistency was excellent for academic adjustment ($\alpha = 0.90$) and good for personal-emotional adjustment ($\alpha = 0.83$).

Coping self-efficacy: The Coping Self-Efficacy Scale (CSES: Chesney et al., 2006; See Appendix C) is a 26-item self-report questionnaire which is used to assess one's confidence or certainty in relying on three types of coping strategies (emotion-focused, problem-focused, and social support) to handle challenging situations when faced with difficulties or when things are not going well. Therefore, the scale consists of three subscales: emotion-focused coping (6 items), problem-focused coping (4 items), and social support (3 items). The scale is known to measure one's "secondary appraisal" of a stressful situation (Chesney et al., 2006). The items are rated on a 11-point Likert scale ranging from 0 to 10 (0 = cannot do at all; 5 = moderately confident I can do; 10 = certain I can do) and higher scores indicate higher coping self-efficacy, whereas a low score indicates lower confidence in one's ability to cope with a stressor employing a given coping strategy. A total score is obtained by summing all the items which would range from 26 to 286. Given the focus of the current thesis, only the emotion-focused (e.g., "take your mind off unpleasant thoughts") and the problem-focused subscales (e.g., "make a plan of action and follow it when confronted with a problem") were used in the study. The test has shown to have excellent internal consistency for both the emotion focused coping self-efficacy (α= .91) and the problem focused coping self-efficacy (α= .91). In the current study, internal consistency for the problem focused subscale (α= .91) and the emotion-focused subscale (α= .90) were excellent.

Data analytic plan

All data (n = 65) were analyzed using SPSS version 28. Patterns of missingness, outliers (univariate and multivariate), and assumption checks were assessed prior to running the primary analyses. Preliminary analyses were run before conducting the main analyses to examine whether certain demographic variables (age, gender, ethnicity, and belonging to a STEM or a

non-STEM field) needed to be controlled for. Pearson's bivariate correlation coefficients were conducted using the Bonferroni correction for the first objective to assess the relations between dispositional mindfulness, emotion-focused coping self-efficacy, problem-focused coping self-efficacy, academic adjustment, and personal-emotional adjustment to university in the second year of university. For the second and third objectives, which were to assess the potential mediating role of coping self-efficacy domains (emotion-focused coping self-efficacy and problem-focused coping self-efficacy) in explaining the relation between dispositional mindfulness on domains of adjustment to university (academic adjustment and personal-emotional adjustment), a series of four mediation analyses were performed using Process macro (Hayes, 2022) with bootstrapping in SPSS version 28. Significance was determined using bootstrapped confidence intervals.

Chapter 4: Results

Data cleaning

The sample consisted of 65 university students (77 % women; M_{age} = 18.42 years, SD = 0.81). Before conducting the primary analyses, underlying assumption checks were performed on the data. Data were normally distributed as the kurtosis and skewness values did not exceed 1.0. There were no multivariate outliers as assessed by the Mahalanobis distance scores with degrees of freedom (df) of 6. One univariate outlier was detected as having a Z score above +/-3 and was winsorized by one unit. The missing value pattern did not exceed 5% within any of the items. There were five items with missing data on the CSES scale (one on the emotion-focused subscale and four on the problem-focused subscale) that were imputed using Expectation Maximization algorithm (Tabachnick & Fidell, 2013). Missing items on the SACQ questionnaire (seven items with missing data on the academic subscale and two items with missing data for the personal-emotional subscale) were imputed as per the guidelines published by the test developers (Baker & Siryk, 1999) to replace the missing item with the mean score of the existing items on that subscale for that participant. No multicollinearity was observed among the variables, as the Variance Inflation Factor (VIF) was less than 4 and tolerance was higher than 0.25 for all the variables. All underlying assumptions (e.g., linearity, normal distribution, no significant outliers, independence of observations, homoscedasticity, residual normal distributions) were met prior to running the analyses.

Preliminary Analyses

Two separate MANOVAs were run to assess whether there were any significant differences between STEM and non-STEM students regarding their coping self-efficacy (emotion focused and problem focused) and adjustment to university (academic and personal-

emotional). The results revealed that there were no significant differences between the groups regarding their coping self-efficacy scores [F (2, 55) = 2.26, p = .114; Wilk's Λ = 0.924, partial η2 = .07] and university adjustment [F (2, 55) = 2.73, p = .07; Wilk's Λ = 0.910, partial η2 = .09]. Furthermore, a one-way ANOVA was run to test whether there were any differences regarding dispositional mindfulness levels for STEM vs. non-STEM students. The results revealed that there were no significant differences between the two groups [(F (1,56) = .308, p = .581)]. Therefore, the program of study was not entered in the analyses as a control variable. Moreover, given that there was not enough variability in terms of the samples' age, gender, and ethnicity, as the sample participants were predominantly White and women, and all between the ages of 18 to 21, it was impossible to test for differences for these variables and these variables were not controlled for in the analyses.

