Exploring the Role(s) of Trait Emotional Intelligence & Personality in Help-Seeking Behaviour Among Undergraduate Students

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Abstract

Trait emotional intelligence (EI) and the Big Five personality factors represent promising constructs in the individual differences literature that have been investigated in relation to help-seeking behaviour. This quantitative work explores the relationship between individual differences in trait EI, personality, and attitudes toward – as well as future intentions to engage in – help-seeking behaviour among undergraduate students at Western University. Stepwise regression modelling was used to determine which dimensions of personality and trait EI best predicted help-seeking outcomes and whether attitudes toward help-seeking predicted intentions to seek help from university-provided mental health sources. Results indicated that several individual facets of trait EI were more closely associated with and better predictors of both general attitudes toward help-seeking behaviour and intentions to seek help from formal support sources than the Big Five. Attitudes toward help-seeking were found to be significantly predictive of intentions to seek help from Student Health Services and Psychological Services.

*Keywords: help-seeking, individual differences, affect, emotional intelligence, personality, mental health, undergraduate students*
There is a need to increase mental health-related help-seeking behaviour among university students. Studies have reported that levels of psychological distress are high among undergraduates, yet low treatment rates suggest that existing models of support may be inadequate for this population. The need to investigate potential determinants of help-seeking behaviour is punctuated by the finding that most undergraduate students do not seek formal help, despite its increasing availability and positive association with academic performance and well-being. Trait emotional intelligence (EI) and the Big Five personality factors both represent promising constructs in the individual differences literature that have been investigated in relation to a range of health-relevant behaviours, including aspects of the help-seeking process. The following project aims to fortify the emerging evidence base concerning the relationship between individual differences in trait EI, personality and attitudes toward – as well as future intentions to commit – help-seeking behaviour. This study employed an exploratory, cross-sectional design involving the administration of a Qualtrics survey to a sample of 85 undergraduate students. Descriptive statistics were presented for each of the central psychometric instruments. Pearson product-moment correlations were calculated to examine intercorrelations among disposition-centric predictors and to determine the degree of association between key study variables. Stepwise regression modelling was used to determine which specific dimensions of personality and trait EI best predicted help-seeking outcomes, in addition to assessing whether attitudes toward help-seeking behaviour were similarly relevant to the prediction of intentions to seek help from university-provided formal help sources. Results indicated that several facets of trait emotional intelligence were more closely associated with and better predictors of both general attitudes toward help-seeking behaviour and intentions to seek help from formal support.
sources than the Big Five personality domains. Attitudes toward help-seeking were found to be significantly predictive of intentions to seek help from Student Health Services and Psychological Services, in particular. Ultimately, this work serves to identify students who might be most at risk of ‘suffering in silence’ based on variables such as trait EI and personality, which can be quantified and potentially used to fine-tune the promotion, delivery, and evaluation of campus-based mental health services.
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Chapter 1: Introduction

The mental health and well-being of undergraduate students has been identified as an area of pressing concern for educational institutions (Bayram & Bilgel, 2008; Deasy et al., 2014; Leahy et al., 2010; Pedrelli et al., 2015; Voelker, 2003; Wong et al., 2006; Zivin et al., 2009). Ninety-five percent of American college counseling center directors surveyed ($n = 847$) said that the number of students with significant psychological problems is a growing concern on their campus (Association for University and College Counseling Directors, 2012). Despite the proliferation of campus-based services designed to address the psychological, academic, and financial needs of the emerging adult population that constitutes the majority of undergraduate students, rates of access and treatment have not yet risen to levels that would indicate a corresponding improvement in the mental health of present or future cohorts of students (Pedrelli et al., 2015; Zivin et al., 2009). Although research has demonstrated positive associations between the use of formal or semi-formal help services, academic performance, and well-being (Karabenick, 1991; Karam, 2019; Pedrelli et al., 2015), most undergraduate students do not choose to utilize these services (Eisenberg et al., 2007; Hunt & Eisenberg, 2010; Li et al., 2018; Zivin et al., 2009).

In light of this troublesome finding, educational institutions have also begun to respond to calls from the literature to decrease stigma toward seeking help (Kearns et al., 2015), for mental health concerns or otherwise; similarly, promotional efforts have also escalated with the intent of increasing student awareness of the availability of these help services (Eisenberg et al., 2007; Hunt & Eisenberg, 2010). However, the determinants of help-seeking behaviour are wide-ranging and diverse (Ciarrochi et al., 2003; Lueck, 2019; Park et al., 2018; Rickwood et al., 2005; Shannon et al., 2020; Wadman et al., 2019), and have yet to be expounded upon in
sufficient detail for counsellors and program directors to take effective and holistic action (Downs & Eisenberg, 2012; Hunt & Eisenberg, 2010; Pedrelli et al., 2015).

A new avenue of exploration, distinct from directives to decrease stigma and increase promotion, is thus warranted if we are to comprehensively address the mental health phenomenon currently being observed among undergraduate students. In searching for further potential determinants of help-seeking behaviour, the individual differences literature reveals two promising and related conceptual candidates in trait emotional intelligence and personality (Feng & Campbell, 2011; Hughes & Evans, 2018; Park et al., 2018; Petrides et al., 2016), both of which may bolster our understanding of help-seeking behaviour while also empowering service users by substituting the assignment of traditional psychiatric diagnoses born of dysfunction with personalized feedback that can inform how one relates to themselves and others (Aragona et al., 2015; Fossati, 2011; Hayes & Alpert, 2017; Johnstone & Boyle, 2018).

In assessing the influence of trait emotional intelligence and personality on the help-seeking process, this project also seeks to contribute to the clarification of whether the popularized concept of trait emotional intelligence offers predictive capability over and above that of the well-established five-factor model of personality in a help-seeking context. The overall aim of this work is to determine whether individual differences in trait emotional intelligence and personality are significantly associated with attitudes toward and intentions to engage in help-seeking behaviour.

The current study employs a quantitative, exploratory, cross-sectional design involving a single online Qualtrics survey that takes place at a large, Canadian university in southwestern Ontario. This monograph contains a literature review that discusses: the necessity of an alternative, transdiagnostic and personalized approach to mental health; the current well-being
phenomenon occurring among undergraduate students; the nature of help-seeking behaviour and its necessity moving forward; individual differences in emotional intelligence and personality; and the role of dispositional variables as potential determinants of help-seeking behaviour. The literature review precedes an outline of the current study that details primary research questions and central hypotheses. Methods and study results are then presented prior to a discussion, which includes a summary of the results, study limitations, and future research directions.

**Chapter 2: Literature Review**

**Making the Case for a Personalized Approach to Mental Health**

Contemporary psychiatry is rooted within a reductionist biomedical paradigm primarily concerned with the diagnosis of disease and the prediction of mental outcomes based on underlying physical processes (Beckett, 2017; Bracken, 2014; Dalgleish et al., 2020; Farre & Rapley, 2017; Fulford, 2015). This stance is based on a history of physiological intervention for treating disorders of the brain and body and is predicated on the notion that human biology mediates all of human experience (Farre & Rapley, 2017; Fulford, 2015). Psychiatry, in its attempt to achieve validation in the medical science community (Bracken, 2014; Handerer et al., 2021; Whooley, 2010), has traditionally drawn on theoretical models based on function and dysfunction; on the understanding of bodies, rather than the thoughts and feelings of people (Bracken, 2014; Fulford, 2013; Handerer et al., 2021; Johnstone & Boyle, 2018).

Increasing evidence from the fields of psychiatry, philosophy, and neuroscience has begun to assert that this biomedical foundation – given its focus on diagnostic or pathology-centered thinking, and its positivist roots – fails to appropriately capture the context-dependent and individualistic nature of mental distress (Bracken, 2014; Fossati, 2011; Handerer et al., 2021; Hayes & Alpert, 2017). The modern ‘DSM (Diagnostic and Statistical Manual of Mental
Disorders) mindset’ is characterized as separating the mind from the body, and the individual from the social group; it privileges rationality over emotion and enforces a belief in objectivity, or the possibility of separating values from practice in human systems (Aragona et al., 2015; Fulford, 2013; Johnstone & Boyle, 2018; Khoury et al., 2014; Whooley, 2010).

There is an argument to be made for moving away from the predominant ‘DSM mindset’ towards an alternative that identifies patterns of emotional distress, unusual experience, and troubling behaviour without necessarily providing a functional psychiatric diagnosis. This is important, as the DSM mindset often has the unintended and unethical result of removing personal meaning-making from the experience of negotiating deleterious mental health representations (Fossati, 2011; Hayes & Alpert, 2017; Johnstone & Boyle, 2018; Khoury et al., 2014; Lopez et al., 2006).

There are three key areas in which the reductionist biomedical paradigm appears to have reached its limits: (1) the ongoing lack of a shared ontology between psychiatry and neuroscience (Bracken, 2014; Coltheart, 2006a; Coltheart, 2006b; Larsen & Hastings, 2018; Poldrack, 2010); (2) the over-medicalization of ‘mental illness’, or more appropriately, ‘mental health representations’ (Gotzsche et al., 2015; Lopez-Munoz et al., 2011) and (3) the failure to comprehensively appreciate individual differences, in the sense that relevant causal factors of mental health representations are generally multiple, complex, highly interactive, and shaped by personal meaning and agency (Fossati, 2011; Johnstone & Boyle, 2018; Nevin, 2020).

With regard to the first issue – primarily concerned with physicalist assumptions that have thrust neuroscientific methods into the realm of functional psychiatry – there is an undeniable level of abstraction that exists when attempting to translate neurophysiology to matters of the mind (Barrett, 2011; Beckett, 2017; Fodor, 1981; Hayes & Alpert, 2017; Poldrack,
The persisting inability to explicitly and wholly elaborate upon the mechanisms that translate neurobiological events into cognitive outcomes such as decision-making, perception, consciousness and memory suggests that the biomedical paradigm and the physicalist project, despite vast advances in experimental methodologies, will not be able to provide the answers we desire when it comes to matters of the mind (Ahn et al., 2009; Anderson, 2015; Bracken, 2014; Coltheart, 2006a; Coltheart, 2006b).

The lack of a systematic mapping relationship between neurophysiology or brain structure and psychological function has led researchers to postulate that, although the tools of clinical neuroscience are able to provide powerful insight into aspects of the mind-brain connection, quandaries involving the redundancy, plasticity, and modularity of neural networks – and the correspondingly limited value of brain imaging – have restricted the role of neuroscience in psychiatry to ‘implementation details’ (Aragona et al., 2015; Bruer, 2006; Coltheart, 2006a; Coltheart, 2006b; Fodor, 1981).

The level of abstraction that remains unaccounted for – problematically outside the grasp of clinical neuroscience and by extension, the biomedical paradigm – is perhaps best stated in the words of Dr. Patrick Bracken:

“To grasp the meaning of Picasso’s Guernica, we need to understand what is happening on the canvas… We also need to understand where this painting fits in relation to Picasso’s artistic career, how this work relates to the history of Western art… The meaning of the work emerges in the dialectical interplay of all these levels… The actual physical painting is a necessary, but not a sufficient, factor in generating a meaningful work of art. A reductionist approach to art appreciation would involve the unlikely idea that we could reach the meaning of a painting through a chemical analysis of the various pigments involved.” (2014, p. 242)
The second issue deals with the biomedical paradigm’s longstanding pharmaceutical-driven approach to psychological intervention, which is largely an extension of the belief that embracing positivism ought to bestow psychiatry with the same empirical prowess as the rest of the medical sciences (Farre & Rapley, 2017; Fulford, 2015; Handerer et al., 2021; Whooley, 2010;). The tendency to prescribe psychotropic medications with the goal of correcting chemical imbalances in the brain, and thereby assigning a diagnosis of mental illness, first gained traction in the 1950’s, coinciding with the arrival of the first DSM (Farre & Rapley, 2017; Gotzsche et al., 2015; Khoury et al., 2014; Whooley, 2010; Wick, 2013). Since the manual’s inception and widespread acceptance, the rate of diagnosable mental illness has increased at a staggering rate world-wide – so rapidly, in fact, that numerous publications are insisting that the growing presence of mental illness in young adults ought to be classified as a modern public health ‘crisis’ (Bayram & Bilgel, 2008; Voelker, 2003; Wong et al., 2006).

The DSM considers different diagnoses as distinct entities, despite mounting evidence that the boundaries between such disorders are often not as strict as the manual suggests (Casey et al., 2013; Dalgleish et al., 2020; Khoury et al., 2014). In attempting to demarcate where ‘normal’ psychological functioning ends and ‘pathology’ begins – often for the sake of pragmatism – the DSM has been criticized on multiple grounds, most pointedly the rather arbitrary nature of clinical criteria for diagnostic categories (Casey et al., 2013; Dalgleish et al., 2020; Khoury et al., 2014; Thachuk, 2011). In attempting to address these limitations, the National Institute of Mental Health has deemed it essential to find a way to increase knowledge concerning the biological, physiological, and behavioral components and mechanisms through which multiple and interacting mental-health risk and protective factors operate (Casey et al., 2013; Cuthbert, 2015). This growing appreciation for the multi-dimensional nature of mental
illness led to the development of the Research Domain Criteria (RDoC) initiative in 2009 (Cuthbert, 2015). The RDoC represents a novel research framework for investigating mental disorders that integrates various levels of information – genes, molecules, cells, circuits, physiology, behaviour, and self-reports – to explore dimensions of functioning that span the full range of human behaviour from normal to abnormal (Cuthbert, 2015).

The development of the RDoC represents an important landmark in psychiatric thinking, in that it is a non-diagnostic alternative that moves away from number and types of symptoms and incorporates information about basic biological and cognitive processes that lead to mental illness (Aragona et al., 2015; Casey et al., 2013; Cuthbert, 2015). However, the RDoC project remains fixated on neurobiological markers of dysfunction or impairment, and is thus unlikely to properly appreciate the socio-developmental background of individuals who are experiencing difficulties with their mental health (Aragona et al., 2015; Johnstone & Boyle, 2018). Despite its attempt to engender a more holistic understanding of mental illness, the RDoC project continues to underestimate the role of social context in determining mental health at the level of the individual (Aragona et al., 2015; Bracken, 2014; Casey et al., 2013). Instead, models that are trauma-informed appear better suited to recognizing the role of context – such as past traumas and their sequelae – in mediating human behaviour (Aragona et al., 2015; Johnstone & Boyle, 2018; Lopez et al., 2006; Nevin, 2020; Substance Abuse and Mental Health Services Administration, 2014). ‘Transdiagnostic’ models that place greater attention on the socio-cultural antecedents of mental health representations appear ready to provide the nuance that was previously missing in the positivist paradigm, characterized by a narrow focus on physiology and reactive care (Dalgleish et al., 2020).
The final issue, and the one that has the greatest bearing on the project at hand, is the one-size-fits-all approach to identifying and negotiating experiences of mental illness employed by the biomedical paradigm (Aragona et al., 2015; Berkman, 2017; Farre & Rapley, 2017; Whooley, 2010). In its philosophical commitment to reductionism, the dominant worldview in functional psychiatry has, intentionally or otherwise, relegated psychosocial determinants to a secondary role in assessing and treating experiences of mental illness (Ahn et al., 2009; Fulford, 2015; Larsen & Hastings, 2018). Shifting to a transdiagnostic framework not only addresses the limitations of the ‘DSM mindset’ by circumventing issues such as artificial categorization, rampant comorbidity, massive heterogeneity within diagnoses, incomplete symptom capture, and phenotypic plasticity across development (Aragona et al., 2015; Dalgleish et al., 2020; Lopez et al., 2006); it opens up space for the appreciation of individual differences in a manner that transcends mere variation in neurobiology, and supports the tailoring of treatment to an individual’s behavioural, psychosocial, and cultural context (Berkman, 2017, Dalgleish et al., 2020; Nevin, 2020). Interestingly, researchers operating within the biomedical paradigm are beginning to reach similar conclusions regarding the need to create highly personalized care models for managing the aforementioned ‘mental health crisis’ affecting today’s emerging adult population (Hickie et al., 2019; Menke, 2018).

