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Designing Engaging Academic Support: Variables Related to Academic Help Seeking in Higher Education

Dissertation submitted by

Madeleine Bornschlegl BA (Ed), MSc (EdPsy), CertIV TESOL

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College of Healthcare Sciences

James Cook University

Cairns, Australia

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Statement of Contribution of Others

Generally, this thesis contains my own work, except for the normal contributions of my supervisory panel. In addition, chapter 2.1, 5.2 and 6.1 were jointly published. The contributions of others to published chapters are described in detail below, as well as at the beginning of the respective chapter. As shown below, this research project was financially supported by a Postgraduate Research Stipend Scholarship. Furthermore, data collection via the online survey was supported by two research assistants during the first data collection period.

Overarching support during candidature

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I planned and conducted the literature search, planned and conducted the literature analysis, wrote the manuscript, addressed reviewer feedback, and made revisions. The contribution of the co-authors is outlined below:

Nature of Assistance	Contribution	Names, Titles (if relevant) and Affiliations of Co-Contributors
Intellectual support	Supervision & contribution to editing and review	Dr Kathryn Meldrum, James Cook University; A/Prof Nerina Jane Caltabiano, James Cook University

I confirm the candidate's contribution to this paper and consent to the inclusion of the paper in this thesis.

Name	Signature
Dr Kathryn Meldrum	_____
A/Prof Nerina Jane Caltabiano	_____

Chapter 4.2: Application of the Theory of Planned Behavior to Identify Variables Related to Academic Help Seeking in Higher Education

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Nature of Assistance	Contribution	Names, Titles (if relevant) and Affiliations of Co-Contributors
Intellectual support	Supervision & contribution to editing and review Support with data analysis	A/Prof Nerina Jane Caltabiano, James Cook University Dr Kishani Townshend, James Cook University
Data collection	Research assistance	Gabi Newman, James Cook University; Amy Smith, James Cook University

I confirm the candidate’s contribution to this paper and consent to the inclusion of the paper in this thesis.

Name	Signature
Dr Kishani Townshend	
A/Prof Nerina Jane Caltabiano	

Chapter 5.1: Increasing Accessibility to Academic Support in Higher Education for Diverse Student Cohorts

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Intellectual support	Supervision & contribution to editing and review	A/Prof Nerina Jane Caltabiano, James Cook University

I confirm the candidate’s contribution to this paper and consent to the inclusion of the paper in this thesis.

Name	Signature
A/Prof Nerina Jane Caltabiano	

Declaration

I declare that this dissertation is my own work and has not been submitted in any other form for another degree or diploma at any other university or other institution of tertiary education. Information derived from published or unpublished work of others has been acknowledged in the text and a list of references given.

Madeleine Bornschlegl

Abstract

Australia's widening participation agenda regarding higher education aims to provide access for underrepresented groups, such as first in family students, students from low socio-economic backgrounds, and Aboriginal and Torres Strait Islander students. As a result, university student cohorts are diversifying. Students have varying academic foundations when commencing their tertiary study, and often do not meet the academic requirements of their degree and are less successful than their peers. Academic support has been shown to be beneficial for students and increases their success. However, often students do not engage in academic support available to them. Therefore, based on the Theory of Planned Behavior, the aims of this study were to examine background and personality factors related to academic help seeking, and to investigate students' reasons for (not) engaging in academic support at James Cook University (JCU), an Australian university in Queensland, to inform the design of engaging academic support services. In addition, current challenges of providing academic support during the Coronavirus pandemic were investigated.

To comprehensively address the issue of engaging students in academic support, a mixed methods design was used. In a quantitative online survey with a representative sample of JCU undergraduate students, data regarding factors related to academic help-seeking behaviour was collected. Additionally, qualitative semi-structured interviews were conducted to investigate students' perceptions of academic support at JCU. Quantitative data was analysed using descriptive and inferential statistics, as well as structural equation modelling. Qualitative data was examined using Interpretative Phenomenological Analysis (IPA). Quantitative findings showed that public stigma, self-stigma, extraversion, agreeableness, neuroticism, perceived behavioural control, subjective norm, attitude towards help seeking, and the students' satisfaction with particular services were related to academic help seeking. In addition, an intention-behaviour gap was identified, as students' intentions to seek

academic help were not translated into actual behaviour. Qualitative findings revealed that insufficient knowledge about available services, as well as a flooding of information at the beginning of the semester about available services were reasons for students not engaging in academic support. Furthermore, academic support needs to be provided in various modes and as user friendly as possible. Qualitative data also showed that public stigma was a reason for students not accessing academic support.

The findings of this study add valuable information to this sparingly researched field and allow the recommendation of practical implications for professionals providing academic support in higher education. Four major practical implications can be derived from the outcomes of this study: (1) Educational promotion campaigns can improve students' attitude towards academic help seeking, and increase subjective norm, as well as decrease public stigma and self-stigma, (2) academic support needs to be offered in various modes, as face-to-face, online (synchronous and asynchronous), peer based, and individual learning opportunities, (3) academic support needs to be designed to support students' intrinsic motivation and therefore their satisfaction, and (4) promotion of academic support services needs to be timely and targeted. With careful consideration of JCU's student characteristics, the findings and derived practical implications of this study can provide valuable insight into improving academic support in higher education. Future research should consider using probability sampling methods and collect data from multiple universities to continue to add to this field of research and contribute to more generalisable knowledge. Furthermore, longitudinal study designs could further investigate the translation of intentions into behaviour and examine the effects of academic help seeking on student outcomes.

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List of Acronyms

AALL =	Association for Academic Language and Learning
ALL =	Academic Language and Learning
JCU =	James Cook University
ERIC =	Education Resources Information Center
IPA =	Interpretative Phenomenological Analysis
PSOSH =	Perceptions of Stigmatization by Others for Seeking Help
SSOSH =	Self-Stigma of Seeking Help
RMSEA =	Root mean square error of approximation
CFI =	Comparative fit index
TLI =	Tucker-Lewis index
GFI =	Goodness-of-fit index
AGFI =	Adjusted goodness of fit index
PASS =	Peer Assisted Study Sessions

Chapter 1: Introduction

“Help-seeking behaviours (...) are central to the learning process and have a profound impact on academic success” (Wirtz et al., 2018, p. 62).

Marketing has become crucial for Australian universities to compete with other universities and recruit more students (Baldwin & James, 2000; Ramachandran, 2010; Symes, 1996). Furthermore, the aim of the widening participation agenda is to provide access to higher education for underrepresented equity groups (Grant-Smith et al., 2020). As a result, the student body of Australian universities is diversifying. Given the increasingly diverse student cohorts and varying entry standards at Australian universities, academic help seeking is becoming more important to ensure student success. Smith et al. (2016) argued that minority groups, such as students with low socioeconomic status, first in family students, and ethnic and racial minority groups are less successful academically than most students and that it is the universities’ responsibility to support these students and to create inclusive learning environments. It is also in the universities’ interest to retain students to uphold a good reputation and to ensure financial stability. Academic help seeking has been shown to support this process (Chen, 2017; Collins, 2012).

1.1 Academic Help Seeking

Seeking help in the academic context includes discipline- and content-specific help from, for example, lecturers and tutors, but also generic academic skills advice, such as academic writing and numeracy support, as well as enrolment advice for courses and subjects. Mahasneh et al. (2012) and Dunn et al. (2014) argued that help seeking is an essential learning strategy to complete learning tasks. For example, Adams et al. (2012) described that the Mathematics Learning Centre at Central Queensland University Australia supports students in overcoming the lack of mathematical knowledge needed in tertiary education.

In Australia,

the Association for Academic Language and Learning (AALL) represents academic language and learning educators working in higher and further education institutions. The members of AALL play a vital role in their institutions by providing teaching, support and expertise to assist students in developing appropriate academic skills to enable them to succeed at their studies. To do this, ALL [(Academic Language and Learning)] educators collaborate with other staff in the development of teaching and learning resources and activities alongside and embedded in the curriculum (Aall, n.d., About our association, para 5).

The aim of all faculty members involved in providing academic support should be to provide developmental rather than prescriptive advice to encourage adaptive help seeking, as nonadaptive help seeking can result in a student being unsuccessful academically (Alexitch, 2002). Developmental advising is a collaborative process between the student and the faculty whereby independent learning is encouraged, whereas prescriptive advising is controlled by the advisor and focusses on outcomes rather than the learning process (Winston & Sandor, 1984a as cited in Alexich, 2002). Developmental advising leads to students employing adaptive help-seeking strategies, such as asking for support and tips that lead to a solution (Alexich, 2002). Similarly, the term instrumental help seeking refers to providing the right amount of help so a problem can be solved by the help seeker, whereas executive help seeking means that the help seeker aims to have the problem solved by someone else (Nelson-Le Gall, 1981).

As an example of developmental advising or instrumental help seeking, the Learning Centre at James Cook University (JCU) providing academic skills support aims to “facilitate independent, successful learning” (James Cook University, 2021a). Similarly, the academic

skills team at The University of Melbourne states that they “help [students] develop the academic and professional skills [the students] need throughout [their] time at university and beyond” (The University of Melbourne, n.d.) and the Student Learning Center at Berkeley University of California “aim to empower all students to realize their full academic potential and aspirations” (Berkeley University of California, 2021). These statements indicate that universities seem to have taken on the importance of providing developmental advice to create self-regulated learners.

Generally, seeking academic help has been shown to be beneficial for student success (Chen, 2017; Collins, 2012). However, often students do not engage in seeking help for academic purposes (Hoyne & McNaught, 2013) and this creates the challenge of ensuring students receive effective support (Smith et al., 2016). Students are not meeting the required standards in their degree without seeking academic help (Banner, 2007). Therefore, the aim of this study was to identify variables related to academic help seeking to inform the design of engaging and accessible academic support. More specifically, this study uses a mixed method design to comprehensively examine academic help-seeking behaviours at JCU in North Queensland, Australia. This includes the relationship between background and personality factors, and academic help-seeking behaviour, as well as students’ reasons for (not) engaging in academic support.

1.2 James Cook University

The Times Higher Education World University Rankings 2021 has ranked JCU within the top 250 universities in the world (The World University Rankings, 2021). JCU offers 153 different courses in 13 fields of studies. Students can study on the campuses in Townsville, Cairns, Mackay, Mt Isa, and Brisbane, or online (The Good Universities Guide, 2021). Furthermore, JCU has a university campus in Singapore (James Cook University, 2021c). In total, 17,247 students were enrolled at JCU in March 2021. 55.9% were studying at the

Townsville campus, 15.6% at the Cairns campus, 2.4% at the Brisbane campus, 0.7% at the Mackay campus, and 0.1% were studying at the Mt Isa campus. 9.8% were studying online and 15.5% were enrolled in Singapore (N. Emtage, personal communication, March 17, 2021). As this study focusses on JCU students in Australia, the following numbers are related to the students enrolled at one of the Australian campuses or online.

In total, 14,578 students were studying at an Australian campus or online in March 2021. Thereof, 46.4% were mature age students. 10.6% were international students and 68.0% were studying an undergraduate degree. Furthermore, 47.6% were first in family students and 6.5% had a disability. Regarding the students' Indigenous status, 3.7% were Aboriginal, 0.7% were Torres Strait Islander, and 0.7% were Aboriginal and Torres Strait Islander. 65.6% of the students were female and 34.3% were male. Furthermore, 15.2% of students spoke languages other than English at home. Regarding the students' socio-economic status, 8.9% had a high socio-economic status, 59.6% had a medium socio-economic status, and 20.3% of students had a low socio-economic status (N. Emtage, personal communication, March 17, 2021).

In the Student Experience Survey (SES) 2020, JCU received 79.1% positive ratings for skills development, 50.6% for learner engagement, 76.5% for teaching quality, 78.9% for student support, 79.2% for learning resources, and 65.6% for quality of entire educational experience from their undergraduate students. The average for all universities was 77.9% for skills development, 43.2% for learner engagement, 77.6% for teaching quality, 73.1% for student support, 76.4% for learning resources, and 68.4% for quality of entire educational experience (SES, 2020). As can be seen, JCU's ratings lie either slightly below or slightly above the national average. Furthermore, the proportion of undergraduate full-time employment after graduating was 75.9% for JCU compared to an average of 69.1% (GOS, 2020).

1.3 Chapter Overview

The systematic scoping review in the following chapter provides a detailed summary of the background and significance of this project, as well as the Theory of Planned Behavior (Ajzen, 2005) used as a theoretical basis of this research. One hundred and sixty-eight studies were reviewed to identify trends and gaps in existing research about variables related to academic help seeking, which, together with Ajzen's (2005) model, informed the research presented in this thesis. The literature review was published in the peer reviewed journal *Review of Education* in January 2020 (Bornschlegl et al., 2020). Therefore, this section is presented in the format of a published research synthesis. However, additional detailed information about the Theory of Planned Behavior, which was too lengthy for the published journal article, is embedded in the literature review in this thesis. These sections are labelled accordingly.

The following chapter also presents Theoretical Perspectives used to comprehensively discuss the findings of this study. Prochaska and DiClemente's (1982) Transtheoretical Model of Change explains how unwanted behaviour can be changed and can be used to explain why students (do not) seek academic support. Furthermore, the model provides valuable guidelines as to how behavioural change can be supported. Deci and Ryan's (1985) Self-Determination Theory is presented to discuss findings in light of the students' motivation, their satisfaction with academic support, and their engagement in academic support. Overall, the Transtheoretical Model of Change and the Self-Determination Theory provide a valuable addition to the Theory of Planned Behavior and other background factors to inform the design of engaging academic support in higher education.

Subsequently, the aims and research questions including hypotheses tested in this research are outlined. In the following chapter, the Methods used are described thoroughly. This chapter is divided into two sections, Quantitative Methods, and Qualitative Methods.

Both sections describe the instruments used and their related samples. In addition, the analysis techniques used for quantitative and qualitative data to test the proposed hypotheses and to answer the research questions are explained. Some parts of the Methods chapter (Quantitative Methods and Qualitative Methods) have been published in one of two publications in the journals *Frontiers in Education: Higher Education and Teaching and Learning Inquiry* (Bornschlegl et al., 2021; Bornschlegl & Caltabiano, 2022). These sections are labelled accordingly.

This is followed by two main results chapters, Quantitative Findings, and Qualitative Findings, presenting the findings of this research. The first section of Quantitative Findings provides essential quantitative findings as a basis for the following quantitative sections. This includes descriptive findings, intercorrelations among numeric variables, and relationships between nominal variables and continuous variables integrated in this study. The second quantitative findings section further describes quantitative findings regarding variables related to academic help seeking in a comprehensive model using structural equation modelling. This section was published in the journal *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021) and is integrated in this thesis in the format of a journal article. It therefore includes a short repetition of the theoretical background, the relevant research question(s) and hypotheses, as well as the methods used in this part of the study. The third section explains quantitative findings about how students intend to seek help and sought help for academic skills, content, and enrolment advice. The final section within Quantitative Findings describes the students' satisfaction with academic support at JCU and how this relates to their engagement with academic support services.

The Qualitative Findings chapter mainly illustrates the qualitative findings from semi-structured interviews conducted to examine students' reasons for (not) seeking academic help. The first section is also in the format of a journal paper. It was published in the journal

Teaching and Learning Inquiry in 2022 (Bornschlegl & Caltabiano, 2022). To present a coherent and comprehensible section, it includes short repetitions of background and methods. In addition, the second section presents qualitative findings from the online survey regarding students' reasons for (not) seeking academic support. Following the two main results chapters, Quantitative Findings and Qualitative Findings, an additional results chapter presenting qualitative and quantitative data, takes current challenges of seeking academic help during the Covid-19 pandemic into consideration.

Chapter 8 provides a discussion and interpretation of these findings in light of various theories and previous research findings. The chapter consists of six sections. First, a summary and a response to the research questions is provided. This is followed by a discussion of variables identified to be related to academic help-seeking behaviour at JCU. The third section discusses qualitative findings, students' reasons for (not) engaging in academic support. Subsequently, the intention-behaviour gap identified in this study is reviewed and challenges of providing academic support online during the Coronavirus pandemic are addressed. The last section provides an evaluation of the tool used to examine factors related to academic help seeking in higher education. The last chapter, Conclusions and Recommendations, revisits the aims of this study, provides overall conclusions, practical implications, discusses limitations and offers recommendations for future research.

Chapter 2: Literature Review

Chapter 2 consists of a comprehensive literature review regarding the variables related to academic help seeking in higher education based on Ajzen's (1991) Theory of Planned Behavior. The literature review is titled Variables Related to Academic Help-Seeking Behaviour in Higher Education – Findings From a Multidisciplinary Perspective and was published in Review of Education (Bornschlegl et al. 2020). In addition, more detailed information about the Theory of Planned Behavior, which was too lengthy for a journal publication, has been integrated in the literature review presented in the following section. These sections are labelled *Insertion – not published* and are marked with [and]. Minor formatting changes, including referencing style adjustments, were made to adjust the publication format to ensure consistency throughout the thesis. The author contributions are as follows:

I planned and conducted the literature search, planned, and conducted the literature analysis, wrote the manuscript, addressed reviewer feedback, and made revisions. The contribution of the co-authors is outlined below:

Nature of Assistance	Contribution	Names, Titles (if relevant) and Affiliations of Co-Contributors
Intellectual support	Supervision & contribution to editing and review	Dr Kathryn Meldrum, James Cook University; A/Prof Nerina Jane Caltabiano, James Cook University

2.1 Variables Related to Academic Help-Seeking Behaviour in Higher Education – Findings From a Multidisciplinary Perspective

Bornschlegl, M., Meldrum, K., & Caltabiano, N. J. (2020). Variables related to academic help-seeking behaviour in higher education – Findings from a multidisciplinary perspective.

Review of Education, 8(2), 486-522. <https://doi.org/10.1002/rev3.3196>

2.1.1 Abstract

Universities admit increasingly diverse student cohorts with varying academic entry standards. To address students' varying academic prerequisites, academic support services – such as literacy and numeracy support – are offered to ensure student success. However, students often do not engage. Aimed at mapping variables related to a student's decision to seek academic help in order to identify gaps, this systematic scoping review informs future research and supports the provision of academic support services for diverse student cohorts. As recent research does not provide sufficient evidence, the areas of psychological, physiological and help seeking in career counselling were included. Informed by the Theory of Planned Behavior, database and reference list searches were conducted for age, gender, nationality and cultural background, acculturation, stigma, socioeconomic status, educational background, help-seeking experience, perceived behavioural control, attitudes, locus of control, personality, and subjective norms, and 168 primary research studies were included in the review. Studies were selected based on their publication year, and the context and the variables examined. Information from the studies was systematically entered into a database and organised.

Findings show that gender, stigma, help-seeking experience, attitudes, and subjective norms are crucial for help seeking in general. More specifically, gender, age, cultural background, and personality seem to be related to academic help-seeking and should therefore be considered when evaluating or designing academic support services. Although other variables were examined in some studies, no trends could be identified for these due to ambivalent results, indicating that the variables related to academic help seeking may depend on the context. This review also revealed that there are gaps that should be addressed in future research concerning academic help-seeking behaviour, while at the same time, if possible, including all variables identified in this review.

2.1.2 Introduction

Globally, universities face the challenge of increasing their student numbers in order to widen participation, but also to secure financial stability. Therefore, universities do not only target school leavers, but also mature-aged students, international students, and students from low socioeconomic backgrounds (Adams et al., 2012; Alexander, 2006; Harryba et al., 2012). Widening participation and accepting diverse student cohorts result in a range of different entry standards which challenge the universities' retention and completion rates. For example, Hoyne and McNaught (2013) found that students lack general academic skills, such as reading and writing. MacGillivray (2008) argued that there is a "much greater diversity of numeracy, mathematical skills and knowledge backgrounds across tertiary cohorts" (p. 15). Therefore, universities need to also focus on increasing retention and completion rates to improve their reputation in the competitive higher education industry (Reader, 2018).

One strategy adopted by some universities is to provide academic support services to ensure students are equipped with the academic skills needed to succeed in their degrees (Reader, 2018). Universities offer various support services ranging from self-access resources to academic skills workshops and support that is embedded in the curriculum. This academic support is often offered in various areas, such as English language development, numeracy and learning strategies. (e.g. Brown University, 2022, James Cook University, 2021e; The University of Melbourne, n.d.; University of Bristol, 2021). According to Wimer and Levant (2011), the term academic help-seeking has been widely used in the literature and generally refers to the engagement in support that improves academic performance.

Academic support services have been shown to be very beneficial for student success (Chen, 2017; Collins, 2012). However, despite the great range of services offered and positive outcomes for students, universities struggle to engage students in seeking academic help and often, those most in need are least likely to make use of the offerings (Hoyne &

McNaught, 2013). Therefore, the aim of this systematic scoping review was to identify variables related to a student's decision to seek academic help in order to support the design of engaging and accessible academic support.

2.1.3 The Theory of Planned Behavior

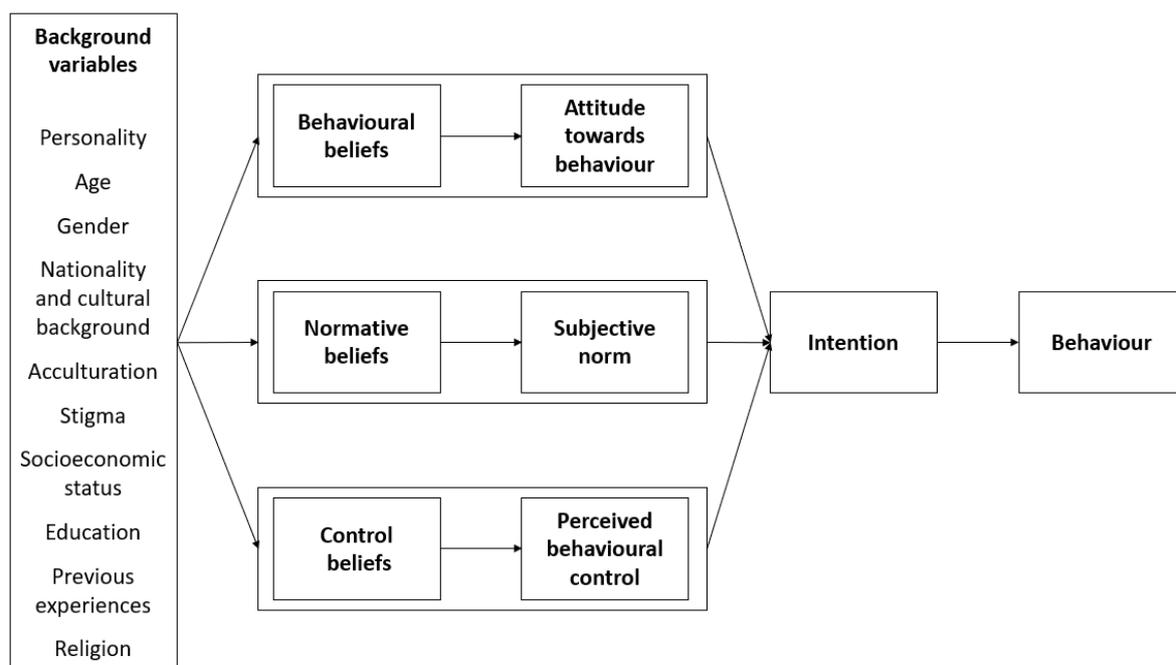
To support the identification of relevant variables related to academic help-seeking behaviour, the Theory of Planned Behavior (Ajzen, 1991) was used as a theoretical framework for this systematic scoping review. *Insertion – not published* [The theory is based on the Theory of Reasoned Action (Fishbein & Ajzen, 1975) and was further developed to add the concept of perceived behavioural control, which significantly improved the theory's predictive validity for behavioural intentions and behaviour. Furthermore, the theory originated from the poor predictive power of personality traits for specific behaviours in specific contexts. Personality traits have been shown to be able to predict aggregated behaviours (Ajzen, 1991). "The principle of aggregation, however, does not explain behavioral variability across situations, nor does it permit prediction of a specific behavior in a given situation" (Ajzen, 1991, p. 181). This theory was therefore "designed to predict and explain human behavior in specific contexts" (Ajzen, 1991, p. 181) and to account for the variability of human behaviour across different situations.]

Ajzen (1991) described how attitude towards behaviour, subjective norm, and perceived behavioural control influence intentions, which then influence behaviour (Figure 2.1). Attitude towards a behaviour is described as "favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen, 1991, p. 188). Subjective norm refers to whether a certain behaviour is supported by the social environment and perceived behavioural control is defined as the perceived likelihood of succeeding in performing a certain behaviour (Ajzen, 1991). *Insertion – not published* [In general, increased perceived behavioural control, and more positive attitudes and subjective norm should increase a

person’s intention to perform the behaviour in question. Not all three predictors may be equally important across different behaviours. Depending on the context, only two of the three predictors may contribute to the prediction of the behaviour, while, in other contexts, all three predictors may be crucial. For example, if a person does not have much information about the behaviour in question, perceived behavioural control may not contribute to the prediction of the behaviour (Ajzen, 1991).]

Figure 2.1

The Theory of Planned Behavior (Adapted From Ajzen (2005, p. 135))



As shown in Figure 2.1, Ajzen’s (1991) model was later expanded to account for a person’s beliefs about performing a certain behaviour (Ajzen, 2005). These beliefs may be inaccurate, but they provide “the cognitive foundation from which attitudes, subjective norms and perceptions of control – and ultimately, intentions and behaviour” (Ajzen, 2005, p. 126) are derived. In a further step, Ajzen (2005) argued that these beliefs may be influenced by personal and social background variables, such as personality, age, gender, cultural background, previous experience, income, acculturation (adapting to a new culture; Zhang &

Dixon, 2003), external locus of control (perception that behaviour is controlled by external factors rather than the individual; Oluyinka, 2011) and stigma (Figure 2.1). Stigma can be separated into two different, yet related, types. Public stigma concerns perceptions of society that a certain behaviour is not acceptable (Vogel et al., 2006). Self-stigma is internalised public stigma (Corrigan, 2004). *Insertion – not published* [The expanded version of the Theory of Planned Behavior has been successfully used to predict many different behaviours and still is a popular theoretical basis in today's research.