Main analyses

Objective 1

The first objective of the current thesis was to explore the associations between dispositional mindfulness, emotion-focused coping self-efficacy (emotion-focused CSE), problem-focused coping self-efficacy (problem-focused CSE), academic adjustment, and personal-emotional adjustment to university in the second year of university among a sample of undergraduate university students. Table 1 presents the means and standard deviations for all the variables and Table 2 present the results for the Pearson's bivariate correlation coefficients. A Bonferroni correction was used since there were multiple comparisons being made (0.05/8 = 0.006). Pearson's bivariate correlation coefficients were conducted regarding the first objective to assess the associations between dispositional mindfulness, emotion-focused CSE, problem-focused CSE, academic adjustment, and personal-emotional adjustment to university in the

second year of university. Based on the review of the literature, it was hypothesized that all variables would be significantly and positively correlated. As hypothesized, all variables were significantly and positively correlated with each other with the exception of emotion focused self-efficacy which was positively correlated with the other variables but was not significantly correlated with academic adjustment.

Table 1

Means and Standard Deviations for all Study Variables (*n* = 65)

	M	***SD***
Academic adjustment	143.98	28.98
Personal-emotional adjustment	77.11	19.49
Problem-focused coping self-efficacy	74.83	20.28
Emotion-focused coping self-efficacy	45.38	17.68
Dispositional mindfulness	3.74	.85

Table 2

Correlations Between Study Variables (n = 65)

	1	2	3	4	5
1. Academic adjustment	1				
2. Personal-emotional adjustment	.51**	1			
3. Problem-focused coping self-efficacy	.48**	.43**	1		
4. Emotion-focused coping self-efficacy	.17	.46**	.68**	1	
5. Dispositional mindfulness	.42**	.45**	.47**	.48**	1

Notes. Given the multiple comparisons, the Bonferroni correction was used to obtain an alpha level of .006 to test for significance (.05 / 8).
* $p < .0125$ ** $p < .001$

Objectives 2 and 3

For the second and third objectives, a series of four mediation analyses were run to investigate the potential mediating role of emotion-focused coping self-efficacy and problem-focused coping self-efficacy in the relationship between dispositional mindfulness and academic adjustment (objective 2) and personal-emotional adjustment (objective 3). For the second objective, it was hypothesized that both emotion-focused (objective 2a) and problem-focused

coping self-efficacy (objective 2b) would significantly mediate the relationship between dispositional mindfulness and academic adjustment. For the third objective, it was hypothesized that both emotion-focused (objective 3a) and problem-focused coping self-efficacy (objective 3b) would significantly mediate the relationship between dispositional mindfulness and personal-emotional adjustment.

The results of the mediation analyses for objective 2 are presented in Figure 1a and 1b. In partial contradiction of the hypotheses for objective 2, although there was no indirect effect of emotion-focused coping on the relationship between mindfulness and academic adjustment (indirect effect β = 0.422, 95% CI [-0.151, 0.104]), a significant indirect effect was found for problem-focused coping (indirect effect β = 0.171, 95% CI [0.029, 0.358]) Interestingly, despite the lack of indirect effect through emotion-focused coping self-efficacy, the direct effect of dispositional mindfulness on academic adjustment remained significant (path *c'*β = 0.440, 95% CI [6.092, 23.909]). Additionally, when examining the indirect effect through problem-focused coping self-efficacy, dispositional mindfulness retained a significant, albeit reduced, main effect on academic adjustment (path *c'*β = 0.251, 95% CI [0.236, 16.893]), thus suggesting a partial mediation.