All of this is not to say that the biomedical paradigm has nothing of value left to contribute to our understanding of the relationship between the brain and mind, and by extension, the myriad factors that mediate the experience of mental illness. This simply indicates that there is space for a new paradigm to emerge; one that embraces hermeneutics, a dialectical process that suggests we can only come to understand the meaning of experience by understanding context (Bracken, 2014), and begins to move away from a focus on disease, dysfunction, and
pathology, instead communicating the following message to many of those who are struggling with their mental health:

“You are experiencing a normal reaction (i.e., emotional distress) to abnormal circumstances. Anyone else who had been through the same events might well have ended up reacting in the same way. However, these survival strategies may no longer be needed or useful. With the right kind of support, you may be able to leave them behind.” (Johnstone & Boyle, 2018, p. 18)

The quote above, taken from the overall message of the Power Threat Meaning Framework (Johnstone & Boyle, 2018), reflects an alternative paradigm to the ‘DSM mindset’; a paradigm that employs a contextually-sensitive perspective informed by one’s prior experiences with adversity and trauma when attempting to explain why people are the way they are. This alternative to the predominant biomedical approach builds upon research findings from the CDC-Kaiser Permanente Adverse Childhood Experiences (ACEs) Study, which found that experiences of abuse, neglect, and household challenges from a young age are common, preventable, and costly (Felitti et al., 1998). Study findings demonstrated a graded dose-response relationship between ACEs and negative health and well-being outcomes; as the number of ACEs increases, so does the risk for negative outcomes such as traumatic brain injury, depression, unintended pregnancy, infectious and chronic disease, and risky behaviour (Felitti et al., 1998).

The following research project will thus seek to operate from a non-biomedical, contextually sensitive point of view regarding the nature of mental health representations and how individuals negotiate such phenomena. In doing so, this project seeks to further our collective understanding of why people behave the way they do, and why they relate to themselves and others in the manner they do, without appealing to physicalist markers of dysfunction and diagnostic categories.
The Well-being Phenomenon Among Undergraduate Students

The literature reporting high rates of depression, anxiety, and stress among university students has reached staggering levels over the past two decades, leading many to declare the experience of mental illness during one’s formative years at the undergraduate level a ‘normative phenomenon’ (Bayram & Bilgel, 2008; Deasy et al, 2014; Leahy et al, 2010; Wong et al., 2006). Calls for the development of primary prevention measures and adequate support services have circulated worldwide as educational institutions have become increasingly interested in the psychological well-being and mental health status of their students (Bayram & Bilgel, 2008; Liu et al., 2017; Pedrelli et al., 2015). It should be noted, however, that this interest is far from contemporary; British universities have been investigating the challenges higher learning poses to the mental health of young adults since the Second World War (Crook, 2020), and China has been conducting federally-sponsored cohort studies on college student mental health since the late 1980’s (Liu et al., 2017).

More recently, an interest in the early identification of college students experiencing mental health issues has been touted as crucial to providing thorough assessments that are critical to the provision of adequate services and the attainment of improved academic and health-salient outcomes, ranging from program graduation to a holistic sense of well-being (Bayram & Bilgel, 2008; Pedrelli et al, 2015; Usher & Curran, 2019). In attempting to understand the etiology and demonstrable prominence of psychological distress among undergraduate students, researchers have identified various contextual contributors to compromised mental health status originating from the tertiary educational environment, as well as broader changes in greater society (Leahy et al., 2010; Pedrelli et al., 2015; Usher & Curran, 2019; Zivin et al., 2009).
Most undergraduate students can be classified as ‘emerging adults’, a term for a novel developmental class coined by Jeffrey Arnett that spans from the ages of 18 to 27 and is characterized by in-betweenness or role transition, identity formation, and demographic heterogeneity (2000). While emerging adulthood is a relatively novel proposed life stage that is typically associated with industrialized nations, the rapid development of the globalized world economy has allowed this concept to reach new levels of applicability across various cultural contexts (Murray & Arnett, 2019).

Focusing specifically on Western society, sweeping demographic shifts over the past half-century have transformed the time frame spanning the late teens and early-to-mid-twenties into a theoretically and empirically distinct period of the life course permeated by change and the exploration of possible life directions (Arnett, 2000; Murray & Arnett, 2019). Sharp increases in the median age of marriage, age of first childbirth, rates of residential change, and proportion of young adults obtaining post-secondary education have coalesced to present individuals with increased opportunities to explore, as well as fewer pressures to assume adult roles immediately following adolescence (Arnett, 2000; Murray & Arnett, 2019).

While the very existence of this novel life stage is indicative of social and economic progress, the inherent volatility and uncertainty of emerging adulthood sets the stage for the experience of negative mental health representations, which can be further compounded by the academic challenges and work-related disruptions presented in university environments (Murray & Arnett, 2019). When the well-being phenomenon occurring among undergraduates is viewed through this developmental lens, it is thus wholly unsurprising that existential concerns, substance abuse, depression, anxiety, mood disorders, and various other psychiatric conditions are highly prevalent among recent generations of students who find themselves straddling two
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worlds in a manner that is historically unprecedented (Murray & Arnett, 2019; Pedrelli et al., 2015). Given its typical focus on the measurement of outcomes and diagnosis of disorder, the biomedically-inclined literature has been quick to identify staggering rates of mortality and morbidity among emerging adults; for example, recent estimates posit that nearly 12% of college students suffer from an anxiety disorder, and that by the age of 25 years, 75% of those who will have a mental health disorder have experienced their first onset (Pedrelli et al, 2015; Usher & Curran, 2019). When these disturbing psychiatric trends and statistics are framed in the developmental context of emerging adulthood – wherein worldviews are being challenged, novel and intense sensations are sought, and individuals vacillate between co-dependence and autonomy (Arnett, 2000; Murray & Arnett, 2019) – they begin to make quite a bit more sense.

Given that the literature provides no valid biological, evolutionary, or neurophysiological explanation for the sudden rise in diagnosable mental illnesses among undergraduate students over the past half-century, it is unlikely that pharmacological interventions or psychotropic medications will be able to remedy the situation. It is more likely that this phenomenon is derived from fundamental changes to our social structure and developmental circumstances, rather than significant intergenerational changes in brain chemistry (Downs & Eisenberg, 2012; Eisenberg et al., 2007; Gotzsche et al., 2015; Hunt & Eisenberg, 2010). It is crucial that counsellors and program directors on university campuses enhance their understanding of an individual’s contextual background, life course trajectory, and coping tendencies when prescribing treatment and mapping potential courses of action to address deleterious mental health representations (Downs & Eisenberg, 2012; Pedrelli et al., 2015; Zivin et al., 2009).

Where the biomedical literature tends to agree with alternativist paradigms is on the importance of thoroughly explicating the nuance behind the mental health concern-treatment
relationship among emerging adults attending college (Pedrelli et al., 2015). Despite increases in the number of students needing professional attention for mental health issues, rates of treatment have not correspondingly risen (Eisenberg et al., 2007; Wadman et al., 2019; Zivin et al., 2009). In fact, the majority of emerging adults undergoing mental health struggles at the university level do not seek help or undergo treatment of any kind, despite the recent proliferation of campus-based help services (Eisenberg et al., 2007; Hunt & Eisenberg, 2010, Wadman et al., 2019; Zivin et al. 2009). The recognition of this problem-solution disparity marks the first significant step towards addressing the well-being phenomenon among undergraduate students. What comes next, in terms of research and intervention-oriented directives from health professionals and educational institutions, figures to determine the severity, duration, and long-term outcomes of this public health phenomenon.

If one is willing to accept that the mental health ‘crisis’ occurring among emerging adults within university environments is not an issue of neurophysiology, but a problem of unique, complex individuals situated in time and space, then the next step for health psychology researchers becomes clear: identify the psychosocial factors involved with the process of seeking help (Alemu, 2013; Boerema et al., 2016; Bornschlegl et al., 2020; Chandrasekara, 2016; Downs & Eisenberg, 2012; Eisenberg et al., 2007; Givens & Tjia, 2002; Lueck, 2019; Park et al., 2018; Rodgers et al., 2017; Zivin et al., 2009). As university counselling budgets continue to expand in order to hire qualified mental health professionals, widen hours of clinical availability, increase the frequency of promotional initiatives, and minimize stigma toward seeking help for mental health concerns, one can reasonably expect a significant uptick in service use among undergraduate students (Eisenberg et al., 2007; Hunt & Eisenberg, 2010; Karam, 2019; Zivin et al., 2009). However, simply adding resources to existing formal and semi-formal help services
and mental health campaigns is unlikely to provide a comprehensive solution to this well-being phenomenon. If educational institutions are to provide maximally effective campus-based help services for undergraduate students, then research must also consider the determinants of help-seeking behaviour at the level of the individual (Bornschlegl et al., 2020; Fishbein & Azjen, 2010; Mitchell et al., 2016; Park et al., 2018; Rickwood et al., 2005).

**What is Help-Seeking & Why Do We Need More of It?**

Help-seeking behaviour has traditionally been defined as action directed towards finding help to compensate for one’s own inadequacies, thereby increasing the probability of success in the future (Ames & Lau, 1982). A more contemporary definition in the context of psychological well-being would be: an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern (Rickwood et al., 2012). There is an obvious and pressing need to increase help-seeking behaviour, in all its forms, among university students (Fittrer, 2016; Karam, 2019; Leahy et al., 2010). Studies have reported that levels of psychological distress are high among the tertiary student body (Agteren et al., 2019; Bayram & Bilgel, 2008; Deasy et al., 2014; Pedrelli et al., 2015), while low treatment rates suggest that existing models of support may be inadequate or inappropriate for this particular population (Hunt & Eisenberg, 2010; Leahy et al., 2010; Pedrelli et al., 2015; Wadman et al., 2019; Zivin et al., 2009). The need to further investigate potential determinants of help-seeking behaviour is punctuated by the finding that the majority of undergraduate students do not seek formal help, despite its increasing availability in post-secondary environments and demonstrated positive associations with academic performance and well-being (Eisenberg et al., 2007; Karabenick, 1991; Pedrelli et al., 2015; Zivin et al., 2009). Accordingly, research interest into usage determinants of formal help sources among university students has surged across various health-relevant fields of study, with
a prevailing theme emerging: there needs to be more of it (Bornschlegl et al., 2020; Mitchell et al., 2016; Rickwood et al., 2005; Rickwood et al., 2012).

Help-seeking behaviour is, by its very nature, a complex phenomenon (Rickwood et al., 2012). There is no universally agreed-upon definition for the term, and as such, it has been operationalized and measured in various ways (Husky, 2011; Rickwood et al., 2012). Despite a relatively foggy methodological history, its self-evident utility within the context of mental health and well-being has led to a significant amount of research attention over the past half-century, with numerous investigators drawn to answering a hugely important question: what influences individuals’ help-seeking tendencies?

In pursuit of an answer, factors such as gender (Chandrasekara, 2016; Fittrer, 2016; Li et al., 2018), personality (Feng & Campbell, 2011; Kakhnovets, 2011; Park et al., 2018), social networking (Lakey & Orehek, 2011), suicidality (Downs & Eisenberg, 2012; Gould et al., 2004), income (Li et al., 2018), attachment style (Wadman et al., 2019), parental guidance (Digal & Gagnon, 2020), beliefs about counselling (Bornschlegl et al., 2020; Kakhnovets, 2011), perceptions of need and self-worth (Shannon et al., 2020), resilience (Wadman et al., 2019), and emotional competence (Ciarrochi & Dean, 2001; Ciarrochi et al., 2003) have all been investigated in regard to their role as influences on the help-seeking process. Thus far, the literature has yielded some key findings: being more educated and/or mental health literate, being female, being able to manage one’s emotions, having positive prior experiences with counselling, and scoring higher on the personality factors of extraversion and openness to experience have all been consistently linked to increasingly positive attitudes about help-seeking for mental health concerns (Atik & Yalcin, 2011; Bornschlegl et al., 2020; Kakhnovets, 2011; Li et al., 2018).
Nearly a decade ago, a systematic literature review of 316 relevant studies was commissioned by beyondblue, an Australian non-governmental organization concerned with the achievement of positive mental health (Rickwood et al., 2012). The review found that there were no psychometrically sound measures of help-seeking routinely used in the literature, and that most studies developed their own measures (Rickwood et al., 2012). The most commonly used standardized measures were the Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Farina, 1995) and the General Help-Seeking Questionnaire (Wilson et al., 2005). The review concluded that in order to promote consistency and enable the comparison of study results, researchers ought to be explicit about what part of the help seeking process they are interested in, the timeframe, which sources of assistance, and for which mental health problems, as defined in Figure 1 below (Rickwood & Thomas, 2012).

Figure 1

Help-Seeking Measurement Framework (Rickwood & Thomas, 2012)
The most common conceptual framework for discussing help-seeking behaviour – if one is used at all – is Azjen’s Theory of Planned Behaviour/Reasoned Action (TPB; Azjen, 1991; Fishbein & Azjen, 2010; Rickwood et al., 2012). This focus on the TPB – pictured below in Figure 2 – is important to note because the theory proposes that actual behaviour is a rational decision that is made according to intentions to behave in a particular way, and that intentions are in turn determined by attitudes, as well as subjective norms and perceived behavioural control, which can also have a direct effect on behaviour (Fishbein & Azjen, 2010).

**Figure 2**

Theory of Planned Behaviour (Azjen, 2019)

It should be noted that the Health Belief Model (HBM), developed in the 1950’s by the United States Public Health Service, appears to be the second most popular choice within the literature as a framework for explaining help-seeking behaviour in a mental health context (LaMorte, 2019; Rickwood et al., 2012). While the HBM convincingly suggests that a person’s belief in the personal threat of an illness – in addition to their belief in the effectiveness of the recommended health behaviour or action – will predict the likelihood the person will adopt the
behaviour, it has chiefly been used in the field of physical ailments (O’Connor et al., 2014), and has been criticized for failing to account for a person’s attitudes and other individual determinants that influence the acceptance of help-seeking behaviour (LaMorte, 2019). This insensitivity to individual context thus renders it a poor choice as a primary vehicle for explaining mental health outcomes and dispositional influences on the help-seeking process.

There is also a richer theoretical history concerned with the formulation of unconscious drives, motivations and general attitudes that ought to be mentioned as early predecessors to the designated Theory of Planned Behaviour – namely, the psychodynamic tenets and personality development trajectories explored by Sigmund Freud, Alfred Adler, and Carl Jung in the first half of the 20th century (Berzoff et al., 2021; Bienenfeld, 2006).

Freud’s studies on hysteria led him to develop the drive model of psychology, wherein unconscious mental processes are considered to be primary drivers in shaping thought and behaviour, as opposed to the conscious and preconscious layers of awareness outlined in his topographical model (Berzoff et al., 2021; Bienenfeld, 2006). Freud proposed that the energy for mental activity – thoughts, emotions, and fantasies – ultimately originates from a mixture of innate, biologically-propelled sexual and aggressive drives (Berzoff et al., 2021; Bienenfeld, 2006). His landmark structural apparatus described the interacting systems of the mind as the id, ego and superego; id being the repository of unmodified drive urges, ego being the vehicle by which those urges are addressed or otherwise, and superego as the collection of goals and conscience that shapes the limits of thought and behaviour (Berzoff et al., 2021; Bienenfeld, 2006).

Alfred Adler, being more attentive to the entirety of personality and dissatisfied with Freud’s attempts to reduce human motivation to the physiologic level of a ‘drive’, sought to offer
a more comprehensive model that also encompassed social interest and culturally specific dimensions (Bienenfeld, 2006). Adler called this holistic model ‘individual psychology’, identifying the thrust of human development and personality as striving for perfection, or the desire to achieve all of one’s potential (Bienenfeld, 2006). Notably, while Freud’s model was able to explain all present thought, affect, and behaviour on the basis of inborn biology and past experience, Adler’s potential-driven schema complicated matters by maintaining that the future – not just the past – also shapes the present (Bienenfeld, 2006). In Adler’s model, people are guided unconsciously by ‘fictions’, chief among these being the search for superiority; mismatch between one’s fictions or held beliefs and their actual capabilities or environment results in psychological distress (Bienenfeld, 2006). Adler goes on to describe four styles of life that individuals will assume, based on temperament and surroundings, as they attempt to achieve perfection – ruling, leaning, avoiding, and socially useful – only the last of which is ‘fully healthy’ (Bienenfeld, 2006).

Finally, Jung’s scholarly dissent took early theories of personality to the next level. In postulating the existence of a ‘collective unconscious’ – the inborn memory of human civilization – that is populated by spiritually-driven ‘archetypes’, Jung proposes that there are eight essential typologies of human personality which are grounded in two attitudes – introversion and extraversion – and four functions – sensing, thinking, feeling, and intuition (Bienenfeld, 2006). Unlike Freud, whose main goal was to provide relief of neurotic symptoms, Jung identified self-actualization as the goal of development and sought to bring his patients to health by guiding them to a transcendent connection with their own experience and human history, which demands the integration of opposite tendencies and capacities within the mind and spirit (Bienenfeld, 2006).
Armed with an adequate historical understanding of the early psychological underpinnings informing drives, personality, and development, one can appreciate the conceptual nuance behind the more recently posited Theory of Planned Behavior (Azjen, 1991; Azjen, 2019; Fishbein & Azjen, 2010), which states that: individuals are likely to engage in a health behaviour if they believe that the behaviour will lead to particular outcomes which they value; if they believe that people whose views they value think they should carry out the behaviour; and if they feel that they have the necessary resources and opportunities to perform the behavior (Armitage & Conner, 2001). Although the intention-behaviour relationship is well established for a wide range of behaviours (Armitage & Conner, 2001; Fishbein & Azjen, 2010), only recently have studies been conducted to assess the intention-behaviour relationship within the context of seeking counselling (Aldaykeh et al., 2019; Kakhnovets, 2011; Rickwood et al., 2012).