2.1.3.1 Validation of the Model. The theory has been successfully used to predict various behaviours in different contexts and is supported by substantive empirical evidence (Ajzen, 1991). For example, Ajzen and Madden (1986) found that 68% of the variance in the intention to attending class could be predicted by attitude towards this behaviour, subjective norm, and perceived behavioural control. The authors also found that attitudes and perceived behavioural control accounted for 65% of the variance in the intention to get an A in a subject. The theory has also been used in the area of promoting healthy eating habits. For example, Beale and Manstead (1991) found that attitude towards the behaviour and perceived behavioural control accounted for 60% of the variance in the intention to limit infants' sugar intake. The theory is still used frequently in current research to predict specific behaviours across a range of fields. More recent research, for example, found that 37.5% of the variance in the intention to visit a green hotel could be explained by the Theory of Planned Behavior (Verma & Chandra, 2018). Additionally, Alhamad and Donyai (2020) found that 73.4% of the variance in peoples' intention to reuse returned unused medicines to pharmacies was explained by attitude towards the behaviour, subjective norm, and perceived behavioural control. Applications of the theory can also be found in the context of higher education. For instance, Dewberry and Jackson (2018) were able to explain 61% of the variance in students' intention to voluntarily withdraw from their tertiary education studies.

2.1.3.2 Resources for Application of the Model. Icek Ajzen, the author of the Theory of Planned Behavior, provides many resources for researchers to apply the model and to predict intentions and behaviour. On his website (Ajzen, n.d.), researchers can find informational videos about the Theory of Reasoned Action, the Theory of Planned Behavior, and how to use the Theory of Planned Behavior to design interventions for behavioural changes. Furthermore, Ajzen provides a comprehensive document providing guidance on how to design a Theory of Planned Behavior questionnaire with sample items that can be adjusted for the use in different contexts. This also includes a complete sample questionnaire. Furthermore, after researching which of the three predictors are crucial for the behaviour in question, researchers can use Ajzen's document on designing interventions to change behaviour to plan interventions for their context (Ajzen, n.d.)]

2.1.4 Objectives

Building on the Theory of Planned Behavior (Ajzen, 1991), this systematic scoping review aimed to map personal and social variables related to academic help-seeking behaviour in higher education by drawing on evidence from multiple discipline areas. Due to limited evidence in the area of academic help seeking, the areas of psychological help seeking, physiological help seeking, and career counselling were also included in this review. It further intended to identify gaps in current research in order to make recommendations for future research, aiming to suggest strategies which offer accessible, engaging and effective academic support services. The following broad research questions were pursued in this review:

- 1) What are the key variables related to help-seeking behaviour?
- 2) What are the gaps in existing research which are crucial for providing effective academic support services?

2.1.5 Method

This review drew on and combined the methodologies of systematic scoping reviews and systematic quantitative literature reviews. The researchers chose to conduct a systematic scoping review to map key variables related to help-seeking behaviour in various areas, without limiting existing evidence to particular study designs and contexts (Peters et al., 2015). Applying the systematic quantitative approach includes systematically entering the information from each identified reference into a database and organising information regarding authors, publication year, study design, sample, instruments, variables of interest and findings. This then enables the researchers to generate quantitative summaries of research evidence and gaps (Pickering & Byrne, 2014).

2.1.5.1 Inclusion and Exclusion Criteria. Following Peters et al.'s (2015) recommendations, this systematic scoping review included a range of study designs (without formally assessing their methodological quality) to gain a comprehensive overview of available quantitative and qualitative evidence regarding variables related to help-seeking behaviour. However, only primary research was included – literature reviews and meta-analyses were excluded during the selection process. The publication timeframe selected was 2000 – 2019.

2.1.5.1.1 Participants. Although the objectives of this review focus on academic help seeking in higher education, studies analysing help-seeking behaviour of groups other than university students, for example male adults or high school students, were included in the analysis. Including participants other than university students allowed for identification of variables related to help-seeking behaviour, particularly academic help seeking, in areas with limited research evidence. In addition, research gaps for specific participant groups could be established. Therefore, participants of all ages and in all contexts were included. However, due to the extensive existing research body on psychological help seeking, this help-seeking

area was limited to the population of interest, university/college students, during the review process. Participant details were identified and categorised for each study to allow existing evidence to be analysed separately for different participant groups. The following participant groups were established: university/college students, high school students, adults, men, women, adolescents, children and other (very specific groups, e.g. prisoners, musicians and surgeons).

2.1.5.2 Concept and Context. Studies examining help-seeking behaviour in a range of different areas were included in this analysis. Although the help-seeking area of interest is academic help seeking, psychological help seeking, physiological help seeking, and career counselling were also included to account for limited research evidence in the area of academic help seeking. As personal background variables, such as nationality and ethnicity may, according to the Theory of Planned Behavior (Ajzen, 1991), influence help-seeking behaviour, studies from all countries were incorporated in this analysis. However, only studies published in English were considered.

As this review aimed to map personal and social variables related to help-seeking behaviour, studies examining relationships between personal and social variables, and attitudes towards help seeking, help-seeking intentions, barriers to help seeking and actual help-seeking behaviour were considered. Personal and social variables include personality, external locus of control, socioeconomic status, age, nationality, cultural background, educational background, prior help-seeking experience, gender, stigma, acculturation, perceived behavioural control and subjective norms. Although religion was included in the search as a keyword, there was not enough evidence in the sourced literature to include this variable in the analysis.

2.1.5.3 Searching. To locate studies for this review, a variety of search strategies was applied, including database searches and a reference list search for all papers identified in the database searches. Three relevant databases were selected: PsycINFO, Education Resources Information Center (ERIC) and Informat A + Education.

PsycINFO is the largest psychology database, published by the American Psychological Association, indexing approximately four million records, and updated on a weekly basis (EBSCO, 2021). ERIC was selected as the world's largest education database, indexing around 1.5 million records, and overseen by the U.S. National Library of Education (ProQuest, 2019). Informat A + Education is an educational database, developed and managed by the Australian Council for Educational Research, indexing over 200,000 records with a focus on Australian resources (Informat, 2021). This range of databases was selected to cover the disciplines of psychology and education, as well as any literature published in the Australian context.

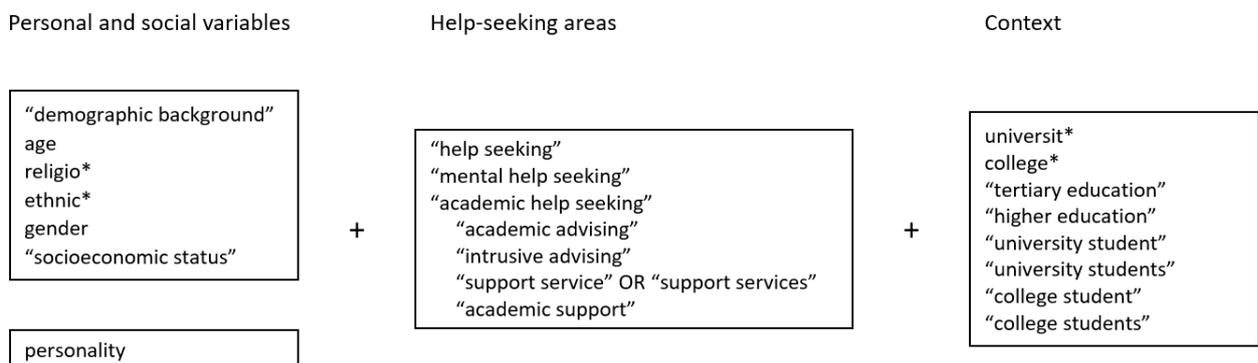
Firstly, following Peters et al.'s (2015) recommendations, these databases were initially searched to gain an understanding of the terminology used to describe variables related to help seeking in various areas. Using this information, keywords for a second systematic and comprehensive database search were identified. The keywords shown in Figure 2.2 were used to create a range of different search strings which were entered in the advanced searches of the selected databases. The search strings were created separately for personality and demographic variables. These were then combined with help-seeking keywords and context-related keywords. As studies with participants other than university students were included in this review, context-related keywords were not added to all search strings, to allow the identification of relevant literature outside the higher education context. Boolean operators (AND & OR) were used to combine synonyms and the three different concepts (personal and social variables; help-seeking areas; context) as shown in Figure 2.2. In addition, phrase-

searching and truncation were used to make the selected searches more effective. In total, 14 different search strings were entered for each database. The following are an example of two search strings used to locate relevant literature:

- personality AND ('academic help-seeking' OR 'academic advising' OR 'academic advice' OR 'intrusive advising' OR 'support service' OR 'support services' OR 'academic support') AND ('university student' OR 'university students' OR 'college student' OR 'college students')('demographic background' OR age OR religio* OR ethnic* OR gender OR 'socioeconomic status') AND 'help-seeking' AND (universit* OR college* OR 'tertiary education' OR 'higher education')

Figure 2.2

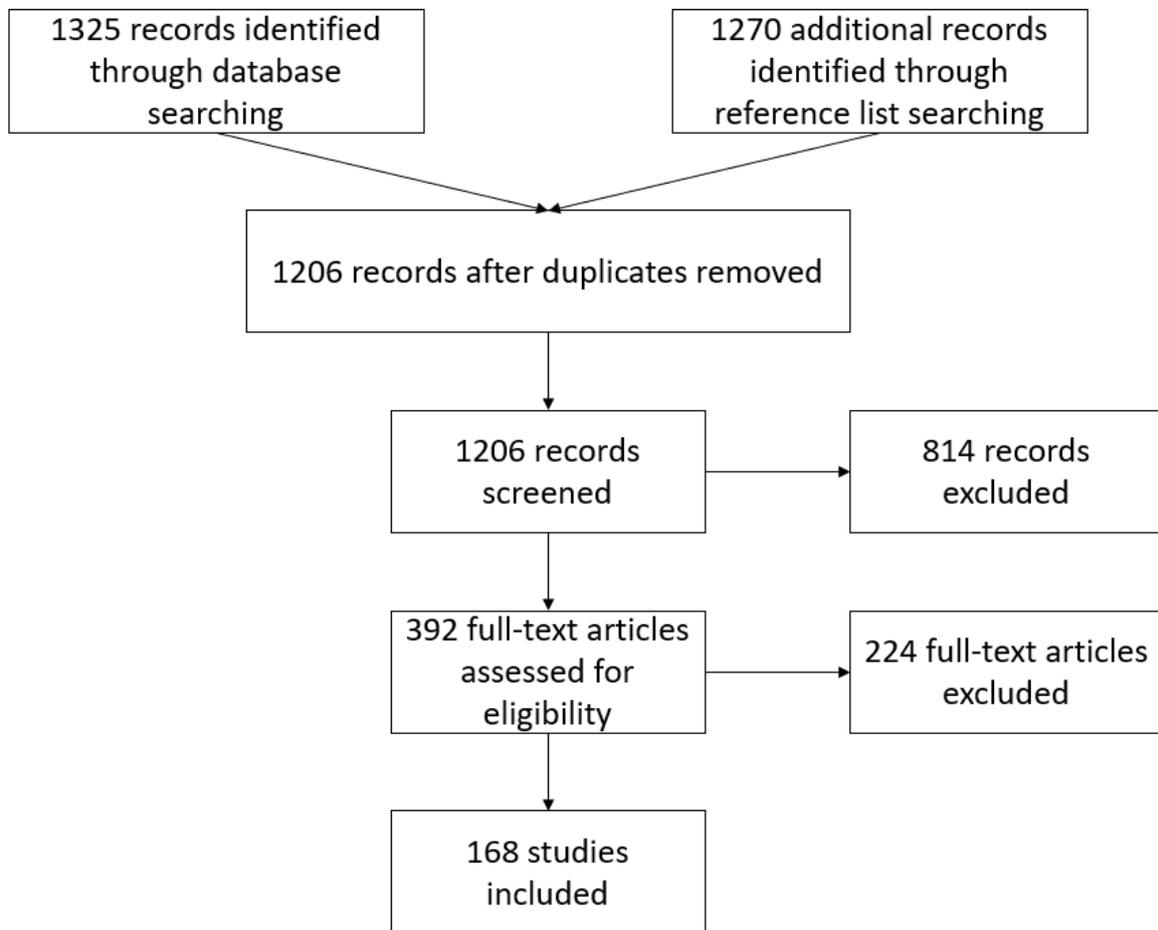
Keywords and Keyword Combination Strategy



Using the abstract as a screening tool, full texts of relevant literature were retrieved through the authors' institution literature search engine and subscriptions to relevant journals. The full texts were then used for the third and final step by searching their reference lists for further relevant papers. As shown in Figure 2.3, 1206 records were identified through database and reference list searching. After assessing their abstract and full text, 168 studies were found to be relevant and were included in the review.

Figure 2.3

Overview of Literature Identification and Screening Process (Adapted From Moher et al. (2009))



2.1.5.4 Review of Selected Literature. Following Peters et al.'s (2015)

recommendations, two researchers independently reviewed the selected literature. Although a predefined review protocol was used, identifying inclusion criteria and variables of interest, the reviewers accounted for the iterative nature of a scoping review and slightly adjusted inclusion criteria and variables of interest throughout the process. Using the above-mentioned personal, social, and help-seeking variables, the first named author created a database, extracting relevant information separately for each variable considered in each selected reference. This systematic quantitative assessment technique allows for mapping and organising existing research and identifying gaps. The database further enables the

researchers to assess different combinations of variables (Pickering & Byrne, 2014). For example, the database would allow the reviewers to specifically examine existing research regarding the relationship between personality and help seeking in Australia. Using the database, this could be further refined as the relationship between personality and academic help seeking in Australia, or the relationship between personality and academic help seeking at Australian higher education institutions, and so on.

2.1.5.5 Analysis. Microsoft Excel was used to synthesise and analyse the information extracted from the selected literature. Pivot tables were used to generate summary tables for a range of variable combinations. In the first step of the analysis, an overview of the characteristics of the literature was produced. These characteristics include the publication year, the location, the type of publication, the research design, the help-seeking area addressed, sample characteristics and measures of help seeking.

Each key concept which could possibly be related to help-seeking behaviour identified in the literature was then analysed individually. Firstly, the main outcome, the nature of the relationships between the key concept and help seeking, as well as the respective references, were mapped. Secondly, the nature of the relationships was examined in the context of the different help-seeking measures. Thirdly, the area of help seeking was considered and analysed in combination with the nature of the relationships.

2.1.6 Results

In total, $N = 168$ studies were included in the analysis. The majority of the studies was published between 2007 and 2018 ($n = 127$). Studies were published as journal articles ($n = 153$), doctoral dissertations ($n = 13$) and conference papers ($n = 2$). The studies were mainly conducted in the USA ($n = 98$), Australia ($n = 12$) and Turkey ($n = 9$). As shown in Table 2.1,

most studies used a correlational study design. Other research designs include qualitative and mixed method designs, but these methods were not as prevalent.

Table 2.1

Overview of Research Methods Used in Studies Selected

Methods	Number of studies
Correlational	160
Descriptive	2
Focus groups	1
Interviews	2
Combination of methods	3
Total	168

As described above, although the objective and research questions of this review focused on academic help-seeking behaviour, research on various other help-seeking areas was also included. As shown in Table 2.2, most studies examined variables related to psychological help seeking. The number of studies available in other help-seeking areas was limited. Psychological help seeking was addressed in 142 studies, whereas academic help seeking was only a focus of 25 studies.

Table 2.2

Overview of Help-Seeking Areas Examined in Included Studies

Help-seeking area	Number of studies
Academic	18
Academic & Career	1
Career	4
Physiological	3
Psychological	134
Psychological & Academic	1
Psychological, Academic & Career	5
Psychological & Physiological	2

Due to the broad existing research evidence on psychological help seeking, only studies conducted in the context of higher education were included for this area of help seeking. However, studies examining academic, career or physiological help seeking conducted in contexts other than higher education were included in this review. This is

reflected in the sample characteristics of the studies. As shown in Table 2.3, most studies were conducted on university/college students. Other samples include adults, children, and high school students.

Table 2.3

Overview of Sample Characteristics

Sample characteristics	Number of studies
Adults	5
Children	2
University/college students	151
High school students	5
High school & college students	3
University students & other	2

2.1.6.1 Variables Influencing Help-Seeking Behaviour. A range of help-seeking measures was used in the studies included in this review. The scope of a research project often does not allow the measurement of actual help-seeking behaviour, or it can only be measured retrospectively. Therefore, many studies have chosen alternative help-seeking measures that are, according to the Theory of Planned Behavior, indicative of the actual behaviour (Ajzen, 1991). These include attitudes towards help seeking and help-seeking intentions (Table 2.4). Few studies examined barriers to help seeking or a combination of help-seeking attitudes, intentions, and behaviour.

Table 2.4

Overview of Help-Seeking Measures

Help-seeking measure	Number of studies
Attitudes towards help seeking	76
Help-seeking intentions	27
Barriers to help seeking	3
Help seeking	41
Help-seeking intentions & attitudes towards help seeking	15
Help seeking & attitudes towards help seeking	5

Based on the Theory of Planned Behavior (Ajzen, 1991) and the review of the literature, the following variables were considered: personality, external locus of control, socioeconomic status, age, gender, nationality, cultural background, educational background, prior help-seeking experience, stigma, acculturation, perceived behavioural control, subjective norms and attitudes towards help seeking for studies using help-seeking measures other than attitudes.

2.1.6.1.1 Age. Many studies ($n = 39$) included in this review analysed the association between age and help seeking or other help-seeking measures. As shown in Table 2.5, most studies ($n = 20$) found a positive relationship between age and help seeking, indicating that as age increases, attitudes towards help seeking, help-seeking intentions and actual help-seeking behaviour improve. In contrast, eight studies found a negative relationship between age and help seeking, and nine studies could not confirm a relationship. Pumpa and Martin (2015) and Reavley et al. (2012) reported contradictory findings within their studies. Pumpa and Martin (2015) found that age was positively related to attitudes towards help seeking, but negatively related to help-seeking intentions. In agreement with most other studies, Reavley et al. (2012) found that increased age was associated with increased help seeking from professional sources, but informal help-seeking intentions decreased as age increased.

Table 2.5

Overview of Studies Analysing Age and Help Seeking

No relationship ($n = 9$)	Al-Darmaki (2003); Barksdale & Molock (2009); Bathje et al. (2014); Kim (2007); Oluyinka (2011); Toivonen et al. (2018); Walter et al. (2012); Yeh (2002); Zhang & Dixon (2003)
Negative relationship ($n = 8$)	Benenson & Koulkazarian (2008); Cheang & Davis (2014); Flisher et al. (2002); Du et al. (2015); Dunn et al. (2014); Kaya (2015); Keith (2007); Roessger et al. (2018)
Positive relationship ($n = 20$)	Al-Krenawi et al. (2004); Bannier (2007); Currier et al. (2017); Dietsche (2012); Duncan (2003); Eisenberg et al. (2007); Erkan et al. (2012); Halter (2004); Kagan & Zychlinski (2016); Kim & Omizo (2003); Koydemir-Özdena & Erelb (2010); Kuo et al. (2006); Martin (2005); Rogers et al. (2008); Seyfi et al. (2013); Shea & Yeh (2008); Shechtman et al. (2010); Stewart et al. (2001); Thompson et al. (2012); Ting & Hwang (2009)
Contradictory findings ($n = 2$)	Pumpa & Martin (2015); Reavley et al. (2012)

When existing evidence is analysed separately for all help-seeking measures, the following pattern emerges: The majority of the studies ($n = 12$) found a positive relationship between age and positive attitudes towards help seeking – only two studies found a negative relationship, and in seven studies age was not related to attitudes towards help seeking (Table 2.6). Similarly, most studies examining help-seeking intentions ($n = 5$) found a positive relationship, whereas two studies found a negative relationship and one study found no relationship (Table 2.6). When considering actual help-seeking behaviour, most studies found either a negative relationship ($n = 6$) or a positive relationship ($n = 6$), and only one study found no relationship. Overall, as shown in Table 2.6, most studies found a positive relationship between age and help seeking ($n = 23$), indicating that as age increases, help seeking increases as well. However, there were 10 studies that found a negative relationship and nine studies that could not confirm any relationship between age and help seeking.

Table 2.6

Summary of Relationship Between Age and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	7	1	1	9
Negative relationship	2	2	6	10
Positive relationship	12	5	6	23

When considering each help-seeking area separately, slightly different patterns emerge (Table 2.7). In contrast to the overall findings, more studies found negative rather than positive relationships between age and academic help seeking. Within the area of career help seeking, only positive relationships were found, whereas in the area of physiological help seeking, no relationships were confirmed. Consistent with the overall findings, most studies found positive relationships between age and psychological help seeking.

Table 2.7*Overview of how Age is Related to the Different Areas of Help Seeking*

Outcome/ Help-seeking area	No relationship	Negative relationship	Positive relationship	Total
Academic		5	4	9
Career			2	2
Physiological	1			1
Psychological	9	5	17	31
Total	10	10	23	43

2.1.6.1.2 Gender. Most studies included in this review ($n = 99$) examined the relationship between gender and help seeking. As shown in Table 2.8, 27 studies did not find a relationship between gender and help seeking. Three studies showed that help seekers are more likely to be males, whereas non help seekers are most likely to be females. Dietsche (2012) and Hoar and Flint (2008) reported contradictory findings – with regard to academic help seeking, Dietsche (2012) found that women sought help more often, except for numeracy support, an area where men sought help more frequently. Hoar and Flint (2008) reported that female student athletes have stronger intentions to seek psychological help from their peers, whereas men have stronger intentions to seek help from athletic therapists. Most studies ($n = 67$) found that females were more likely to seek help than males, indicating that females have better attitudes towards help seeking, have higher intentions to seek help, and seek more help in general.

Table 2.8*Overview of Studies Analysing Gender and Help Seeking*

No relationship (<i>n</i> = 27)	Adamson et al. (2003); Al-Darmaki (2003); Al-Darmaki (2014); Ballesteros & Hilliard (2016); Barksdale & Molock (2009); Bathje et al. (2014); Bidjerano (2005); Blondeau & Awad (2017); Chang (2014); DiRamio et al. (2015); Downs & Eisenberg (2012); Du et al. (2015); Fittler (2016); Golberstein et al. (2009); Hackler et al. (2010); Ji et al. (2013); Kaya (2015); Keith (2007); Kim (2007); Larose et al. (2009); Masuda et al. (2009); Oluyinka (2011); Rogers et al., (2008); Rosenthal & Wilson (2008); Stewart et al. (2001); Vogel et al. (2010); Zhang & Dixon (2003)
Females more likely/males less likely to seek help (<i>n</i> = 67)	Al-Darmaki (2011); Alexitch (2002); Andrews et al. (2011); Ang et al. (2004); Arora et al. (2016); Atik & Yalçın (2011); Balin & Hirschi (2010); Barwick et al. (2009); Bathje & Pryor (2011); Benenson & Koulmazarian (2008); Chang (2007); Chang (2008); Cheang, & Davis (2014); Cheng et al. (2018); Cowart (2013); Currier et al. (2017); Davidson et al. (2004); de Oliveira et al. (2008); Duncan & Johnson (2007); Eisenberg et al. (2007); Erkan et al. (2012); Flisher et al. (2002); Gloria et al. (2008); Gloria et al. (2001); Goh et al. (2007); Halter (2004); Hamid et al. (2009); Han & Pong (2015); Heath et al. (2016); Kagan & Zychlinski (2016); Kakhnovets (2011); Kessels & Steinmayr (2013); Kim & Omizo (2003); Komiya & Eells (2001); Komiya et al. (2000); Koydemir-Özden (2010); Koydemir-Özden & Erelb (2010); Kumcagiz (2013); Kuo et al. (2006); LaLonde (2014); Martin (2005); Masuda et al. (2005); McCarthy et al. (2010); Morgan et al. (2003); Fhloinn et al. (2016); Perenc & Radochonski (2016); Pfohl (2010); Reavley et al. (2012); Seyfi et al. (2013); Shea & Yeh (2008); Shechtman et al. (2010); Sheu & Sedlacek (2002); Sheu & Sedlacek (2004); Soorkia et al. (2011); Thompson et al. (2012); Topkaya (2014); Tsan & Day (2007); Türküm (2005); Virtanen & Nevgi (2010); Walter (2012); Walter et al. (2012); Warren (2010); Yeh (2002); Yoo et al. (2005); Yoon & Jepsen (2008); Zawawi (2011); Zochil & Thorsteinsson (2018)
Males more likely/females less likely to seek help (<i>n</i> = 3)	Amarasuriya et al. (2018); Powell (2009); Roessger et al. (2018)
Contradictory findings (<i>n</i> = 2)	Dietsche (2012); Hoar & Flint (2008)

As shown in Table 2.9, when considering the different help-seeking measures separately, a slightly different pattern emerges – no relationship and females being more likely to seek help was found a similar number of times for actual help-seeking behaviour ($n = 8$ & $n = 10$). In contrast, females having better attitudes towards help seeking than males ($n = 51$) was confirmed more frequently than no difference between males and females ($n = 14$).

Table 2.9*Summary of Relationship Between Gender and Help-Seeking Measures*

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	14	5	8	27
Females more likely to have better attitudes, higher intentions, and to seek help	51	10	10	71
Males more likely to have better attitudes, higher intentions, and to seek help		1	2	3
Contradictory findings		1	1	2

When analysing gender individually for all help-seeking areas (Table 2.10), the study focussing on physiological help seeking found no relationship (Adamson et al., 2003). Within the areas of academic, career and psychological help seeking, females rather than males were more likely to seek help. However, no relationship between gender and help seeking was also confirmed in some studies for these three help-seeking areas.