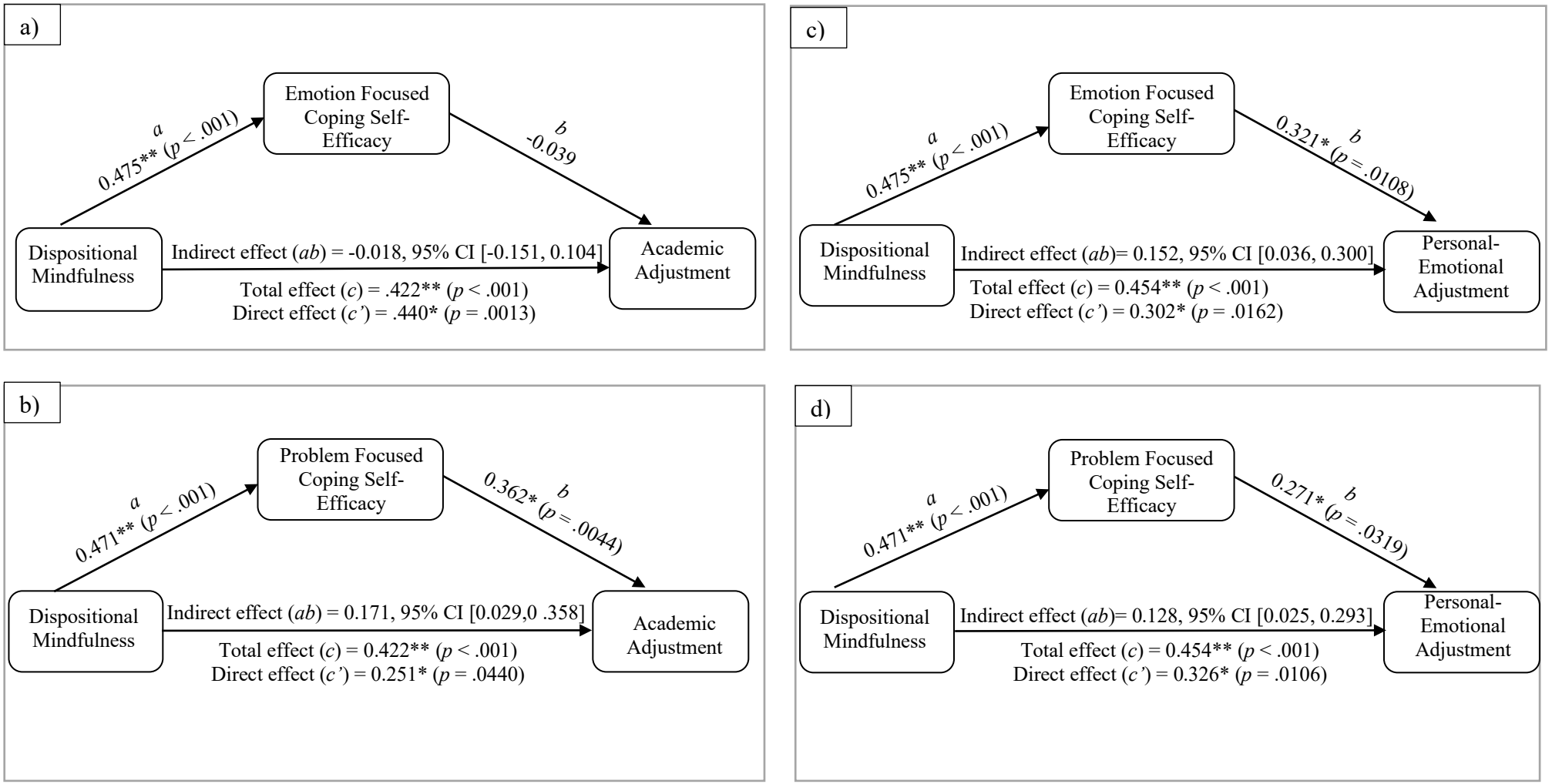
The results of the mediation analyses for objective 3 are presented in Figure 1c and 1d. In full support of the hypotheses for objective 3, both emotion-focused coping self-efficacy (indirect effect β = 0.152, SE = .068, 95% CI [0.036, 0.300]) and problem-focused coping self-efficacy (indirect effect β = 0.128, SE = .068, 95% CI [0.025, 0.293]) mediated the relationship between dispositional mindfulness and personal-emotional adjustment. When examining the indirect effect through emotion-focused coping self-efficacy, dispositional mindfulness retained

a significant, albeit reduced main effect on personal-emotional adjustment (path *c'*β = 0.302, SE = 2.797, 95% CI [1.321, 12.502]), thus suggesting a partial mediation. Additionally, when examining the indirect effect through problem-focused coping self-efficacy, dispositional mindfulness retained a significant, albeit reduced main effect on personal-emotional adjustment (path *c'*β = 0.326, SE = 2.834, 95% CI [1.804, 13.135]), pointing to a partial mediation.[1]

[1] Although the focus of the current thesis is on within individual aspects of adjusting to university, the social and institutional subscales of the SACQ were also available and were evaluated at the request of the external reviewer. As for the social adjustment, problem focused CSES was found to fully mediate the relationship between mindfulness and social adjustment, but emotion focused CSES did not mediate this relationship. As for institutional adjustment, neither emotion focused, nor problem focused CSES mediated the relationship between mindfulness and institutional adjustment to university. These results are potentially in preparation for a future paper given the focus of the current thesis is solely on within-individual aspects of university adjustment (i.e., academic and personal-emotional adjustment). These findings are shared here to be clear that we are not withholding non-significant results.