The Theory of Planned Behaviour has successfully been used to predict participation in health-relevant behaviours such as physical activity (Fishbein & Azjen, 2010), smoking cessation (Fishbein & Azjen, 2010), blood donation (Fishbein & Azjen, 2010), and more recently, mental health service use (Aldalaykeh et al., 2019; Yelpaze & Ceyhan, 2020). The attitude-intention pathway of the TPB outlined in Figure 2 is particularly valuable to the study of help-seeking behaviour among undergraduate students, as the determinative role of subjective norms – otherwise known as socially prescribed stigma – has already been elucidated at length in the counselling literature (Boerema et al., 2016; Bornschlegl et al., 2020; Digal & Gagnon, 2020; Downs & Eisenberg, 2012; Eisenberg et al., 2007).

Accordingly, this research project seeks to build upon the evidence base regarding the strength of association between source-level dispositional variables – such as personality and
trait emotional intelligence – and outcome-level variables such as general attitudinal orientation toward and future intentions to commit help-seeking behaviour against the backdrop of the TPB.

With respect to Figure 1 – the aforementioned measurement model for facilitating the comparison of research on help-seeking behaviour proposed by Rickwood et al. (2012) – this research project is concerned with the following: general attitudinal orientation and future intentions to seek help; formal and semi-formal campus-based mental health services at a large Canadian university; seeking help for general personal or emotional problems, without necessarily specifying a diagnosis; and for any type of assistance, including instrumental, informative, affiliative, emotional, and clinical treatment.

Individual Differences in Emotional Intelligence & Personality

Emotional intelligence (EI) occupies a somewhat contentious position within the individual differences literature. Compared to the voluminous body of psychological research underlying both general intelligence and emotions, EI research is still in its fledgling years (Hughes & Evans, 2018; Matthews et al., 2002; Petrides, 2011). There are three different core conceptualizations of EI: (1) cognitive ability (Mayer & Salovey, 1997); (2) personality (Petrides & Furnham, 2001; Petrides et al., 2007), and (3) emotional regulation or ‘competency’ (Boyatzis, 2009; Ciarrochi & Dean, 2001; Goleman, 1995). But despite numerous measurement methods that exist for these conceptualizations, there is concern that the rapid and piecemeal development of measures to capture these constructs has outstripped meaningful theoretical advancement (Hughes & Evans, 2018). This is not uncommon among newly proposed constructs like EI, a concept first meaningfully operationalized in the early 1990’s (Zeidner et al., 2008; Shaffer et al., 2016). Questions that are building within the literature include: what EI actually is, the extent to which the three different core conceptualizations are distinct, and which conceptualizations are
“manifestations of old wine in new bottles” (Hughes & Evans, 2018, p. 2; Locke, 2005; Zeidner et al., 2008).

In response to the need for a meaningful theoretical framework, the Integrated Model of Affect-Related Individual Differences – pictured below in Figure 3 – was developed to offer an initial mechanistic representation that explains how the different EI-related constructs are likely to interrelate and coalesce to form affective outcomes (Hughes & Evans, 2018).

**Figure 3**
Integrated Model of Affect-Related Individual Differences (Hughes & Evans, 2018)

![Integrated Model of Affect-Related Individual Differences](image)

*Note. G = general factor of intelligence; Gf = fluid intelligence; Gc = crystallized intelligence; N = neuroticism; E = extraversion; O = openness; A = agreeableness; C = conscientiousness; ARP = affect-related personality traits; Emotion reg. = emotion regulation*

The major premise of the model is that both ability EI and trait EI are principally mediated by emotion regulation; that is to say, both individual differences in intelligence and personality can be considered antecedents of emotion regulation style (Hughes & Evans, 2018). This simple theoretical framework has yielded various implications for future research on the topic of emotional intelligence; of greatest interest to the project at hand is the directive to
identify the degree of overlap between popular existing measures of personality and trait EI (Hughes & Evans, 2018).

Consequently, the construct of emotional intelligence that is of singular interest to this project is trait EI, otherwise known as ‘affect-related personality traits’ (Hughes & Evans, 2018; Petrides & Furnham, 2001). This study will focus on pathway two from Figure 3 – the interactive and apparently overlapping relationship between the Big Five personality factors and the construct of trait EI – with the intent of using the Theory of Planned Behavior as a theoretical bridge between disposition, attitudes and intentions. While the definition of trait EI has evolved over time, it has recently been conceived as the “constellation of emotional self-perceptions located at the lower levels of personality hierarchies” (Petrides, 2010, p. 137). In terms of its distinctness from ability EI, a sizeable body of evidence demonstrates that trait EI is unrelated to ability EI, with correlation strength ranging from $r = 0.00$ to $r = 0.26$ (Joseph & Newman, 2010; Petrides et al., 2007; Van Rooy et al., 2005). Trait EI and ability EI thus represent two truly unique perspectives on emotional intelligence, with the former being linked to individual differences in personality and self-report measures, and the latter concerned with individual differences in intelligence and observational or ability-based measures (Hughes & Evans, 2018; Stough et al., 2009).

Put simply, trait EI deals with people’s beliefs about their emotions and recognizes that emotional experience is inherently subjective, which provides a natural fit with self-report measures (Stough et al., 2009). In contrast, the conception of emotional intelligence as a cognitive ability runs into numerous psychometric problems, chief among them the incompatibility of maximum-performance scoring measures with the realm of emotions (Stough et al., 2009). For example: are there really “correct” and “incorrect” ways of feeling? Should
people who cannot guess what a musician might be feeling when performing a piece of music be considered emotionally inept (Stough et al., 2009)? However, it is ultimately not in the interest of this project to further pit two differing conceptualizations of EI against each other. Instead, this research project intends to contribute to the clarification of uncertainty regarding the extent to which trait EI provides predictive capability over longstanding models of personality, such as the Big Five.

The Big Five, otherwise known as the Five Factor Model (FFM; John et al., 2010; McCrae & Costa, 1996) of personality, has existed since the early 1980’s and is derived from work on the lexical hypothesis in the early 1900’s, which posited that most of the socially relevant personality characteristics had become encoded in natural language (John & Srivastava, 1999). The FFM is composed of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness – otherwise known as the ‘Big Five’ (John et al., 2010; McCrae & Costa, 1996). The FFM represents an empirical generalization about the covariation of personality traits; more broadly, if many rating scales are used, and if the scope of the scales is quite broad, then the domain of personality descriptors is almost completely accounted for by these five robust factors (John et al., 2010; McCrae & Costa, 1996). Although the FFM itself is not a theory of personality, in the sense that a theory coherently explains the definition, development and interactions of a system, it constitutes an impressive effort to construct such a theory that is consistent with what is presently known about personality (John et al., 2010; McCrae & Costa, 1996). The FFM has been said to implicitly adopt the fundamental tenets of trait theory, which posits: (1) that individuals can be characterized in terms of relatively enduring patterns of thoughts, feelings, and actions; (2) that traits can be quantitatively assessed; and (3) that they
show some degree of cross-situational consistency (John et al., 2010; McCrae & Costa, 1996; Stough et al., 2009).

Traits have received a great deal of interest in the realm of personal psychology because they reveal more-or-less consistent patterns of action and reaction that simultaneously characterize individuals and differentiate them from others, while also allowing for the empirical generalization about how other people with similar traits are likely to respond in a given context (John et al., 2010; Stough et al., 2009). By virtue of sharing a foundation in trait theory, the FFM and trait EI are inexorably linked at the conceptual and instrumental level, which facilitates comparison and ensures psychologically interpretable outcomes (John et al., 2010; Stough et al., 2009).

While not explicitly explored in the present study, the need to identify which facets of trait EI are truly unique cannot be overstated; recent studies have demonstrated that 57% of trait EI variance is accounted for by the Big Five, which suggests that the construct does not represent a major departure from existing models of personality (Perez-Gonzalez & Sanchez-Ruiz, 2014). A joint factor analysis between the Trait Emotional Intelligence Questionnaire (TEIQue) – considered to be the most popular and theoretically-informed measure of trait EI – and a measure of the Big Five personality factors yielded substantial overlap (Petrides et al., 2007). More specifically: five trait EI facets had no substantial loading on the trait EI factor but did load substantially on other Big Five factors; six trait EI facets either had their primary loading on a Big Five factor or had substantial loadings on both trait EI and one of the Big Five; and four trait EI facets loaded primarily onto the trait EI factor and had no meaningful cross-loadings (Petrides et al., 2007).
In summary, it is possible that trait EI research has identified meaningful personality traits that can inform and expand existing personality models (Hughes & Evans, 2018; Stough et al., 2009). Such a development would be especially useful given that current omnibus models of personality like the Big Five are not comprehensive in their coverage of the personality sphere (Hughes & Batey, 2017), and this is especially true for tendencies relating to positive affect (Pytlik Zillig et al., 2002). Indeed, a number of the ‘unique’ trait EI facets representing positive affect or low neuroticism, such as emotion regulation, adaptability, and optimism, are not currently captured by the Big Five (Hughes & Evans, 2018). This might explain why the factors of well-being and self-control, which subsume these facets, often provide incremental prediction when examined alongside existing personality measures (Andrei et al., 2016; Hughes & Evans, 2018; Tok et al., 2013).

**Disposition as a Potential Determinant of Help-Seeking Behaviour**

There is a longstanding psychological research history of positioning personality traits as source variables in relation to behavioural outcomes of interest (John et al., 2010; Stough et al., 2009). Alternatively, calls have also been made to investigate the possibility of modifying traits, thus positioning them as outcomes to be measured after some form of behavioural training or psychoeducational intervention (Stough et al., 2009). Recent research in this vein has provided preliminary evidence that trait EI can be increased via such training (Campo et al., 2016; Petrides et al., 2016), which provides some fascinating possibilities for future studies that will be discussed later.

While trait emotional intelligence and the Big Five have certainly attracted a considerable amount of commercial interest in workplace applications (O’Boyle Jr. et al., 2010; Pekaar et al., 2019) and psychometric test development (Siegling et al., 2013; Stough et al., 2009), the high
face validity of these constructs to the fields of health psychology, psychiatry, and health promotion has begun to reveal itself in recent research trends that demonstrate a substantial amount of interest in gauging determinants of health-relevant behavioural outcomes (Stough et al., 2009; Zeidner et al., 2012).

Although the specific outcomes of interest for this research project include individuals’ general attitudinal orientation toward and intentions to engage in help-seeking behaviour, notable studies in the health domain have associated various – and often, ‘mixed’ – EI constructs and personality factors with coping styles (Austin et al., 2010; Saklofske et al., 2007; Sun et al., 2017), alexithymia (Parker et al., 2000), job performance (Slaski et al., 2003), burnout among educators (Zysberg et al., 2017) and academic achievement (MacCann et al., 2011; Parker et al., 2004; Stanovska et al., 2018). Furthermore, comprehensive meta-analyses conducted on the literature concerning the relationship between EI and health have reached the conclusion that the two core approaches to EI demonstrate sufficiency and stability in addition to confirming the value of EI as a health predictor (Martins et al., 2010; Schutte et al., 2007).

If we maintain a narrow focus on studies that involve health outcomes salient to the university or educational environment and samples composed primarily of students, several relationships of interest can be identified: high EI has been globally associated with a greater tendency to adopt a task-focused approach to coping with academic stress (Austin et al., 2010); EI itself has been found to be, at some level, a moderator of perceived stress (Birks et al., 2009; Ciarrochi et al., 2003; Houghton et al., 2012; Singh & Sharma, 2012); and emotionally intelligent students typically report high levels of well-being and low levels of psychological maladjustment (Davis & Humphrey, 2014).
When looking to the established literature concerning affect-related personality traits and their relationship to help-seeking elements in particular, it would appear that emotional intelligence – again, primarily involving a rather unclear theoretical perspective with measurement methods that vary greatly from study to study – has only sparingly been leveraged to tap into aspects of the help-seeking process, with the common refrain being ‘higher EI is good for you and leads to more help-seeking’ (Astatke, 2018; Ciarrochi et al., 2003; Montes-Berges et al., 2007; Rodgers et al., 2017). Personality factors, on the other hand, boast a slightly richer research connection to help-seeking behaviour; negative attitudes toward help-seeking have been associated with the self-presentation dimension of perfectionism (DeRosa, 2000), while the Big Five factor of neuroticism has been consistently demonstrated to be a strong, negative predictor of help-seeking attitudes (Drapeau et al., 2016). It has also been found that adolescents high in extraversion are more likely to seek help for mental health issues (O’Connor et al., 2014), while individuals diagnosed with major depression that score highly on conscientiousness are more likely to seek help (Schomerus et al., 2013; Yelpaze & Ceyhan, 2020).

Based on a review of the available literature, it would seem that when health psychological interest is isolated to the exploration of affect-related personality traits as influences on the help-seeking process, there is a relative dearth of high-quality research. Accordingly, this project presents an opportunity to address this gap by fortifying the emerging evidence base concerning the relationship between individual differences in personality and help-seeking behaviour.

**Chapter 3: Current Study**

This study seeks to examine the relationships that exist among the source variables of trait emotional intelligence and personality, and the outcome variables of attitudes toward and
future intentions to commit help-seeking behaviour. It should be noted that although this project is operating from an alternative, trauma-informed approach to understanding mental health representations, it is beyond the scope of this project to investigate how past experiences of trauma can manifest in an individual’s affect-related personality traits or how such experiences influence one’s attitudes toward and future intentions to commit help-seeking behaviour.

While it is the view of the author that experiences of childhood trauma or adversity undoubtedly inform one’s personality profile and trait emotional intelligence (Bentall, 2017; Substance Abuse and Mental Health Services Administration, 2014), such relationships will have to be identified and tested in downstream research concerned with determinants of help-seeking behaviour. For the purpose of this research project, I did not attempt to collect information pertaining to past trauma, but will advocate for the inclusion of such information in future counselling-based research while referencing the trauma-informed paradigm in interpreting results.

Based on findings presented in the literature, it is expected that neuroticism will correlate negatively with global trait EI, and that extraversion, openness, agreeableness and conscientiousness will correlate positively with global trait EI (Russo et al., 2011; Saklofske et al., 2003; Saklofske et al., 2007). It is also hypothesized that a higher global trait EI score will be positively associated with attitudes toward and future intentions to commit help-seeking behaviour (Astatke, 2018; Bornschlegl et al., 2020). Finally, it is hypothesized that numerous trait EI dimensions will be significantly correlated with the Big Five personality factors in a manner that is consistent with previous research findings (Hughes & Evans, 2018; Petrides, 2007).
Research questions for this project include: Do individual differences in certain facets of trait emotional intelligence and the Big Five personality factors significantly correlate with attitude towards and future intentions to commit help-seeking behaviour? Does trait EI offer greater predictive capability than the Big Five in determining attitudes towards and future intentions to commit help-seeking behaviour? Following from the Theory of Planned Behaviour, does one’s attitude toward seeking help predict future intentions to seek help in this mental health context? Furthermore, are attitudes toward help-seeking behaviour a better predictor of intentions to seek help than the Big Five personality dimensions?

Ultimately, this study seeks to identify those emerging adults/undergraduate students who might be at greatest risk of ‘suffering in silence’ based on dispositional variables such as trait emotional intelligence and the Big Five personality factors. Should the expected relationships hold, then downstream research may seek to: (1) test the proposed causality of the Integrated Model of Affect-Related Individual Differences by incorporating all three core conceptualizations of EI when assessing behavioural outcomes, perhaps using an intervention-based, longitudinal project design; (2) identify disposition-informing experiences of childhood trauma among those struggling with mental health representations; (3) tailor existing formal and semi-formal mental health services to better suit individuals with personality profiles that are poorly matched with current campus-based psychological services, and; (4) explore the possibility of offering trait modification or psycho-educative programs through educational institutions with the goal of improving service use and well-being outcomes among students.
Chapter 4: Method

Quantitative Research Methodology & Study Design

The study will follow an exploratory, descriptive design with the goal of establishing associations between the target variables. While insufficient to prove a cause-and-effect relationship between the variables of interest, a cross-sectional study design – involving the single-point sampling of undergraduate students at the University of Western Ontario in the latter half of the Winter 2021 semester – should be able to provide preliminary evidence for the generation of new, relevant hypotheses or encourage further longitudinal or intervention-based research on the relationships in question.