Table 2.10*Overview of how Gender is Related to the Different Areas of Help Seeking*

Outcome/ Help-seeking area	No relationship	Females more likely/males less likely to seek help	Males more likely/females less likely to seek help	Contradictory findings	Total
Academic	6	11	3		20
Career	2	6	1		9
Physiological	1				1
Psychological	18	60	2	1	81
Total	27	77	6	1	111

2.1.6.1.3 Nationality and Cultural Background. Twelve studies included in this review examined nationality in relation to help seeking. Six studies found a relationship, whereas five other studies could not confirm a relationship between nationality and help seeking. Yoon and Jepsen (2008) found that nationality was not related to actual help-seeking behaviour, however, it was related to attitudes towards help seeking (Table 2.11). Often, an existing relationship between nationality and help seeking was found when Asian and European/American groups were compared. Chen and Mak (2008), Kuo et al. (2006),

Masuda et al. (2005) and Yoo and Skovholt (2001) found that Asians had less favourable attitudes towards help seeking and were less likely to seek help than Europeans/Americans.

Table 2.11

Overview of Studies Analysing Nationality and Help Seeking

No relationship (n = 5)	Al-Krenawi et al. (2004); Balin & Hirschi (2010); Bergvall & Himelein (2013); Tang et al. (2012); Zhang & Dixon (2003)
Relationship (n = 6)	Al-Krenawi et al. (2009); Chen & Mak (2008); Gonzales (2001); Kuo et al. (2006); Masuda et al. (2005); Yoo & Skovholt (2001)
Contradictory findings (n = 1)	Yoon & Jepsen (2008)

This balanced outcome can be confirmed when help-seeking measures are viewed separately (Table 2.12). However, differences are apparent when help-seeking areas are considered individually. As shown in Table 2.13, no relationship was found between nationality and career, and physiological help seeking, whereas more studies ($n = 7$) found a relationship between nationality and psychological help seeking than not ($n = 5$). No study included in this review investigated the relationship between nationality and academic help seeking.

Table 2.12

Summary of Relationship Between Nationality and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help seeking	Total
No relationship	4	2	6
Relationship	5	2	7

Table 2.13

Overview of how Nationality is Related to the Different Areas of Help Seeking

Outcome/ Help-seeking area	No relationship	Relationship	Total
Career	1		1
Physiological	1		1
Psychological	5	7	12
Total	7	7	14

Cultural background and help seeking was examined in 36 studies included in this review. As shown in Table 2.14, the majority of the studies ($n = 22$) confirmed a relationship. As for nationality, many studies confirmed a relationship between cultural background and help seeking when considering differences between Asian and other ethnic groups. For example, Brownson et al. (2014), Cheng et al. (2018), Choi and Miller (2014), and Kam et al. (2018) found that Asians had less favourable attitudes towards help seeking, less help-seeking intentions and were less likely to seek help compared to other ethnic groups. Fourteen studies did not find a relationship.

Table 2.14

Overview of Studies Analysing Cultural Background and Help Seeking

No relationship ($n = 14$)	Cowart (2013); Davidson et al. (2004); Fittler (2016); Golberstein et al. (2009); Halter (2004); Leong et al. (2011); Powell (2009); Rosenthal & Wilson (2008); Soorkia et al. (2011); Stewart et al. (2001); Waetjen et al. (2015); Walter (2012); Warren (2010); Zusho & Barnett (2011)
Relationship ($n = 22$)	Adamson et al. (2003); Ayalon & Young (2005); Brownson et al. (2014); Cheng et al. (2018); Choi & Miller (2014); Dietsche (2012); Downs & Eisenberg (2012); Eisenberg et al. (2007); Flisher et al. (2002); Frey & Roysircar (2006); Gloria et al. (2001); Hamid et al. (2009); Kam et al. (2018); Kim & Zane (2016); Kim (2009); Masuda et al. (2009); Morgan et al. (2003); Reavley et al. (2012); Shechtman et al. (2010); Sheu & Sedlacek (2002); Sheu & Sedlacek (2004); Walter et al. (2012)

The above is also true when considering the help-seeking measures individually. Most studies found a relationship between cultural background and attitudes towards help seeking, actual help seeking or help-seeking intentions (Table 2.15).

Table 2.15

Summary of Relationship Between Cultural Background and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	6	1	7	14
Relationship	9	5	9	23

Although this pattern continues for career and psychological help seeking, in the areas of academic and physiological help seeking, a relationship as well as no relationship between cultural background and help seeking was found a similar number of times between the two variables (Table 2.16).

Table 2.16

Overview of how Cultural Background is Related to the Different Areas of Help Seeking

Outcome/ Help-seeking area	No relationship	Relationship	Total
Academic	4	3	7
Career	1	3	4
Physiological	1	1	2
Psychological	10	20	30
Total	16	27	43

2.1.6.1.4 Acculturation. In total, 19 studies included in this review examined acculturation as a possible crucial variable for help seeking. Of these, the majority ($n = 11$) found a positive relationship between the level of acculturation and help seeking, indicating that increased assimilation to the prevalent culture relates to increased help seeking (Table 2.17). Two studies reported contradictory findings. Kim (2007) found that not adjusting to the prevalent culture negatively predicted attitudes towards help seeking, whereas no relationship was found for acculturation. Frey and Roysircar (2006) found a positive relationship between acculturation and help seeking for South Asians. However, no relationship was found for East Asians. Six studies found no relationship.

Table 2.17*Overview of Studies Analysing Acculturation and Help Seeking*

No relationship (n = 6)	De Melo & Farber (2005); Kanukollu (2011); Kim (2009); Nair et al. (2007); Ting & Hwang (2009); Yakunina & Weigold (2011)
Positive relationship (n = 11)	Ballesteros & Hilliard (2016); Han & Pong (2015); Lee (2014); Leong et al. (2011); Li et al. (2016); Miller et al. (2011); Miville & Constantine (2006); Miville & Constantine (2007); Shea & Yeh (2008); Soorkia et al. (2011); Zhang & Dixon (2003)
Contradictory findings (n = 2)	Frey & Roysircar (2006); Kim (2007)

As shown in Table 2.18, most studies found a positive relationship between acculturation and attitudes towards help seeking. A similar number of studies found positive or no relationships when considering help-seeking intentions or actual help-seeking behaviour. The consideration of acculturation in different help-seeking areas was not possible as part of this review, as all studies examining acculturation focused on psychological help seeking only.

Table 2.18*Summary of Relationship Between Acculturation and Help-Seeking Measures*

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	6	2	1	9
Positive relationship	9	2	2	13

2.1.6.1.5 Stigma. Overall, 44 studies examined stigma and help seeking (Table 2.19). Thirty-six studies confirmed a negative relationship, indicating that greater stigma is associated with less favourable attitudes towards help seeking, decreased help-seeking intentions or lower help-seeking behaviour. Only one study could not find a relationship. Seven studies showed somewhat contradictory findings: Eisenberg et al. (2009), LaLonde (2014), Li et al. (2018), Pfohl (2010) and Shechtman et al. (2010) found that self-stigma was negatively related with measures of help seeking, whereas public stigma was not related. Li,

Denson, and Dorstyn (2017), as well as Yakunina and Weigold (2011) confirmed a negative relationship between stigma and attitudes towards help seeking. However, stigma was positively associated with help-seeking intentions in both studies.

Table 2.19

Overview of Studies Analysing Stigma and Help Seeking

Negative relationship (n = 36)	Amarasuriya et al. (2018); Arora et al. (2016); Ballesteros & Hilliard (2016); Bathje et al. (2014); Bathje & Pryor (2011); Boyd et al. (2007); Calloway et al. (2012); Cellucci et al. (2006); Cheang & Davis (2014); Cheng et al. (2015); Cheng et al. (2018); Choi & Miller (2014); Currier et al. (2017); Czyn et al. (2013); Gsell (2011); Givens & Tija (2002); Hackler et al. (2010); Han & Pong (2015); Heath et al. (2016); Kagan & Zychlinski (2016); Kim & Zane (2016); Komiya et al. (2000); Ludwikowski et al. (2009); McCarthy et al. (2010); Miville & Constantine (2007); Seamark & Gabriel (2018); Shea & Yeh (2008); Ting & Hwang (2009); Topkaya (2014); Vogel et al. (2010); Vogel et al. (2005); Vogel et al. (2007); Wahto & Swift (2014); Wang et al. (2015); Yakunina et al. (2010)
No relationship (n = 1)	Golberstein et al. (2009)
Contradictory findings (n = 7)	Eisenberg et al. (2009); LaLonde (2014); Li, Denson, & Dorstyn (2017); Li et al. (2018); Pfohl (2010); Shechtman et al. (2010); Yakunina & Weigold (2011)

The above findings are confirmed when considering stigma for the different help-seeking measures separately. However, there are some inconsistencies, as two studies found a positive relationship between stigma and help-seeking intentions and some studies could not confirm a relationship (Table 2.20). Furthermore, 44 of 45 studies considering stigma were conducted in the area of psychological help seeking. Only one study examined stigma in relation to career help seeking. Ludwikowski et al. (2009) found a negative relationship between stigma and attitudes towards career counselling.

Table 2.20

Summary of Relationship Between Stigma and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Barriers to help seeking	Help seeking	Total
No relationship	3	2		1	6
Negative relationship	26	13	3	3	45
Positive relationship		2			2

2.1.6.1.6 Socioeconomic Status. In total, 14 studies examined a person's socioeconomic status and help seeking. As shown in Table 2.21, most studies could not confirm a relationship ($n = 9$). Three studies found that subjects with a lower socioeconomic status are more likely to seek help, whereas one study found the contrary. Kaya (2015) found that subjects with a higher income were less likely to seek help, but income was not related to attitudes towards help seeking.

Table 2.21

Overview of Studies Analysing Socioeconomic Status (SES) and Help Seeking

Subjects with lower SES more likely to seek help ($n = 3$)	Benenson & Koulkazarian (2008); Duncan (2003); Duncan & Johnson (2007)
No relationship ($n = 9$)	Adamson et al. (2003); Fittler (2016); Goh et al. (2007); Kagan & Zychlinski (2016); Kuo et al. (2006); Rosenthal & Wilson (2008); Waetjen et al. (2015); Walter (2012); Walter et al. (2012)
Subjects with lower SES less likely to seek help ($n = 1$)	Eisenberg et al. (2007)
Contradictory findings ($n = 1$)	Kaya (2015)

A similar pattern emerges for attitudes towards help seeking and help-seeking intentions. Most studies found no relationship. However, when considering actual help-seeking behaviour, the findings are ambivalent. Two studies found no relationships, two studies found that subjects with a lower socioeconomic status are more likely to seek help and one study found the contrary (Table 2.22).

Table 2.22

Summary of Relationship Between Socioeconomic Status (SES) and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	5	3	2	10
Subjects with lower SES more likely to seek help	2		2	4
Subjects with lower SES less likely to seek help			1	1

As shown in Table 2.23, in the area of psychological and physiological help seeking, most studies found no relationship. However, in the area of academic help seeking, one study found that subjects with a lower socioeconomic status are more likely to seek help and one study could not confirm a relationship between socioeconomic status and help seeking.

Table 2.23

Overview of how Socioeconomic Status (SES) is Related to the Different Areas of Help Seeking

Outcome/ Help-seeking area	No relationship	Subjects with lower SES more likely to seek help	Subjects with lower SES less likely to seek help	Total
Academic	1	1		2
Physiological	2			2
Psychological	7	3	1	11
Total	10	4	1	15

2.1.6.1.7 Educational Background. The relationship between educational background and help seeking was investigated in 11 studies. The majority found that subjects with a higher educational level (e.g. higher year of study, seniors vs. juniors, high school graduates vs. undergraduate degree holders vs. graduate degree holders) are more likely to seek help ($n = 7$), suggesting that increased help seeking is related to higher educational degrees. Four studies did not confirm any relationship between a person’s educational background and help seeking (Table 2.24).

Table 2.24

Overview of Studies Analysing Educational Background (EB) and Help Seeking

No relationship ($n = 4$)	Kaya (2015); Keith (2007); Waetjen et al. (2015); Zhang & Dixon (2003)
Subjects with higher EB more likely to seek help ($n = 7$)	Al-Darmaki (2003); Al-Krenawi et al. (2004); Andrews et al. (2011); Goh et al. (2007); Perenc & Radochonski (2016); Toivonen et al. (2018); Walter et al. (2012)

When considering the different help-seeking measures separately (Table 2.25), the same pattern occurs for attitudes towards help seeking. However, in terms of actual help-

seeking behaviour, more studies found no relationship ($n = 2$), compared to a relationship ($n = 1$).

Table 2.25

Summary of Relationship Between Educational Background (EB) and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help seeking	Total
No relationship	2	2	4
Subjects with higher EB more likely to seek help	6	1	7

In the area of psychological help seeking, more studies found that subjects with a higher educational level were more likely to seek help ($n = 7$), compared to no relationships ($n = 2$). No pattern can be confirmed for academic help seeking, as only one study examined the possible relationship to educational background. This study found that there was no relationship (Keith, 2007). In the area of physiological help seeking, Waetjen et al. (2015) found no relationship, whereas Toivonen et al. (2018) found that those with a higher educational level were more likely to seek help (Table 2.26).

Table 2.26

Overview of how Educational Background (EB) is Related to the Different Areas of Help Seeking

Outcome/ Help-seeking area	No relationship	Subjects with higher EB more likely to seek help	Total
Academic	1		1
Physiological	1	1	2
Psychological	2	7	9
Total	4	8	12

2.1.6.1.8 Prior Help-Seeking Experience. As shown in Table 2.27, 30 studies examined the influence of prior help-seeking experience on help seeking, of which 24 studies found that subjects who had sought help previously were more likely to seek help again, had better attitudes towards help seeking and increased help-seeking intentions. Five studies

found no relationship and Hamid et al. (2009) found that participants with previous counselling experience had less positive attitudes towards help seeking.

Table 2.27

Overview of Studies Analysing Prior Help-Seeking Experience (PHSE) and Help Seeking

Subjects with PHSE more likely to seek help (n = 24)	Andrews et al. (2011); Ballesteros & Hilliard (2016); Chang (2008); Chen & Mak (2008); Cheng et al. (2018); Cooper et al. (2003); Davidson et al. (2004); Erkan et al. (2012); Goh et al. (2007); Ji et al. (2013); Kahn & Williams (2003); Kakhnovets (2011); Kim & Park (2009); Kim & Omizo (2003); Komiya & Eells (2001); Kumcagiz (2013); LaLonde (2014); Masuda et al. (2005); McCarthy et al. (2010); Morgan et al. (2003); Pfohl (2010); Schachner (2009); Walter (2012); Walter et al. (2012)
Subjects with PHSE less likely to seek help (n = 1)	Hamid et al. (2009)
No relationship (n = 5)	Kaya (2015); Kim (2007); Koydemir-Özdena & Erelb (2010); Seyfi et al. (2013); Zhang & Dixon (2003)

Regarding the different help-seeking measures, most studies found that subjects with prior help-seeking experience had better attitudes towards help seeking, increased help-seeking intentions and were more likely to seek help again (Table 2.28).

Table 2.28

Summary of Relationship Between Prior Help-Seeking Experience (PHSE) and Help-Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	4	1		5
Subjects with PHSE less likely to seek help	1			1
Subjects with PHSE more likely to seek help	19	6	3	28

Only one study focused on help-seeking areas other than psychological help seeking. Chang (2008) found that participants with previous help-seeking experience were more likely to seek academic-, career- as well as psychological-related help (Table 2.29).

Table 2.29*Overview of how Prior Help-Seeking Experience (PHSE) is Related to the Different Areas of Help Seeking*

Outcome/ Help-seeking area	No relationship	Subjects with PHSE less likely to seek help	Subjects with PHSE more likely to seek help	Total
Academic			1	1
Career			1	1
Psychological	5	1	24	30
Total	5	1	26	32

2.1.6.1.9 Perceived Behavioural Control. Only four studies, conducted in the area of psychological help seeking, analysed perceived behavioural control as a variable related to help seeking (Table 2.30). Two studies found negative relationships in this regard, indicating that if a person perceives they can deal with their own problems, they are less likely to seek help *Insertion – not published* [Hess (2012); Hess & Tracey (2013)], whereas the other two studies could not confirm any relationships *Insertion – not published* [between the perceived control of accessing help and help seeking (Fleming et al., 2018; Li et al., 2018)].

Table 2.30*Overview of Studies Analysing Perceived Behavioural Control and Help Seeking*

Negative relationship (n = 2)	Hess (2012); Hess & Tracey (2013)
No relationship (n = 2)	Fleming et al. (2018); Li et al. (2018)

When considering the different help-seeking measures individually, it can be shown that negative relationships were found between perceived behavioural control and help-seeking intentions. No relationship was found for all three help-seeking measures (Table 2.31).

Table 2.31*Summary of Relationship Between Perceived Behavioural Control and Help-Seeking Measures*

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship	1	1	1	3
Negative relationship		2		2

2.1.6.1.10 Attitudes Towards Help Seeking. As shown in Table 2.32, 29 studies investigated the influence of attitudes towards help seeking on help seeking. Most studies ($n = 25$) found a positive relationship, indicating that more positive attitudes towards help seeking are related to higher intentions to seek help and increased help-seeking behaviour. Fleming et al. (2018), and Miville and Constantine (2006) could not confirm a relationship. Chang (2008) found a positive relationship for psychological help seeking, but no relationship for academic- and career-related help seeking. Ji et al. (2013) confirmed a positive relationship for males only.

Table 2.32*Overview of Studies Analysing Attitudes Towards Help Seeking and Help Seeking*

Positive relationship ($n = 25$)	Balin & Hirschi (2010); Bathje & Pryor (2011); Cellucci et al. (2006); Chang (2014); Choi & Miller (2014); Codd & Cohen (2003); Dearing et al. (2005); Erkan et al. (2012); Hess (2012); Hess & Tracey (2013); Kahn & Williams (2003); Kim & Park (2009); Kim & Omizo; (2003); Leech (2007); Li, Denson, & Dorstyn (2017); Li et al. (2018); Morgan et al. (2003); Pumpa & Martin (2015); Seyfi et al. (2013); Shechtman et al. (2010); Smith et al. (2008); Vogel et al. (2007); Vogel et al. (2005); Yakunina et al. (2010); Yakunina & Weigold (2011)
No relationship ($n = 2$)	Fleming et al. (2018); Miville & Constantine (2006)
Contradictory findings ($n = 2$)	Chang (2008); Ji et al. (2013)

When considering help-seeking measures separately, a slightly different pattern emerges (Table 2.33). Most studies ($n = 23$) found a positive relationship to help-seeking intentions. However, with regard to actual help-seeking behaviour, a similar number of studies found positive relationships ($n = 4$) as well as no relationships ($n = 3$).

Table 2.33

Summary of Relationship Between Attitudes Towards Help Seeking and Help-Seeking Measures

Help-seeking measure/ Outcome	Help-seeking intentions	Help seeking	Total
No relationship	2	3	5
Positive relationship	23	4	27

Only a small number of studies examined attitudes towards help seeking in the context of academic and career help seeking (Table 2.34). Chang (2008) found that there is no relationship to academic- and career-related help seeking, whereas Balin and Hirschi (2010) found a positive relationship to career help seeking. Most studies focused on psychological help seeking and found positive relationships.

Table 2.34

Overview of how Attitudes Towards Help Seeking is Related to the Different Areas of Help Seeking

Outcome/ Help-seeking area	No relationship	Positive relationship	Total
Academic	1		1
Career	1	1	2
Psychological	3	26	29
Total	5	27	32

2.1.6.1.11 External Locus of Control. Only four studies included in this review analysed the relationship between external locus of control and help seeking (Table 2.35). Barwick et al. (2009) found a positive relationship in the area of psychological help seeking. Andrews et al. (2011) found that external locus of control was negatively related, but only for a subgroup of their sample. Oluyinka (2011) and O'Carroll et al. (2001) found negative relationships in the areas of psychological and physiological help seeking.

Table 2.35*Overview of Studies Analysing External Locus of Control and Help Seeking*

Negative relationship (n = 2)	Oluyinka (2011); O'Carroll et al. (2001)
Positive relationship (n = 1)	Barwick et al. (2009)
Contradictory findings (n = 1)	Andrews et al. (2011)

When considering help-seeking measures individually (Table 2.36), one negative relationship between external locus of control and actual help-seeking behaviour was found. Positive, negative, as well as no relationships were found with regard to attitudes towards help seeking.

Table 2.36*Summary of Relationship Between External Locus of Control and Help-Seeking Measures*

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help seeking	Total
No relationship	1		1
Negative relationship	2	1	3
Positive relationship	1		1

2.1.6.1.12 Personality. As shown in Table 2.37, 19 studies included in this review examined personality, or parts of it, in relation to help seeking. Most studies ($n = 18$) used the Big Five Personality Model, looking at the dimensions of openness, conscientiousness, agreeableness, extraversion, and neuroticism (McCrae & Costa, 1985). Tyssen et al. (2004) used a personality concept comprising the dimensions of vulnerability, intensity, control and reality weakness. The authors found that only reality weakness was negatively related to help seeking, whereas other dimensions were unrelated.

Table 2.37*Overview of Studies Analysing Personality and Help Seeking*

Relationship ($n = 18$)	Atik & Yalçin (2011); Bathje et al. (2014); Bidjerano & Dai (2007); Ghyasi et al. (2013); Goodwin (2009); Gsell (2011); Kakhnovets (2011); Komiya et al. (2000); LaLonde (2014); Larose et al. (2009); O'Carroll et al. (2001); O'Connor et al. (2014); Oluyinka (2011); Rogers et al. (2008); Schachner (2009); Toivonen et al. (2018); Tsan & Day (2007); Tyssen et al. (2004)
No relationship ($n = 1$)	Feng & Campbell (2011)

In the following, the findings focus on the remaining 18 studies using the Big Five Personality Model. Feng and Campbell (2011) could not find a relationship between any of the personality dimensions and help seeking, whereas all other studies found that personality, or at least parts thereof, are related to help seeking.

Extraversion was analysed in 11 studies. The majority ($n = 7$) found a positive relationship to help seeking. Four studies could not confirm a relationship. Openness was considered in 13 studies, most of which ($n = 10$) found a positive relationship to help seeking, and in three studies openness was not related. Only seven studies included conscientiousness in their analysis of the relationship between personality and help seeking. Four studies found that conscientiousness is unrelated, whereas three studies found a positive relationship to help seeking. Agreeableness was examined in seven studies. An equal number of positive relationships ($n = 3$) and no relationships ($n = 3$) was found. Kakhnovets (2011) found that agreeableness was positively related to attitudes towards help seeking for men, but not for women. The relationship between the personality dimension of neuroticism and help seeking was explored in 12 studies. Seven studies found that there was no relationship to help seeking. Atik and Yalçin (2011) and Goodwin (2009) found a negative relationship to attitudes towards psychological and academic help seeking, whereas O'Carroll et al. (2001) found a positive relationship to physiological help seeking. Kakhnovets (2011) also confirmed a positive relationship, but only for men and not for women. LaLonde (2014)

found that neuroticism was negatively related to help-seeking intentions but not associated with attitudes towards help seeking.

Overall, four studies (Bidjerano & Dai, 2007; Ghyasi et al., 2013; Goodwin, 2009; Larose et al., 2009) investigated the relationship of personality within the area of academic help seeking. Extraversion was found to be positively related in three studies and one study could not confirm any relationship. Neuroticism was unrelated in three studies and negatively related in one study. Openness, conscientiousness, and agreeableness were positively related in one study and not related in two studies.

2.1.6.1.13 Subjective Norms. As shown in Table 2.38, subjective norms were examined in 11 studies. The majority of studies ($n = 10$) found a positive relationship to help seeking, indicating that more positive subjective norms are related to better attitudes towards help seeking and increased help-seeking intentions and behaviour. Li et al. (2018) confirmed this positive relationship for attitudes towards help seeking, but not for help-seeking intentions.

Table 2.38

Overview of Studies Analysing Subjective Norms and Help Seeking

Positive relationship ($n = 10$)	Barksdale & Molock (2009); Cheang & Davis (2014); Codd & Cohen (2003); Fleming et al. (2018); Hess (2012); Hess & Tracey (2013); Kim & Park (2009); Li, Denson, & Dorstyn (2017); Seamark & Gabriel (2018); Vogel et al. (2005)
Contradictory findings ($n = 1$)	Li et al. (2018)

All studies examining the relationship between subjective norms and help seeking were conducted in the area of psychological help seeking. Most studies focused on attitudes towards help seeking ($n = 4$) and help-seeking intentions ($n = 6$) and found positive relationships (Table 2.39). Li et al. (2018) found that subjective norms were not related to help-seeking intentions.

Table 2.39

Summary of Relationship Between Subjective Norms and Help Seeking Measures

Help-seeking measure/ Outcome	Attitudes towards help seeking	Help-seeking intentions	Help seeking	Total
No relationship		1		1
Positive relationship	4	6	2	12

2.1.7 Discussion

This systematic scoping review examined variables related to academic help-seeking behaviour in higher education by mapping findings from a multidisciplinary perspective. Due to limited existing evidence in the area of academic help seeking in higher education, original research from the areas of psychological, career and physiological help seeking conducted in various contexts were included. The researchers focused on answering the following broad research questions:

- 1) What are the key variables related to help-seeking behaviour?
- 2) What are the gaps in existing research which are crucial for providing effective academic support services?

The following variables were found to be of interest within existing literature: age, gender, nationality and cultural background, acculturation, stigma, socioeconomic status, educational background, prior help-seeking experience, perceived behavioural control, attitudes towards help seeking, external locus of control, personality, and subjective norms.

2.1.7.1 Key Variables Related to Help Seeking. The literature provides clear evidence for some key variables related to help seeking. However, other variables are ambivalent and require further investigation.

Convincing evidence was found for gender, stigma, prior help-seeking experience, attitudes towards help seeking and subjective norms. Based on the reviewed literature, females are more likely to seek help than males. Stigma is negatively related to help seeking,

indicating that increased stigma towards help seeking is associated with less help seeking. Subjects with prior help-seeking experience are more likely to seek help. Subjective norms are positively related. Consequently, if a person's social environment is supportive of help seeking, a person is more likely to engage in help-seeking behaviour. Finally, attitudes towards help seeking were found to be positively related, indicating that positive attitudes are related to increased help-seeking intentions and behaviour.