Figure 1

Standardized Regression Coefficients for the Mediation Analyses (n = 65)



Note: * $p < .05$, ** $p < .001$

Chapter 5: Discussion

The overarching goal of this thesis was to examine the associations between dispositional mindfulness, coping self-efficacy domains (emotion focused coping self-efficacy and problem focused coping self-efficacy), and key university adjustment domains (academic and personal-emotional adjustment to university) in the second year of university and to examine the potential mediating role of coping self-efficacy domains (emotion focused coping self-efficacy and problem focused coping self-efficacy) in explaining the relationship between dispositional mindfulness and key university adjustment domains (academic and personal-emotional adjustment) among second-year undergraduate students. Accordingly, the discussion will a) summarize the main findings in light of the aforementioned objectives, b) highlight some limitations and areas for future directions, c) discuss theoretical and research implications in the field of human development and educational psychology as well as practical implications for mental health providers, and d) provide a conclusion of the findings.

Discussion of Findings

The first objective of this thesis was to examine the associations between dispositional mindfulness, emotion-focused coping self-efficacy, problem-focused coping self-efficacy, academic adjustment, and personal-emotional adjustment to university in the second year of university. Based on a review of the literature, it was hypothesized that there would be positive and significant associations between all of the study variables. Findings revealed that, consistent with previous literature on dispositional mindfulness and university adjustment (e.g., Dong et al., 2021; Mettler et al., 2019), there were positive and significant correlations between dispositional mindfulness and domains of university adjustment (academic and personal-emotional adjustment). These associations further strengthen our confidence in reporting that there is

indeed a close relationship between dispositional mindfulness and academic and personal-emotional adjustment to university. Although Mettler et al. (2019) studied this relationship in the context of first-year undergraduates, the findings obtained in the present study indicate that this association remains true even in the second year of university.

Moreover, as expected, there were positive and significant correlations between the two domains of university adjustment studied. This is in line with earlier findings by Baker and Syrik (1999), Credé and Niehorster (2012), as well as Mettler et al. (2019) who all found strong and positive associations between these subdomains of adjustment to university. Therefore, the findings further demonstrate that there is a close-knit link between academic adjustment and personal-emotional adjustment to university in the second year of university. As noted earlier, learning is inherently an emotional process (e.g., Schutz & Davis, 2000; Valiente et al., 2012), therefore, it is natural to observe strong positive correlation between academic and personal-emotional adjustment.

The tie between academic and personal-emotional adjustment is noteworthy because it suggests that if a student is struggling in the academic domain, it is possible that they may be facing challenges in terms of their personal-emotional adjustment to university as well or vice versa. Therefore, individuals helping students should be aware of this association to not overlook other possible domains in which students struggle as they adjust to university if it seems that they are only having academic adjustment issues or personal-emotional adjustment issues. Alternatively, it is possible that the difficulties in both academic and personal-emotional adjustment could be a result of a third causal factor such as having a disability. For example, previous research findings suggest that students with disabilities (e.g., ADHD/LD, physical,

sensory, or mental disability) have lower adjustment to university compared to students without disabilities (e.g., Lipka et al., 2020).

Furthermore, as hypothesized, there were positive and significant associations between dispositional mindfulness and coping self-efficacy domains (emotion-focused and problem-focused). This is consistent with results reported by Heath et al. (2016) who also found strong and positive associations between dispositional mindfulness and coping self-efficacy subdomains (emotion-focused and problem-focused). Similarly, Fallah (2017) and Luberto et al. (2014) also reported strong correlations between coping self-efficacy and dispositional mindfulness. Therefore, if a student does not have high levels of dispositional mindfulness, perhaps enhancing their confidence in being able to cope effectively may coincide with improvements in their dispositional mindfulness levels as well or the other way around. In addition, as expected, among the coping self-efficacy subdomains, both emotion-focused coping self-efficacy and problem-focused coping self-efficacy were significantly and positively correlated. This is in line with earlier findings of Chesney et al. (2006) who reported the coping self-efficacy subscales are moderately correlated.

Finally, regarding the associations between coping self-efficacy and university adjustment, findings revealed that there were strong and positive correlations between problem focused coping self-efficacy and domains of adjustment to university (academic and personal-emotional). This is in line with findings reported by Joly (2020). Therefore, the results of this study further support previous findings that there exists a solid relationship between coping self-efficacy and university adjustment. In line with Bandura's theory of self-efficacy (1977), it is possible that those with higher self-efficacy may see difficult situations as challenges that can be

overcome, and not as a threat, which enables them to have confidence in their ability to cope with challenges and have a better adjustment as a result.