Both the independent (trait EI, Big Five personality factors) and dependent variables (attitude toward and future intention to commit help-seeking behaviour) in this study are specifically well-suited to self-report measures (Husky, 2011; Petrides, 2007). Given that the project was completed in order to fulfill the requirements of a Master’s degree, a cross-sectional study design based on a host of self-report measures was deemed well-suited to the temporal and practical limitations in place.

Sample Characteristics

The sample was composed of 85 undergraduate students across various faculties that were enrolled at the University of Western Ontario during the Winter 2021 semester. While 90 students initiated the Qualtrics survey, 5 cases were dropped from subsequent analysis due to total drop-off in response midway through the survey; that is to say, for each of the 5 excluded cases, the respective participants stopped responding to consecutive questions completely. More specifically, participants #2, #11, and #45 stopped responding within the first five questions, while participant #1 stopped responding after question 49 and participant #25 stopped
responding after question 135. Of the 85 cases included in the analysis, 10 had missing data, defined here as an unrecorded response to one or more of the 294 questionnaire items. Of these 10 cases, six were missing only a single response; the case featuring the most missing responses was participant #3, who had 9 missing responses – this translates to missing approximately 3% of the total questionnaire, which is within the 5% missing rate benchmark defined by Schaffer (1999) as ‘inconsequential’ and well below the 10% missing rate set by Bennett (2001) at which statistical analysis is likely to become biased.

The sample was recruited using a mass e-mail mechanism sent out to 26,558 potential participants on March 19th, 2021 that was formally approved by Western’s Non-Medical Research Ethics Board and the Registrar. Inclusion criteria for this study included: being enrolled in a 3 or 4-year undergraduate degree program at Western University as of the Winter 2021 semester; being able to understand English; providing informed consent; and having stable access to the internet. Characteristics of the sample are outlined below in Table 1.
Table 1

*Description of study sample (N = 85)*

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<tr>
<th>Year of Study</th>
<th>Number of Participants</th>
<th>Proportion of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22</td>
<td>0.26</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>0.20</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>0.24</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>0.28</td>
</tr>
<tr>
<td>5+</td>
<td>2</td>
<td>0.02</td>
</tr>
</tbody>
</table>

**Materials**

*Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009).*

The latest version of the long form of the TEIQue comprises 153 items, providing scores on 15 facets, four factors, and global trait EI. There are seven possible Likert-rated responses to each item on the instrument, ranging from 1 (Completely Disagree) to 7 (Completely Agree).

The majority of questionnaire items take the form of “I” statements related to one’s feelings or
emotional perceptions in a particular social context or in response to a specific psychological stimulus. Examples of items stems frequently used in the questionnaire include: “I often find it difficult to tell…” or “I’m usually able to express…” The TEIQue offers a direct route to the underlying theory of trait emotional intelligence, provides comprehensive coverage of the trait EI sampling domain, and has superior predictive validity (Andrei et al., 2016; Gardner & Qualter, 2010; Martins, Ramalho, & Morin, 2010). The instrument is based on a combination of the construct-oriented and inductive approaches to scale construction (Hough & Paullin, 1994). It was designed to be factor analyzed at the facet level in order to avoid the problems associated with item-level factor analysis (Bernstein & Teng, 1989). Its higher-order structure is explicitly hypothesized to be oblique, in line with conceptions of multifaceted constructs. Consequently, factor overlap as well as cross-loadings are to be expected and indeed provide the justification for aggregating factor scores into global trait EI. According to the hierarchical structure of the TEIQue, the facets are narrower than the factors which, in turn, are narrower than global trait EI (See Figure 4 below; Petrides, 2007).

**Figure 4**

Factor and Facet Composition of the TEIQue (Petrides, 2007)
International Personality Item Pool Representation of the NEO-PI-R – Short Form (IPIP-NEO-SF; Johnson, 2014).

The short IPIP-NEO was designed to measure exactly the same traits as the original IPIP-NEO, but more efficiently with fewer items. There are five possible Likert-rated responses to each questionnaire item, ranging from 1 (Very Inaccurate) to 5 (Very Accurate). Items can be positively or negatively keyed, depending on the personality domain and subdomain they inform. Examples of items in the instrument include: “I worry about things” and “I make friends easily”.

The short version of the IPIP-NEO inventory uses 120 items from the original full-form inventory (Johnson, 2014). Most people complete the inventory in 10-20 minutes. Responses from over 20,000 persons were used to ensure that the short version possesses acceptable measurement reliability (Johnson, 2014). This inventory estimates participant standing on the 5 broad domains and 30 subdomains of personality. These broad domains cover normal differences in personality that should be obvious to people who know participants well. The inventory does not reveal hidden, secret information about participants, nor does it assess serious psychological disorders.

Attitudes Toward Seeking Professional Psychological Help Scale – Short Form (ATSPPHS; Fischer & Farina, 1995).

This shortened instrument is composed of 10 items designed to assess general attitudes toward seeking professional psychological help for psychological problems and issues. Items are rated on a 4-point Likert-type scale ranging from (0) disagree to (3) agree; items 2, 4, 8, 9 and 10 of the short form are reverse scored and all 10 items are summed to yield a total score, with higher total scores indicating more positive attitudes toward seeking professional help. Examples of item stems used in the questionnaire include: “If I were experiencing a serious emotional
difficulty, I would…” and “A person with a problem should…” Many adaptations of this measure have been developed, and very few studies are fully compliant with the original full-form measure, which contains 29 items.

*General Help-Seeking Questionnaire – UWO Services Adapted (GHSQ; Wilson et al., 2005).*

The GHSQ is designed to assess intentions to seek help in the next 4 weeks for a personal, emotional, or behavioural problem. This questionnaire provides a list of potential sources of help (partner, friend, parent, mental health professional, general practitioner, etc.) and can be modified. The participant is asked to rate on a 7-point Likert scale – ranging from 1 (Extremely Unlikely) to 7 (Extremely Likely) – the likelihood that they would seek help from each source. The specific sources of help listed, the future time-period specified, and the type of problem can be modified to be appropriate for particular research objectives. In the current study, the possible help sources coincided with campus-based/university-provided services available to undergraduate students enrolled at Western University as of the Winter 2021 semester, including: (1) Student Development Centre; (2) Academic Counselling; (3) Wellness Education; (4) Student Health Services; (5) Residence Counselling; (6) Employee Assistance Program; (7) Psychological Services. In the current study, the future time period was not specified in order to maintain as wide a service-utilization window as possible for participants, and the type of problem was also broadly designated as any personal-emotional issue.

*Demographics Questionnaire.*

A simple survey for recording participant characteristics determined to be salient or contextually informative to the relationships in question such as age, gender, year of study, and program of study/faculty of registration.
Procedure & Ethical Considerations

Measures were administered in the form of a single online Qualtrics survey to be completed once by every study participant during the final six weeks of the Winter 2021 semester. The survey assessed participant’s standing on the Big Five personality domains and the trait EI dimensions, in addition to general attitudes toward help-seeking and future intentions to seek help from formal and semi-formal UWO-based help-services. The Qualtrics survey consisted of: a demographics questionnaire; the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2007); the short form of the International Personality Item Pool Representation of the NEO-PI-R (IPIP-NEO-SF; Johnson, 2014); the short form of the Attitudes Toward Seeking Professional Help Scale (ATSPHSS-SF; Fischer & Farina, 1995); and an adapted version of the General Help-Seeking Questionnaire (GHSQ; Wilson et al., 2005). The survey was estimated to take 60 minutes to complete, on average.

Participants were able to complete the survey on their own time at a location of their choice, where internet was available. Their participation had no effect on their academic standing or their relationship with their Faculty or the Registrar. Participation was voluntary, unrelated to ongoing studies, and was kept confidential from program personnel. If an individual chose to participate in the survey, they were given an opportunity to participate in a draw for AirPods, which took place on September 8th, 2021. This required participants to provide the study team with their email address so that the research team could contact them after the draw was completed. Email addresses were stored separately from questionnaire data to maintain confidentiality of submitted information. The winner was notified and asked to provide a mailing address where the AirPods would be shipped to.
The information provided by participants was de-identified. The portion of the results pertaining to one’s trait emotional intelligence scores was anonymized and entered into an online scoring engine created by the TEIQue survey developers. This uploaded data was not linked to participants in any way and was not retained or accessed by the TEIQue survey developers. All other data, scored or otherwise, were kept in the sole possession of the research team. The data were exported from Qualtrics in the form of Excel spreadsheets, which were then transformed into comma-separated value files and imported into the R software environment for analysis.

Data Analysis

Missing data cells among the 85 included participant observations were handled via average or middle-value imputation. It was assumed that any unavailable data within the sample was missing at random. Analysis of the collected data proceeded in three phases.

First, descriptive statistics for each of the multi-item measures – such as mean, standard deviation, Cronbach’s alpha, skewness, and kurtosis– were calculated to provide context for increasingly advanced analysis to follow. Cronbach’s alpha, ranging from 0.0 to 1.0, is a measure of internal consistency reliability or item interrelatedness for a given scale or test that is relevant to composite scores and can be calculated from a single sample. A Cronbach’s alpha value of 1.0 represents perfect consistency in measurement, while a value of 0.0 represents no consistency in measurement (Cronbach, 1951). A Cronbach’s alpha value was calculated for: each of the 15 TEIQue facets, 4 TEIQue factors, and the TEIQue global score; each of the 5 NEO domains; and the Attitudes Toward Seeking Professional Help Scale-Short Form (ATSPPHS-SF) total score. Given that the General Help-Seeking Questionnaire (GHSQ) was composed of seven independent items whose values were not summed or averaged into a composite score, since each Likert-rated item was representative of one’s intention to seek help
from a specific university-provided help source, it was not possible to calculate a Cronbach’s alpha value for this measure.

Second, correlation strength and significance level between all key study variables was assessed using Pearson product-moment correlations ($r$) to measure the degree of linear association between selected pairs of variables in the collected data set (Laerd Statistics, 2020). The Pearson correlation coefficient, as opposed to the Spearman rank-order correlation or Kendall’s Tau correlation, is an appropriate test for the collected data because – among other assumptions met – all variables of interest were measured on a continuous (i.e. interval or ratio) scale, all data points were paired (i.e. each of the 85 participants provided a value for both continuous variables), and all cases were observed independently (i.e. personality domain scores for participant #1 did not provide any information about personality domain scores for participant #2; Laerd Statistics, 2020).

Intercorrelations among personality predictors and TEIQue predictors are presented first in the ‘Correlation’ section of the following chapter to assess the potential for multicollinearity, which occurs when independent variables in regression models are too highly correlated with each other; more specifically, multicollinearity among independent variables is presumed to exist when the magnitude of the Pearson correlation coefficient is greater than .80 (Berry & Feldman, 1993). Zero-order correlations between the study’s key variables are subsequently presented to provide a foundation for the regression analyses to follow. An alpha level of .05 was used to determine whether Pearson correlations and regression model predictors were significant. Correlations among key variables in the study are reported using raw p-values; that is to say, significance level values were not adjusted for multiple comparison bias. While adjustments for making multiple comparisons in large sets of data are typically recommended to avoid rejecting
the null hypothesis too readily, reducing the Type I error for null associations also increases the Type II error for those associations that are not null (McDon, 2014; Rothman, 1990). Given that this exploratory study aimed to establish relationships for further investigation and can be characterized as relatively novel in the sense that it positions two central constructs in the individual differences literature as influences on the help-seeking behavioural process, it follows that the cost of a false positive would arguably be less than the cost of a false negative in this context. In other words, while some false positive relationships may indeed be incorrectly reported as significant, this would only result in having to conduct a few more experiments to demonstrate the veracity of these health behavioural relationships; in contrast, a false negative could result in missing a potentially important discovery, such as a previously unexplored dimension of the Big Five or trait EI significantly informing attitudes toward help-seeking or future intentions to seek help.

Finally, four families of stepwise regression analyses were conducted to determine which of the NEO domains and TEIQue facets, respectively, best predicted general attitudes toward and intentions to commit help-seeking behaviour from sources 1-7, respectively. Stepwise regression is a semi-automated process that builds a model by successively adding or removing predictor variables based solely on the t-statistics of their estimated coefficients (Cohen et al., 2002). The first family of comparison involves a single stepwise regression that investigates the predictive power of NEO personality domains in predicting attitudes toward help-seeking behaviour. The second family of comparison involves two stepwise regressions that examine the predictive power of trait EI facets and factors, respectively, in predicting attitudes toward help-seeking behaviour. The third family of comparison involves seven separate stepwise regressions that measure the predictive power of NEO personality domains in determining future intentions to
seek help from UWO-sources 1-7; attitudes toward help-seeking behaviour were also included in this stepwise selection procedure as a sixth independent variable alongside the Big Five domains, in order to determine whether attitude or personality dimensions were more predictive of future intention to seek formal help for personal-emotional problems. The fourth and final family of comparison involved yet another set of seven stepwise regressions wherein intentions to seek help from UWO-sources 1-7 were regressed onto trait EI facets in order to determine their predictive power regarding future intentions to seek help from specific university-provided formal support services.

Stepwise regression shares the same core assumptions as multiple linear regression, including: (1) the relationship between independent variables and dependent variables is linear; (2) there is no multicollinearity in the data; (3) the values of the residuals are independent; (4) the variance of the residuals is constant, otherwise known as the assumption of homoscedasticity; (5) residual values are normally distributed, and; (6) there are no influential cases or outliers biasing the model (Berry & Feldman, 1993; Cohen et al., 2002). These six assumptions can be assessed via the following corresponding methods: (1) scatterplot visualization; (2) Pearson correlation magnitudes or Variance Inflation Factor values; (3) the obtained value of the Durbin-Watson statistic; (4) plotting standardized residuals versus standardized predicted values; (5) interpretation of a quantile-quantile (Q-Q) plot, and; (6) calculating Cook’s distance values (Berry & Feldman, 1993; Cohen et al., 2002). Potential violations of these six core assumptions were tested using regression diagnostics in the R Studio software environment and are discussed in the following chapter as they pertain to a given family of regression comparison.
Chapter 5: Results

Descriptive Statistics

Descriptive statistics for the Big Five personality scales and the TEIQue facets, factors, and global trait EI scales are reported in Table 2 and Table 3 below, respectively. Descriptive statistics for the two central constructs include: number of items per sub-scale, Cronbach’s alpha, skewness, kurtosis, mean, and standard deviation. Each of the 25 calculated Cronbach’s alpha values for the IPIP-NEO and TEIQue sub-scales were above the frequently cited acceptable cut-off value of 0.70 for exploratory research specified by Nunally (1978), indicating that the measures of personality and trait emotional intelligence used in this study were internally consistent. All skewness and kurtosis values for the Big Five and TEIQue were between ±2, indicating that the distribution of the data was not substantively skewed in either direction and may be considered approximately normal in shape (Ross & Willson, 2018).