Ambivalent results with minor trends were found for age, cultural background, acculturation, socioeconomic status, educational background, and personality. Age and acculturation were found to be mostly positively related, and subjects with a higher educational level were found to be more likely to seek help. Cultural background was related to help seeking, but there was also a significant number of studies that did not find a relationship between the variables. Most studies found that socioeconomic status was not related to help seeking, but some studies found relationships. With regard to personality, most studies found that some dimensions were related. However, the dimensions related to help seeking were inconsistent and no clear pattern could be identified. No trends were found for nationality, perceived behavioural control and external locus of control.

These findings are consistent with Ajzen's (2005) proposal about the influence of background variables on a certain behaviour. He argued that whether beliefs, intentions and behaviours are influenced by certain variables depends on the context and needs to be investigated empirically. Gender, stigma, prior help-seeking experience, attitudes towards help seeking and subjective norms seem to be related to help-seeking behaviour, whereas other variables may depend on the context.

2.1.7.2 Gaps in Existing Academic Help-Seeking Research. The findings of this systematic scoping review reveal a range of gaps in academic help-seeking research. To the

best of the researchers' knowledge, no recent study has examined nationality, acculturation, stigma, perceived behavioural control, external locus of control and subjective norms in the context of academic help seeking. Furthermore, educational background, prior help-seeking experience and attitudes towards help seeking were analysed in only one study, and no conclusion can therefore be drawn from these findings. Socioeconomic status was considered in two studies, but the findings were inconsistent. Benenson and Koulmazarian (2008) found that subjects from lower socioeconomic backgrounds sought more help, whereas Fittler (2016) found that socioeconomic status was not related.

More evidence from recent research can be found in regard to the background variables of gender, age, cultural background and personality. The relationship between gender and academic help seeking was examined in 21 studies, which revealed the trend that females are more likely than males to seek help academically. However, some studies could not confirm a relationship. Therefore, it is important to examine gender in a given context. Similarly, the findings from four studies investigating the relationship to personality showed a pattern for some dimensions of the Big Five Personality Model – higher scores on extraversion seem to be positively related to academic help seeking. Neuroticism, openness, conscientiousness, and agreeableness do not appear to play a big role in academic help seeking. However, some studies found relationships between these variables. They should therefore be considered when examining academic help seeking.

Although age and cultural background were considered in nine and seven studies respectively, no conclusions can be drawn regarding their relationship to academic help seeking. The findings for both background variables were inconsistent. Age was found to be positively as well as negatively related. Cultural background was related in three studies and unrelated in four studies. Consequently, these variables should be reconsidered in every unique context when academic help seeking is examined.

2.1.8 Conclusions and Recommendations

The aim of this systematic scoping review was to identify background variables related to academic help-seeking behaviour. Due to limited evidence in recent research, the reviewers drew on findings from other help-seeking areas. Given the type of review and the large number of studies included, assessing the quality of the studies was outside the scope of this systematic scoping review (Peters et al., 2015). Therefore, future systematic reviews focusing on specific background variables related to academic help seeking in specific contexts should consider assessing the quality of the studies included in the review.

Although there is inconsistent evidence for some background variables, or no evidence at all within the area of academic help seeking, the findings of this review suggest that all variables considered are worthwhile including in research aiming to examine and improve academic help seeking in a specific context. Every behaviour and its related beliefs and intentions in a certain context may be influenced by certain background variables and not by others (Ajzen, 2005). It is therefore recommended to include the variables referred to in this review (age, gender, nationality and cultural background, acculturation, stigma, socioeconomic status, educational background, prior help-seeking experience, perceived behavioural control, attitudes towards help seeking, external locus of control, personality, and subjective norms) in research concerning academic help seeking in higher education.

Furthermore, researchers should consider choosing a mixed-method study design which allows for comprehensive examination of academic help seeking and influencing variables in the selected context. This review has revealed that there is a need for further comprehensive studies to learn more about the nature of academic help-seeking behaviour. From the 168 studies included in this review, only three used a mixed-method study design. In addition, these studies – Czyz et al. (2013), DiRamio et al. (2015) and Han and Pong (2015) – were conducted in the area of psychological help seeking. All studies in the area of

academic help seeking used a quantitative research design. A quantitative approach to investigating academic help seeking can identify crucial variables for a large and representative sample. These findings can then be generalised for the population of interest in the given context. Combining this with a qualitative component can provide important details from students regarding crucial variables identified in the quantitative component. For example, interviews and focus groups can provide further information about how academic support services should be designed to increase their impact on diverse student cohorts. Questions such as ‘What did (not) work for you?’ and ‘Why did you (not) access this service?’ could lead to important findings about students’ preferences. Making evidence-based decisions when designing academic support services is important in order to improve services and to increase engagement, which is likely to increase student success (Chen, 2017; Collins, 2012).

Chapter 3: Theoretical Perspectives

Although the Theory of Planned Behavior (Ajzen, 2005) was used as the theoretical basis for this study, other theoretical perspectives are considered and discussed in this chapter to be able to better interpret findings and to be able to make well-informed recommendations about academic help seeking in higher education. In addition to the Theory of Planned Behavior, Prochaska and DiClemente's (1982) Transtheoretical Model of Change is used in this thesis to discuss and explain students' help-seeking behaviour in higher education. Furthermore, considering the importance of the students' satisfaction with academic support services, Deci and Ryan's (1985) Self-Determination Theory is discussed. In addition, this chapter includes a section describing the aims and research questions of this study derived from recent research and theory.

3.1 The Transtheoretical Model of Change

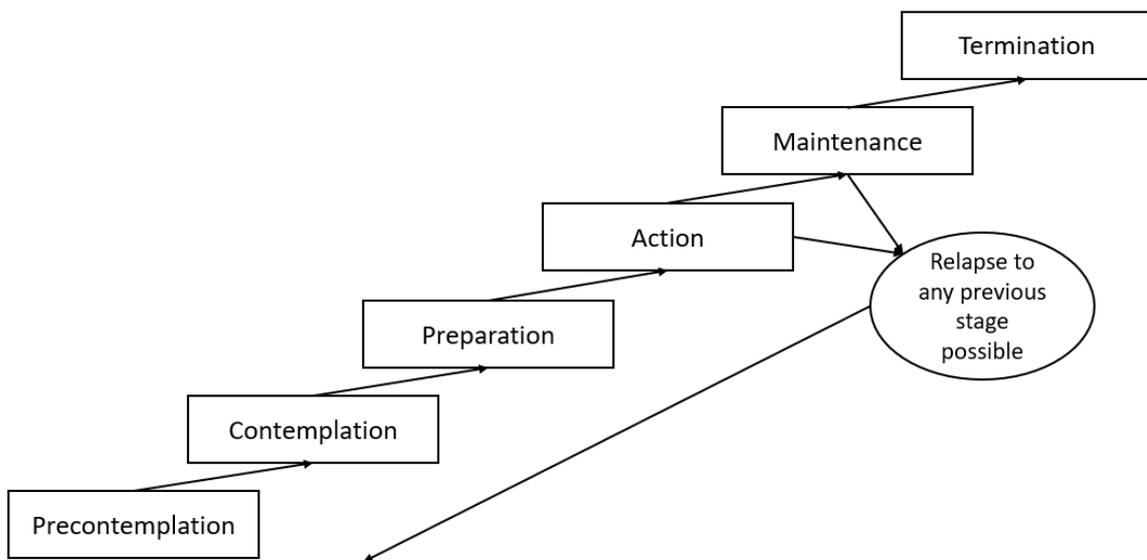
Prochaska and DiClemente's (1982) Transtheoretical Model of Change was developed by integrating 18 psychotherapy approaches with the aim to create a comprehensive model of common principles of behavioural change. The model can be applied to help people change unwanted behaviour. It has mostly been applied to health-related behavioural change, such as alcohol and drug abuse, weight loss, and HIV prevention. In more recent years, the model has also been applied to behaviour change regarding worksite physical activity (Planchard et al., 2018), depression management (Huang et al., 2021), and academic performance (Moreira et al., 2020). The model has been successfully used to explain behaviour and behaviour change in many different areas and may offer interesting insight into explaining how a student's decision not to seek academic support can be changed.

Prochaska and his colleagues proposed six stages of behaviour change for people. These include precontemplation, contemplation, preparation, action, maintenance, and

termination (Prochaska & Velicer, 1997). Figure 3.1 provides a diagram of the stages of behaviour change.

Figure 3.1

The Transtheoretical Model of Change (Figure Created Based on Information Provided in Prochaska and DiClemente (1982) and Prochaska and Velicer (1997))



In the precontemplation stage, people are not planning to begin to change their behaviour within the next six months. They probably do not have sufficient information about the effects of the undesired behaviour or have experienced unsuccessful attempts in changing their behaviour. People in this stage also avoid dealing with the unwanted behaviour (Prochaska & Velicer, 1997). While being in the precontemplation stage, people might also be unaware of having a problem although their social environment may recognise the problem (Prochaska & DiClemente, 1982). When people move to the contemplation stage, they are willing to change their behaviour within the next six months and are more aware of the positive consequences of changing the behaviour in question. However, people in the contemplation stage are also concerned about the costs of the behaviour change, which can keep them stuck in this stage for a long time (Prochaska & Velicer, 1997).

In the next stage, the preparation stage, people want to start changing their behaviour within the next month and usually have a concrete plan as to how they want to proceed. With regard to health-related problems, this plan could, for example, include talking to a GP or counsellor (Prochaska & Velicer, 1997). If people have moved on to the action stage, they have already started making changes to the behaviour in question over the past six months. However, Prochaska and colleagues argued that not every behaviour change is sufficient to be considered in the action stage. Modification to the behaviour needs to meet certain standards identified by professionals in the area of interest. For example, with regard to quitting smoking, only not smoking at all would be an acceptable behaviour change for the action stage, while reducing the number of cigarettes is not (Prochaska & Velicer, 1997).

After mastering the action stage, people move on to the maintenance stage. In this stage, people are working on maintaining their changed behaviour and are trying not to relapse. This process can last between six months and five years. From this stage, as well as the action stage, a relapse to any other previous stage is possible (Prochaska & Velicer, 1997). In the final stage, the termination stage, people are completely confident that they will not return to the undesired behaviour. This is considered the ultimate aim, however, it is also acknowledged that termination may not be realistic for some behaviours, such as exercising and weight control. Instead, it is expected that people remain in the maintenance stage (Prochaska & Velicer, 1997).

Prochaska and Velicer (1997) identified 10 processes of change that people use to move through the stages of behavioural change. These include consciousness raising, dramatic relief, self-reevaluation, environmental reevaluation, self-liberation, social liberation, counterconditioning, stimulus control, contingency management, and helping relationships. Table 3.1 further defines the processes of change and offers suggestions as to

how these could be applied to the context of academic help seeking to support academic help-seeking behaviour.

Table 3.1

Overview of Processes of Change and Their Application to Academic Help Seeking

Process of change	Definition (Prochaska & Velicer, 1997)	Application to academic help seeking
Consciousness raising	- Raising awareness about causes, effects, and ways to change unwanted behaviour.	- Campaigns explaining positive effects of academic help seeking. - Lecturers/tutors promoting academic help seeking.
Dramatic relief	- Creating emotional arousal about unwanted behaviour followed by relief that behaviour change is possible.	- Campaigns and student testimonials can convince students about negative consequences of not seeking academic help and can showcase how behaviour can be changed.
Self-reevaluation	- Cognitive and emotional evaluation of oneself with and without the unwanted behaviour.	- Considering personal negative consequences of not seeking academic support and benefits of academic help seeking. Students evaluate how (not) seeking academic help can impact them academically, as well as in terms of their personal wellbeing. Other students could stimulate this process.
Environmental reevaluation	- Cognitive and emotional evaluation of how unwanted behaviour or behaviour change impacts on a person's social context.	- Considering negative consequences of not seeking academic support and benefits of academic help seeking for the student's social environment. A student who seeks academic support can be a role model for other students and positively affect their behaviour.
Self-liberation	- Belief that unwanted behaviour can be changed and commitment to pursue change.	- Belief that seeking academic support is possible. Offering multiple sources of support can support this process.
Social liberation	- Increase in opportunities to change behaviour in the social environment showing that the behaviour is accepted.	- Various opportunities to access academic support in public spaces, thereby normalising academic help seeking and showing students that this behaviour is supported by the social environment.
Counterconditioning	- Learning substitutive behaviours for unwanted behaviour (e.g. nicotine alternatives as a substitute for cigarettes).	- Students learn to defend seeking academic support for themselves against possible peer pressure not to seek academic support.
Stimulus control	- Eliminating cues for unwanted behaviour and adding stimuli for behaviour change.	- Students can schedule regular academic support by making appointments or by signing up for workshops.

Process of change	Definition (Prochaska & Velicer, 1997)	Application to academic help seeking
Contingency management	- Punishment for unwanted behaviour and reinforcement for wanted behaviour.	- Reinforcement of academic help seeking by, for example, recognising the attendance of academic skills workshops with certificates.
Helping relationships	- Social environment that cares about behaviour change, is open to behaviour change and accepts wanted behaviour.	- University staff or mentors build rapport with students to ensure students have helping relationships for seeking academic support.

Furthermore, the Transtheoretical Model of Change considers the aspects of decisional balance, self-efficacy, and temptation. Prochaska and Velicer (1997) argued that people always include the weighing of pros and cons of the behaviour change into their decision-making process. Furthermore, people need to believe in their own capabilities to change the unwanted behaviour (self-efficacy) and people may experience temptation to engage in unwanted behaviour.

3.1.1 Application of the Model to Help-Seeking Behaviour and the Academic Context

Prochaska and DiClemente's (1982) Transtheoretical Model of Change has been successfully applied to some help-seeking behaviours in different contexts. For example, Young (2004) found that people in the contemplation stage had higher intentions to seek professional psychological help than people in the precontemplation stage. Furthermore, Kowatch and Hodgins (2015) found that the change processes of social liberation, helping relationships and counterconditioning predicted help seeking for gambling disorders. Comparable with the Theory of Planned Behavior, the application of Prochaska and DiClemente's (1982) Transtheoretical Model of Change has seen great attention in health- and psychotherapy-related areas but only little is known about its applicability in the academic context. However, Grant and Franklin (2007) found that the model can be a useful tool to improve higher education students' study strategies. The authors found that students perceived more disadvantages in changing their study habits from surface strategies to deep

achieving strategies during the precontemplation stage and more advantages during the maintenance stage. Furthermore, the students' self-efficacy increased as they moved through the stages and students in the action and maintenance stage applied more deep achieving study strategies compared to students in lower stages.

Furthermore, O'Brien (2002) found that the model's change processes, as well as temptation, predicted students' academic procrastination and their readiness to change this behaviour. To apply the Transtheoretical Model of Change to the context of this study, academic help seeking in higher education, the following section outlines how the model compares to background variables and Theory of Planned Behavior variables. In addition, aspects that might offer further insight to comprehensively interpret the findings of this study are discussed.

3.1.2 Comparison to Background Variables and Theory of Planned Behavior Variables

Many aspects of the Transtheoretical Model of Change can also be found in previously described background variables and Theory of Planned Behavior variables. However, there are aspects that may provide additional information to explain students' academic help seeking in higher education. Self-reevaluation, self-liberation, social liberation, counterconditioning, helping relationships, and self-efficacy seem to be somewhat related to background variables and Theory of Planned Behavior variables included in this study. Self-reevaluation and attitude towards a behaviour seem to be comparable to some extent. Both concepts relate to evaluations based on the desired behaviour. However, self-reevaluation focusses on evaluating oneself with the desired behaviour while attitude towards a behaviour refers to evaluating the actual desired behaviour (Ajzen, 1991; Prochaska & Velicer, 1997). Self-liberation in the context of academic help seeking can be understood as the person's belief that seeking academic support is possible and is therefore comparable to

the Theory of Planned Behavior variable perceived behavioural control. Perceived behavioural control refers to a person's belief of their ability to perform the behaviour in question, to seek academic help. This is also comparable to the concept of self-efficacy considered in the Transtheoretical Model of Change. Both constructs refer to the person's belief that the behaviour in question is under his or her control (Ajzen, 1991; Prochaska & Velicer, 1997).

Social liberation is defined as increasing opportunities to change behaviour in the social environment and showing that the behaviour is accepted (Prochaska & Velicer, 1997). Hence, it is comparable to reducing public stigma. Public stigma is defined as society not accepting a certain behaviour (Vogel et al., 2006). In the context of academic help seeking, social liberation, as well as reducing public stigma concern normalising students seeking academic support. Similarly, counterconditioning may be related to reducing self-stigma. Counterconditioning in the context of academic help seeking may be understood as students learning to defend the desired behaviour against peer pressure not to seek academic support. Correspondingly, reducing self-stigma would mean for students to disagree with negative stereotypes about academic help seeking, thereby protecting their self-esteem (Vogel et al., 2006).

The change process of helping relationships refers to a social environment that cares about behaviour change, is open to behaviour change and accepts the desired behaviour (Prochaska & Velicer, 1997). Likewise, subjective norm means that the desired behaviour is approved and supported by the social environment (Ajzen, 1991). Although these change processes are comparable to other background or Theory of Planned Behavior variables, they are a valuable contribution to the context of academic help seeking. In addition to defining concepts that influence behavioural change, the change processes of the Transtheoretical Model of Change also offer suggestions as to how barriers can be overcome to support

performing the desired behaviour. For example, offering multiple sources of academic support can support the process of self-liberation and offering opportunities to access academic support in public spaces can support social liberation (Prochaska & Velicer, 1997). More examples are listed in the previous table (Table 3.1).

Other change processes and aspects considered in Prochaska and DiClemente's (1982) Transtheoretical Model of Change do not seem to be related to variables within the Theory of Planned Behavior or other background variables considered in the literature review in section 2.1. They can, therefore, offer valuable insight into aspects possibly affecting academic help-seeking behaviour. Furthermore, these aspects, including dramatic relief, environmental reevaluation, stimulus control, contingency management, decisional balance, and temptation, can also support the design of more engaging academic support in higher education.

3.2 Students' Satisfaction, Use of Academic Support and the Self-Determination Theory

Satisfaction has been shown to be an important factor in service usage and engagement in many different disciplines. For example, Garland et al. (2000) found that satisfaction with mental health services was related to the time spent in treatment. Furthermore, user satisfaction with e-learning in higher education was found to be positively related to the students' intention to use e-learning services (Ramayah & Lee, 2012). Similarly, Ataburo et al. (2017) discovered that the students' satisfaction with university online services is related to usage frequency. While the quality of such services has been shown to be important for the satisfaction of their users (Ataburo et al., 2017; Ramayah & Lee, 2012), Ryan and Deci (2000) explained that intrinsic motivation is also an important contributor for satisfaction. They clarified that if a person is intrinsically motivated, they gain satisfaction from performing a certain behaviour.

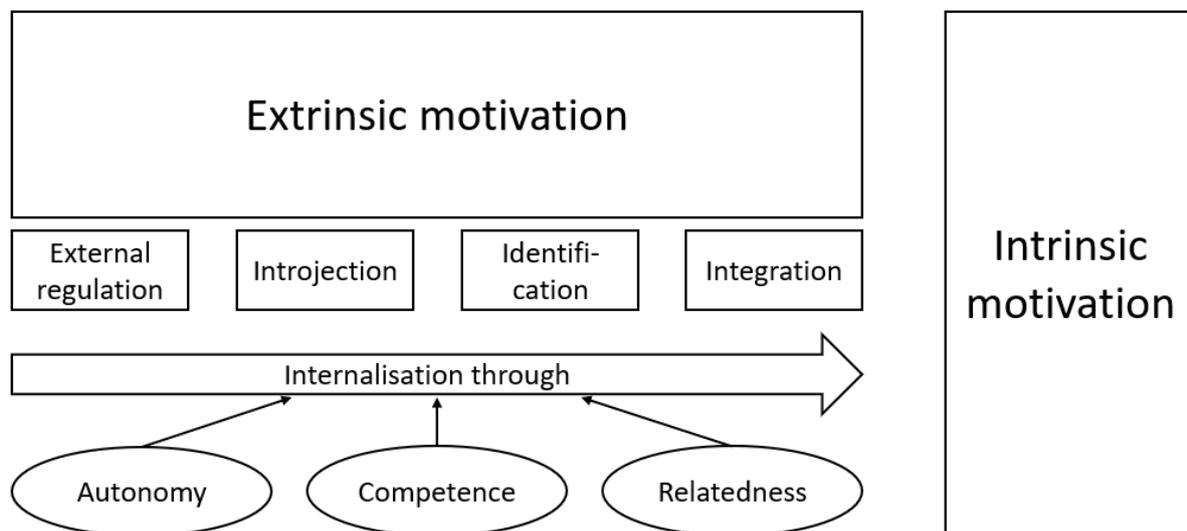
Dave et al. (2011) confirmed the importance of intrinsic motivation for satisfaction. They found that higher intrinsic motivation in nurses was related to higher satisfaction with extrinsic rewards. Moreover, Stringer et al. (2011) found that the intrinsic motivation of front-line employees of a retailer in Australasia was positively related to their pay satisfaction, as well as job satisfaction, while there was a negative relationship between extrinsic motivation and job satisfaction and no significant relationship between extrinsic motivation and pay satisfaction. With regard to a learner and higher education environment, Li, Yang et al. (2017) found that students' intrinsic motivation was positively related to their satisfaction with blended learning environments at a university in China.

3.2.1 The Self-Determination Theory

For the reasons outlined above, intrinsic motivation being related to satisfaction and satisfaction being related to service use, it seems important to consider the students' intrinsic motivation and their satisfaction with regard to their usage of academic support services. Intrinsic motivation has seen extensive attention in past and recent research, particularly within the framework of Deci and Ryan's (1985) Self-Determination Theory. Deci and Ryan's Self-Determination Theory has been consistently reviewed, expanded and applied since it was first postulated in 1985 (e.g. Ryan & Deci, 2000; Ryan & Deci, 2020). As shown in Figure 3.2, the Self-Determination Theory describes how satisfying the basic psychological needs of autonomy, competence and relatedness supports the development of intrinsically motivated behaviour through the internalisation of extrinsic motivation (Ryan & Deci, 2020).

Figure 3.2

The Self-Determination Theory (Adapted From Ryan and Deci (2020))



Ryan and Deci (2020) described extrinsically motivated behaviours as “behaviors done for reasons other than their inherent satisfactions” (p. 2). As shown in Figure 3.2, the Self-Determination Theory differentiates between four types of extrinsic motivation that have different levels of internalisation. External regulation is the least internalised type of extrinsic motivation and refers to behaviours that are controlled by external rewards and punishments. People usually experience this type of externally motivated behaviour as non-autonomous (Ryan & Deci, 2020). For example, a student may make an appointment with an academic support person because it is a condition for them to continue their studies. Introjection concerns extrinsically motivated behaviours that are slightly less externally motivated than behaviours motivated by the type of external regulation. Rather than being controlled by external rewards and punishments, behaviour is influenced by internal pressures, such as self-esteem, anxiety, or shame (Ryan & Deci, 2020). A student could, for instance, avoid attending academic skills workshops, as they fear negative reactions from their peers.

Identification and integration are considered somewhat internal and internal forms of extrinsic motivation, respectively. When performing identified regulated behaviours, people experience a relatively strong willingness to perform the behaviour. The behaviour becomes personally important as its values are acknowledged (Ryan & Deci, 2000; Ryan & Deci, 2020). For instance, a student may seek academic support regarding a mathematical concept because they identified the importance of this behaviour with regard to passing an exam. The most internal and autonomous type of extrinsic motivation is integration, whereby people find values in the behaviour that are consistent with other personal beliefs (Ryan & Deci, 2020). For example, a student seeks academic support for the structure of an essay because they believe in the importance of sophisticated communication skills. This refers to a behaviour that is extrinsically motivated in the form of integrated regulation.

In contrast, intrinsically motivated behaviour is behaviour that is performed solely out of interest, enjoyment or fun (Deci & Ryan, 2000). Such behaviour is not regulated by external rewards, punishments, or pressures (Ryan & Deci, 2020). The rather autonomous types of extrinsic motivation, identification and integration, are somewhat comparable to intrinsic motivation. What these types of motivation have in common are that they are very volitional. However, they “differ primarily in that intrinsic motivation is based in interest and enjoyment (...), whereas identified and integrated motivations are based on a sense of value – people view the activities as worthwhile, even if not enjoyable” (Ryan & Deci, 2020, p. 3).

To achieve intrinsic motivation or more autonomous types of extrinsic motivation, the basic psychological needs of autonomy, competence and relatedness need to be satisfied. Autonomy is fulfilled if a person feels in control of their own actions. This sense of ownership is hindered by external regulations, such as rewards and punishments (Ryan & Deci, 2020). Furthermore, competence is satisfied if people feel they can succeed in performing a certain behaviour. “The need for competence is best satisfied within well-

structured environments that afford optimal challenges, positive feedback, and opportunities for growth” (Ryan & Deci, 2020, p. 1). Relatedness is fulfilled if people feel a sense of belonging, which can be supported by caring and respectful relationships. Environments that do not satisfy or harm the satisfaction of these psychological needs threaten the development of intrinsic motivation or more autonomous types of extrinsic motivation (Ryan & Deci, 2020).

3.3 Summary

In addition to the Theory of Planned Behavior and students’ background variables, the Transtheoretical Model of Change and the Self-Determination Theory could provide valuable contributions to explaining academic help-seeking behaviour and to informing the design of engaging academic support for diverse student cohorts. Many aspects of the Transtheoretical Model of Change can also be found in Theory of Planned Behavior and students’ background variables. However, the model considers additional aspects that may be important to comprehensively explain academic help-seeking behaviour in higher education. Furthermore, the Transtheoretical Model of Change has mainly been applied to health-related behaviours. Its application to the context of academic help seeking in higher education could therefore help to unfold new perspectives. The Self-Determination Theory could be a valuable guide for fostering intrinsically motivated academic help-seeking behaviour. This could, in turn, increase the students’ satisfaction with academic support and lead to increased engagement. The following section outlines the aims of this research including research questions and hypotheses. These build on possibly crucial aspects for academic help-seeking behaviour elaborated in this and the previous section.