Furthermore, as hypothesized, there was a positive and significant correlation between emotion focused coping self-efficacy and personal-emotional adjustment to university which is consistent with findings by Joly (2020). However, surprisingly, no significant link was found between emotion focused coping self-efficacy and academic adjustment to university. This is inconsistent with findings of Joly (2020) who found significant and positive correlations between coping self-efficacy (emotion focused and problem focused) and university adjustment.

A possible interpretation may be that emotion focused coping self-efficacy may not be as helpful as confidence in one's ability to actively problem-solve when faced with academic adjustment issues that need problem solving rather than changing one's mindset about the problem at hand. This may potentially be explained through Folkman and Lazarus' framework (1980), in that when one is faced with a challenge that one deems as controllable, then problem focused coping may be more advantageous than relying on emotion focused coping. Given that coping self-efficacy is a precursor to one's choice of coping (Chesney et al., 2006), then, a student who is overwhelmed by their coursework, but perceives the challenge at hand as manageable, may feel better academically adjusted if they feel confident that with proper time management and organization skills (i.e., problem focused CSE) they can overcome the challenge more effectively rather than trying to stop the unpleasant feeling they have about their course load.

For the second and the third objectives, a series of four mediation models explored the potential mediating role of coping self-efficacy domains (emotion focused and problem focused) in the relationship between dispositional mindfulness and academic adjustment as well as

personal-emotional emotional adjustment to university. It was hypothesized that coping self-efficacy domains would mediate the relationship between dispositional mindfulness and both academic and personal-emotional adjustment to university. Findings revealed that problem focused coping self-efficacy partially mediated the relationship between dispositional mindfulness and both academic as well as personal-emotional adjustment to university. However, emotion focused coping self-efficacy partially mediated only the relationship between dispositional mindfulness and personal-emotional adjustment.

Overall, the results suggest that students who tend to be more mindful by nature have better academic and personal-emotional adjustment to university partially through having confidence in being able to effectively cope with challenging situations using emotion focused and problem focused coping strategies. However, since coping self-efficacy was found to be a partial mediator, it is important to emphasize that there still exists a direct relationship between dispositional mindfulness and academic as well as personal-emotional adjustment to university. The findings complement results obtained by Dong et al. (2021), who found resiliency partially mediated the relationship between dispositional mindfulness and university adjustment. It may be that the coping self-efficacy component of resiliency is the active ingredient that enables those who are high in dispositional mindfulness to have a better academic and personal-emotional adjustment to university, with more weight on the problem-focused coping self-efficacy compared to emotion-focused coping self-efficacy.

Moreover, emotion-focused coping self-efficacy mediated the relationship between dispositional mindfulness and personal-emotional adjustment. This may be in line with Bandura's theory of self-efficacy (1977), in that students who are high in dispositional mindfulness, their dispositional mindfulness may also influence their emotion-focused coping

self-efficacy, and as a result they would not interpret a difficult scenario as a threat and, therefore, may see the problem at hand as a challenge that can be overcome by reorienting their perspectives about it (i.e., emotion focused coping self-efficacy) which ultimately can enhance their personal-emotional adjustment to university.

Others, such as Fallah (2017), also found that students with higher dispositional mindfulness reported less anxiety regarding speaking a foreign language and Luberto et al. (2014) demonstrated that dispositional mindfulness is related to emotion regulation and coping self-efficacy. Additionally, Kingery et al. (2021) reported that ruminating mediates the link between dispositional mindfulness and factors that are related with psychological adjustment to university (e.g., anxiety and depressive symptoms). Besides, there is evidence showing that non-reacting component of dispositional mindfulness helps individuals disengage from emotionally disturbing stimuli (e.g., Makowski et al., 2019), pointing to the role dispositional mindfulness plays in reorienting one's attention from overwhelming emotions (i.e., emotion-focused coping) which then may result in better personal-emotional adjustment to university.

Hence, observing that emotion focused coping-self efficacy mediated the relationship between dispositional mindfulness and personal-emotional adjustment to university is in line with the literature and points to the unique role emotion focused coping self-efficacy may partially play in facilitating the relationship between dispositional mindfulness and personal-emotional adjustment to university. For example, when a student is struggling with their course load and feels overwhelmed, if they are innately mindful, they would report better personal-emotional adjustment. Moreover, dispositional mindfulness would affect their coping self-efficacy beliefs, in that if they see the course as a means through which they can obtain their degree and have their dream job (i.e., having confidence in using emotion focused coping such as

reorienting their perspective about the challenge at hand), then, they may not hold a negative view of the course and through this way, their dispositional mindfulness can translate into better personal-emotional adjustment via its effect on emotion focused coping self-efficacy.