Table 2

Descriptive statistics for the IPIP-NEO-SF domains (total sample N = 85)

<table>
<thead>
<tr>
<th>Domains</th>
<th>Items</th>
<th>α</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuroticism</td>
<td>24</td>
<td>0.90</td>
<td>−0.11</td>
<td>0.04</td>
<td>3.17</td>
<td>0.48</td>
</tr>
<tr>
<td>Extraversion</td>
<td>24</td>
<td>0.89</td>
<td>−0.28</td>
<td>0.37</td>
<td>3.20</td>
<td>0.36</td>
</tr>
<tr>
<td>Openness</td>
<td>24</td>
<td>0.82</td>
<td>−0.55</td>
<td>1.21</td>
<td>3.13</td>
<td>0.26</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>24</td>
<td>0.81</td>
<td>−0.02</td>
<td>1.64</td>
<td>2.75</td>
<td>0.32</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>24</td>
<td>0.92</td>
<td>0.07</td>
<td>1.58</td>
<td>3.16</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Note. SD represents standard deviation. Means are based on a scale range of 1 (minimum) to 5 (maximum).
Table 3

*Descriptive statistics for the TEIQue facet, factor, and global scores (total sample N = 85)*

<table>
<thead>
<tr>
<th>Facets</th>
<th>Items</th>
<th>α</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-esteem</td>
<td>11</td>
<td>0.90</td>
<td>-0.44</td>
<td>-0.18</td>
<td>4.15</td>
<td>1.15</td>
</tr>
<tr>
<td>Emotion Expression</td>
<td>10</td>
<td>0.89</td>
<td>0.06</td>
<td>-0.62</td>
<td>4.01</td>
<td>1.25</td>
</tr>
<tr>
<td>Motivation</td>
<td>10</td>
<td>0.81</td>
<td>-0.36</td>
<td>0.30</td>
<td>4.20</td>
<td>1.02</td>
</tr>
<tr>
<td>Emotion Regulation</td>
<td>12</td>
<td>0.84</td>
<td>0.13</td>
<td>0.01</td>
<td>4.00</td>
<td>0.99</td>
</tr>
<tr>
<td>Happiness</td>
<td>8</td>
<td>0.94</td>
<td>-0.40</td>
<td>-0.87</td>
<td>4.68</td>
<td>1.42</td>
</tr>
<tr>
<td>Empathy</td>
<td>9</td>
<td>0.75</td>
<td>-0.30</td>
<td>-0.62</td>
<td>5.12</td>
<td>0.78</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>11</td>
<td>0.86</td>
<td>-0.05</td>
<td>-0.42</td>
<td>4.51</td>
<td>1.02</td>
</tr>
<tr>
<td>Impulse Control</td>
<td>9</td>
<td>0.82</td>
<td>-0.20</td>
<td>-0.38</td>
<td>4.24</td>
<td>1.04</td>
</tr>
<tr>
<td>Emotion Perception</td>
<td>9</td>
<td>0.84</td>
<td>-0.22</td>
<td>-0.30</td>
<td>4.47</td>
<td>0.97</td>
</tr>
<tr>
<td>Stress Management</td>
<td>10</td>
<td>0.82</td>
<td>0.14</td>
<td>-0.58</td>
<td>3.95</td>
<td>1.02</td>
</tr>
<tr>
<td>Emotion Management</td>
<td>9</td>
<td>0.82</td>
<td>-0.18</td>
<td>0.27</td>
<td>4.69</td>
<td>0.94</td>
</tr>
<tr>
<td>Optimism</td>
<td>8</td>
<td>0.89</td>
<td>-0.04</td>
<td>-0.66</td>
<td>4.53</td>
<td>1.21</td>
</tr>
<tr>
<td>Relationships</td>
<td>9</td>
<td>0.71</td>
<td>-0.18</td>
<td>-0.85</td>
<td>5.14</td>
<td>0.82</td>
</tr>
<tr>
<td>Adaptability</td>
<td>9</td>
<td>0.74</td>
<td>0.15</td>
<td>-0.37</td>
<td>4.05</td>
<td>0.86</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>9</td>
<td>0.74</td>
<td>0.24</td>
<td>-0.25</td>
<td>4.09</td>
<td>0.88</td>
</tr>
<tr>
<td>Factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-being</td>
<td>27</td>
<td>0.92</td>
<td>-0.34</td>
<td>-0.57</td>
<td>4.45</td>
<td>1.18</td>
</tr>
<tr>
<td>Self-control</td>
<td>31</td>
<td>0.79</td>
<td>0.13</td>
<td>-0.09</td>
<td>4.06</td>
<td>0.85</td>
</tr>
<tr>
<td>Emotionality</td>
<td>38</td>
<td>0.77</td>
<td>0.10</td>
<td>-0.25</td>
<td>4.68</td>
<td>0.74</td>
</tr>
<tr>
<td>Sociability</td>
<td>29</td>
<td>0.84</td>
<td>0.16</td>
<td>-0.29</td>
<td>4.43</td>
<td>0.82</td>
</tr>
<tr>
<td>Global trait EI</td>
<td>0.91</td>
<td>0.05</td>
<td>-0.46</td>
<td></td>
<td>4.39</td>
<td>0.70</td>
</tr>
</tbody>
</table>

*Note. SD represents standard deviation. Means are based on a scale range of 1 (minimum) to 7 (maximum).*

The attitudes toward seeking professional psychological help scale consisted of 10 items ($\alpha = .83$). Possible total scores ranged from a minimum of 0 to a maximum of 30, with each item response rated on four-option Likert scale, ranging from 0 (Disagree) to 3 (Agree). The mean score for attitudes toward help-seeking was 19.62, with a standard deviation of 5.95. The minimum and maximum scores for attitude toward help-seeking scores were 5 and 30, respectively. The skewness was -0.34 and the kurtosis was -0.69, indicating that the distribution of the data was not skewed markedly in either direction and may be considered approximately normal in shape.
Descriptive statistics for the single-item, seven-point Likert-rated intention measures for UWO-provided help sources 1-7 include skewness, kurtosis, mean, and standard deviation, which are reported below in Table 4. All skewness and kurtosis values were within the acceptable range of $\pm 2$, indicating that the distribution of the data may be considered approximately normal and does not skew substantially in either direction.

Table 4

*Descriptives statistics for Intentions to seek help from UWO sources 1-7 (total sample $N = 85$)*

<table>
<thead>
<tr>
<th>Help sources</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Development Centre</td>
<td>0.93</td>
<td>-0.09</td>
<td>2.61</td>
<td>1.66</td>
</tr>
<tr>
<td>Academic Counselling</td>
<td>0.44</td>
<td>-1.24</td>
<td>3.25</td>
<td>2.09</td>
</tr>
<tr>
<td>Wellness Education</td>
<td>0.52</td>
<td>-0.95</td>
<td>2.95</td>
<td>1.75</td>
</tr>
<tr>
<td>Student Health Services</td>
<td>-0.30</td>
<td>-1.21</td>
<td>4.13</td>
<td>1.84</td>
</tr>
<tr>
<td>Residence Counselling</td>
<td>1.08</td>
<td>-0.22</td>
<td>2.31</td>
<td>1.72</td>
</tr>
<tr>
<td>Employee Assistance Program</td>
<td>1.28</td>
<td>0.48</td>
<td>2.34</td>
<td>1.82</td>
</tr>
<tr>
<td>Psychological Services</td>
<td>-0.46</td>
<td>-1.33</td>
<td>4.48</td>
<td>2.15</td>
</tr>
</tbody>
</table>

*Note. SD represents standard deviation. Means are based on a scale range of 1 (minimum) to 7 (maximum).*

**Correlations**

Intercorrelations among sets of independent variables, such as the NEO domains and TEIQue dimensions, are presented first as a study of multicollinearity for the regression analyses to follow. As depicted in Table 5 below, there were numerous significant intercorrelations between the Big Five personality domains, yet none exceeded the threshold for multicollinearity defined by Berry and Feldman as a Pearson correlation magnitude of 0.80 or greater (1993). Neuroticism was significantly and weakly positively correlated with openness to experience ($r = .23, p < .05$). Extraversion was significantly correlated with openness ($r = .22, p < .05$), agreeableness ($r = .50, p < .01$), and conscientiousness ($r = .45, p < .01$). Openness was significantly correlated with agreeableness ($r = .24, p < .05$) and conscientiousness ($r = .31, p <$
Agreeableness was significantly and moderately positively correlated with conscientiousness ($r = .47, p < .01$).

Table 5

Inter correlations among the Big Five personality domains

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Neuroticism</td>
<td>3.17</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Extraversion</td>
<td>3.20</td>
<td>0.36</td>
<td>-.17</td>
<td></td>
<td></td>
<td>[-.37, .05]</td>
</tr>
<tr>
<td>3. Openness</td>
<td>3.13</td>
<td>0.26</td>
<td>.23*</td>
<td>.22*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[.02, .42]</td>
<td>[.01, .41]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Agreeableness</td>
<td>2.75</td>
<td>0.32</td>
<td>-.07</td>
<td>.50**</td>
<td>.24*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[-.28, .15]</td>
<td>[.32, .64]</td>
<td>[.03, .43]</td>
<td></td>
</tr>
<tr>
<td>5. Conscientiousness</td>
<td>3.16</td>
<td>0.29</td>
<td>-.05</td>
<td>.45**</td>
<td>.31**</td>
<td>.47**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[-.26, .17]</td>
<td>[.26, .61]</td>
<td>[.11, .49]</td>
<td>[.29, .62]</td>
</tr>
</tbody>
</table>

Note. $M$ and $SD$ are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014).

* indicates $p < .05$. ** indicates $p < .01$.

While the NEO domains did not explicitly exhibit the potential for multicollinearity, some of the intercorrelations among the TEIQue facets, as shown below in Table 6, bordered on or surpassed the previously stated threshold of correlation strength 0.80 (Berry & Feldman, 1993). More specifically, optimism was highly correlated with self-esteem ($r = .79, p < .01$) and happiness ($r = .86, p < .01$). According to Berry and Feldman (1993), the simplest solution for dealing with potential multicollinearity is to remove the identified variable(s) from further regression analyses; accordingly, the trait EI facet of optimism was excluded from the regression analyses presented in the following section.
### Table 6

**Intercorrelations among TEIQue facets**

<table>
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<th>Variable</th>
<th>1</th>
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<th>4</th>
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<th>6</th>
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<td>3. Motivation</td>
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<td>4. Emotion Regulation</td>
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<td>5. Happiness</td>
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<td>.68**</td>
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<td>6. Empathy</td>
<td>.24*</td>
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<td>.27*</td>
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<td>7. Social Awareness</td>
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<td>.40**</td>
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<td>.53**</td>
<td>.45**</td>
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<td>8. Impulse Control</td>
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<td>9. Emotion Perception Index</td>
<td>.48**</td>
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<td>.45**</td>
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<td>10. Stress Management</td>
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<td>.53**</td>
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<td>.40**</td>
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<td>11. Emotion Management</td>
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<td>.31**</td>
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<td>12. Optimism</td>
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<td>.64**</td>
<td>.49**</td>
<td>.86**</td>
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<td>.24*</td>
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<td>.39**</td>
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<td>13. Relationships</td>
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<td>.33**</td>
<td>.51**</td>
<td>.45**</td>
<td>.35**</td>
<td>.31**</td>
<td>.43**</td>
<td>.35**</td>
<td>.26*</td>
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<td>14. Adaptability</td>
<td>.48**</td>
<td>.24*</td>
<td>.21*</td>
<td>.48**</td>
<td>.48**</td>
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<td>.36**</td>
<td>.59**</td>
<td>.28**</td>
<td>.51**</td>
<td>.25*</td>
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<td>15. Assertiveness</td>
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<td>.31**</td>
<td>.39**</td>
<td>.31**</td>
<td>.38**</td>
<td>.16</td>
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<td>.25*</td>
<td>.44**</td>
<td>.48**</td>
<td>.41**</td>
<td>.13</td>
<td>.25*</td>
</tr>
</tbody>
</table>

* indicates $p < .05$. ** indicates $p < .01$
Intercorrelations among trait EI factors were also examined for potential multicollinearity; these values are reported below in Table 7. While all four of the trait EI factors were significantly and moderately positively correlated with one another, none of the Pearson correlation magnitudes approached the multicollinearity threshold value of 0.80 (Berry & Feldman, 1993).

Table 7

*Intercorrelations among TEIQue factors*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
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<tbody>
<tr>
<td>1. Well-being</td>
<td>4.45</td>
<td>1.18</td>
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<tr>
<td>2. Self-control</td>
<td>4.06</td>
<td>0.85</td>
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<td></td>
<td></td>
<td></td>
<td>[.36, .67]</td>
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</tr>
<tr>
<td>3. Emotionality</td>
<td>4.68</td>
<td>0.74</td>
<td>.59**</td>
<td>.45**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[.43, .71] [.26, .61]</td>
<td></td>
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</tr>
<tr>
<td>4. Sociability</td>
<td>4.43</td>
<td>0.82</td>
<td>.60**</td>
<td>.38**</td>
<td>.50**</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>[.44, .72] [.18, .55] [.33, .65]</td>
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<td></td>
</tr>
</tbody>
</table>

*Note.* M and SD are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014).

* indicates $p < .05$. ** indicates $p < .01$.

The final set of intercorrelations, involving the dependent or outcome variables of intentions to seek help from UWO-sources 1-7, are presented on the following page in Table 8. While these relationships are not investigated in relation to their potential for multicollinearity, as they are not used as predictor variables in any of the regression analyses to follow, they are nonetheless useful in the sense that they demonstrate a considerable interplay that exists among intentions to seek help from university-provided help sources. With the exception of the bivariate
The correlation between intention to seek help from Academic Counselling and intention to seek help from the Employee Assistance Program ($r = .19$, $p = \text{n.s.}$), all of the other listed help sources were significantly and positively correlated with one another. This result is rather unsurprising, in the sense that if an undergraduate student intends to seek help for a personal-emotional problem from one formal university-provided help source, it is likely they would also intend to seek help from another service that presumably offers a similar form of mental health support.

Table 8

*Intercorrelations among Intentions to seek help from UWO-sources 1-7*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
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<tr>
<td>1. Student Development Centre</td>
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<td>1.66</td>
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<td>2. Academic Counselling</td>
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<td>3. Wellness Education</td>
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<td>1.75</td>
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<tr>
<td>4. Student Health Services</td>
<td>4.13</td>
<td>1.84</td>
<td>.36**</td>
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<td>.49**</td>
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<tr>
<td>5. Residence Counselling</td>
<td>2.31</td>
<td>1.72</td>
<td>.51**</td>
<td>.23*</td>
<td>.40**</td>
<td>.33**</td>
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<tr>
<td>6. Employee Assistance Program</td>
<td>2.34</td>
<td>1.82</td>
<td>.35**</td>
<td>.19</td>
<td>.39**</td>
<td>.28**</td>
<td>.57**</td>
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</tr>
<tr>
<td>7. Psychological Services</td>
<td>4.48</td>
<td>2.15</td>
<td>.36**</td>
<td>.24*</td>
<td>.45**</td>
<td>.55**</td>
<td>.30**</td>
<td>.22*</td>
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</tbody>
</table>

*Note.* $M$ and $SD$ represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). * indicates $p < .05$. ** indicates $p < .01$. 

48
Zero-order correlations between the following sets of variables are presented below in Table 9: (1) intentions to seek help from sources 1-7 and the Big Five personality domains; (2) global trait EI and the Big Five personality domains, and; (3) attitudes toward help-seeking behaviour and the Big Five personality domains.

Agreeableness and intention to seek help from UWO-source #6 (Employee Assistance Program) were significantly and weakly positively correlated ($r = .22, p < .05$).

Conscientiousness and intention to seek help from UWO-source #2 (Academic Counselling) were significantly and weakly positively correlated ($r = .24, p < .05$).

Global trait EI was moderately negatively correlated with neuroticism ($r = -.61, p < .01$) and moderately positively associated with extraversion ($r = .43, p < .01$) in a statistically significant manner.

Agreeableness was the only personality domain that was significantly correlated with attitudes toward help-seeking behaviour ($r = -.24, p < .05$), with the relationship being characterized as weakly negative.

Table 9

*Correlations between intentions to seek help from UWO-provided sources (Int1-Int7), global trait EI, attitudes toward help-seeking, and the Big Five personality domains*

<table>
<thead>
<tr>
<th>Source/Domain</th>
<th>N</th>
<th>E</th>
<th>O</th>
<th>A</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Development Centre</td>
<td>-0.06</td>
<td>-0.02</td>
<td>-0.11</td>
<td>-0.05</td>
<td>0.12</td>
</tr>
<tr>
<td>Academic Counselling</td>
<td>0.19</td>
<td>0.00</td>
<td>0.07</td>
<td>0.11</td>
<td>0.24*</td>
</tr>
<tr>
<td>Wellness Education</td>
<td>0.12</td>
<td>-0.19</td>
<td>-0.07</td>
<td>-0.05</td>
<td>-0.01</td>
</tr>
<tr>
<td>Student Health Services</td>
<td>0.06</td>
<td>-0.12</td>
<td>-0.19</td>
<td>-0.02</td>
<td>0.17</td>
</tr>
<tr>
<td>Residence Counselling</td>
<td>0.14</td>
<td>-0.02</td>
<td>0.05</td>
<td>0.07</td>
<td>0.11</td>
</tr>
<tr>
<td>Employee Assistance Program</td>
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<td>0.10</td>
<td>0.05</td>
<td>0.22*</td>
<td>-0.02</td>
</tr>
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<td>Psychological Services</td>
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<td>-0.10</td>
<td>-0.08</td>
<td>-0.10</td>
<td>0.09</td>
</tr>
<tr>
<td>Global trait EI</td>
<td>-0.61**</td>
<td>0.43**</td>
<td>-0.20</td>
<td>0.18</td>
<td>0.20</td>
</tr>
<tr>
<td>Attitudes toward help-seeking</td>
<td>0.11</td>
<td>-0.14</td>
<td>-0.12</td>
<td>-0.24*</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

* indicates $p < .05$. ** indicates $p < .01$. 