3.4 Aims and Research Questions

Recent literature, often building on the Theory of Planned Behavior, offers insights into help-seeking behaviour. However, in the systematic scoping review of 168 studies

conducted by Bornschlegl et al. (2020) as part of this project, it was shown that most research was conducted in the area of psychological help seeking, and knowledge about academic help seeking, particularly in the context of higher education, is limited and often ambivalent.

Many gaps with regard to variables related to academic help-seeking behaviour were identified in Bornschlegl et al.'s (2020) review. As discussed in one of the previous sections, a range of background factors have not been investigated in recent research about academic help seeking. Additionally, the findings regarding the influence of other background factors, for example socioeconomic status, are inconsistent. Some trends could be identified for gender and personality. Yet, some studies could not confirm the findings for gender and personality (Bornschlegl et al., 2020).

The significance of this project is investigating these gaps in order to inform the design of accessible and engaging academic support services for diverse student cohorts. This project aims to identify variables related to academic help-seeking behaviour in higher education and, therefore, add to existing research that has mainly been conducted in other help-seeking areas. Although there is inconsistent evidence for some background variables, or no evidence at all within the area of academic help seeking, it is suggested that all variables found in the literature are worthwhile including in this project aiming to examine and improve academic help seeking in the specific context of higher education, particularly in North Queensland, Australia.

Every behaviour and its related beliefs and intentions in a certain context may be influenced by certain background variables and not by others (Ajzen, 2005). Therefore, all variables found in the literature (age, gender, nationality and cultural background, acculturation, stigma, socioeconomic status, educational background, perceived behavioural control, attitudes towards help seeking, personality and subjective norms) are included in this

project. Although identified in Bornschlegl et al.'s (2020) literature review, external locus of control was, due to its similarity to perceived behavioural control (controllability, one aspect of perceived behavioural control), not included in this study (Ajzen, 2006; Oluyinka, 2011). As outlined in the previous section, satisfaction may be an important contributor for service engagement. Therefore, the students' satisfaction with academic support services is considered, which will then be discussed in light of students' motivation to increase engagement with the academic support provided.

In total, academic help seeking has been investigated in only 25 of 168 studies included in Bornschlegl et al.'s (2020) systematic scoping review. Thereof, five studies were not conducted in the context of higher education. Most studies were conducted in countries other than Australia and only one study included in the review was conducted at a higher education institution in Australia. This also emphasises the need for a comprehensive study of academic help-seeking behaviour in the context of Australian tertiary education.

Furthermore, the aim is to conduct a comprehensive research project with regard to the methods used. As discussed in Bornschlegl et al.'s (2020) literature review, no academic help-seeking study has used a mixed-method design to thoroughly investigate this concept. This study aims to combine quantitative and qualitative methods to produce findings that can be generalised for the population of interest, higher education students in North Queensland, Australia, as well as to generate detailed findings that illuminate students' perception of academic help seeking.

Taking the above considerations into account, the research questions pursued in this project are as follows:

1. How are background variables, personality and variables related to the Theory of Planned Behavior related to academic help-seeking behaviour in higher education?

2. What are the effects of academic help seeking on student retention?
3. Why do students (not) engage with academic support services?
4. How should academic support services be designed to make them more accessible and engaging for students?

Related to research question 1 and based on the findings of Bornschlegl et al.'s (2020) systematic scoping review, it is hypothesised that (H1) some personality and background variables in addition to the Theory of Planned Behavior are related to academic help-seeking behaviour in higher education. Previous research showed that various background factors and personality dimensions are related to help seeking in general and academic help seeking. However, many findings in the area of academic help seeking are conflicting (Bornschlegl et al., 2020). This is consistent with Ajzen's (2005) suggestion that whether a background variable is related depends on the context and needs to be investigated empirically. Therefore, hypothesis (H1) is relatively broad and does not propose the impact of specific background variables.

Furthermore, to support answering research question 2, the following hypothesis will be tested: Based on existing evidence, which showed the positive impact of academic support services on student outcomes (Chen, 2017; Collins, 2012), it is expected that (H2) seeking academic help is positively related to student retention. Research question 3 is of relative explorative nature. Therefore, only one further hypothesis related to the students' satisfaction is tested to contribute to answering this question. Based on the findings of Garland et al. (2000), Ramayah and Lee (2012), and Ataburo et al. (2017), it is proposed that (H3) the students' satisfaction with academic support services is positively related to their engagement with these services.

While research questions 1 and 2 will be answered using mainly quantitative methods, research question 3 will be answered using qualitative and quantitative methods, and research question 4 will be answered combining the findings from research questions 1, 2 and 3. Therefore, no hypotheses were formulated for research question 4. The following chapter describes the methods used to answer the above research questions and to test their related hypotheses. The chapter is divided into two larger sections for quantitative and qualitative methods, respectively. Within these sections, the instrument used, the sample, as well as how data were analysed are each discussed.

Chapter 4: Methods

This study used a mixed method research design to explore relationships between personality and background factors, and academic help-seeking behaviour in higher education at James Cook University (JCU), as well as to examine the importance of academic help seeking for student retention. It further sought to investigate largely unknown reasons for (not) accessing academic help services. The aim was to inform the design of accessible and engaging academic support services. This approach was chosen to gain a comprehensive understanding of academic help-seeking behaviour. Combining quantitative and qualitative methods led to broad as well as detailed knowledge about academic help seeking. Quantitative and qualitative methods were used sequentially in this study (Hammarberg et al., 2016). A quantitative online survey was supplemented by qualitative semi-structured interviews.

Quantitative methods were used to address research questions 1 and 2, therefore, examining the relationship between personality and background variables and academic help-seeking behaviour, as well as investigating the effects of academic help seeking on student retention. The quantitative methods also contributed to answering research question 3. Using this approach delivered broad and representative knowledge about JCU students' academic help-seeking behaviour and their success at university.

To investigate reasons for (not) accessing academic support services, and therefore, to answer research question 3, qualitative semi-structured interviews were conducted with a small number of participants after the completion of the online survey. As discussed by Hammarberg et al. (2016), the qualitative interviews were chosen to investigate details about the students' experience with and their opinion about academic support services. An interview took up to 32 minutes and consisted of 13 guiding questions, investigating reasons for (not) accessing particular services offered at JCU, the effectiveness of the services and

ideas about how academic support services should be designed to make them more accessible. The interviews were audio recorded and transcribed.

Research question 4 was answered by synthesising the findings from the online survey and the semi-structured interviews. This allowed the researcher to propose evidence based informative and hands-on strategies with regard to designing academic support services. This will help to make academic support services more accessible and engaging for students.

Ethics approval to conduct this research as described in this chapter was granted on 13th January 2020 by JCU's Human Research Ethics Committee. The Ethics Approval Number H7787 has been allocated to this study (see Appendix A). Two minor amendments to the original ethics application were made throughout the PhD candidature. The changes applied for include a supervisor change and the use of interview incentives. The ethics approval was valid for approximately three years until 31st January 2023.

4.1 Quantitative Methods

Note: Parts of this section have been published in *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021)

An online survey was conducted to collect data regarding the students' background and personality, as well as their help-seeking intentions and actual help-seeking behaviour using the Qualtrics platform. Based on a review of recent literature (Bornschlegl et al., 2020), the following variables were included in the online survey: age, gender, nationality and cultural background, acculturation, stigma, socioeconomic status, perceived behavioural control, attitudes towards help seeking, personality and subjective norms. Additional variables not found in recent literature, but possibly of importance include marital status, study mode, study load and the degree the student was enrolled in at the time of completing the survey. Furthermore, the online survey took into account the range of options for students

to seek academic help, by examining the students' intention to seek help and their actual help-seeking behaviour separately for various support services offered at JCU. These include College Student Support Officers, Learning Advisors, Peer Advisors, Studiosity, outside of class consultation with lecturers, outside of class consultation with tutors, fellow students, friends or family, online resources, and the Student Centre. (Definitions of JCU's academic support services can be found in section 4.1.1.1)

Participating students completed the survey in March, April, and May 2020, as well as in August, September, and October 2020. Due to the Coronavirus pandemic, the surveys could not be conducted during face-to-face lecture/tutorial time as initially planned. As the whole university moved its teaching online, the surveys were conducted in online live teaching sessions via the platform Collaborate or outside of class time via the survey link provided on the university's learning management system LearnJCU. During lecture/tutorial time, a research assistant asked students to access the link to complete the online survey in March, April, and May 2020. During the data collection in August, September and October 2020, the lecturer or tutor conducted the survey during live Collaborate sessions. If the online survey was not conducted during a live teaching session, students received a notification via the university's learning management system LearnJCU, asking them to complete the online survey via the link provided.

4.1.1 Instrument

Note: Parts of this section have been published in *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021)

The online survey consisted of 121 items and took approximately 15 minutes to complete (see Appendix B). It contained questions regarding the students' background and already existing, mostly adapted, validated measures for personality (BFI-10; Rammstedt & John, 2007), attitudes towards help seeking (Kraft et al., 2005), perceived behavioural control

(Kraft et al., 2005), subjective norm (Kraft et al., 2005), public stigma ('Perceptions of Stigmatization by Others for Seeking Psychological Help' (PSOSH); Vogel et al., 2009), self-stigma ('Self-Stigma of Seeking Help' (SSOSH); Vogel et al., 2006), help-seeking intentions, (Ajzen, 2019b; Wilson et al., 2005), intention to persist (Shin, 2003), and self-generated actual help-seeking behaviour items, as well as items examining the students' satisfaction with academic support services and their perceived helpfulness. Most items were rated on five- or seven-point scales.

The first three items covered identifying student data, which were later used confidentially to contact participants regarding participation in qualitative semi-structured interviews. These items include Student ID, JCU Number and the student's email address.

The students' background was examined using 16 open-ended as well as rating, and single and multiple-choice question types. The background questions include age, gender, marital status, nationality, first language, ethnicity, study mode, study load, the degree the student was studying, when the student commenced their studies at JCU, their current GPA, the degree level the student is enrolled in, their household income, and the time the student has resided in Australia. Students were also asked whether they are an international student and if yes, they were asked to rate how often they wish they were still in their home country as an indicator of their level of acculturation. Longing for home is considered a symptom of acculturative stress. (Hannigan, 2006)

The BFI-10 consists of 10 items and measures the Big Five personality dimensions extraversion, agreeableness, conscientiousness, neuroticism, and openness on a 5-point Likert scale. One item was added to the agreeableness scale to increase the scale's reliability ('I see myself as someone who is considerate and kind to almost everyone'). Therefore, 11 items were used to assess personality in this survey. This short version of the BFI-44 (John &

Srivastava, 1999) has achieved acceptable values for “retest reliability, structural validity, convergent validity with the NEO-PI-R and its facets, and external validity” (Rammstedt & John, 2007, p. 203). Students were asked to rate their agreement with 11 statements beginning with the stem ‘I see myself as someone who...’. Students can disagree strongly, disagree a little, neither agree nor disagree, agree a little and agree strongly. An example item of the BFI-10 is ‘I see myself as someone who is reserved. Internal consistency analyses revealed the following Cronbach’s α values: $\alpha = .71$ for extraversion, $\alpha = .46$ for agreeableness, $\alpha = .54$ for conscientiousness, $\alpha = .57$ for neuroticism, and $\alpha = .15$ for openness. As the scales only consist of two and three items, no changes could be made to the scales to improve their reliability. Due to the low internal consistency of the scale openness, this scale was not included in any analyses of the online survey data. All other subscales were included in the analysis, as Lovik et al. (2016) suggested that lower values for internal consistency can be expected when using 2-item scales. Furthermore, other studies have also reported internal consistency values below .60 (e.g., Balgiu, 2018; Kunnel et al., 2019) and Balgiu (2018) suggested that the cut-off value for 2-item scales is $\alpha = .45$.

The scales for attitudes towards help seeking (eight items), perceived behavioural control (nine items) and subjective norm (four items) are based on the Theory of Planned Behavior and have been used frequently in previous research (Kraft et al., 2005). Kraft et al. (2005) stated that the reliability for all three scales has varied greatly in other studies and even within the same study when different behaviours were assessed (Beck & Ajzen, 1991). No conclusion could therefore be drawn about the reliability of these scales in the context of this study prior to data collection. All three scales are measured by seven categories with anchors on each side of the scale.

The attitude towards help seeking scale consists of the sentence stem ‘Seeking academic advice for me would be’ adapted from the sentence stem ‘My . . . performing

behaviour . . . during the next 2 weeks would be' and eight opposing adjectives that are rated on a 7-point scale. For example, 'Seeking academic advice for me would be unwise/wise'. The initial internal consistency of this scale in this study was a Cronbach's α value of .88. However, the internal consistency analysis revealed that Cronbach's α can be increased by deleting the item 'Seeking academic advice for me would be stressful – relaxing'. This was confirmed by an exploratory factor analysis, as this item loaded higher on a second factor. Therefore, the item was removed, and the internal consistency was increased to $\alpha = .89$.

The perceived behavioural control scale asks participants to rate nine statements and questions on a 7-point scale with opposing anchors on each side of the scale. For example, 'How easy or difficult would it be for you to seek academic advice?' with the anchors 'very difficult' and 'very easy'. The internal consistency of the scale in this study was $\alpha = .88$.

Similarly, the subjective norm scale invites subjects to rate four statements on a 7-point scale with opposing anchors on each side of the scale. An example statement is 'Most people who are important to me would wish that I seek academic advice.' with the anchors 'very unlikely' and 'very likely'. Reliability analyses showed an initial Cronbach's α of .76. After deleting the item 'I feel under social pressure to seek academic advice' the internal consistency could be increased to $\alpha = .86$.

The PSOSH scale measures public stigma for seeking psychological help. Items are rated on a five-point Likert scale. Vogel et al. (2009) initially developed 21 items with an internal consistency of $\alpha = .96$ and later reduced this to the five highest loading items ($\alpha = .89$) for easier use in surveys. As this scale measures public stigma for seeking psychological help, not all items were applicable for examining public stigma for seeking academic help. In total, 11 items were suitable to assess public stigma for academic help seeking and were selected for this study. All items begin with the item stem 'Imagine you wanted to seek

academic advice. If you sought academic advice, to what degree do you believe that the people you interact with would _____.’ An example continuation of the stem is ‘see you as weak’. All items are rated on a 5-point scale ranging from ‘not at all’ to ‘a great deal’. The internal consistency of the scale in this study was $\alpha = .96$.

The SSOSH scale consists of 10 items and measures self-stigma associated with seeking psychological help on a 5-point, partly anchored Likert-type scale ranging from ‘strongly disagree’ to ‘agree and disagree equally’ to ‘strongly agree’. Testing of reliability and validity revealed good values for internal consistency ($\alpha = .91$) and evidence of construct, criterion, and predictive validity (Vogel et al., 2006). All items were adapted for the use in this study to measure self-stigma associated with seeking academic help. For example, an item used in this study is ‘Seeking academic advice would make me feel less intelligent.’ Reliability analyses revealed high values of Cronbach’s α . The initial internal consistency was $\alpha = .905$ and could be increased to $\alpha = .913$ by deleting the item ‘My self-esteem would increase if I sought academic advice’.

Two different measures were used to explore help seeking intentions. Firstly, following Ajzen’s (2019b) recommendations, students were asked to rate how likely they will seek academic support in the future on a 7-point scale. To differentiate help-seeking intentions for the range of support services offered at JCU and three different problem types, The General Help Seeking Questionnaire (GHSQ) consisting of the standard phrase “If you were having [problem-type], how likely is it that you would seek help from the following people?” (Wilson et al., 2005, p. 19) was adapted for this study. The GHSQ intends to examine help-seeking intentions for various problems from a range of sources. Respondents were asked to rate their intentions on a 7-point scale. This study assessed three problem types (‘having issues with or wanted to improve in regards to the content of your studies’, ‘having issues with or wanted to improve in regards to academic skills needed for your studies’,

‘having questions regarding your subject and/or course choices’) from 9 different sources (College Student Support Officer, Learning Advisor, Peer Advice Desk, Studiosity, outside of class consultation with lecturer, outside of class consultation with tutor, other students, friends or family, online resources). In addition, students were asked how likely they would not seek help at all for each of the problem types. Therefore, 30 items were used in total.

To investigate the relationship between academic help seeking and student retention, the students’ intention to continue their studies was assessed. Shin’s (2003) intention to persist was used in this study. The scale consists of six items rated on a 5-point scale. The scale has a good internal consistency of $\alpha = .83$ (Shin, 2003). An example item is ‘Graduating from JCU is important to me.’ The internal consistency of the scale in this study was $\alpha = .80$.

To assess the students’ actual help-seeking behaviour, students were asked how many times they access each support service (College Student Support Officer, Learning Advisor, Peer Advice Desk, Studiosity, outside of class consultation with lecturer, outside of class consultation with tutor, Student Centre) each semester. Students were also asked to state their reasons for (not) accessing a particular service. Furthermore, students rated their satisfaction with each service and how helpful each service was on a 7-point scale. In total, 24 items were used to assess actual help-seeking behaviour in this study. To account for support services not integrated in this survey, participants were asked to list any other support services they have accessed during their time at JCU and estimate how many times they access this service each semester.

4.1.1.1 Academic Support Services at James Cook University. The role of College Student Support Officers “is to help [students] succeed at university by acting as the first point of contact in managing [their] study load and accessing support services.” There is one Student Support Officer for each College on the Cairns and Townsville campuses (James

Cook University, 2021g). Learning Advisors support students in a range of different ways. They assist students in developing academic skills, such as academic language, numeracy, time management and study strategies, needed to succeed at university. Learning Advisors provide various services. This includes face-to-face and online one-on-one or group consultations, workshops, and in-lecture presentations (James Cook University, 2021e). The Peer Advice Desk offers face-to-face and online one-on-one or group consultations. These are run by experienced students, Peer Advisors. They assist students in developing academic skills, such as academic writing, numeracy, academic reading, and time management (James Cook University, 2021e). Studiosity is an external provider offering online after hour study help. JCU students can access this service free of charge. Studiosity offers the 'Writing Feedback' service and the 'Connect Live' service. Students can submit an assignment draft to 'Writing Feedback' and will then receive feedback on all aspects of academic writing within 24 hours (Studiosity, 2021b). The 'Connect Live' service allows students to chat with a live tutor and ask questions in areas such as academic writing, numeracy, economics, and accounting (Studiosity, 2021a; Studiosity, 2021b).

Outside of class consultation with lecturers or tutors is any support a lecturer or tutor provides outside of class time. This includes, for example, explaining assessment requirements, feedback on an assignment or explanation of content. This is not a service that has been put in place solely for academic support. However, lecturers and tutors provide academic advice outside the classes they are teaching on a regular basis. Therefore, this has been included in the questionnaire as two separate item groups. One covers outside of class consultation with a lecturer, the other item group asks participants about outside of class consultation with a tutor.

At the Student Centre, students can seek advice regarding subject and course choices, entry requirements, their academic status, credit for previous study, subject timetables, and

other administrative matters, such as fees and student ID cards (James Cook University, 2021d). Compared to the other services listed above, the Student Centre does not provide academic skills or discipline specific content advice. However, they provide academic advice with regard to subject and course choices, as well as entry requirements.

4.1.2 Sample (Online Survey)

Note: Parts of this section have been published in *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021)

The sample for the online survey was a volunteer/convenience sample. Students from 36 subjects participated in the survey. This includes students from four campuses, as well as online students. The subjects were selected to represent various disciplines and undergraduate year levels. As shown in Table 4.1, 16 first year subjects from 16 disciplines, 10 second year subjects from nine disciplines, nine third year subjects from nine disciplines and one fourth year subject participated in the survey. Subject coordinators of participating subjects provided permission for their subjects to be part of the survey. The table also shows whether the survey was conducted during a live online lecture or tutorial, or if the students completed the survey outside of class time via a survey link provided in LearnJCU.

Table 4.1

Overview of Subjects Participating in Online Survey

Subject	Discipline(s)	Year level	Mode of survey conduction
Dental Science Part 1 of 2	Dental Surgery	First year	Live online session
Web Design and Development	Information Technology	First year	Live online session
Economics for Sustainable Business	Business	First year	Live online session
Educational Psychology: Learners and Learning	Education	First year	Live online session
Engineering 1	Engineering	First year	Live online session
Physiological Systems and Processes 2	Nursing Science, Sports & Exercise Science	First year	Live online session
Deviance, Crime and Society	Criminology	First year	Live online session
Great Books: Epochs and Classics	English	First year	Survey link provided on LearnJCU
Public International Law	Law	First year	Survey link provided on LearnJCU

Subject	Discipline(s)	Year level	Mode of survey conduction
Enabling Occupation through Partnerships	Occupational Therapy	First year	Survey link provided on LearnJCU
Introduction to Pharmacy	Pharmacy	First year	Live online session
All first-year students	Physiotherapy	First year	Survey link provided on LearnJCU
Sport and Exercise Nutrition	Sports & Exercise Science	First year	Live online session
Australian Society: An Introduction to Sociology	Sociology	First year	Survey link provided on LearnJCU
Veterinary Professional Life 2	Veterinary Science	First year	Survey link provided on LearnJCU
Human Rights and Social Justice	Social Work	First year	Survey link provided on LearnJCU
Nursing Practice 3	Nursing Science	Second year	Live online session
Qualitative Research	Sociology	Second year	Survey link provided on LearnJCU
Ecology: Distribution, Abundance and Diversity	Science	Second year	Survey link provided on LearnJCU
Fundamentals of Ecology	Science	Second year	Survey link provided on LearnJCU
Integrated Therapeutics 1	Pharmacy	Second year	Survey link provided on LearnJCU
All second-year students	Physiotherapy	Second year	Survey link provided on LearnJCU
Principles of Criminal Law B	Law	Second year	Survey link provided on LearnJCU
Strength Training and Conditioning	Sports & Exercise Science	Second year	Survey link provided on LearnJCU
Youth, Identity and Popular Culture	Sociology	Second year	Survey link provided on LearnJCU
Community Work	Social Work	Second year	Survey link provided on LearnJCU
All third-year students	Physiotherapy	Third year	Survey link provided on LearnJCU
Pharmacy Practice (Research Honours) 2	Pharmacy	Third year	Survey link provided on LearnJCU
Reflective Teaching Cycles and Positive Learning Environments (ECE)/(Secondary); Improving Student Learning and Professional Practice: Using data and evidence (Primary)	Education	Third year	Survey link provided on LearnJCU
Computer Interfacing and Control	Engineering	Third year	Survey link provided on LearnJCU
Behavioural Ecology	Science	Third year	Survey link provided on LearnJCU
Company Accounting	Business	Third year	Survey link provided on LearnJCU
Psychological Research Methods and Interpretation	Psychology	Third year	Live online session

Subject	Discipline(s)	Year level	Mode of survey conduction
Social Analysis of Contemporary Australian Issues	Sociology	Third year	Live online session
Transitions from Health to Disease 2	Veterinary Science	Third year	Survey link provided on LearnJCU
Advanced Professional Pharmacy Practice	Pharmacy	Fourth year	Survey link provided on LearnJCU

In total, 430 students participated in the survey. One-hundred and forty-four responses were removed because the survey was not completed, and three responses had to be removed because they were completed by Master students who were not part of the target population of this study. Therefore, a total of $N = 283$ responses were included in the analysis of the survey.

The participants had a mean age of 24.80 ($SD = 8.19$). Two-hundred and five participants were female, 75 were male and three did not report their gender. Most were single (48.8%) or in a relationship (35.3%). The remaining students were either married (10.6%), separated (2.8%) or divorced (1.4%). Most participants' nationality was Australian (83.4%), and most students' first language was English (88.0%). Furthermore, their ethnicity was mostly Caucasian (74.2%). Other ethnic origins included Aboriginal (2.5%), Asian (5.3%), African (0.4%), Middle Eastern (0.7%), Eurasian (2.8%), Caucasian/Aboriginal (1.8%) and other combinations (7.4%). Most participants reported that they either lived in a household with an income less than AU\$20,000 (15.9%) or more than AU\$100,000 (17.3%). The majority of the students was studying on the Townsville (53.0%) or Cairns (35.7%) campuses. Others were either studying externally (5.7%) or from one of the smaller campuses, such as Mackay or Mt Isa (4.9%). Nearly all participants were enrolled full-time (94.3%). Only 4.9% of students who participated in the survey were international students. All students were studying an undergraduate program; 96.8% were enrolled in a Bachelor's degree, and 2.5% and 0.4% were enrolled in the Diploma of Higher Education or the Tertiary

Access Course respectively. Most participants commenced their studies in 2020 (36%), 2019 (25.4%) or 2018 (21.2%). The students' mean GPA was 5.40 ($SD = 0.86$). Table 4.2 shows that participants were studying a range of different disciplines.