Regarding the problem-focused coping self-efficacy that partially mediated the relationship between dispositional mindfulness and personal-emotional adjustment to university, the results echo earlier findings by Valenti and Faraci (2021) who found task-oriented coping (which is similar to problem focused coping) was related to personal-emotional adjustment to university. Moreover, given that dispositional mindfulness is related to personal-emotional adjustment to university (e.g., Mettler et al., 2019) and dispositional mindfulness is related to coping self-efficacy (including problem focused coping self-efficacy) (Heath et al., 2016), findings reveal that beyond the direct effect of dispositional mindfulness on personal-emotional adjustment, problem-focused coping self-efficacy partially explains this relationship as well.

For instance, someone who has high levels of dispositional mindfulness may report higher personal-emotional adjustment partially due to having more confidence in themselves to use problem focused coping to deal with hurdles. In fact, in their review of mindfulness and creativity, Henriksen et al. (2020) reported that mindfulness can help creativity and considering that problem solving is considered creativity (e.g., Wimmer, 2016), one can infer that mindfulness enhances one's confidence to see a problem from different angles and come up with creative solutions, which in turn can bring about better personal-emotional adjustment.

Given that problem focused coping self-efficacy partially mediated the relationship between dispositional mindfulness and personal-emotional adjustment to university, there remains a continued direct impact of dispositional mindfulness on personal-emotional adjustment. The fact that dispositional mindfulness still directly affects personal-emotional

adjustment to university, above and beyond its indirect influence on adjustment through its effect on coping self-efficacy, speaks to the overwhelming evidence of the importance of dispositional mindfulness on adjustment to university (e.g., Dong et al., 2021; Kingery et al., 2021; Mettler et al., 2019).

Although the findings confirmed our hypotheses that both emotion focused and problem focused coping self-efficacy mediated the relationship between dispositional mindfulness and personal-emotional adjustment, it was surprising to observe that emotion-focused coping self-efficacy was not significantly related to academic adjustment given that Joly (2020) found significant positive correlations between coping self-efficacy (including emotion focused coping self-efficacy) and university adjustment. As such, making any conclusive inferences that emotion focused coping self-efficacy may not mediate the relationship between dispositional mindfulness and academic adjustment at all should be done with caution.

As stated earlier, dispositional mindfulness still has a significant direct effect in predicting academic adjustment even though no mediation was found for emotion focused coping self-efficacy in explaining the relationship between dispositional mindfulness and academic adjustment. This points to the crucial direct link between dispositional mindfulness and academic adjustment which is in line with previous findings by Dong et al., (2021) and Mettler et al. (2019) who both found dispositional mindfulness directly predicted academic adjustment to university.

Also, another possible explanation for the absence of the mediating role of emotion-focused coping self-efficacy in the relationship between dispositional and academic adjustment may be that emotion focused coping self-efficacy may not be as helpful when one is faced with academic adjustment issues that need solving a problem rather than changing one’s mindset

about the problem at hand above the direct influence that dispositional mindfulness exerts on predicting academic adjustment. For instance, a student who has high dispositional mindfulness levels and is overwhelmed by their coursework demands may report better academic adjustment partially through being confident that with proper time management and organization skills (i.e., problem focused coping self-efficacy) they can overcome the challenge more effectively rather than trying to stop the unpleasant feeling they have about their course load. In fact, there is some evidence demonstrating that one's appraisal of one's problem-solving skills is predictive of academic performance (e.g., Veerasamy et al., 2016) and that trait mindfulness is related to both problem-solving (Ostanfin & Kassman, 2012) as well as academic adjustment (e.g., Mettler et al., 2019).

Limitations and Future Direction

Although the current thesis provides new insights on the role of coping self-efficacy domains as an underlying mechanism explaining the relationship between dispositional mindfulness and academic and personal-emotional adjustment to university, there are limitations to this study. First, there are gender differences in regard to adjustment to university (e.g., Charalambous, 2020; Páramo Fernández et al., 2017). For example, women tend to have higher academic adjustment and men tend to have higher personal-emotional adjustment (e.g., Duchesne et al., 2007). However, gender was not considered as a control factor in the analysis given that the sample was overwhelmingly comprised of women. Similarly, one's ethnic background is related to one's academic (e.g., Batyrshina et al., 2021) and emotional adjustment (e.g., Smith et al., 2014); however, given the high percentage of White students in the study (i.e., 68%), ethnicity was not included as a control variable in the analyses. In the same vein, given

that the focus of the current thesis was solely on second-year students, the age range was too constrained to account for it in the analyses.