49
Zero-order correlations between the fifteen trait EI facets and the Big Five personality domains, in addition to the zero-order correlations between trait EI facets and attitudes toward help-seeking behaviour, are presented below in Table 10. As has been previously reported in the individual differences literature, numerous TEIQue facets were significantly correlated with the Big Five personality factors (Hughes & Evans, 2018; Petrides et al., 2007; Petrides, 2009).

Aligning with previous findings from the literature and corresponding to their aforementioned relationships with global trait EI, neuroticism and extraversion demonstrated the strongest and most significant relationships with individual trait EI facets, with neuroticism doing so in a consistently negative manner and extraversion in a consistently positive manner. Emotion expression ($r = .23, p < .05$), empathy ($r = .22, p < .05$), and relationships ($r = .30, p < .05$) were all significantly and weakly positively correlated with attitudes toward help-seeking behaviour.

Table 10

*Correlations between TEIQue facets and the Big Five domains, as well as attitudes toward help-seeking behaviour*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>E</th>
<th>O</th>
<th>A</th>
<th>C</th>
<th>Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Esteem</td>
<td>-0.54**</td>
<td>0.51**</td>
<td>-0.19</td>
<td>0.29*</td>
<td>0.19</td>
<td>0.03</td>
</tr>
<tr>
<td>Emotion Expression</td>
<td>-0.30*</td>
<td>0.12</td>
<td>-0.14</td>
<td>0.14</td>
<td>0.21</td>
<td>0.23*</td>
</tr>
<tr>
<td>Motivation</td>
<td>-0.44**</td>
<td>0.33*</td>
<td>0.00</td>
<td>0.13</td>
<td>0.07</td>
<td>0.02</td>
</tr>
<tr>
<td>Emotion Regulation</td>
<td>-0.50**</td>
<td>0.16</td>
<td>-0.34*</td>
<td>0.07</td>
<td>0.03</td>
<td>-0.11</td>
</tr>
<tr>
<td>Happiness</td>
<td>-0.52**</td>
<td>0.42**</td>
<td>-0.12</td>
<td>0.27*</td>
<td>0.23</td>
<td>0.12</td>
</tr>
<tr>
<td>Empathy</td>
<td>-0.19</td>
<td>0.12</td>
<td>0.03</td>
<td>-0.07</td>
<td>0.22</td>
<td>0.22*</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>-0.39**</td>
<td>0.53**</td>
<td>-0.13</td>
<td>0.21</td>
<td>0.21</td>
<td>0.10</td>
</tr>
<tr>
<td>Impulse Control</td>
<td>-0.20</td>
<td>-0.03</td>
<td>-0.14</td>
<td>-0.13</td>
<td>-0.24</td>
<td>0.06</td>
</tr>
<tr>
<td>Emotion Perception Index</td>
<td>-0.27*</td>
<td>0.29*</td>
<td>-0.02</td>
<td>0.07</td>
<td>0.17</td>
<td>-0.03</td>
</tr>
<tr>
<td>Stress Management</td>
<td>-0.65**</td>
<td>0.20</td>
<td>-0.22</td>
<td>0.04</td>
<td>-0.04</td>
<td>-0.20</td>
</tr>
<tr>
<td>Emotion Management</td>
<td>-0.27*</td>
<td>0.44**</td>
<td>0.09</td>
<td>0.22</td>
<td>0.30*</td>
<td>0.03</td>
</tr>
<tr>
<td>Optimism</td>
<td>-0.62**</td>
<td>0.40**</td>
<td>-0.27*</td>
<td>0.16</td>
<td>0.16</td>
<td>0.11</td>
</tr>
<tr>
<td>Relationships</td>
<td>-0.31*</td>
<td>0.13</td>
<td>-0.03</td>
<td>-0.14</td>
<td>0.26*</td>
<td>0.30*</td>
</tr>
<tr>
<td>Adaptability</td>
<td>-0.47**</td>
<td>0.24</td>
<td>-0.32*</td>
<td>0.17</td>
<td>0.06</td>
<td>-0.01</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>-0.44**</td>
<td>0.47**</td>
<td>-0.22</td>
<td>0.27*</td>
<td>0.16</td>
<td>-0.06</td>
</tr>
</tbody>
</table>

* indicates $p < .05$. ** indicates $p < .01$. 

50
Similarly, zero-order correlations between the four trait EI factors and the Big Five personality domains – as well as the zero-order correlations between trait EI factors and attitudes toward help-seeking behaviour – are presented below in Table 11.

Neuroticism was significantly and moderately negatively correlated with all four trait EI factors. Extraversion was significantly and moderately positively correlated with well-being ($r = .47, p < .01$) and sociability ($r = .55, p < .01$). Openness to experience was significantly and weakly negatively correlated with self-control ($r = -.28, p < .05$). Agreeableness was significantly and weakly positively correlated with well-being ($r = .26, p < .05$) and sociability ($r = .26, p < .05$). Conscientiousness was significantly and weakly positively correlated with emotionality ($r = .27, p < .05$) and sociability ($r = .26, p < .05$).

Emotionality was the only trait EI factor significantly correlated with attitudes toward help-seeking behaviour ($r = .22, p < .05$), doing so in a weakly positive manner.

Table 11

*Correlations between TEIQue factors and the Big Five domains, as well as attitudes toward help-seeking behaviour*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>E</th>
<th>O</th>
<th>A</th>
<th>C</th>
<th>Attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-being</td>
<td>-0.59**</td>
<td>0.47**</td>
<td>-0.20</td>
<td>0.26*</td>
<td>0.21</td>
<td>0.10</td>
</tr>
<tr>
<td>Self-control</td>
<td>-0.53**</td>
<td>0.13</td>
<td>-0.28*</td>
<td>-0.01</td>
<td>-0.10</td>
<td>-0.10</td>
</tr>
<tr>
<td>Emotionality</td>
<td>-0.35**</td>
<td>0.21</td>
<td>-0.06</td>
<td>0.02</td>
<td>0.27*</td>
<td>0.22*</td>
</tr>
<tr>
<td>Sociability</td>
<td>-0.42**</td>
<td>0.55**</td>
<td>-0.09</td>
<td>0.26*</td>
<td>0.26*</td>
<td>0.03</td>
</tr>
</tbody>
</table>

* indicates $p < .05$. ** indicates $p < .01$. 
The final set of zero-order correlations – demonstrating the linear relationship between the fifteen trait EI facets and intentions to seek help from UWO-sources 1-7, in addition to the relationship between attitudes toward help-seeking behaviour and intentions to seek help from sources 1-7 – is presented below in Table 12.

Emotion expression ($r = .22, p < .05$) was significantly and weakly positively correlated with intention to seek help from UWO-source #1 (Student Development Centre). Impulse control ($r = -.21, p < .05$) and emotion management ($r = .22, p < .05$) were significantly and weakly correlated with intention to seek help from UWO-source #2 (Academic Counselling). Empathy ($r = -.36, p < .05$), impulse control ($r = -.23, p < .05$), emotion management ($r = -.21, p < .05$), and assertiveness ($r = -.23, p < .05$) were significantly and negatively correlated with intention to seek help from UWO-source #5 (Residence Counselling). Empathy ($r = -.22, p < .05$) was significantly and weakly negatively correlated with intention to seek help from UWO-source #6 (Employee Assistance Program). Emotion expression ($r = .23, p < .05$) and relationships ($r = .24, p < .05$) were significantly and weakly positively correlated with intention to seek help from UWO-source #7 (Psychological Services).

Attitudes toward help-seeking behaviour were significantly and moderately positively correlated with intentions to seek help from UWO-source #4 (Student Health Services; $r = .33, p < .01$) and UWO-source #7 (Psychological Services; $r = .45, p < .01$), respectively.
Table 1

Correlations between TEIQue facets, attitudes toward help-seeking, and intentions to seek help from UWO-provided help sources (Int1-Int7)

<table>
<thead>
<tr>
<th></th>
<th>Int1</th>
<th>Int2</th>
<th>Int3</th>
<th>Int4</th>
<th>Int5</th>
<th>Int6</th>
<th>Int7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Esteem</td>
<td>0.03</td>
<td>-0.07</td>
<td>-0.20</td>
<td>-0.11</td>
<td>-0.07</td>
<td>0.00</td>
<td>0.05</td>
</tr>
<tr>
<td>Emotion Expression</td>
<td>0.22*</td>
<td>0.20</td>
<td>0.13</td>
<td>0.11</td>
<td>0.04</td>
<td>0.04</td>
<td>0.23*</td>
</tr>
<tr>
<td>Motivation</td>
<td>-0.02</td>
<td>-0.09</td>
<td>-0.15</td>
<td>-0.14</td>
<td>-0.07</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td>Emotion Regulation</td>
<td>0.12</td>
<td>-0.15</td>
<td>0.07</td>
<td>-0.01</td>
<td>0.05</td>
<td>0.10</td>
<td>0.00</td>
</tr>
<tr>
<td>Happiness</td>
<td>0.12</td>
<td>0.01</td>
<td>-0.10</td>
<td>0.00</td>
<td>0.08</td>
<td>0.02</td>
<td>0.10</td>
</tr>
<tr>
<td>Empathy</td>
<td>-0.02</td>
<td>0.09</td>
<td>-0.14</td>
<td>-0.13</td>
<td>-0.36**</td>
<td>-0.22*</td>
<td>-0.02</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>0.17</td>
<td>0.18</td>
<td>0.02</td>
<td>0.07</td>
<td>-0.10</td>
<td>0.05</td>
<td>0.12</td>
</tr>
<tr>
<td>Impulse Control</td>
<td>-0.10</td>
<td>-0.21*</td>
<td>-0.06</td>
<td>-0.19</td>
<td>-0.23*</td>
<td>0.03</td>
<td>-0.15</td>
</tr>
<tr>
<td>Emotion Perception Index</td>
<td>0.18</td>
<td>0.10</td>
<td>0.00</td>
<td>-0.11</td>
<td>-0.03</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>Stress Management</td>
<td>0.07</td>
<td>-0.14</td>
<td>-0.04</td>
<td>-0.13</td>
<td>-0.10</td>
<td>0.01</td>
<td>-0.04</td>
</tr>
<tr>
<td>Emotion Management</td>
<td>0.10</td>
<td>0.22*</td>
<td>-0.12</td>
<td>-0.09</td>
<td>-0.21*</td>
<td>-0.06</td>
<td>0.09</td>
</tr>
<tr>
<td>Optimism</td>
<td>0.11</td>
<td>-0.04</td>
<td>-0.13</td>
<td>-0.07</td>
<td>-0.06</td>
<td>-0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>Relationships</td>
<td>0.16</td>
<td>0.06</td>
<td>0.10</td>
<td>0.12</td>
<td>-0.02</td>
<td>-0.11</td>
<td>0.24*</td>
</tr>
<tr>
<td>Adaptability</td>
<td>0.03</td>
<td>-0.13</td>
<td>0.01</td>
<td>-0.05</td>
<td>-0.08</td>
<td>0.03</td>
<td>-0.04</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>0.05</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.01</td>
<td>-0.23*</td>
<td>0.03</td>
<td>0.15</td>
</tr>
<tr>
<td>Attitudes toward help-seeking</td>
<td>0.09</td>
<td>0.08</td>
<td>0.17</td>
<td>0.33**</td>
<td>0.03</td>
<td>0.09</td>
<td>0.45**</td>
</tr>
</tbody>
</table>

Note. Int1 = Student Development Centre; Int2 = Academic Counselling; Int3 = Wellness Education; Int4 = Student Health Services; Int5 = Residence Counselling; Int6 = Employee Assistance Program; Int7 = Psychological Services.
* indicates $p < .05$. ** indicates $p < .01$.

Regressions

Predicting Attitudes Toward Help-Seeking Behaviour Using the Big Five Personality Domains

As depicted below in Table 13, a single stepwise regression was carried out to determine which of the five NEO personality domains best predicted participant’s attitudes toward help-seeking behaviour. Results of the stepwise regression indicated that agreeableness was the ‘best’ predictor, explaining only 4.6% of the variance in attitudes toward help-seeking ($R^2 = .05$, $F(1, 83)=5.04$), $p < .05$). The stepwise model found that agreeableness significantly and negatively predicted attitudes toward help-seeking behaviour ($\beta = -.24$, $p < .05$); that is to say, an increase of 1 standard deviation in the personality domain of agreeableness resulted in a decrease of 0.24
standard deviations in the dependent variable of attitudes toward help-seeking behaviour.

Interestingly, this finding suggests that those individuals in the study sample who were more agreeable tended to have a more negative attitudinal orientation toward help-seeking behaviour.

Table 13

**Stepwise regression using the Big Five domains as predictors and Attitudes toward help-seeking as the criterion**

| Predictor | $b$     | 95% CI [LL, UL] | beta    | 95% CI [LL, UL] | $sr^2$  | 95% CI [LL, UL] | $r$  
|-----------|---------|-----------------|---------|-----------------|---------|-----------------|---------
| (Intercept) | 31.91   | [20.95, 42.87]  | -0.24   | [-0.45, -0.03]  | .06     | [-.00, .17]     | -.24*  
| NEO.A     | -4.47*  | [-8.43, -0.51]  |         |                 |         |                 |         |

Note. A significant $b$-weight indicates the beta-weight and semi-partial correlation are also significant. $b$ represents unstandardized regression weights. beta indicates the standardized regression weights. $sr^2$ represents the semi-partial correlation squared. $r$ represents the zero-order correlation. LL and UL indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$.

**Predicting Attitudes Toward Help-Seeking Using Trait Emotional Intelligence**

As depicted below in Table 14, a single stepwise regression was conducted to determine which of the fifteen TEIQue facets best predicted attitudes toward help-seeking behaviour.

Results of the stepwise regression indicated that seven predictors together explained 25.6% of the variance in attitudes toward help-seeking ($R^2 = .26$, $F(7,77)=5.14$, $p < .01$). It was found that four of the seven independent variables – social awareness ($\beta = 0.42$, $p < .05$), emotion perception ($\beta = -0.35$, $p < .05$), stress management ($\beta = -0.47$, $p < .01$) and relationships ($\beta = 0.31$, $p < .05$) – independently predicted attitudes toward help-seeking behaviour at a significant level.
Table 14

Stepwise regression using TEIQue facets as predictors and Attitudes toward help-seeking as the criterion

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b</th>
<th>95% CI [LL, UL]</th>
<th>beta</th>
<th>95% CI [LL, UL]</th>
<th>sr²</th>
<th>95% CI [LL, UL]</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>13.78</td>
<td>[4.88, 22.68]</td>
<td></td>
<td></td>
<td>.06</td>
<td>[-.02, .14]</td>
<td>.10</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>2.47*</td>
<td>[0.57, 4.36]</td>
<td>0.42</td>
<td>[0.10, 0.75]</td>
<td>.06</td>
<td>[-.02, .14]</td>
<td>.10</td>
</tr>
<tr>
<td>Emotion Perception</td>
<td>-2.12*</td>
<td>[-3.73, -0.52]</td>
<td>-0.35</td>
<td>[-0.61, -0.08]</td>
<td>.06</td>
<td>[-.02, .15]</td>
<td>-.03</td>
</tr>
<tr>
<td>Stress Management</td>
<td>-2.72**</td>
<td>[-4.18, -1.26]</td>
<td>-0.47</td>
<td>[-0.71, -0.22]</td>
<td>.12</td>
<td>[.00, .24]</td>
<td>-.20</td>
</tr>
<tr>
<td>Relationships</td>
<td>2.24*</td>
<td>[0.53, 3.96]</td>
<td>0.31</td>
<td>[0.07, 0.54]</td>
<td>.06</td>
<td>[-.02, .14]</td>
<td>.30**</td>
</tr>
</tbody>
</table>

Note. A significant b-weight indicates the beta-weight and semi-partial correlation are also significant. b represents unstandardized regression weights. beta indicates the standardized regression weights. sr² represents the semi-partial correlation squared. r represents the zero-order correlation. LL and UL indicate the lower and upper limits of a confidence interval, respectively.
* indicates p < .05. ** indicates p < .01.