Table 4.2

Overview of Participants' Study Programs

Program	Percentage	Total numbers
Bachelor of Nursing Science	27.8	77
Bachelor of Nursing Science/Midwifery	1.8	5
Bachelor of Dental Surgery	4.0	11
Bachelor of Science	4.3	12
Bachelor of Psychological Science	11.6	32
Bachelor of Sport and Exercise Science	3.6	10
Bachelor of Information Technology	2.5	7
Bachelor of Education	7.2	20
Bachelor of Social Work	5.8	16
Bachelor of Business	5.8	16
Bachelor of Commerce	2.5	7
Double degree	4.7	13
Diploma of Higher Education	2.2	6
Bachelor of Pharmacy	2.2	6
Bachelor of Engineering	2.2	6
Bachelor of Arts	3.2	9
Bachelor of Laws	1.4	4
Bachelor of Occupational Therapy	2.2	6
Bachelor of Physiotherapy	1.8	5
Bachelor of Veterinary Science	3.2	9

The sample is relatively representative for JCU's student cohorts. As described in the introduction of this thesis, almost half of all enrolled students in March 2021 were mature age students, students who are 21 years old or older (46.4%) (Cullity, 2006). In the sample for the online survey, 44.6% of students were mature age students. This is also reflected in the average age of 24.80 years for the sample of this study. Comparing JCU's overall student population and the sample of this study, the index of dissimilarity for the demographic of mature age students is 0.9%. Compared to other ethnicities, a rather small number of students studying at JCU in March 2021 were Aboriginal and Torres Strait Islander (5.2%). Similarly, 4.3% of participants in this study were Aboriginal and Torres Strait Islander, resulting in an

index of dissimilarity of 0.5%. About two thirds of students enrolled at JCU were female. Correspondingly, 73.2% of participants in this study were female and 26.8% were male. For the demographic of gender, the index of dissimilarity is 3.8%.

Additionally, 15.2% of students enrolled at JCU in March 2021 speak languages other than English at home and 12.0% of students who participated in this study had a first language other than English. This compares to an index of dissimilarity of 1.6%. The representation of international students in this study was lower than the relative number of international students enrolled at JCU. Only 4.9% of students who participated in the survey were international students, while 10.6% of students enrolled at JCU were international students, resulting in an index of dissimilarity of 2.9%. The comparably low number of international students in this sample could be because the online survey was conducted during the Coronavirus pandemic and many international students may have returned to their home country, dropped out of their studies, or took leave of absence from their study. When comparing the sample of this study and JCU's student population with regard to the campus students are enrolled at, the index of dissimilarity showed that a relatively similar distribution was reached (Townsville campus 6.6%, Cairns campus 8.7%, online 3.0%, other campuses 0.6%). Overall, considering the demographics of the sample and related indices of dissimilarity, the sample of this study can be considered representative of the students studying at JCU.

4.1.3 Quantitative Data Analysis

Descriptive as well as inferential data analysis techniques and structural equation modelling were used to analyse the survey data and to answer research questions 1 and 2, and, together with the findings from the qualitative interviews, contribute to research questions 3 and 4. Data analyses were conducted with IBM SPSS Statistics 27 and IBM SPSS Amos 27 Graphics.

4.1.3.1 Descriptive Statistics. Descriptive statistics, including means and standard deviations were used for continuous variables. Additionally, frequencies were analysed for categorical variables to obtain sample characteristics and to provide information about the measures for this particular sample. Frequencies were analysed for the variables gender, marital status, nationality, first language, ethnicity, study mode, study load, the program students were enrolled in, whether the participant is an international student, the household income, the year the study was commenced, and the level of degree the participant was enrolled in. Means and standard deviations were analysed for the participants' age, their current GPA, their score on the scales of extraversion, agreeableness, conscientiousness, neuroticism, attitude towards help seeking, perceived behavioural control, subjective norm, public stigma, self-stigma, and intention to persist. Furthermore, the means and standard deviation were calculated for the participants' intention to seek academic help in the future and for the total number of times the participants seek help each semester.

4.1.3.2 Inferential Statistics. Data was tested for normality using the Kolmogorov-Smirnov test, as well as skewness and kurtosis in IBM SPSS Statistics 27. A significant Kolmogorov-Smirnov test ($p < .05$) indicates that data is not normally distributed. However, given the large sample sizes used in the analyses in this study and the sensitivity of the Kolmogorov-Smirnov test to large sample sizes, other measures, skewness and kurtosis, were considered to determine the distribution of the data (Pallant, 2010). If skewness and kurtosis did not exceed ± 2 and ± 7 respectively, data was considered approximately normally distributed. Even with values not exceeding ± 3 and ± 10 , data can be considered not extremely skewed and kurtotic (Kline, 2005). If data was approximately normally distributed, parametric tests were used. Non-parametric tests were used for those items where the assumption of normality was not met. To gain an initial overview of the data, intercorrelations among variables and differences between groups of nominal variables were calculated.

Pearson and Spearman's rank correlations were analysed to determine relationships between interval and ordinal variables. Additionally, to determine if there are relationships between nominal variables and continuous variables, ANOVAs with Tukey-HSD post-hoc tests were calculated. If variances were not equal, the Welch test with Games-Howell post hoc test was used. These nominal variables include gender, marital status, nationality, first language, ethnicity, study mode, study load, discipline and whether the student is an international or domestic student.

Repeated measures ANOVAs were conducted in IBM SPSS Statistics 27 to analyse differences in the students' help seeking intentions for a particular academic support service regarding the three problem types of content specific advice, academic skills advice, and subject/course advice. This analysis was conducted for the sources College Student Support Officer, Learning Advisor, Peer Advice Desk, Studiosity, lecturer, tutor, fellow students, friends and family, online, and Student Centre. The Mauchly-test revealed that sphericity was violated in all cases. Therefore, an adjustment was used to correct for violations of sphericity (Field, 2018). As recommended by Girden (1992) the Huynh-Feldt adjustment was used as ϵ was larger than .75 in all cases. Furthermore, the Bonferroni post hoc test was used to determine differences between the three problem types.

Furthermore, linear regression analyses were conducted in IBM SPSS Statistics 27 to identify if the students' satisfaction with a particular support service and the perceived helpfulness of this service can predict the number of times students access this service. This analysis was repeated for the academic support providers, lecturers, tutors, Learning Advisors, the Peer Advice Desk, Studiosity, College Student Support Officers, and the Student Centre. Additionally, the relationship between the students' overall satisfaction and the overall perceived helpfulness of the academic support, and the students' help-seeking intentions and help-seeking behaviour was analysed. The intercorrelations between the two

predictor variables (satisfaction and helpfulness) were analysed using Pearson correlations. If multicollinearity ($r > .90$) was identified, the students' satisfaction with a particular service was used as the only predictor in the regression model to ensure unbiased findings (Tabachnick & Fidell, 2019). Tabachnick and Fidell (2019) explained that multicollinearity can cause large standard errors, which may incorrectly cause predictors to be insignificant.

4.1.3.3 Structural Equation Modelling. Structural equation modelling was conducted in IBM SPSS Amos 27 Graphics to examine how background variables, personality and variables related to the Theory of Planned Behavior are related to the students' intention to seek academic help, the students' help-seeking behaviour and the students' intention to persist in their study. Using structural equation modelling is highly recommended when complex constructs are examined, and multiple-item measures are used. It improves the quality of the findings and their credibility compared to other inferential statistics techniques (Bowen & Guo, 2012).

4.1.3.3.1 Data Preparation. Note: this section has been published in *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021). To perform structural equation modelling with maximum likelihood estimation, various measures were undertaken to prepare data for this analysis. This included the deletion of cases with missing values, the deletion of variables with too many missing cases and item parcelling for ordinal 5-point scales. Firstly, the variables GPA (146 missing values), income (97 missing values), ethnicity (14 missing values), and acculturation, as only 4.9% of the sample were international students and given the option to answer this item, were deleted. Furthermore, Little's MCAR test revealed that data was missing completely at random and, therefore, cases with missing data were deleted listwise to perform the analysis based on complete cases (Bowen & Guo, 2012) because the sample size was large enough with $N > 200$ (Kline, 2005) resulting in a sample size of $N = 220$.

To use the maximum likelihood estimator, item parcelling was performed to transform ordinal 5-point scales into interval scales and to ensure data better fits the normal distribution (Matsunaga, 2008). Following Matsunaga's (2008) recommendations, three parcels were formed for the scales self-stigma, public stigma, and intention to persist. The random algorithm was used to assign items to one of the parcels. As the extraversion, agreeableness, conscientiousness, and neuroticism scales only exist of two, three, two and two items respectively, one parcel was formed for each of the scales. Following this procedure, data was not normally distributed according to the Kolmogorov Smirnov test. However, their skewness and kurtosis did not exceed ± 3 and ± 10 respectively indicating that data was not extremely skewed and kurtotic. Furthermore, the skewness and kurtosis of variables in the second and final model presented in this thesis did not exceed ± 2 and ± 7 respectively (Kline, 2005). Therefore, the maximum likelihood estimator, which has been shown to be robust to violations of the assumption of multivariate normality when data is complete and when exogenous variables are uncorrelated, could be used for this analysis (Savalei, 2008).

Following Schreiber et al.'s (2006) recommendations, data were also assessed for linearity, multicollinearity and outliers. A curve estimation for all relationships in the model using IBM SPSS statistics 27 showed that not all relationships were linear, a limitation that needs to be considered when interpreting the results. There were no multicollinearity issues for all independent variables. Furthermore, 10 outliers were identified using Mahalanobis distance. However, removing the outliers from the dataset did not improve the model fit and were, therefore, kept in the data. As no further cases were removed from the data, the final sample size for the following analysis was $N = 220$.

4.1.3.3.2 Data Analysis. The initial model developed further described in the Quantitative Findings chapter of this thesis was based on the Theory of Planned Behavior and

findings from previous research presented in the literature review. (Note: the following parts of this section have been published in *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021)) Various model modifications to the original model were undertaken to generate a theoretically sound model with good fit (Bowen & Guo, 2012) including the deletion of nonsignificant paths, item parcelling, and by adding directional and non-directional paths. A range of goodness of fit indices was used to determine the fit of the model. These include chi-square (χ^2), root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI), goodness-of-fit index (GFI), and adjusted goodness of fit index (AGFI). The cut-off criteria for a good model fit are $\chi^2/df \leq 3$ (Kline, 2005), $RMSEA \leq 0.05$ (close fit) and $RMSEA = 0.05 - 0.08$ (reasonable fit) (Browne & Cudeck, 1993), $CFI \geq 0.95$ (Hu & Bentler, 1999), $TLI \geq 0.95$ (Hu & Bentler, 1999), $GFI \geq 0.90$ (Hoyle & Panter, 1995), and $AGFI \geq 0.85$ (Schermelleh-Engel et al., 2003). Originally, the χ^2 test is used to test whether the input and implied model are statistically equal. Therefore, “if the p-value associated with χ^2 is nonsignificant, the researcher can claim that the model is consistent with the data” (Bowen & Guo, 2012, p. 144). However, large sample sizes can make it difficult to achieve a nonsignificant result (Bowen & Guo, 2012). Therefore, it is recommended to consider the ratio χ^2/df instead (Jöreskog & Sörbom, 1993, as cited in Schermelleh-Engel et al., 2003). Furthermore, Garson (2015) argued that χ^2 can be disregarded for sample sizes larger than 200 when other fit indices meet the requirements. A good fit is achieved if the majority of the fit indices meet the minimum requirement (Townshend & Caltabiano, 2019).

4.2 Qualitative Methods

Note: parts of this section have been published in *Teaching and Learning Inquiry* (Bornschlegl & Caltabiano, 2022)

Qualitative interviews were used to explore detailed reasons for students’ decision to access or to not access available academic support services and, therefore, to answer research question 3. This approach was chosen, as not much is known about students’ perceptions of

academic support services at JCU. The interviews were conducted online via the video-conferencing application Zoom and lasted between 11 and 32 minutes with an average time of 17 minutes. Dates and times for the interviews were chosen to suit the participants and the researcher. To ensure effective data capturing, all interviews were audio recorded and later transcribed by the researcher (Jamshed, 2014). Prior to the interviews, participants were asked to read and sign the information sheet and the informed consent form. Students received a \$30 Coles/Myer voucher for their participation. The semi-structured interviews conducted revealed interesting details about how students seek academic help.

4.2.1 Instrument

Note: this section has been published in *Teaching and Learning Inquiry* (Bornschlegl & Caltabiano, 2022)

To keep the interview focussed on the topic of interest (Jamshed, 2014), a semi-structured interview was chosen to explore the participants' help-seeking behaviour and perceptions of support services at JCU. As shown in Table 4.3, the interview consisted of 13 core questions to explore students' reasons for (not) accessing support services and their experiences. Furthermore, there were 16 more detailed questions associated to the core questions (Jamshed, 2014) that were asked depending on the participants' previous answers, thereby asking for clarification and examples (Taylor et al., 2015).

The interview was developed using a range of different steps. Firstly, following Kallio et al.'s (2016) recommendations, knowledge necessary to create interview questions was obtained by conducting an extensive literature review (Bornschlegl et al., 2020). In addition, the principal investigator of this study works in the area of academic support and was able to draw on her experience to generate interview questions.

Using this knowledge, the next step was to develop interview questions. This step was then further refined by conducting a pilot test for the interview guide (Kallio et al., 2016). No

changes were required to the initial core questions and more detailed questions. The pilot interview, however, showed the researcher the need to be flexible regarding the order of questions during the interview, and that some, more detailed questions were not necessary to be asked depending on the respondents' previous answers.

As suggested by Taylor et al. (2015), the interviews were conducted in a flexible and dynamic way to obtain detailed information about the students' personal perception of academic support services and their academic help-seeking behaviour. As multiple students were interviewed, the interview guide (Table 4.3) ensured key areas of interest were consistent in all interviews (Taylor et al., 2015).

Table 4.3

Interview Guide

Core questions	Associated, more detailed questions
What academic support services have you accessed?	Any other support services when considering the complete time you have been enrolled at JCU?
What were your reasons for accessing these services?	Any other reasons? Was it your idea to access this service or did someone suggest it to you?
What encouraged you to seek help from the academic support services you have used?	How did you find out about the services?
What academic support services have you not accessed yet?	Did someone else asked you to seek help?
What are your reasons for not accessing these services?	
What worked well for you when accessing academic support services?	Can you give me a specific example?
How helpful were the services you have accessed for you?	Why? How was it helpful?
How has accessing these services affected your studies?	How have you applied what you learned?
Are there any support services you access on a regular basis?	If yes, why? If no, why not?
Are there any support services that you have accessed only once or twice?	If yes, why? Would you access this service again?
What should be changed for you to access support services more or to access support services you have not accessed yet?	Is there anything else you can think of?
How would academic support services work better for you?	Can you think of a specific example for a particular service?
Is there anything else you would like to add?	Can you tell me a specific example?

4.2.2 Sample (Semi-Structured Interview)

Note: Parts of this section have been published in *Teaching and Learning Inquiry* (Bornschlegl & Caltabiano, 2022)

The sample was drawn based on a preliminary sample of the online survey. An initial analysis of the online survey data after data had been collected in March, April, and May 2020 was conducted to identify groups of interest that could provide interesting insight into the students' perception of academic support services and academic help seeking.

Hammarberg et al. (2016) explained that in qualitative research the sample is often drawn specifically and purposefully to investigate the phenomenon of interest. This analysis was based on a sample size of $N = 174$. During the data collection in March, April, and May 2020, 253 students started the survey, but only 177 completed the full survey. Thereof, 3 student participants did not fill out any fields of the survey and had to be removed prior to the analysis.

4.2.2.1 Preliminary Sample Characteristics for Interview Sample. In total, 46 males and 127 females participated in the survey in March, April, and May 2020. The mean age of the participants was 24.00 ($SD = 8.13$). The majority (84.5%) were Australian, were enrolled as domestic students (96.0%) and reported English as their first language (87.4%). The average time students had resided in Australia was 21.08 years ($SD = 8.95$), which shows that many students have lived in Australia their entire life or most of their lives. Furthermore, most students were enrolled full-time (95.4%) and were either studying on the Cairns (50.0%) or Townsville (41.4%) campuses. The remaining students were studying from Mackay or Mt Isa, and online. Most students were single (52.9%) or in a relationship (37.4%). Other students were married, divorced, or separated (9.7%). Most students commenced their studies in 2020 (32.8%), 2019 (27.6%) and 2018 (23.0%). Therefore, at the time of the data collection, most students were enrolled for 2.5 years or less.

As shown in Table 4.4, students were enrolled in a number of different degrees from various colleges. The category ‘other’ mostly includes a combination of two of the degrees listed in the table.

Table 4.4

Overview of Students’ Discipline in Preliminary Sample

Discipline	Frequency %
Bachelor of Nursing Science	39.1
Bachelor of Psychology	17.2
Bachelor of Business	11.5
Bachelor of Education	7.5
Other	6.9
Bachelor of Dental Surgery	6.3
Bachelor of Information Technology	4.0
Bachelor of Engineering	2.9
Diploma of Higher Education	2.9

The students’ average GPA was 5.36, $SD = 0.86$. The majority of the participants lived in a household with a yearly income of less than AU\$20,000 (15.5%) or over AU\$100,000 (17.2%). Many students were unsure about the income of their household (28.7%) or preferred not to report their household’s income (10.3%). The remaining students lived in a household with a yearly income of AU\$20,000 to AU\$34,999 (8.6%), AU\$35,000 to AU\$49,999 (6.3%), AU\$50,000 to AU\$74,999 (5.2%), or AU\$75,000 to AU\$99,999 (8.0%). In terms of personality, students scored relatively high on three of the Big Five personality dimensions. With a maximum score of five, students scored high on agreeableness ($M = 3.89$, $SD = 0.66$), neuroticism ($M = 3.44$, $SD = 0.97$), and conscientiousness ($M = 3.38$, $SD = 0.80$). On average, students scored slightly lower on extraversion with $M = 2.96$ ($SD = 1.00$).

As described in the following sections, the sample characteristics reported in this section were further integrated in a quantitative analysis. Thus, groups of interest for the qualitative interview sample could be identified. This ensured that detailed insight into

academic help-seeking behaviours of JCU's diverse student cohorts could be captured in the interviews.

4.2.2.2 Data Analysis for Interview Sample. Data was analysed in IBM SPSS Statistics 27 using inferential testing to examine the impact of background and personality variables on attitudes towards help seeking, help-seeking intentions and actual help-seeking behaviour. The following background and personality variables were included in the analysis: gender, age, nationality, year level, discipline, first language, marital status, study load, study mode, international versus domestic student, time resided in Australia, GPA, and household income, as well as the Big Five personality dimensions of agreeableness, neuroticism, conscientiousness, and extraversion. Firstly, the internal consistency of scales integrated in this analysis was examined using Cronbach's α . The internal consistency of the scale attitudes towards help-seeking was good with $\alpha = .895$ and could be increased to $\alpha = .903$ by removing the item 'seeking academic advice for me would be... stressful – relaxing'. The internal consistencies of the subscales of the BFI-10 were lower, but could not be increased, as the subscales consist of only two to three items (extraversion: $\alpha = .70$; agreeableness: $\alpha = .49$; conscientiousness: $\alpha = .48$; neuroticism: $\alpha = .56$; openness: $\alpha = .16$). Due to the very low internal consistency of the subscale openness, it was not included in this analysis.

A range of different tests was used to analyse data, depending on the distribution and the variance of the variables. The Kolmogorov-Smirnov test, as well as the data's skewness and kurtosis indicated that all data were approximately normally distributed (Kline, 2005; Pallant, 2010). To test for equal variances, the parametric Levene's test for normally distributed data was used (Allen et al., 2019). To examine relationships, Pearson correlations were used for continuous data. Spearman rank correlations were calculated for ordinal variables (Allen et al., 2019).

Differences were examined using a range of different tests. Independent sample T-tests and ANOVAs with Tukey-HSD post-hoc tests were conducted for data with equal variances. If variances were not equal, tests robust against unequal variances were used to examine differences. When conducting ANOVAs, Welch tests with Games-Howell post hoc test were performed for groups with unequal variances. In case of unequal variances when independent sample T-tests were conducted, the results for non-equal variances, provided as part of the independent sample T-test output, are reported (Allen et al., 2019).

4.2.2.3 Relationships to Attitude Towards Help Seeking. With the score of 1.00 being the least and the score of 7.00 being the most positive, the mean attitude was relatively positive with 5.84 ($SD = 1.02$). It was found that the students' attitude towards help seeking is related to one of the personality dimensions. Pearson correlations showed that there is a significant positive relationship between attitudes towards help seeking and agreeableness ($r = .27, p < .001$). Furthermore, a Welch's F test ($Welch's F(8, 30.10) = 2.37, p = .04$) including a Games-Howell post hoc test indicated that Bachelor of Education students ($M = 6.47, SD = .66$) have significantly more positive attitudes towards help seeking than Bachelor of Engineering students ($M = 5.37, SD = .41$). All other background and personality variables of interest were not significantly related to attitudes towards help seeking.

4.2.2.4 Relationships to Help-Seeking Intentions. Comparable to the students' attitudes towards help seeking, their intentions to seek help, also measured on a 7-point scale, were relatively positive with $M = 5.28 (SD = 1.61)$. Furthermore, Pearson correlations indicated that help-seeking intentions were positively related to some of the Big Five personality dimensions. Significant positive relationships were found for extraversion ($r = .21, p = .01$), agreeableness ($r = .25, p = .00$) and conscientiousness ($r = .21, p = .01$). No other significant relationships were found for other background and personality variables.

4.2.2.5 Relationships to Actual Help-Seeking Behaviour. Students have estimated that, on average, the following services were accessed 6.06 ($SD = 6.66$) times each semester: College Student Support Officers, Learning Advisors, the Peer Advice Desk, Studiosity, outside of class consultation with lecturers, outside of class consultation with tutors, and the Student Centre. A Pearson correlation was conducted to explore the relationship between age and the number of times students access academic support services each semester. A significant positive correlation ($r = .24, p = .00$) was found indicating that older students access academic support services more often. Furthermore, another positive relationship was found for one of the personality dimensions. A Pearson correlation showed that extraversion is positively ($r = .20, p = .01$) related to the number of times students have accessed academic support services.

The number of times academic support services were accessed also differed depending on the students' discipline. A Welch's F test including a Games-Howell post hoc tests identified one significant difference ($Welch's F(8,30.36) = 2.54, p < .05$) between students studying the Bachelor of Nursing ($M = 7.69, SD = 7.00$) and the Bachelor of Dental Surgery ($M = 2.73, SD = 2.61$). Other background and personality variables were not significantly related to the students' academic help-seeking behaviour.

4.2.2.6 Final Interview Sample. Note: this section has been published in Teaching and Learning Inquiry (Bornschlegl & Caltabiano, 2022)

Because of the relationships and differences described in previous sections, it was attempted to sample students with a range of different characteristics for the qualitative semi-structured interviews. Firstly, students scoring high or low on agreeableness, extraversion, and conscientiousness were invited to participate. Furthermore, students of various ages were included. Finally, it was attempted to include students from a range of different disciplines, as

it was shown that the discipline relates to the students' attitude towards help seeking and their actual help-seeking behaviour.

Therefore, 45 students with these characteristics were contacted and a total of $N = 6$ students agreed to participate in an interview. Table 4.5 shows the characteristics of the interview participants. The participants had varying personality characteristics, an age range of 19 to 57 years, and were studying five different degrees. Furthermore, only one male student participated in the interview. Overall, based on the analysis of the initial survey responses, a diverse interview sample with crucial different characteristics for academic help seeking was achieved.

Table 4.5

Interview Sample Characteristics

Student	Personality	Degree	Gender	Ethnicity	Nationality
1	Low on conscientiousness	Bachelor of Education	Male	Caucasian/ Aboriginal	Australian
2	High on agreeableness	Bachelor of Information Technology	Female	Caucasian	Australian
3	High on neuroticism	Bachelor of Business	Female	Caucasian/ Asian	Australian/ Indonesian
4	High on extraversion	Bachelor of Nursing Science	Female	Not available	Australian
5	High on agreeableness	Bachelor of Psychological Science	Female	Aboriginal and Torres Strait Islander/Asian	Australian
6	High on agreeableness	Bachelor of Psychological Science	Female	Not available	Canadian

4.2.3 Qualitative Data Analysis

Note: this section has been published in *Teaching and Learning Inquiry* (Bornschelegl & Caltabiano, 2022)

Data was coded and analysed using Interpretative Phenomenological Analysis (IPA) to explore the students' personal experiences with academic help seeking at JCU. The qualitative data analysis software NVivo 12 was used to support this process. This approach

was chosen for multiple reasons. Its inductive nature was suitable, as previous knowledge about the phenomenon of interest is limited. While deductive analyses work with codes and keywords derived from literature and defined prior to data analysis, IPA allowed the researcher to describe the phenomenon of interest, academic help seeking at JCU, with limited existing research and define themes emerging from the data (Smith, 2004).

Furthermore, IPA supports in-depth qualitative analysis. It is strongly idiographic and suggests that cases are analysed separately before emerged themes are compared for similarities and differences. Therefore, each of the six cases has been coded and analysed separately first, before themes and subcategories within the themes were compared and, if appropriate, combined. In addition, “IPA operates at a level which is clearly grounded in the text, but which also moves beyond the text to a more interpretative and psychological level (Smith, 2004, p. 44)” and, therefore, supports in-depth analysis of qualitative data on multiple levels (Smith, 2004).

4.3 Summary

This chapter described the quantitative and qualitative methods used for this mixed methods study. A range of quantitative methods was used to answer research questions 1 and 2, and to contribute to research questions 3 and 4. The qualitative method described was used to answer research question 3 and to further contribute to research question 4. The following results chapters are organised into quantitative and qualitative findings, as well as a chapter discussing current challenges during the Coronavirus pandemic that draws on quantitative as well as qualitative findings.

Chapter 5: Quantitative Findings

The chapter Quantitative Findings consists of four sections. The first section describes descriptive and preliminary findings. These analyses were conducted to retrieve descriptive statistics and relationships between variables of interest prior to the analyses conducted to answer research questions. The aim of this was to obtain findings that may support the interpretation of other analyses. The second section is titled Application of the Theory of Planned Behavior to Identify Variables Related to Academic Help Seeking in Higher Education, was published as a research paper in *Frontiers in Education: Higher Education* (Bornschlegl et al., 2021) and is integrated as such in this thesis. This section answers research questions 1 and 2 and contributes to the response of research question 4. Minor formatting changes, including referencing style adjustments, were made to adjust the publication format to ensure consistency throughout the thesis. The author contributions are as follows:

I planned and conducted the data collection, planned, and conducted the data analysis, wrote the manuscript, addressed reviewer feedback, and made revisions. The contribution of the co-authors is outlined below:

Nature of Assistance	Contribution	Names, Titles (if relevant) and Affiliations of Co-Contributors
Intellectual support	Supervision & contribution to editing and review Support with data analysis	A/Prof Nerina Jane Caltabiano, James Cook University Dr Kishani Townshend, James Cook University

The third section describes findings regarding students' intention to seek academic support for three different problem types. The last section of the Quantitative Findings chapter presents findings about students' satisfaction with academic support services at James

Cook University (JCU) Both sections contribute to the response of research questions 3 and 4.