Another limitation of the current study is that students were recruited from a sample of second year students from a prestigious and research-intensive university, which limits the generalizability of the findings. Moreover, although the current sample size was deemed sufficient by the power analysis for the analyses used in the present thesis, a larger sample size would have been advantageous in permitting more complex and conservative analyses (e.g., latent SEM, comparing fit of alternate direction mediational models, examining gender, ethnicity differences) and thus sample size could be seen as a limitation. Also, future research would likely benefit from replicating the study among high school students, who are in another developmental period, to examine whether the results obtained are specific to emerging adulthood years or if they can be generalized to other groups of students who are in different developmental periods. Moreover, given the cross-sectional nature of this study, no temporal causation can be made. It is possible that students who are better adjusted may happen to have higher coping self-efficacy beliefs that results in higher dispositional mindfulness. There is a need for more longitudinal and experimental studies to shed light on the temporal sequence and the direction of these associations.

Lastly, the MAAS is a unidimensional measure of dispositional mindfulness which was used to establish an indirect link between overall dispositional mindfulness and university adjustment via coping self-efficacy. Therefore, now that such link is established, using more multi-faceted measures of dispositional mindfulness, such as the Five Facet Mindfulness Questionnaire (FFMQ: Baer et al., 2006), would give a more detailed picture of what facets of dispositional mindfulness specifically are indirectly related to university adjustment via coping

self-efficacy. Thus, future research would benefit from using other measures for assessing dispositional mindfulness such as the FFMQ (Baer et al., 2006).

Implications

The findings of the present study add to the current literature on the underlying mechanisms through which dispositional mindfulness is related to academic and personal-emotional adjustment to university in the second year of university while further supporting that indeed dispositional mindfulness is related to academic and personal-emotional adjustment. Therefore, the results enhance our understanding on the mediating role of coping self-efficacy domains (emotion focused and problem focused) in partially explaining the relationship between dispositional mindfulness and second-year university adjustment in the areas of academic and personal-emotional adjustment. Given the host of abrupt transitions emerging adults face as they adjust to university, their dispositional mindfulness levels may be negatively affected when dealing with high rates of novel challenges, for which they did not have prior experience. Knowing the underlying mechanisms through which dispositional mindfulness affects university adjustment would provide a window of opportunity to also include ways to enhance the underlying mechanism in an effort to maximize the benefits of dispositional mindfulness in helping students adapt to university. Therefore, the findings of this study shed light on the importance of targeting emerging adults' dispositional mindfulness levels alongside their coping self-efficacy beliefs, which then, directly and indirectly, can affect their academic and personal-emotional adjustment to university.

Considering the results of this study, mental health professionals and program developers should consider integrating strategies for enhancing dispositional mindfulness in students when designing materials that aim to increase second year students' academic adjustment to university

while taking into account that coping self-efficacy beliefs, particularly in the problem focused and emotion focused domains, partially play a role in facilitating this relationship. Also, mental health professionals may benefit from implementing strategies that can improve students' problem focused and emotion focused coping self-efficacy beliefs in relation to students' personal-emotional adjustment issues when offering mindfulness skills instructions to facilitate the effect of dispositional mindfulness on personal-emotional adjustment. They would also benefit from integrating ways to enhance problem-focused coping self-efficacy when offering mindfulness-based programs in an attempt to maximize the effects of dispositional mindfulness on students' academic adjustment.

Since scholarly work on dispositional mindfulness-coping self-efficacy and their relation to university adjustment is still in its infancy in educational settings, the results have implications in designing future studies. The field of human development would benefit from having more diverse studies using different experimental and longitudinal designs to examine in what developmental stages coping self-efficacy beliefs would be most important in explaining the relationship between dispositional mindfulness and academic and personal-emotional adjustment to university. For example, would it be prior to starting university, before emerging adulthood years begin, or whether emerging adulthood years are optimum years for targeting dispositional mindfulness in hopes that it would bring about positive academic and personal-emotional adjustment to university outcomes both via and without its effect on coping self-efficacy. Therefore, determining the precise window of opportunity for intervening to enhance emerging adults' dispositional mindfulness and its potential maximized effect through coping self-efficacy beliefs remains to be investigated. However, the present study paved the way for future research in proving that in early emerging adulthood years, particularly in the second year of university,

coping self-efficacy beliefs partially mediates the relationship between dispositional mindfulness and academic and personal-emotional adjustment to university.

Conclusion

The results of the present study further document the close relationship between dispositional mindfulness and domains of adjustment to university (academic and personal-emotional) and shed light on an underlying mechanism through which dispositional mindfulness impacts academic and personal-emotional adjustment to university. Coping self-efficacy was found to be a partial mediator facilitating the relationship between dispositional mindfulness and academic and personal-emotional adjustment to university—with more weight on the problem focused coping self-efficacy, compared to emotion focused coping self-efficacy, in explaining this association. Notably, the findings are the first to illustrate the role of coping self-efficacy domains (emotion focused and problem focused) as an underlying mechanism explaining the relationship between dispositional mindfulness and domains of adjustment to university. The findings enhance our understanding of the importance of dispositional mindfulness as a variable that directly and indirectly, via its impact on coping self-efficacy, predicts academic and personal-emotional adjustment to university. Therefore, the findings have important theoretical and research implications in advancing the literature on the underlying mechanisms through which dispositional mindfulness predicts adjustment to university in the areas of academic and personal-emotional adjustment.