Similarly, a single stepwise regression was carried out to determine which of the four trait EI factors best predicted attitudes toward help-seeking behaviour; the regression output is presented below in Table 15. Results of the stepwise regression indicated that two predictors explained 7.9% of the variance in attitudes toward help-seeking (R² = .08, F(2,82)=4.59, p < .05). It was found that the trait EI factors of self-control (β = -0.25, p < .05) and emotionality (β = 0.34, p < .01) independently predicted attitudes toward help-seeking behaviour at a statistically significant level. Interestingly, these results suggest that an increase of 1 standard deviation in the trait EI factor of self-control resulted in a decrease of 0.25 standard deviations in the dependent variable of attitudes toward help-seeking behaviour, and that a 1 standard deviation increase in emotionality resulted in an increase of 0.34 standard deviations in attitudes.
Table 15

Stepwise regression using TEIQue factors as predictors and Attitudes toward help-seeking as the criterion

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b</th>
<th>95% CI [LL, UL]</th>
<th>beta</th>
<th>95% CI [LL, UL]</th>
<th>sr²</th>
<th>95% CI [LL, UL]</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>14.10</td>
<td>[5.76, 22.44]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-control</td>
<td>-1.76*</td>
<td>[-3.39, -0.12]</td>
<td>-0.25</td>
<td>[-0.48, -0.02]</td>
<td>0.05</td>
<td>[-0.04, 0.14]</td>
<td>-0.10</td>
</tr>
<tr>
<td>Emotionality</td>
<td>2.70**</td>
<td>[0.84, 4.57]</td>
<td>0.34</td>
<td>[0.10, 0.57]</td>
<td>0.09</td>
<td>[-0.03, 0.21]</td>
<td>0.22*</td>
</tr>
</tbody>
</table>

Note. A significant b-weight indicates the beta-weight and semi-partial correlation are also significant. b represents unstandardized regression weights. beta indicates the standardized regression weights. sr² represents the semi-partial correlation squared. r represents the zero-order correlation. LL and UL indicate the lower and upper limits of a confidence interval, respectively.

* indicates p < .05. ** indicates p < .01.

Predicting Intentions to Seek Help From UWO-sources 1-7 Using the Big Five Personality Domains and Attitudes Toward Help-Seeking Behaviour

The third family of comparison involved seven separate stepwise regressions wherein a single help-source for which students could intend to seek assistance from was regressed onto six potential independent variables – the five NEO domains and attitudes toward help-seeking behaviour – to determine whether personality domains or attitudes were more predictive of a student’s intention to seek formal help for a personal-emotional problem. In line with the previously reported zero-order correlations, attitudes were only selected as significant by the stepwise procedure when predicting intentions to seek help from source #4 (Student Health Services) and from source #7 (Psychological Services); the results of these two stepwise regressions are depicted below in Table 16. Thus, it can be said that those individuals in the sample who had more positive attitudes toward help-seeking were more likely to intend to seek help from Student Health Services and Psychological Services.
Stepwise selection procedures revealed that neither the Big Five personality domains nor attitudes toward help-seeking behaviour significantly predicted intentions to seek help from intention source #1 (Student Development Centre), intention source #3 (Wellness Education), or intention source #5 (Residence Counselling).

Results indicated that neuroticism and extraversion together accounted for 7.2% of the variance in intention to seek help from source #2 (Academic Counselling; $R^2 = .07$, $F(2,82)=4.27, p < .05$). However, only extraversion independently predicted intentions to seek help from Academic Counselling at a statistically significant level ($\beta = 0.24, p < .05$).

Results indicated that extraversion, openness to experience, conscientiousness and attitudes explained 19.3% of the variance in intention to seek help from source #4 (Student Health Services; $R^2 = .19, F(4,80)=6.03, p < .01$). As depicted below in Table 16, three of the four identified ‘best’ predictor variables – openness to experience ($\beta = -0.23, p < .05$), conscientiousness ($\beta = 0.36, p < .01$) and attitudes ($\beta = 0.31, p < .01$) – contributed at a significant level. Independently, extraversion did not significantly predict intentions to seek help from Student Health Services ($\beta = -0.23, p > .05$). This stepwise regression model, wherein Student Health Services is specified as the outcome variable, is the only instance where attitudes and NEO domains were both identified as significant by the stepwise procedure; a 1 standard deviation change in the personality domain of conscientiousness accounted for a slightly greater change, on average, in the outcome variable of intention to seek help from Student Health Services than did a 1 standard deviation change in attitudes toward help-seeking behaviour.

Results also indicated that agreeableness, conscientiousness, and attitudes accounted for 6.1% of the variance in intention to seek help from source #6 (Employee Assistance Program; $R^2 = .06, F(3,81)=2.80, p < .05$). However, only agreeableness – following from the previously
stated zero-order correlations – independently predicted intention to seek help from the Employee Assistance Program at a statistically significant level ($\beta = 0.34, p < .05$).

As depicted below in Table 16, and in line with the aforementioned zero-order correlations, attitude toward help-seeking ($\beta = 0.45, p < .01$) was the only significant predictor of intention to seek help from Psychological Services ($R^2 = .19, F(1, 83) = 21.13, p < .01$).

### Table 16

**Stepwise regression using the Big Five domains and Attitudes toward help-seeking as predictors and Intentions to seek help as the criterion**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$b$</th>
<th>95% CI</th>
<th>beta</th>
<th>95% CI</th>
<th>$sr^2$</th>
<th>95% CI</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>3.23</td>
<td>[-2.40, 8.85]</td>
<td>0.23</td>
<td>[-0.43, -0.02]</td>
<td>.05</td>
<td>[-.03, .12]</td>
<td>-.19</td>
</tr>
<tr>
<td>Openness</td>
<td>-1.61*</td>
<td>[-3.07, -0.14]</td>
<td>-0.23</td>
<td>[-0.43, -0.02]</td>
<td>.05</td>
<td>[-.03, .12]</td>
<td>.17</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>2.25**</td>
<td>[0.82, 3.67]</td>
<td>0.36</td>
<td>[0.13, 0.58]</td>
<td>.09</td>
<td>[-.02, .21]</td>
<td>.33**</td>
</tr>
<tr>
<td>Attitudes</td>
<td>0.10**</td>
<td>[0.04, 0.16]</td>
<td>0.31</td>
<td>[0.11, 0.51]</td>
<td>.09</td>
<td>[-.02, .20]</td>
<td>.33**</td>
</tr>
</tbody>
</table>

**Criterion = intention to seek help from Student Health Services (Int4)**

$R^2_{adj} = .193, p < .01$

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$b$</th>
<th>95% CI</th>
<th>beta</th>
<th>95% CI</th>
<th>$sr^2$</th>
<th>95% CI</th>
<th>$r$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>1.28</td>
<td>[-0.16, 2.73]</td>
<td>0.45</td>
<td>[0.26, 0.65]</td>
<td>.20</td>
<td>[.07, .34]</td>
<td>.45**</td>
</tr>
<tr>
<td>Attitudes</td>
<td>0.16**</td>
<td>[0.09, 0.23]</td>
<td>0.45</td>
<td>[0.26, 0.65]</td>
<td>.20</td>
<td>[.07, .34]</td>
<td>.45**</td>
</tr>
</tbody>
</table>

**Criterion = intention to seek help from Psychological Services (Int7)**

$R^2_{adj} = .193, p < .01$

*Note. A significant $b$-weight indicates the beta-weight and semi-partial correlation are also significant. $b$ represents unstandardized regression weights. $beta$ indicates the standardized regression weights. $sr^2$ represents the semi-partial correlation squared. $r$ represents the zero-order correlation. $LL$ and $UL$ indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.**
Predicting Intentions to Seek Help From UWO-sources 1-7 Using Trait Emotional Intelligence Facets

The fourth and final family of comparison involved seven separate stepwise regressions, wherein a single help-source that students could intend to seek assistance from was regressed onto fourteen potential independent variables – the fifteen facets of trait EI, excluding optimism due to issues with multicollinearity – using stepwise selection. These regressions were carried out in order to determine which trait EI facets best predicted future intentions to seek help from a specific university-provided formal help source for personal-emotional problems.

While stepwise modelling did not reveal any combination of TEIQue facets that was significantly predictive of intentions to seek help from source #1 (Student Development Centre), results did indicate that six TEIQue facets combined to account for 17.1% of the variance in intentions to seek help from source #2 (Academic Counselling; $R^2 = .17$, $F(6,78)=3.88, p < .01$). Of those six predictors, however, only social awareness ($\beta = 0.51; p < .01$) independently predicted intention to seek help from Academic Counselling at a significant level.

Results indicated that seven TEIQue facets accounted for 22.6% of the variance in intention to seek help from UWO-source #3 (Wellness Education; $R^2 = 0.23$, $F(7,77)=4.49, p < .01$). It was found that self-esteem ($\beta = -0.62, p < .01$), empathy ($\beta = -0.37, p < .01$), social awareness ($\beta = 0.74, p < .01$), and relationships ($\beta = 0.35, p < .01$) each significantly predicted intentions to seek help from Wellness Education.

Results of the stepwise regression indicated that seven TEIQue facets combined to significantly account for 9.9% of the variance in intentions to seek help from source #4 (Student Health Services; $R^2 = .10$, $F(7,77)=2.32, p < .05$). Of those seven predictors, empathy ($\beta = -0.23$,
TRAIT EMOTIONAL INTELLIGENCE, PERSONALITY & HELP-SEEKING BEHAVIOUR

$p < .05$), impulse control ($\beta = -0.26, p < .05$), and relationships ($\beta = 0.38, p < .01$) independently predicted intentions to seek help from Student Health Services at a significant level.

Results also indicated that nine TEIQue dimensions explained 30.4% of the variance in intention to seek help from UWO-source #5 (Residence Counselling; $R^2 = .30, F(9,75)=5.08, p < .01$). It was found that five of the nine ‘best’ predictor dimensions – emotion regulation ($\beta = 0.41, p < .01$), empathy ($\beta = -0.42, p < .01$), social awareness ($\beta = 0.59, p < .01$), emotion management ($\beta = -0.29, p < .05$) and assertiveness ($\beta = -0.42, p < .01$) – significantly predicted intentions to seek help from Residence Counselling.

Two TEIQue facets combined to significantly account for 5.3% of the variance in intentions to seek help from source #6 (Employee Assistance Program; $R^2 = .05, F(2,82)=3.34, p < .05$). However, only empathy ($\beta = -0.30, p < .05$) was found to independently predict intentions to seek help from the Employee Assistance Program at a significant level.

Finally, results indicated that six TEIQue facets combined to significantly account for 14.4% of the variance in intentions to seek help from source #7 (Psychological Services; $R^2 = .14, F(6,78)=3.35, p < .01$). However, only two of those facets – impulse control ($\beta = -0.30, p < .01$) and relationships ($\beta = 0.39, p < .01$) – independently predicted intentions to seek help from Psychological Services at a significant level. These results are depicted below in Table 17.
## Stepwise regression using TEIQue facets to predict Intentions to seek help from UWO sources

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b</th>
<th>95% CI [LL, UL]</th>
<th>Beta</th>
<th>95% CI [LL, UL]</th>
<th>sr²</th>
<th>95% CI [LL, UL]</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>4.60</td>
<td>[1.80, 7.40]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Awareness</td>
<td>1.04**</td>
<td>[0.35, 1.74]</td>
<td>0.51</td>
<td>[0.17, 0.85]</td>
<td>0.09</td>
<td>[-.02, .19]</td>
<td>.18</td>
</tr>
</tbody>
</table>

**Criterion = intention to seek help from Academic Counselling (Int2)**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b</th>
<th>95% CI [LL, UL]</th>
<th>Beta</th>
<th>95% CI [LL, UL]</th>
<th>sr²</th>
<th>95% CI [LL, UL]</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>3.79</td>
<td>[1.05, 6.53]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Esteem</td>
<td>-0.95**</td>
<td>[-1.40, -0.49]</td>
<td>-0.62</td>
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<tr>
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**Criterion = intention to seek help from Wellness Education (Int3)**

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<th>Beta</th>
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<th>sr²</th>
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<td>Empathy</td>
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<td>.04</td>
<td>[-.04, .12]</td>
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<tr>
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<td>-0.45*</td>
<td>[-0.89, -0.02]</td>
<td>-0.26</td>
<td>[-0.50, -0.01]</td>
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<td>[-.04, .13]</td>
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<tr>
<td>Relationships</td>
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<td>0.38</td>
<td>[0.12, 0.64]</td>
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**Criterion = intention to seek help from Student Health Services (Int4)**

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<th>Beta</th>
<th>95% CI [LL, UL]</th>
<th>sr²</th>
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<td>.05</td>
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<td>Empathy</td>
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<td>[.01, .23]</td>
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<td>Social Awareness</td>
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**Criterion = intention to seek help from Residence Counselling (Int5)**

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<td>.07</td>
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<td>-.22*</td>
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**Criterion = intention to seek help from Employee Assistance Program (Int6)**

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<th>Beta</th>
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<td>Impulse Control</td>
<td>-0.61**</td>
<td>[-1.06, -0.16]</td>
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<td>-.15</td>
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<tr>
<td>Relationships</td>
<td>1.03**</td>
<td>[0.30, 1.76]</td>
<td>0.39</td>
<td>[0.11, 0.67]</td>
<td>.08</td>
<td>[.02, .18]</td>
<td>.24*</td>
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**Criterion = intention to seek help from Psychological Services (Int7)**

Note. A significant b-weight indicates the beta-weight and semi-partial correlation are also significant. b represents unstandardized regression weights. Beta indicates the standardized regression weights. sr² represents the semi-partial correlation squared. r represents the zero-order correlation. LL and UL indicate the lower and upper limits of a confidence interval, respectively.

* indicates p < .05. ** indicates p < .01.
Chapter 6: Discussion

Based on the findings of the correlational and regression analyses, it appears that various dimensions of trait emotional intelligence are more closely associated with and better predictors of both general attitudes toward help-seeking behaviour and intentions to seek help from multiple campus-based help sources than the Big Five personality domains.

This conclusion is evidenced most clearly by the stark difference between the two constructs in attempting to account for the variance in attitudes toward help-seeking behaviour. While TEIQue facets were able to significantly account for more than 25% of the variance in attitudes, and two TEIQue factors were able to significantly account for approximately 8% of the variance in attitudes, the Big Five personality domains yielded only a single significant predictor in agreeableness that accounted for less than 5% of the variance in attitudes. This interpretation is also supported by the fact that TEIQue facets significantly predicted intentions to seek help from six of the seven provided help sources, while the Big Five personality domains only significantly predicted intentions to seek help from three of the listed sources, with TEIQue facets typically accounting for a considerably greater proportion of the variance in the source-specific outcome. For example, TEIQue facets identified by stepwise regression combined to account for greater than 22% and 30% of the variance in intentions to seek help from Wellness Education and Residence Counselling, respectively, while personality domains combined to account for a maximum of 19% of variance in intention, with the help source being Student Health Services. Notably, Student Health Services was the only listed help source wherein the Big Five domains accounted for a considerably greater amount of variance in intention than TEIQue facets, and doing so with attitudes toward help-seeking behaviour included alongside the Big Five as a predictor.
Pearson product-moment correlations between the Big Five domains and fifteen trait EI facets reiterated that individual dimensions of the trait EI construct are considerably associated with the Five Factor Model of personality; this finding supports the study’s third hypothesis, which stated that there would be numerous significant correlations between individual trait EI facets and the Big Five personality domains. Notably, all individual TEIQue facets were negatively correlated with neuroticism, which makes sense given that Five Factor theory classically defines neuroticism as a tendency to experience negative feelings and emotional volatility (John et al., 2010; Johnson, 2014). These results fall in line with the work of Petrides et al. (2007), Russo et al. (2011), and Siegling et al., (2013) who found similar linear associations in terms of direction, strength, and significance between the Big Five and trait EI facets and factors using much larger and more diverse study samples.

The finding that global trait EI is moderately negatively correlated with neuroticism and moderately positively correlated with extraversion in a statistically significant manner is partially supportive of the study’s first hypothesis. These associations are well-documented in the individual differences literature (Petrides & Furnham, 2001; Petrides et al., 2007; Russo et al., 2011; Siegling et al., 2013) and make sense given that mood or affect regulation is a key aspect of the conceptualization of trait EI (Saklofske et al., 2003) and neuroticism is characterized by problems with emotional regulation, while extraversion is associated with an increased frequency of experiencing positive emotions (Johnson, 2014; Saklofske et al. 2003). Somewhat surprisingly, global trait EI was not significantly and positively correlated with openness to experience, agreeableness, or conscientiousness as was hypothesized. While Petrides and Furnham (2001), Petrides et al. (2007), Russo et al., (2011) and Siegling et al. (2013) all found significant relationships between global trait EI and all of the Big Five personality domains, they
did so using significantly larger and more diverse study samples, which points to a limitation in measurement in the current study. However, Saklofske et al. (2003) did note that researchers can generally expect smaller positive correlation strengths between trait EI measures and agreeableness, openness, and conscientiousness, as these personality domains are less directly related to affect regulation than neuroticism and extraversion.