5.1 Descriptive and Preliminary Statistics

As a basis for the following results chapters, this chapter provides an overview of descriptive statistics, such as measures of central tendency and variability, as well as relationships between variables used in the online survey. This includes means with standard deviations, frequencies, Kolmogorov-Smirnov tests, skewness and kurtosis as an indication for the distribution of the data, intercorrelations among variables, and differences between groups of nominal variables. The sample characteristics, including age, gender, marital status, nationality, first language, ethnicity, household income, study location, study load, degree, study start, are described in the Methods chapter and are not repeated here. Instead, this chapter focusses on personality variables, variables related to the Theory of Planned Behavior and academic help seeking variables, as well as stigma variables and the students' intention to persist. However, intercorrelations and relationships with nominal variables are presented for all variables.

The students' personality was assessed using the Big 5 personality dimensions of extraversion, agreeableness, conscientiousness, and neuroticism. Openness was excluded from the analysis due to low internal consistency of the scale. Personality was examined on a 5-point scale. Overall, students showed average scores on extraversion with $M = 2.95$ ($SD = 1.02$) and relatively high scores for agreeableness ($M = 3.91$, $SD = .66$), conscientiousness ($M = 3.49$, $SD = .83$), and neuroticism ($M = 3.39$, $SD = 1.00$). The Kolmogorov-Smirnov test was significant ($p < .001$) for all four personality dimensions, indicating that the data were not normally distributed. However, considering the skewness and kurtosis, the data were approximately normally distributed with values below ± 2 for skewness and ± 7 for kurtosis (Kline, 2005). The values ranged from -0.41 to 0.16 and from -0.66 to -0.31 respectively.

Public stigma and self-stigma were also assessed using 5-point scales. The students' perceived public stigma was quite low with $M = 1.88$ ($SD = 1.00$), whereas self-stigma was higher with $M = 2.52$ ($SD = .96$). The Kolmogorov-Smirnov test was significant ($p < .01$) for public stigma and self-stigma. Yet, both scales were approximately normally distributed with skewness ranging from 0.19 to 1.02 and kurtosis ranging from -0.78 to 0.02.

Attitude towards help seeking, perceived behavioural control and subjective norm were measured on 7-point scales. The students' attitude towards help seeking was rather positive with $M = 5.76$ ($SD = 1.01$). Similarly, students perceived that they had control over seeking academic help with $M = 5.35$ ($SD = 1.06$). Students also scored relatively high on subjective norm ($M = 4.55$, $SD = 1.53$). Again, the Kolmogorov-Smirnov test was significant ($p < .001$) for all three scales. However, the scales could be considered approximately normally distributed, as values for skewness and kurtosis ranged from -0.71 to -0.06 and from -0.77 to 0.80, respectively.

Measured on a 7-point scale, the students' intention to seek academic support was relatively high with $M = 5.08$ ($SD = 1.71$). On average students seek academic support 5.67 ($SD = 5.31$) times each semester. The relatively high standard deviation indicates that some students do not seek support often, while other students seek support a lot more. For both scales, the Kolmogorov-Smirnov test was significant ($p < .001$). However, the scales were approximately normally distributed with skewness ranging from -0.81 to 1.58 and kurtosis ranging from -0.04 to 3.64. The students' intention to persist was examined on a 5-point scale. Students had a very high intention to persist in their study with $M = 4.47$ ($SD = .63$). The Kolmogorov-Smirnov test was significant ($p < .001$), indicating non-normal distribution and this data was also slightly more skewed (-1.73) and kurtotic (4.54) but still approximately normally distributed.

Other continuous variables used in the sample description and not described again in this section were also approximately normally distributed. Skewness and kurtosis ranged from 0.49 to 1.47 and 1.06 to 1.84. These variables include age, study start, and time resided in Australia. The Kolmogorov-Smirnov test was non-significant ($p = .08$) for the variable GPA, which was, therefore, normally distributed. Hence, for the following correlational and differential analyses, parametric tests were used.

Pearson and Spearman's rank correlations were analysed to determine relationships between interval and ordinal variables. Furthermore, to determine if there are relationships between nominal variables and continuous variables, ANOVAs with Tukey-HSD post-hoc tests were calculated. If variances were not equal, the Welch test with Games-Howell post hoc test was used. These variables include gender, marital status, nationality, first language, ethnicity, study mode, study load, discipline and whether the student is an international or domestic student.

5.1.1 Relationships between Interval and Ordinal Variables

Pearson correlation coefficients for interval scale variables used in this study are shown in Table 5.1. Extraversion, conscientiousness, self-stigma, attitude towards help seeking, and subjective norm are significantly related to help-seeking intentions. With regard to help seeking, age, study start, extraversion, conscientiousness and attitude towards help seeking are significantly related. Furthermore, help-seeking intentions and actual help seeking are significantly positively related ($r = .20, p = .001$).

Spearman's rank-order correlation were calculated for the relationships between the ordinal variable household income and other interval variables. The students' household income is significantly related to study start ($r_s = -.23, p = .001$), GPA ($r_s = .33, p < .001$),

conscientiousness ($r_s = .18, p = .01$), public stigma ($r_s = -.16, p = .03$), perceived behavioural control ($r_s = .20, p = .01$) and help-seeking intentions ($r_s = .15, p = .04$)

Table 5.1

Pearson Correlations Between Interval Scale Variables

	Age	Stu sta	GPA	Res AU	Ext	Agr	Con	Neu	Pub stig	Self-stig	Att	PBC	Sub n	Int	HS	Int per
Age	1	.33**	.28**	.74**	.15*	.11	.25**	-.11	-.04	-.09	.02	.14*	-.12*	.06	.17**	-.01
Stu sta		1	-.12	.23**	.05	-.07	-.02	-.06	-.08	-.08	-.03	-.09	-.08	-.08	.23**	-.03
GPA			1	.19*	.03	-.08	.15	-.15	-.11	.02	-.11	.15	-.15	-.04	.02	.15
Res AU				1	.09	.06	.13*	-.06	-.06	-.03	-.00	.09	-.09	-.05	.06	-.01
Ext					1	.21**	.26**	-.31**	-.17**	-.19**	.19**	.31**	.02	.14*	.18**	.10
Agr						1	.20**	-.09	-.23**	-.27**	.31**	.12	-.00	.12	-.02	.16**
Con							1	-.21**	-.22**	-.21**	.07	.30**	.01	.13*	.15*	.15*
Neu								1	.28**	.27**	.06	-.30**	.20**	.09	.03	-.17**
Pub stig									1	.62**	-.07	-.39**	.18**	.01	-.04	-.26**
Self-stig										1	-.21**	-.37**	.04	-.19**	-.07	-.23**
Att											1	.17**	.30**	.38**	.15*	.03
PBC												1	-.02	.10	.06	.29**
Sub n													1	.33**	.10	-.01
Int														1	.20**	-.01
HS															1	-.02
Int per																1

Note: * = $p < .05$; ** = $p < .01$; Stu sta = Study start; Res AU = Resided in Australia (in years); Ext = Extraversion; Agr = Agreeableness; Con = Conscientiousness; Neu = Neuroticism; Pub stig = Public stigma; Self-stig = Self-stigma; Att = Attitude towards academic help seeking; PBC = Perceived behavioural control; Sub n = Subjective norm; Int = Help-seeking intentions; HS = Help-seeking behaviour; Int per = Intention to persist in studies

5.1.2 Relationships with Nominal Variables

The following sections provide an overview of how the nominal variables of gender, marital status, nationality, first language, ethnicity, study mode, study load, discipline, and international/domestic student are related to other variables examined in this study.

5.1.2.1 Gender. With regard to gender, there are no differences in age, study start, GPA, time resided in Australia, extraversion, public stigma, self-stigma, attitude towards help seeking, subjective norm, help-seeking intentions and intentions to persist. Regarding the students' personality, females ($M = 3.97$, $SD = 0.65$) have significantly higher levels of agreeableness than males ($M = 3.75$, $SD = 0.66$) with $F(1, 278) = 6.32$, $p = .01$. Females ($M = 3.56$, $SD = 0.77$) also have significantly higher levels of conscientiousness than males ($M = 3.29$, $SD = 0.93$) with Welch's $F(1, 113.00) = 5.17$, $p = .03$. Furthermore, females ($M = 3.53$, $SD = 0.93$) are more neurotic than males ($M = 3.03$, $SD = 1.10$) with Welch's $F(1, 114.56) = 12.62$, $p < .001$. Males ($M = 5.56$, $SD = 1.08$) reported significantly higher perceived behavioural control than females ($M = 5.28$, $SD = 1.05$) ($F(1, 278) = 4.03$, $p = .05$). However, females ($M = 6.09$, $SD = 5.72$) seek academic help more often than males ($M = 4.49$, $SD = 3.95$) (Welch's $F(1, 190.11) = 6.91$, $p = .01$).

5.1.2.2 Marital status. Regarding the students' marital status, there are no differences in study start, GPA, levels of extraversion, agreeableness and neuroticism, public stigma and self-stigma, attitude towards seeking academic help, perceived behavioural control, subjective norm, help-seeking intentions, actual help-seeking behaviour, and the students' intention to persist in their studies. Significant differences in age were found ($F(4, 272) = 46.96$, $p < .001$). Married students ($M = 36.43$, $SD = 7.00$) are significantly older than students in a relationship ($M = 23.34$, $SD = 6.19$) and single students ($M = 22.12$, $SD = 6.38$). Divorced ($M = 40.25$, $SD = 6.50$) and separated students ($M = 38.00$, $SD = 5.37$) are also significantly older than students in a relationship ($M = 23.34$, $SD = 6.19$). Similarly, divorced

students ($M = 40.25, SD = 6.50$) and separated students ($M = 38.00, SD = 5.37$) are significantly older than single students ($M = 22.12, SD = 6.38$). Differences were also found regarding the time students have resided in Australia (*Welch's* $F(4, 13.00) = 20.10, p < .001$). Married ($M = 30.76, SD = 12.37$), divorced ($M = 37.33, SD = 3.51$) and separated students ($M = 32.63, SD = 10.60$) have lived longer in Australia than students in a relationship ($M = 21.34, SD = 7.92$) and single students ($M = 19.42, SD = 8.45$). In terms of the students' personality, differences were found for conscientiousness ($F(4, 275) = 3.74, p = .01$). Married students ($M = 3.87, SD = 1.01$) are more conscientious than single students ($M = 3.36, SD = .78$).

5.1.2.3 Nationality. Australians and students with other nationalities do not differ regarding their age, study start, GPA, their level of extraversion, agreeableness, conscientiousness and neuroticism, their level of public stigma and self-stigma, their attitude towards academic help seeking, perceived behavioural control, subjective norm, help-seeking intentions, actual help-seeking behaviour, and intention to persist. The only difference found was in relation to the time the students have resided in Australia ($F(1, 262) = 94.53, p < .001$). As expected, Australians ($M = 23.94, SD = 8.30$) have resided in Australia significantly longer than students of other nationalities ($M = 9.29, SD = 8.30$).

5.1.2.4 First Language. Similar to the students' nationality, students whose first language is English and students with a first language other than English do not differ regarding their age, study start, GPA, their level of extraversion, agreeableness, conscientiousness and neuroticism, their level of public stigma and self-stigma, their attitude towards academic help seeking, perceived behavioural control, subjective norm, help-seeking intentions, actual help-seeking behaviour, and intention to persist. Again, a difference was found for the time students have resided in Australia ($F(1, 267) = 43.54, p < .001$). Students

whose first language is English ($M = 23.14$, $SD = 9.10$) have lived in Australia longer than students with other first languages ($M = 11.07$, $SD = 8.15$).

5.1.2.5 Ethnicity. Comparable to the students' nationality and first language, differences between the students' ethnicity were only found regarding the time they have resided in Australia ($F(5, 252) = 3.77$, $p = .003$). Caucasian students ($M = 22.72$, $SD = 9.35$) and Aboriginal students ($M = 25.71$, $SD = 10.80$) have lived in Australia significantly longer than Asian students ($M = 12.50$, $SD = 8.77$). No differences were found for age, study start, GPA, extraversion, agreeableness, conscientiousness, neuroticism, public stigma, self-stigma, attitude towards help seeking, perceived behavioural control, subjective norm, help-seeking intentions, actual help-seeking behaviour, and intention to persist.

5.1.2.6 Study mode. Differences between the students' study mode were found for age (Welch's $F(3,34.94) = 7.51$, $p < .001$), study start (Welch's $F(3,35.07) = 5.00$, $p = .01$), time resided in Australia ($F(3, 266) = 10.56$, $p < .001$), conscientiousness ($F(3, 277) = 4.23$, $p = .01$), and perceived behavioural control ($F(3, 277) = 6.05$, $p < .001$). External students ($M = 36.81$, $SD = 10.69$) are significantly older than students studying on the Townsville campus ($M = 24.10$, $SD = 6.98$), Cairns campus ($M = 23.69$, $SD = 8.17$) and other smaller campuses ($M = 26.08$, $SD = 6.76$). Students studying externally ($M = 3.20$, $SD = 2.31$) or on the Townsville campus ($M = 2.45$, $SD = 1.43$) have commenced their studies significantly sooner and have, therefore, been enrolled significantly longer than students studying on the Cairns campus ($M = 1.93$, $SD = 1.09$). External students ($M = 34.31$, $SD = 12.10$) have resided in Australia significantly longer than students studying on the Townsville campus ($M = 21.35$, $SD = 8.80$), students studying on the Cairns campus ($M = 20.67$, $SD = 9.03$), and students studying on other smaller campuses ($M = 21.62$, $SD = 10.85$). Furthermore, external students ($M = 4.06$, $SD = 0.79$) have significantly higher levels of conscientiousness than students enrolled at the Cairns campus ($M = 3.33$, $SD = 0.81$). Students studying on other smaller

campuses ($M = 4.30$, $SD = 0.85$) have significantly lower levels of perceived behavioural control than students studying on the Townsville campus ($M = 5.36$, $SD = 1.07$), students studying on the Cairns campus ($M = 5.40$, $SD = 1.01$) or students enrolled externally ($M = 5.84$, $SD = 0.95$). No differences were found for GPA, extraversion, agreeableness, neuroticism, public stigma and self-stigma, attitude towards help seeking, subjective norm, help-seeking intentions, actual help-seeking behaviour, and the students' intention to persist in their study.

5.1.2.7 Study load. With regard to the students' study load, differences were found for age ($F(1, 276) = 19.76$, $p < .001$), study start ($F(1, 277) = 11.27$, $p < .001$), the time students have resided in Australia (Welch's $F(1, 11.48) = 6.51$, $p = .03$), the students' help-seeking intentions ($F(1, 262) = 4.05$, $p = .05$) and their actual help-seeking behaviour ($F(1, 279) = 4.84$, $p = .03$). Part-time students ($M = 34.00$, $SD = 11.10$) are significantly older than full-time students ($M = 24.34$, $SD = 7.73$). Part-time students ($M = 3.50$, $SD = 1.91$) have also commenced their studies significantly earlier and have, therefore, been enrolled longer than full-time students ($M = 2.25$, $SD = 1.33$). Furthermore, part-time students ($M = 31.58$, $SD = 13.57$) have resided in Australia longer than full-time students ($M = 21.48$, $SD = 9.26$).

Differences were also found regarding the students' help-seeking intentions and their actual help-seeking behaviour. Part-time students ($M = 6.00$, $SD = 1.68$) have significantly higher intentions to seek help than full-time students ($M = 5.02$, $SD = 1.71$). Additionally, part-time students ($M = 8.71$, $SD = 6.40$) also seek help significantly more often than full-time students ($M = 5.52$, $SD = 5.23$). No differences were found for GPA, extraversion, agreeableness, conscientiousness, neuroticism, public stigma and self-stigma, attitude towards help seeking, perceived behavioural control, subjective norm, and the students' intention to persist in their studies.

5.1.2.8 Discipline. Differences regarding the students' discipline were found for age (Welch's $F(19,50.10) = 2.18, p = .01$), study start (Welch's $F(19,50.59) = 12.51, p < .001$), and public stigma (Welch's $F(19,50.87) = 3.15, p < .001$). Regarding the students age, the only difference found was that Bachelor of Nursing Science students ($M = 26.92, SD = 8.55$) are significantly older than Bachelor of Dental Surgery Students ($M = 19.18, SD = 3.09$). As shown in Table 5.2 many differences were found between the students' discipline and their study start. Higher means indicate that students have been enrolled in their course for a longer period of time. The table only shows discipline pairs that differed regarding the students' study start. The disciplines in the left column are compared with the disciplines in the right column. Other disciplines (see Table 4.1) and discipline pairs were not significantly different.

Table 5.2

Differences Between Students' Discipline and Their Study Start

Discipline	<i>M, SD</i>	Discipline	<i>M, SD</i>
Bachelor of Nursing Science	2.41, 1.10	Bachelor of Dental Surgery	1.09, 0.30
		Bachelor of Psychological Sciences (Sc)	3.53, 0.95
		Bachelor of Sport and Exercise Science	1.10, 0.32
		Bachelor of Information Technology	1.14, 0.38
		Bachelor of Business	1.31, 0.60
Bachelor of Dental Surgery	1.09, 0.30	Bachelor of Psychological Sciences	3.53, 0.95
		Bachelor of Science	2.58, 0.90
Bachelor of Science	2.58, 0.90	Bachelor of Sport and Exercise Science	1.10, 0.32
		Bachelor of Information Technology	1.14, 0.38
		Bachelor of Business	1.31, 0.60
Bachelor of Psychological Sc	3.53, 0.95	Bachelor of Sport and Exercise Science	1.10, 0.32
		Bachelor of Information Technology	1.14, 0.38
		Bachelor of Business	1.31, 0.60
		Diploma of Higher Education	1.50, 0.84
		Bachelor of Pharmacy	1.83, 0.75
		Bachelor of Engineering	1.67, 0.82
		Bachelor of Laws	1.75, 0.50
		Bachelor of Occupational Therapy	1.33, 0.52

Furthermore, Bachelor of Nursing Science students ($M = 1.75, SD = 1.02$), Bachelor of Dental Surgery students ($M = 2.67, SD = 0.91$), and Bachelor of Business students ($M = 2.08, SD = 0.75$) have significantly higher levels of public stigma than Bachelor of Occupational Therapy students ($M = 1.17, SD = 0.22$). No differences were found for GPA, the time the students have resided in Australia, the personality dimensions extraversion, agreeableness, conscientiousness and neuroticism, self-stigma, attitude towards seeking academic help, perceived behavioural control, subjective norm, help-seeking intentions, actual help-seeking behaviour, and intention to persist.

5.1.2.9 International Versus Domestic Students. No differences were found for age, study start, GPA, the personality dimensions extraversion, agreeableness, conscientiousness and neuroticism, public stigma and self-stigma, attitude towards help seeking, perceived behavioural control, subjective norm, help-seeking intentions, actual help-seeking behaviour, and the students' intention to persist in their study. The only difference between international and domestic students was regarding the time they have lived in Australia ($F(1, 269) = 46.65, p < .001$). As expected, domestic students ($M = 22.74, SD = 8.98$) have lived in Australia significantly longer than international students ($M = 5.38, SD = 8.00$).

5.1.3 Summary

The most notable and relevant findings are how background variables and the variables of the Theory of Planned Behavior are related to the outcome variables of interest, help-seeking intentions, actual help-seeking behaviour, and the students' intention to persist in their study. Table 5.3 shows that extraversion, conscientiousness, attitude towards help seeking, and subjective norm are positively related to help-seeking intentions. Self-stigma is negatively related to help-seeking intentions. Age, study start, extraversion, conscientiousness, attitude towards help seeking, and help-seeking intentions are positively related to help-seeking behaviour. Agreeableness and perceived behavioural control are

positively related to the students' intention to persist in their study. Furthermore, neuroticism, public stigma, and self-stigma are negatively related to the students' intention to persist.

Moreover, the students' household income is positively related to help-seeking intentions ($r_s = .15, p = .04$).

Table 5.3

Significant Pearson Correlations With Outcome Variables

Variable pairs	Pearson correlations
Extraversion – Help-seeking intentions	.14*
Conscientiousness – Help-seeking intentions	.13*
Self-stigma – Help-seeking intentions	-.19**
Attitude towards help seeking – Help-seeking intentions	.38**
Subjective norm – Help-seeking intentions	.33**
Age – Help-seeking behaviour	.17**
Study start – Help-seeking behaviour	.23**
Extraversion – Help-seeking behaviour	.18**
Conscientiousness – Help-seeking behaviour	.15*
Attitude towards help seeking – Help-seeking behaviour	.15*
Help-seeking intentions – Help-seeking behaviour	.20**
Agreeableness – Intention to persist	.16**
Neuroticism – Intention to persist	-.17**
Public stigma – Intention to persist	-.26**
Self-stigma – Intention to persist	-.23**
Perceived behavioural control – Intention to persist	.29**

Note: * = $p < .05$; ** = $p < .01$

Regarding the relationships with nominal variables, the most notable findings are that females ($M = 6.09, SD = 5.72$) seek academic help significantly more often than males ($M = 4.49, SD = 3.95$). Furthermore, part-time students ($M = 6.00, SD = 1.68$) have significantly higher intentions to seek help than full-time students ($M = 5.02, SD = 1.71$) and part-time students ($M = 8.71, SD = 6.40$) also seek help significantly more often than full-time students ($M = 5.52, SD = 5.23$). The following chapter describes the relationships between all variables in a comprehensive model attempting to explain students' academic help-seeking intentions and their academic help-seeking behaviour using structural equation modelling.

5.2 Application of the Theory of Planned Behavior to Identify Variables Related to Academic Help Seeking in Higher Education

Bornschlegl, M., Townshend, K., & Caltabiano, N. J. (2021). Application of the Theory of Planned Behavior to identify variables related to academic help seeking in higher education. *Frontiers in Education*, 6, 1-13. <https://doi.org/10.3389/feduc.2021.738790>

5.2.1 Abstract

Universities admit and enrol increasingly diverse student cohorts with varying academic entry standards. To increase student success, universities offer academic support to students, however, often students do not engage in or access this academic support. Building on the Theory of Planned Behavior and a comprehensive literature review, this study aims to identify personality variables, background variables and variables related to the Theory of Planned Behavior that can predict academic help seeking in higher education to inform the design of engaging and accessible academic support. Quantitative data were collected via an online survey across a range of different disciplines and undergraduate year levels at an Australian university. Structural equation modelling revealed that public stigma, self-stigma, extraversion, agreeableness, neuroticism, gender, and the Theory of Planned Behavior variables perceived behavioural control, subjective norm and attitude towards help seeking play a role in predicting intentions to seek academic help, and academic help-seeking behaviour. Findings indicate that 20% of the variance of help-seeking intentions but only 5.7% of the variance of academic help seeking could be explained. Findings are discussed as to how they can inform interventions to increase help-seeking intentions and behaviour. Finally, this study explores how to overcome the present intention-behaviour gap.

5.2.2 Introduction

To compete in the current higher education sector, universities admit increasingly diverse student cohorts with varying academic entry standards. These cohorts include school

leavers, but also mature-aged students, international students, and students from low socioeconomic backgrounds (Alexander, 2006; Adams et al., 2012; Harryba et al., 2012). As a result of varying entry standards, students' academic skills often vary and impact the success in their degree (Hoyne & McNaught, 2013; MacGillivray, 2009). This may lead to poorer academic achievement and lower retention rates, challenging universities' reputations, and financial stability. One measure undertaken by universities is to provide academic support services to students to address this issue (Reader, 2018).

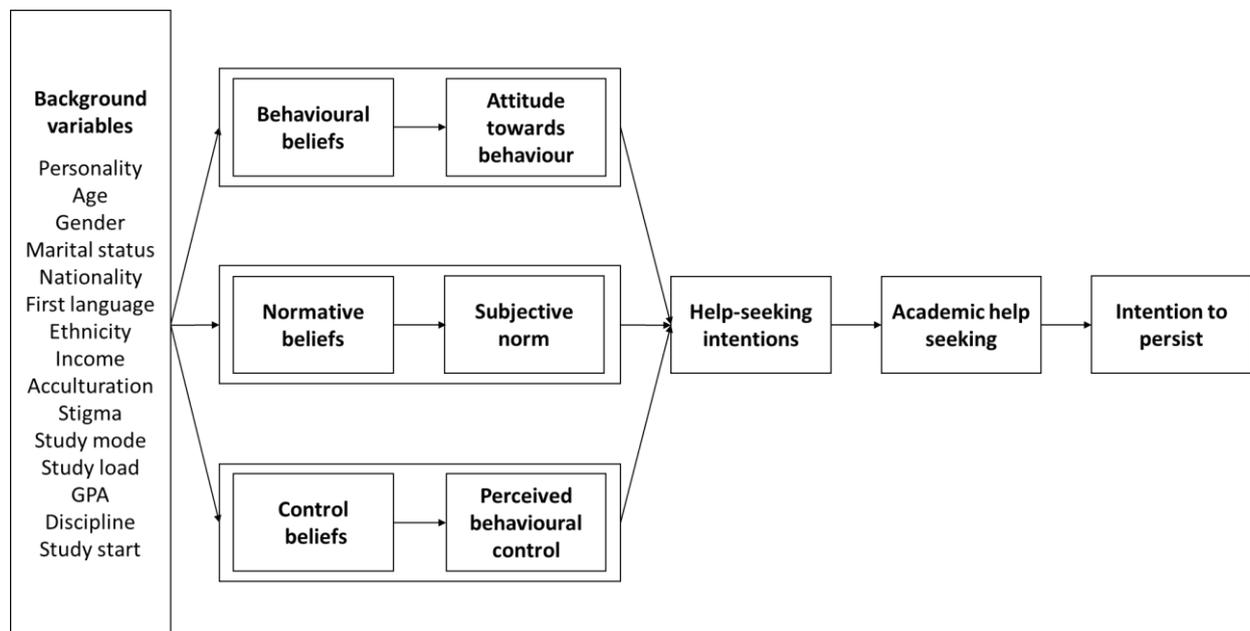
Universities offer a range of different academic support services, including workshops, one-on-one support, self-access resources or subject integrated advice covering mainly the areas of academic writing, mathematics and statistics, reading, researching and generic academic skills (e.g., Brown University, 2022; James Cook University, 2021e; The University of Melbourne, n.d.; University of Bristol, 2021). Academic support also encompasses content advice from academics who are First Year Coordinators (Boehm et al., 2017), Program or Course Coordinators, or regular lecturers and associate lecturers, as well as enrolment advice regarding courses and subjects. Overall, academic support has been shown to be beneficial for student success (Chen, 2017; Collins, 2012). However, universities struggle to engage students in seeking academic help (Hoyne & McNaught, 2013) and little information is known about factors influencing a student's decision to seek academic help (Bornschlegl et al., 2020). Therefore, the aim of this study was to identify variables related to academic help seeking in higher education to inform the design of engaging and accessible academic support.