Given that emerging adulthood is a critical period in studying human development, gaining more knowledge on the factors that can help emerging adults adapt to university, such as mindfulness, is of great importance. Moreover, the findings can have clinical implications for mental health professionals and program developers, who design wellness activities, to offer

mindfulness-based programs along with skills that can enhance coping self-efficacy to maximize the effects of emerging adult students' dispositional mindfulness in enhancing academic and personal-emotional adjustment to university.

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Appendix A: The Mindful Attention Awareness Scale (MAAS)

Day-to-Day Experiences

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what *really reflects* your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	Very Frequently	Somewhat Frequently	Somewhat Infrequently	Very Infrequently	Almost Never

I could be experiencing some emotion and not be conscious of it until some time later.	1	2	3	4	5	6
I break or spill things because of carelessness, not paying attention, or thinking of something else.	1	2	3	4	5	6
I find it difficult to stay focused on what's happening in the present.	1	2	3	4	5	6
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	1	2	3	4	5	6
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	1	2	3	4	5	6
I forget a person's name almost as soon as I've been told it for the first time.	1	2	3	4	5	6
It seems I am "running on automatic," without much awareness of what I'm doing.	1	2	3	4	5	6
I rush through activities without being really attentive to them.	1	2	3	4	5	6
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1	2	3	4	5	6
I do jobs or tasks automatically, without being aware of what I'm doing.	1	2	3	4	5	6
I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5	6

I drive places on 'automatic pilot' and then wonder why I went there.	1	2	3	4	5	6
I find myself preoccupied with the future or the past.	1	2	3	4	5	6
I find myself doing things without paying attention.	1	2	3	4	5	6
I snack without being aware that I'm eating.	1	2	3	4	5	6

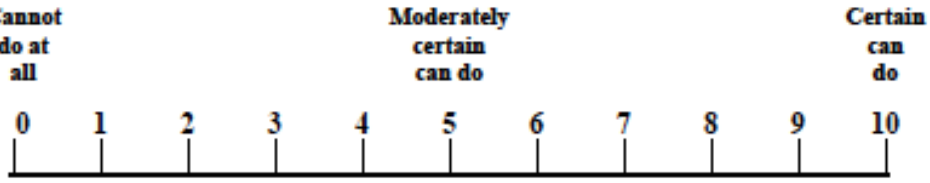
Appendix B: The Student Adaptation to College

The Student Adaptation to College (Select Questions)

Academic Adjustment	• I've been keeping up to date on my academic work.
	• I'm not doing well enough academically for the amount of work I put in.
	• Lately, I have been giving a lot of thought to dropping out of [university] altogether.
	• I am satisfied with the level of at which I am performing academically.
Social Adjustment	• I am very involved with social activities in [university].
	• I am having difficulty feeling at ease with other people at [university].
	• I feel I am very different from other students at [university] in ways I don't like.
	• I am quite satisfied with my social life at [university].
Emotional Adjustment	• Lately I have been feeling blue and moody a lot.
	• I really haven't had much motivation for studying lately.
	• I haven't been sleeping very well.
	• I haven't been able to control my emotions very well lately.
Institutional Attachment	• I am pleased now about my decision to go to [university].
	• I wish I were at another college or university.
	• I expect to stay at this [university] for a bachelor's degree.
	• Lately, I have been giving a lot of thought to transferring to another [university].

Appendix C: The Coping Self-Efficacy Scale

When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following:



When things aren't going well for you, how confident are you that you can:

16. Make new friends. _____ 99
17. Get friends to help you with the things you need. _____ 99
18. Do something positive for yourself when you are feeling discouraged. _____ 99
19. Make unpleasant thoughts go away. _____ 99
20. Think about one part of the problem at a time. _____ 99

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21. Visualize a pleasant activity or place. _____ 99
22. Keep yourself from feeling lonely. _____ 99
23. Pray or meditate. _____ 99
24. Get emotional support from community organizations or resources. _____ 99
25. Stand your ground and fight for what you want. _____ 99
26. Resist the impulse to act hastily when under pressure. _____ 99

12. Keep from feeling sad. _____ 99
13. See things from the other person's point of view during a heated argument. _____ 99
14. Try other solutions to your problems if your first solutions don't work. _____ 99
15. Stop yourself from being upset by unpleasant thoughts. _____ 99

please go on to next page ➲