Global trait EI was also not significantly correlated with attitudes toward help-seeking or intentions to seek help from any of the listed campus-based help sources, thus refuting the study’s second central hypothesis. However, numerous trait EI facets and factors were significantly associated with attitudes toward help-seeking behaviour, and multiple trait EI facets were significantly correlated with intentions to seek help from campus-based help sources. This finding ultimately reinforces the need for research to go beyond the exclusive use of global trait EI scores when assessing behavioural outcomes (Hughes & Evans, 2018).

Interestingly, the individual trait EI facets of ‘empathy’ and ‘relationships’ were repeatedly identified as significant by the stepwise regression models when predicting intentions to seek help from campus-based sources, with the former contributing negatively and the latter contributing positively in a consistent manner across formal help sources. If one loosely interprets Petrides et al.’s (2007) description of the trait EI sampling domain – which suggests that high scorers on the empathy facet perceive themselves as capable of taking someone else’s perspective, and high scorers on the relationships facet perceive themselves as capable of having fulfilling personal relationships – then these findings can be explained away rather straightforwardly. Participants who rated themselves more highly on the relationships facet might believe they can get more out of an interpersonal connection with a campus-based help source and are thus more likely to intend to seek help, while participants who are more
empathetic could be less likely to intend to seek help from formal sources due to the belief or recognition that many other students are suffering in a similar or worse manner than themselves, and are thus more deserving of priority or access to formal help sources (Petrides et al., 2007).

Rather unexpectedly, agreeableness was the only Big Five domain that was significantly associated with and predictive of attitudes toward help-seeking behaviour, doing so in a negative manner; this contrasts with the findings of Kakhnovets (2011), Atik and Yalcin (2011), and Yelpaze and Ceyhan (2020) who found that agreeableness – in addition to openness and extraversion – was positively related to attitudes toward help-seeking behaviour in samples of university students. In theory, since those individuals who are more agreeable are more willing to compromise their interests and well-being with others’ (John et al., 2010; Johnson, 2014), perhaps they may be unwilling to prioritize their own personal-emotional problems in the help-seeking context.

The personality domains of extraversion and openness to experience were also implicated in stepwise regression models as being significant in the prediction of intentions to seek help from various formal campus-based sources, albeit with rather low variance accounted for in their respective outcomes. Conscientiousness was also significantly correlated with intentions to seek help from Academic Counselling – in line with the findings of a large-scale scoping review on the determinants of academic help-seeking behaviour by Bornschlegl et al. (2020) – and was also identified as a significant predictor of intentions to seek help from Student Health Services. Extraversion, openness to experience, and conscientiousness have all previously been identified as personality dimensions of significance in the literature on determinants of help-seeking behaviour (Atik & Yalcin, 2011; John et al., 2010; Kakhnovets, 2011; O’Connor et al., 2014; Yelpaze & Ceyhan, 2020)
Findings also suggested that, following from the Theory of Planned Behaviour (Azjen, 1991), attitudes toward help-seeking behaviour were significantly associated with and modestly predictive of intentions to seek help from two of the seven identified campus-based help sources: Student Health Services and Psychological Services. The inability of attitudes toward seeking help for psychological issues to significantly predict intentions to seek help from the other five campus-based sources could perhaps speak more to the suitability – or lack thereof – of the sources themselves, in terms of their perceived capacity to rectify personal-emotional problems, as the attitude-intention pathway of the Theory of Planned Behavior has been demonstrated to be quite robust in previous research (Aldalaykeh et al., 2019; Armitage & Connor, 2001; Li et al., 2018). Relevant to this particular finding, however, is the recent systematic scoping review conducted by Bornschlegl et al. (2020) that determined studies using the Theory of Planned Behavior to assess help-seeking outcomes need to be conducted with an increasing variety of predisposing factors, such as individual differences in personality. These studies ought to feature both attitudes toward help-seeking and intentions to seek help as dependent variables, rather than one or the other, which occurs all too frequently in the available literature, especially when actual help-seeking behaviour is determined to be too costly, methodologically complex, or time-consuming to measure, as was the case in the present study (Bornschlegl et al., 2020).

Regarding the question of whether personality domains or attitudes are more predictive of future intentions to seek help, this study found that one’s attitude toward help-seeking is not necessarily a ‘better’ predictor than one’s personality trait profile. This rather inconclusive finding is evidenced by the fact that attitude was found to be a significant predictor of two out of seven intention sources, while the Big Five personality domains significantly predicted future intentions to seek help from three of the seven university-provided formal help sources. In the
lone instance where both attitudes and personality domains were both identified as significant predictors – specifically, when a participant intended to seek help from Student Health Services – the Big Five domain of conscientiousness accounted for a greater change in intention to seek help, on average, than one’s attitudinal orientation toward help-seeking behaviour. In line with the findings of Yelpaze and Ceyhan (2020), increases of 1 standard deviation in both conscientiousness and attitudes toward help-seeking were both positively predictive of one’s future intention to seek help.

By comparing the predictive abilities of trait emotional intelligence dimensions and the Big Five personality factors in determining attitudes toward help-seeking and intentions to seek help for personal-emotional problems among undergraduate students, this exploratory study makes some important contributions to the individual differences literature and our present collective understanding of seeking help for mental health concerns in the context of the tertiary educational environment.

First and foremost, this work positions affect – otherwise known as the underlying psychological experience of feeling or emotion – as a key area of future research focus for institutions interested in addressing mental health concerns among emerging adults, while also providing preliminary evidence for the further exploration of trait emotional intelligence as a plausible determinant of help-seeking processes such as attitudes toward and intentions to engage in help-seeking behaviour.

Second, while previous studies have investigated help-seeking attitudes and intentions as outcomes partially predicted by the Big Five personality domains (Astatke, 2018; Atik & Yalcin, 2011; Kakhnovets, 2011; Li et al., 2018; O’Connor et al., 2014; Yelpaze & Ceyhan, 2020), and other research has jointly investigated the predictive capabilities of trait EI alongside popular
personality measures in determining mental health-salient outcomes such as depression (Chirumbolo et al., 2019; Saklofske et al., 2003), anxiety disorders (Russo et al., 2011), coping style (Austin et al., 2010), alexithymia (Parker et al., 2004), stress tolerance (Tok et al., 2013), life satisfaction (Siegling et al., 2013), and burnout (Zysberg et al., 2017), this work justifies the convergence and further exploration of the two research streams. More pointedly: the construct of trait emotional intelligence should be brought into the fold and examined for incremental validity alongside the Big Five and other personality measures with regard to their ability to inform and predict outcomes relevant to the help-seeking process, including actual help-seeking behaviour.

Finally, this work bolsters the confidence of health-psychological researchers moving forward by virtue of effectively advocating for the notion that trait emotional intelligence, in the relatively novel context of predicting help-seeking behavioural outcomes, is not simply ‘old wine in a new bottle’; it offers a significant, affect-focused departure from the traditional Five Factor model of personality that merits further exploration and continued research interest in its own right.

Although this study yielded numerous significant findings concerning the relationship between trait EI, personality, and elements of the help-seeking behavioural process, there were nonetheless various limitations that should be considered. It should be noted that the significance values for Pearson product-moment correlations were not adjusted for multiple comparison bias using, for example, a Bonferroni correction or the Benjamini-Hochberg procedure. The sample size of the study, at 85 participants, can be classified as ‘tiny’ in comparison to standard sample sizes involving >300 participants in the psychological literature; this limitation is particularly impactful as it either violates or comes quite close to violating the oft-cited sample size heuristic.
for multiple regression models that specifies a ratio of at least 10 observations per independent variable (Harrell et al., 1984). Finally, the use of stepwise selection procedures in regression modelling could also be interpreted as a methodological weakness, as many social scientists believe that more orderly advances are made when researchers use theory to provide an ‘a priori’ hierarchical ordering that reflects causal hypotheses, rather than using computers to order independent variables post and ad hoc for a given sample (Cohen et al., 2002). Further to this point, the author must admit that it would have been preferable to engage in formal modelling, wherein a much larger sample would have allowed the research team to conduct a path analysis among all key variables in the study, rather than inferring the relative predictive capabilities of variable domains by comparing regression outputs.

Future research involving the analysis of Big Five domains – and possibly, subdomains – in conjunction with dimensions of the TEIQue should thus aim to utilize larger sample populations when attempting to assess their predictive power in the context of seeking formal help for mental health concerns. One way to garner a larger study sample using an undergraduate student population would be to make the cross-sectional survey a for-credit assignment, which could give students greater incentive to participate.

Moving forward, a natural sequel to this study could utilize a larger, increasingly diverse, and possibly gender-balanced undergraduate student sample and would seek to empirically examine the incremental validity provided by the TEIQue over and above the Big Five personality domains. This could be done by employing a hierarchical multiple regression analysis to control for the impact of the Big Five personality factors in predicting help-seeking attitudes and intentions. The subsequent study could also include a measure of actual help-seeking behaviour matched to intention sources and coded as a categorical dependent variable.
that, in line with the Theory of Planned Behavior, succeeds attitude and intention as the final outcome of interest. Such a hierarchical multiple regression analysis would involve adding variables to the model in separate steps or ‘blocks’ – for example, beginning with the Big Five, then adding TEIQue factors, and then possibly also adding help-seeking attitudes and help-seeking intentions – to gauge whether adding variables significantly improves the model’s ability to predict the criterion variable of actual help-seeking behaviour, or to investigate potential moderation effects of certain personality dimensions or help-seeking elements in the model.

Look at the bigger picture, this work also begins to lay a foundation for testing the proposed causality of the Integrated Model of Affect-Related Individual Differences (Figure 3; Hughes & Evans, 2018), which would involve incorporating all three core conceptualizations of EI in assessing behavioural outcomes, perhaps using an intervention-based, longitudinal project design and featuring structural equation modelling as the primary form of data analysis. This work also opens the door to the possibility of assessing affect-related individual differences in personality and subsequently using students’ trait emotional intelligence profiles to tailor existing formal and semi-formal mental health services to better suit those individuals with profiles that are poorly matched with current campus-based psychological services.

Finally, following from the recognition that deleterious mental health representations are products of people’s life histories and are situated in context (Bracken, 2014; Felitti et al., 1998), it might be prudent to identify disposition-informing experiences of childhood trauma among those struggling with mental health representations and to subsequently explore the possibility of offering trait modification or psycho-educative programs within educational institutions, with the goal of improving service use and well-being outcomes among students. This stream of research would situate trait emotional intelligence or personality as potentially modifiable outcome
TRAIT EMOTIONAL INTELLIGENCE, PERSONALITY & HELP-SEEKING BEHAVIOUR

variables, instead of stable predictors; this sort of re-positioning has rarely been studied in the individual differences literature but has been identified by reputable scientists as a conceivably valuable area of research interest moving forward (Stough et al., 2009).

Chapter 7: Conclusion

The emerging adults that make up the majority of today’s undergraduate student population find themselves negotiating what has been termed a ‘normative mental health phenomenon’ (Bayram & Bilgel, 2008; Pedrelli et al., 2015; Leahy et al., 2010; Liu et al., 2017) in the midst of a challenging and constantly shifting educational environment. While top-flight educational institutions have begun to heed the call from researchers to mobilize resources and provide an increasing variety of supportive services designed to address this reality, the persistent disparity in the problem-treatment relationship suggests that most undergraduate students are not accessing these services during times of need (Hunt & Eisenberg, 2010; Li et al., 2018; Zivin et al., 2009). It has therefore become especially important to identify the determinants of help-seeking behaviour among undergraduate students. In this regard, individual differences in affect-related personality traits have demonstrated some early promise within the health-psychological literature, and thus figure to play a substantial role moving forward in terms of informing help-seeking outcomes alongside well-supported determinants such as past experiences with counselling, societal stigma, subjective norms, and perceived behavioural control (Boerema et al., 2016; Downs & Eisenberg, 2012; Li et al., 2016).

To better understand how undergraduate students choose to seek help in order to address their mental health concerns, this study sought to examine the relationships between trait emotional intelligence (EI), the Big Five personality factors, and attitudes toward help-seeking behaviour, as well as intentions to seek help from various campus-based formal help sources at
the University of Western Ontario. Results indicated that trait emotional intelligence is a better predictor of both attitudes toward help-seeking behaviour and future intentions to seek professional psychological help for personal-emotional problems than the popular Five Factor Model of personality. Following from trait EI’s identified location in personality taxonomies (Petrides et al., 2007), the Big Five personality domains and numerous trait EI facets and factors were significantly correlated. It was also determined that, in line with Azjen’s (1991) Theory of Planned Behavior, attitudes were significantly predictive of intentions to seek help from Student Health Services and Psychological Services. Interestingly, this study found that attitudes toward help-seeking behaviour were not necessarily better predictors of future intentions to seek help than the Big Five personality domains.

This project, albeit somewhat simplistic in terms of analysis and limited by the practical constraints of a Master’s degree, contributes meaningfully to the individual differences literature by introducing the construct of trait EI to the domain of help-seeking behaviour, which has traditionally been dominated by the Big Five personality domains – a model that has often been pitted against or examined alongside trait EI since its inception. Furthermore, this thesis sets the stage for further research into the increased predictive power offered by the construct of trait emotional intelligence, with its focus on affect management, in relation to elements of the help-seeking process and mental health service use outcomes.

Above all else, this work was undertaken with the goal of demonstrating the potential utility of understanding and harnessing individual differences in personality to help educational institutions identify those students who might be most at risk of ‘suffering in silence’ based on dispositional variables such as trait EI and the Big Five domains, which can be quantified and
potentially used to fine-tune the promotion, delivery, and evaluation of campus-based mental health support services.
References


Azjen, I. (2019). TPB with background factors. Available online:  


https://doi.org/10.4324/9780203774441


TRAIT EMOTIONAL INTELLIGENCE, PERSONALITY & HELP-SEEKING BEHAVIOUR


https://doi.org/10.1371/journal.pone.0185531


https://doi.org/10.1007/s11121-019-0979-9


https://doi.org/10.1016/j.cedpsych.2010.11.002


*Trauma-informed care in behavioral health services.* (2014). Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.


Appendix A: NMREB Approval Letter

Date: 5 November 2020
To: Dr Marnie Wedlake
Project ID: 116540
Study Title: Exploring the Role(s) of Personality & Trait Emotional Intelligence in Help-Seeking Behaviour
Short Title: Personality & Trait EI in Help-Seeking Behaviours
Application Type: NMREB Initial Application
Review Type: Delegated
Full Board Reporting Date: 04/Dec/2020
Date Approval Issued: 05/Nov/2020 16:43
REB Approval Expiry Date: 05/Nov/2021

Dear Dr Marnie Wedlake

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

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No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

[Signature]
Research Ethics Officer on behalf of [Signature] NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).
Appendix B: Permission(s) to Use Figures 1-4

Figure 1: Help-seeking Measurement Framework (Rickwood & Thomas, 2012)

Figure 2: Theory of Planned Behaviour (Azjen, 2019)
Figure 3: Integrated Model of Affect-Related Individual Differences (Hughes & Evans, 2018)

Subject: Re: Permission to Use Figure
Date: Monday, August 16, 2021 at 12:09:21 PM Eastern Daylight Time
From: Louisa Beckett
To: Nikola Cuvalo

Dear Mr Cuvalo,

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Kind regards
Louisa

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Louisa Beckett
Journal Specialist, Frontiers in Psychology
Impact Factor: 2.99 | CiteScore: 3.5

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On Tue, 10 Aug 2021 at 16:37, Nikola Cuvalo wrote:

Hello,

My name is Nikola Cuvalo, and I am a graduate student at the University of Western Ontario.
Figure 4: Factor & Facet Composition of the TEIQue (Petrides, 2007)

Dear Nikola,

Thank you for your email and request. I hereby grant you permission to reprint said figure in your Master’s dissertation.

I hope this helps.

Konstantinos

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K V Petrides  
BBA DipPsych MSc PhD CPsychol AFBPsS  
Professor of Psychology and Psychometrics  
University College London  
Founding Director  
London Psychometric Laboratory

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Appendix C: Curriculum Vitae

VITA

Name: Nikola Cuvalo

Post-Secondary Education & Degrees:
The University of Western Ontario
London, Ontario, Canada
2015-2019 BHSc

Related Work Experience:
Teaching Assistant
The University of Western Ontario
09/2019 – 12/2020

Research Assistant
The University of Western Ontario
09/2019 – 12/2020

Research Assistant
Canadian Centre for Activity & Aging
07/2020 – 03/2021