While recent research does not give considerable insight into factors related to academic help seeking, the Theory of Planned Behavior (Ajzen, 2005) and recent research about help seeking in other contexts provide a good theoretical foundation for further investigations in the area of academic help seeking. The Theory of Planned Behavior (Ajzen,

2005) proposes that a person’s background, such as personality, age, gender, nationality and cultural background, acculturation, stigma, and socioeconomic status, influences a person’s beliefs about a behaviour. These beliefs encompass behavioural beliefs, normative beliefs, and control beliefs which influence three main parameters: 1) a person’s attitude towards a behaviour, 2) a person’s perceived subjective norm, and 3) a person’s perceived behavioural control, respectively. An attitude towards a behaviour is a “favorable or unfavorable evaluation or appraisal of the behavior in question” (Ajzen, 1991, p. 188). Subjective norm concerns whether a person’s social environment supports a certain behaviour and perceived behavioural control is a person’s evaluation of the perceived probability of performing the behaviour in question successfully (Ajzen, 1991). These parameters then influence the intention to perform the behaviour, which ultimately influences a person’s behaviour (Figure 5.1).

Figure 5.1

The Theory of Planned Behavior in the Context of Academic Help Seeking (Adapted From Ajzen (2005, p. 135))



In a review of recent literature, limited existing evidence was found in the area of academic help seeking and even less in the context of higher education. However, there is

some evidence from other help seeking areas, particularly psychological help seeking. In a comprehensive systematic scoping review, Bornschlegl et al. (2020) found that there is strong evidence for attitude towards help seeking, subjective norms, gender, and stigma to be related to help seeking (e.g., Cheang & Davis, 2014; Choi & Miller, 2014; Pumpa & Martin, 2015; Seamark & Gabriel, 2018; Zochil & Thorsteinsson, 2018). Furthermore, the relation of personality, age, socioeconomic status, cultural background, acculturation, and educational background to help seeking was ambivalent. No conclusion could be drawn for nationality and perceived behavioural control. The majority of these variables were either not considered in any research regarding academic help seeking or examined in only one or two studies (Bornschlegl et al., 2020). However, Bornschlegl et al. (2020) found that there is some evidence for personality, age, gender, and cultural background (e.g., Dietsche, 2012; Ghyasi et al., 2013; Roessger et al., 2018) to be related to academic help seeking.

With regard to academic help seeking, females seem to be more likely than males to seek academic help (e.g., Virtanen & Nevgi, 2010). Furthermore, the Big Five Personality dimension of extraversion was found to be positively related to seeking help for academic purposes (e.g., Ghyasi et al., 2013). Neuroticism, openness, conscientiousness, and agreeableness do not seem to be crucial for academic help seeking, however, some studies found these variables to be related (Bornschlegl et al., 2020). Inconsistent results were also found for age and cultural background (Bornschlegl et al., 2020). The relationship between age and academic help seeking was found to be positive as well as negative (e.g., Dietsche, 2012; Roessger et al., 2018). Cultural background was found to be related in some studies but not in others (e.g., Zusho & Barnett, 2011; Dietsche, 2012).

Given the inconsistent findings from recent research regarding psychological help seeking and the sparse body of literature about variables related to academic help seeking, this study considered a range of variables that might be related to academic help seeking.

Therefore, to answer research question 1, How are background variables, personality and variables related to the Theory of Planned Behavior related to academic help-seeking behaviour in higher education?, the model as shown in Figure 5.1 was tested for its applicability in the context of academic help seeking in higher education. Furthermore, research question 2, What are the effects of academic help seeking on student retention?, was examined by testing this model. As shown in Figure 5.1, the variables examined in this study include age, gender, marital status, income, nationality, first language, study mode (internal vs. external), study load (full-time vs. part-time), discipline, study start, GPA, acculturation, ethnicity, the Big Five personality dimensions (extraversion, agreeableness, conscientiousness, neuroticism, openness), self-stigma, public stigma, attitude towards help seeking, subjective norm, perceived behavioural control, help-seeking intentions and actual help-seeking behaviour. Public stigma is a person's perceptions that a given behaviour is not accepted by society (Vogel et al., 2006), while the related concept of self-stigma describes internalised public stigma (Corrigan, 2004). Additionally, the students' intention to persist in their study was included as academic help seeking was shown to be positively related to student success (Chen, 2017; Collins, 2012).

Given the sparse body of literature concerning variables influencing academic help-seeking behaviour as well as the inconsistent findings in the area of psychological help seeking, this study aims to test one relatively exploratory hypothesis. It is proposed that some personality and background variables in addition to the Theory of Planned Behavior are related to academic help-seeking behaviour in higher education (H1). Furthermore, as shown in previous research (Chen, 2017; Collins, 2012), it is expected that academic help seeking is positively related to the students' intention to persist (H2).

5.2.3 Materials and Methods

Data was collected with a volunteer/convenience sample of undergraduate students at JCU via an online survey using the Qualtrics platform. Participating students completed the survey in March, April, and May 2020, as well as in August, September, and October 2020. Due to the Coronavirus pandemic, the surveys could not be conducted during face-to-face lecture/tutorial time. As the whole university moved its teaching online, the surveys were conducted in online live teaching sessions via the Collaborate platform or outside of class time via the survey link provided on the university's learning management system LearnJCU. Data was analysed using Structural equation modelling.

5.2.3.1 Sample. JCU students from 36 subjects volunteered to participate in the survey. This included students from four campuses, as well as external students. The subjects were selected to represent various disciplines and undergraduate year levels. Sixteen first year subjects from 16 disciplines, 10 second year subjects from nine disciplines, nine third year subjects from nine disciplines and one fourth year subject took part. In total, 430 students participated in the survey. One-hundred and forty-four responses were removed because the survey was not completed. Three responses were removed because they were completed by Master students who were not part of the target population of this study. Therefore, a total of $N = 283$ responses were included in the initial analysis of the survey.

The participants had a mean age of 24.80 ($SD = 8.19$). Two-hundred and five participants were female, 75 were male and three did not report their gender. Most were single (49.3%) or in a relationship (35.7%). The remaining students were either married (10.7%), separated (2.9%) or divorced (1.4%). Most participants' nationality was Australian (86.1%), and first language was English (89.2%). Furthermore, their ethnicity was mostly Caucasian (78.1%). Other ethnic origins include Aboriginal (2.6%), Asian (5.6%), African (0.4%), Middle Eastern (0.7%), Eurasian (3.0%), Caucasian/Aboriginal (1.9%) and other

combinations (7.8%). Most participants reported that they either lived in a household with an income less than AU\$20,000 (24.2%) or more than AU\$100,000 (26.3%). Most students were studying on the Townsville (53.4%) or Cairns (35.9%) campuses. Others were either studying externally (5.7%) or from one of the smaller campuses, such as Mackay or Mt Isa (5.0%). The majority of the participants was enrolled full time (95.0%). Most participants commenced their studies in 2020 (36.4%), 2019 (25.7%) or 2018 (21.4%). The students' mean GPA was 5.40 ($SD = 0.86$). Participants were studying 19 different disciplines and various double degree combinations.

5.2.3.2 Instruments. The online survey consisted of 121 items and took approximately 15 minutes to complete. It consisted of questions regarding the students' background and validated scales for personality (BFI-10; Rammstedt & John, 2007), attitude towards help seeking (Kraft et al., 2005), perceived behavioural control (Kraft et al., 2005), subjective norm (Kraft et al., 2005), public stigma (PSOSH; Vogel et al., 2009), self-stigma (SSOSH; Vogel et al., 2006), help-seeking intentions (Ajzen, 2019b), intention to persist (Shin, 2003) and self-generated actual help-seeking behaviour items. Most items were rated on five- or seven-point scales. The students' background was examined using 16 open-ended questions as well as rating scales, single items, and multiple-choice question types. The background questions included demographics of age, gender, marital status, nationality, first language, ethnicity, household income, and study information of study mode, study load, the degree the student is studying, when the student commenced their studies at JCU, and their current GPA. Students were also asked if they were an international student and if yes, were asked to rate how often they wish they were still in their home country as an indicator of their level of acculturation.

The students' personality was examined using the Big Five Inventory (BFI-10) which is a 10 item 5-point Likert scale measuring the Big Five personality dimensions of

extraversion, agreeableness, conscientiousness, neuroticism, and openness. One item was added to the scale agreeableness to increase the scale's reliability. Therefore, 11 items were used to assess personality in this survey. This short version of the BFI-44 achieved acceptable values for "retest reliability, structural validity, convergent validity with the NEO-PI-R and its facets, and external validity" (Rammstedt & John, 2007, p. 203). All 11 statements begin with the stem "I see myself as someone who...." Students could disagree strongly, disagree a little, neither agree nor disagree, agree a little and agree strongly. An example item of the BFI-10 is "I see myself as someone who is reserved," Internal consistency analyses revealed the following Cronbach's α values: $\alpha = .71$ for extraversion, $\alpha = .46$ for agreeableness, $\alpha = .54$ for conscientiousness, $\alpha = .57$ for neuroticism, and $\alpha = .15$ for openness. As the scales only consist of two and three items, no changes could be made to the scales to improve their reliability. Due to the low internal consistency of the scale openness, this scale was not included in the analysis. All other subscales were included in the analysis, as Lovik et al. (2016) suggested that lower values for internal consistency can be expected when using 2-item scales. Furthermore, other studies have also reported internal consistency values below .60 (e.g., Balgiu, 2018; Kunnel et al., 2019) and Balgiu (2018) suggested that the cut-off value for 2-item scales is $\alpha = .45$.

The students' public stigma was measured using the Perceptions of Stigmatization by Others for Seeking Help (PSOSH) scale. It is a 21-item, 5-point Likert scale developed by Vogel et al. (2009) to measure public stigma for seeking psychological help. Vogel et al. (2009) reported an internal consistency of $\alpha = .96$. Not all items were applicable for examining public stigma for seeking academic help. In total, 11 items were suitable and were selected for this study. All items begin with the item stem "Imagine you wanted to seek academic advice. If you sought academic advice, to what degree do you believe that the people you interact with would" An example continuation of the stem is "see you

as weak.” All items are rated on a 5-point scale ranging from “not at all” to “a great deal.” The internal consistency of the scale in this study was $\alpha = .96$.

The students’ self-stigma was examined using the Self-Stigma of Seeking Help (SSOSH) scale. It consists of 10 items and measures self-stigma associated with seeking psychological help on a 5-point, partly anchored Likert-type scale ranging from “strongly disagree” to “agree and disagree equally” to “strongly agree.” Testing of reliability and validity revealed good values for internal consistency ($\alpha = .91$) and evidence of construct, criterion, and predictive validity (Vogel et al., 2006). All items were adapted for use in this study to measure self-stigma associated with seeking academic help. For example, an item used in this study is “Seeking academic advice would make me feel less intelligent.” Reliability analyses revealed high values of Cronbach’s α . The initial internal consistency was $\alpha = .90$ and could be increased to $\alpha = .91$ by deleting the item “My self-esteem would increase if I sought academic advice.”

The scales for attitude towards help seeking (eight items), perceived behavioural control (nine items) and subjective norm (four items) are all based on the Theory of Planned Behavior and have been used frequently in previous research. All three scales are measured by seven categories with anchors on each side of the items (Kraft et al., 2005). The attitude towards help seeking scale consists of the sentence stem “Seeking academic advice for me would be” adapted from the sentence stem “My . . . performing behaviour . . . during the next 2 weeks would be” and eight opposing adjectives that are rated on a 7-point scale. For example, “Seeking academic advice for me would be unwise/wise” (Kraft et al., 2005). The initial internal consistency of this scale in this study was $\alpha = .88$. However, Cronbach’s α could be increased by deleting the item “Seeking academic advice for me would be stressful–relaxing.” Deleting this item was confirmed by an exploratory factor analysis, as this item

loaded higher on a second factor. Therefore, the item was removed, and the internal consistency was increased to $\alpha = .89$.

The perceived behavioural control scale asks participants to rate nine statements and questions on a 7-point scale with opposing anchors on each side of the scale. For example, “How easy or difficult would it be for you to seek academic advice?” with the anchors “very difficult” and “very easy” (Kraft et al., 2005). The internal consistency of the scale in this study was $\alpha = .88$.

Similarly, the subjective norm scale invites subjects to rate four statements on a 7-point scale with opposing anchors on each side of the items. An example statement is “Most people who are important to me would wish that I seek academic advice.” with the anchors “very unlikely” and “very likely” (Kraft et al., 2005). Reliability analyses showed an initial Cronbach’s α of .76. After deleting the item “I feel under social pressure to seek academic advice” the internal consistency could be increased to $\alpha = .86$.

Following Ajzen’s (2019b) recommendations to examine behavioural intentions, students were asked to rate how likely they will seek academic support in the future on a 7-point scale. To assess students’ actual help-seeking behaviour, students were asked how many times they access various support services offered at JCU for three different problem types each semester. In total, 24 items were used to assess actual help-seeking behaviour in this study. To account for support services not integrated in this survey, participants were asked to list any other support services they accessed during their time at JCU and estimate how many times they access this service each semester.

To investigate the relationship between academic help seeking and student retention, the students’ intention to continue their studies was assessed. Shin’s (2003) intention to persist scale was used in this study. The scale consists of six items, which are rated on a 5-

point scale. The scale has a good internal consistency of $\alpha = .83$ (Shin, 2003). An example item of Shin's scale applied in this study is "Graduating from JCU is important to me." The internal consistency of the scale in this study was $\alpha = .80$.

5.2.3.3 Data Preparation. To perform structural equation modelling with maximum likelihood estimation, various measures were undertaken to prepare data for this analysis. This included the deletion of cases with missing values, the deletion of variables with too many missing cases and item parcelling for ordinal 5-point scales. First, the following variables of GPA (146 missing values), income (97 missing values), ethnicity (14 missing values), and acculturation, as only 4.9% of the sample were international students and given the option to answer this item, were deleted. Furthermore, Little's MCAR test revealed that data was missing completely at random and, therefore, cases with missing data were deleted listwise to perform the analysis based on complete cases (Bowen & Guo, 2012) because the sample size was large enough with $N > 200$ (Kline, 2005) resulting in a sample size of $N = 220$. To use the maximum likelihood estimator, item parcelling was performed to transform ordinal 5-point scales into interval scales and to ensure data better fits the normal distribution (Matsunaga, 2008). Following Matsunaga's (2008) recommendations, three parcels were formed for the scales of self-stigma, public stigma, and intention to persist. The random algorithm was used to assign items to one of the parcels. As the scales of extraversion, agreeableness, conscientiousness, and neuroticism only exist of two, three, two and two items respectively, one parcel was formed for each of the scales. Following this procedure, data was not normally distributed according to the Kolmogorov Smirnov test. However, their skewness and kurtosis did not exceed ± 3 and ± 10 respectively indicating that data was not extremely skewed and kurtotic. Moreover, the skewness and kurtosis of variables in the second and final model presented in this paper did not exceed ± 2 and ± 7 respectively (Kline, 2005). Therefore, the maximum likelihood estimator, which has been shown to be robust to

violations of the assumption of multivariate normality when data is complete and when exogenous variables are uncorrelated, could be used for this analysis (Savalei, 2008).

Following Schreiber et al.'s (2006) recommendations, data was also assessed for linearity, multicollinearity and outliers. A curve estimation for all relationships in the model using IBM SPSS statistics 27 showed that not all relationships were linear, a limitation that needs to be considered when interpreting the results. There were no multicollinearity issues for all independent variables. Furthermore, 10 outliers were identified using Mahalanobis distance. However, removing the outliers from the dataset did not improve the model fit and are, therefore, kept in the data. As no further cases were removed from the data, the final sample size for the following analysis was $N = 220$.

5.2.3.4 Data Analysis. Data were analysed using structural equation modelling with maximum likelihood estimation in IBM SPSS Amos 27 Graphics to test the relationships in the academic help seeking model outlined in Figure 5.1 and to conduct factor analyses for latent concepts included in the model. Various model modifications to the original model were undertaken to generate a theoretically sound model with good fit (Bowen & Guo, 2012) including the deletion of nonsignificant paths, item parcelling, and by adding directional and non-directional paths. A range of goodness of fit indices was used to determine the fit of the model. These include chi-square (χ^2), root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI), goodness-of-fit index (GFI), and adjusted goodness of fit index (AGFI). The cut-off criteria for a good model fit are $\chi^2/df \leq 3$ (Kline, 2005), $RMSEA \leq 0.05$ (close fit) and $RMSEA = 0.05 - 0.08$ (reasonable fit) (Browne & Cudeck, 1993), $CFI \geq 0.95$ (Hu & Bentler, 1999), $TLI \geq 0.95$ (Hu & Bentler, 1999), $GFI \geq 0.90$ (Hoyle & Panter, 1995), and $AGFI \geq 0.85$ (Schermelleh-Engel et al., 2003). Originally, the χ^2 test is used to test whether the input and implied model are statistically equal.

Therefore, "if the p-value associated with χ^2 is nonsignificant, the researcher can claim that

the model is consistent with the data” (Bowen & Guo, 2012, p. 144). However, large sample sizes can make it difficult to achieve a nonsignificant result (Bowen & Guo, 2012).

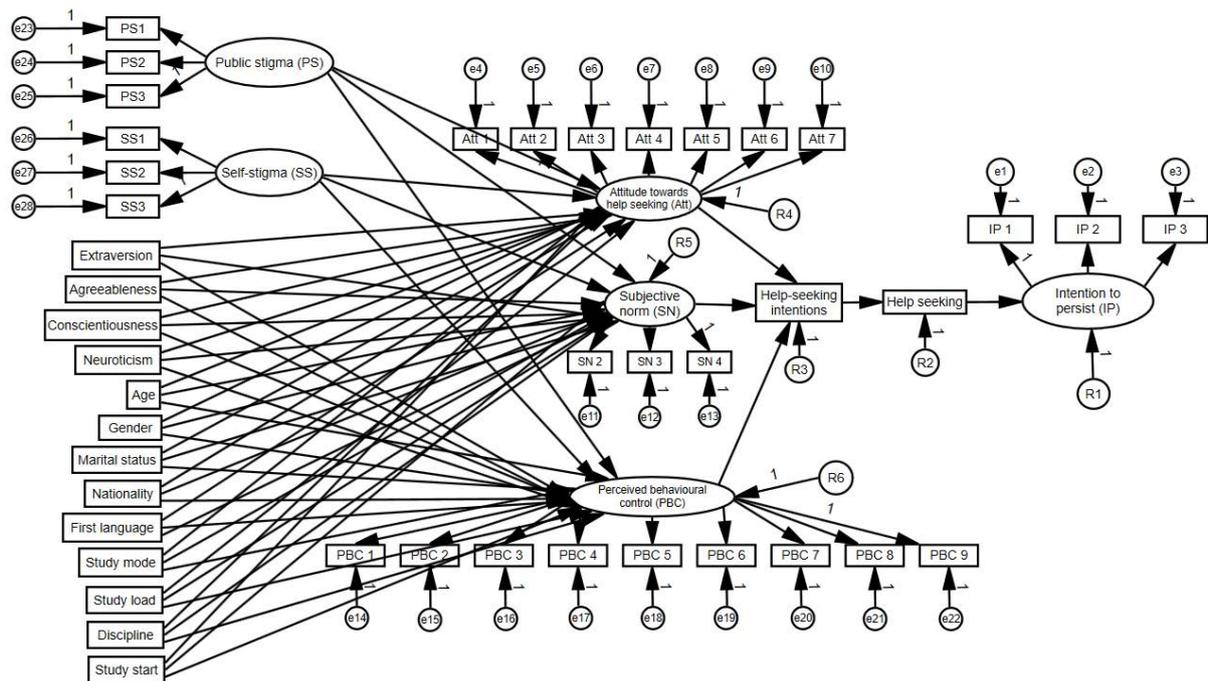
Therefore, it is recommended to consider the ratio χ^2/df instead (Jöreskog & Sörbom, 1993, as cited in Schermelleh-Engel et al., 2003). A good fit is achieved if the majority of the fit indices meet the minimum requirement (Townshend & Caltabiano, 2019).

5.2.4 Results

The original model as shown in Figure 5.2 failed to fit the data ($\chi^2/df = 2.38, p < .001$; RMSEA = 0.08, LO 90 = 0.075, HI 90 = 0.084; CFI = 0.76; TLI = 0.74; GFI = 0.69; AGFI = 0.64).

Figure 5.2

Original Academic Help Seeking Model

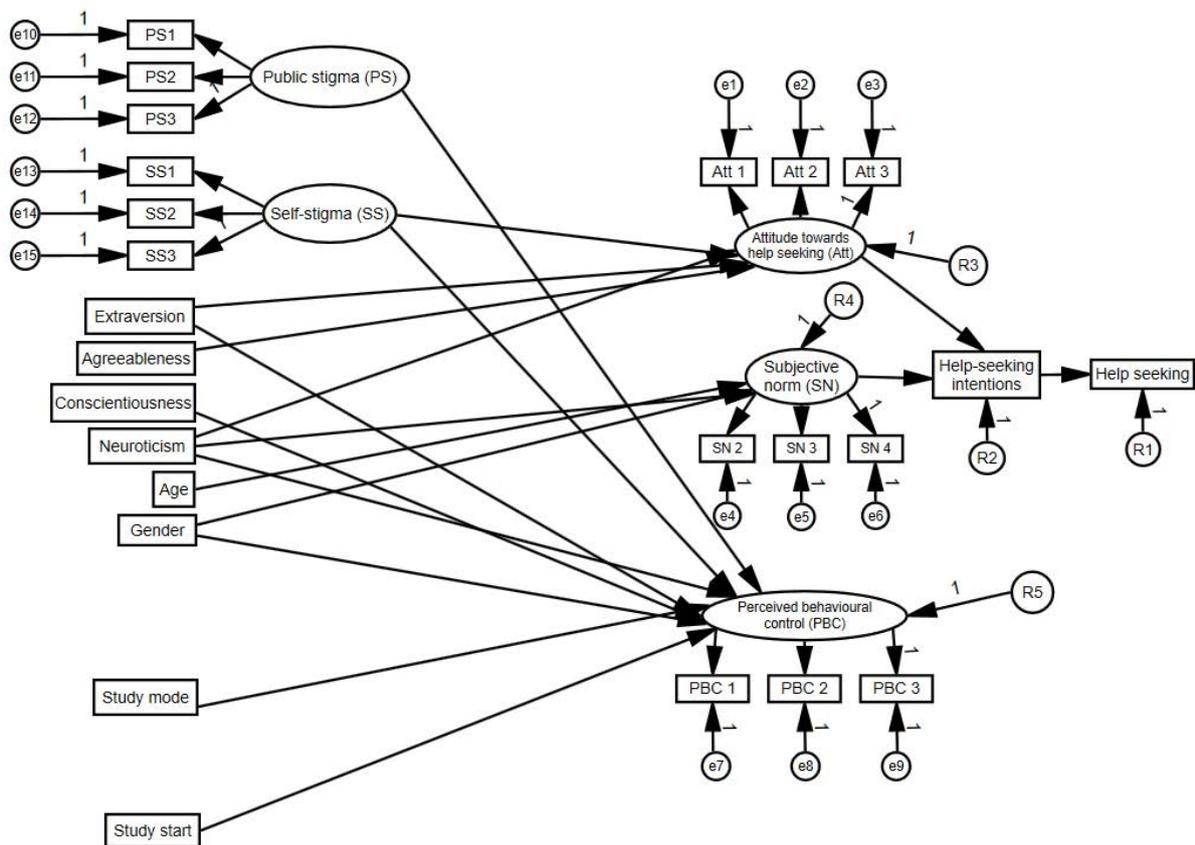


Therefore, the following model modifications were undertaken to improve the fit of the model in an iterative process: First, all variables with non-significant paths were removed. This included intention to persist, marital status, nationality, discipline, first language and study load. A further step removed all non-significant paths, then the indicators for attitude

towards help seeking and perceived behavioural control were item parcelled to further simplify the model and to improve the fit of the model as recommended by Matsunaga (2008). For both scales, items were randomly assigned to three item parcels. This led to the model shown in Figure 5.3. Compared to the original model, the model fit improved. However, according to the minimum requirements for the fit indices described above, the model did not fit the data well enough ($\chi^2/df = 2.38, p < .001$; RMSEA = 0.08, LO 90 = 0.07, HI 90 = 0.09; CFI = 0.88; TLI = 0.86; GFI = 0.81; AGFI = 0.77).

Figure 5.3

Modified Model with Improved yet Insufficient Model Fit



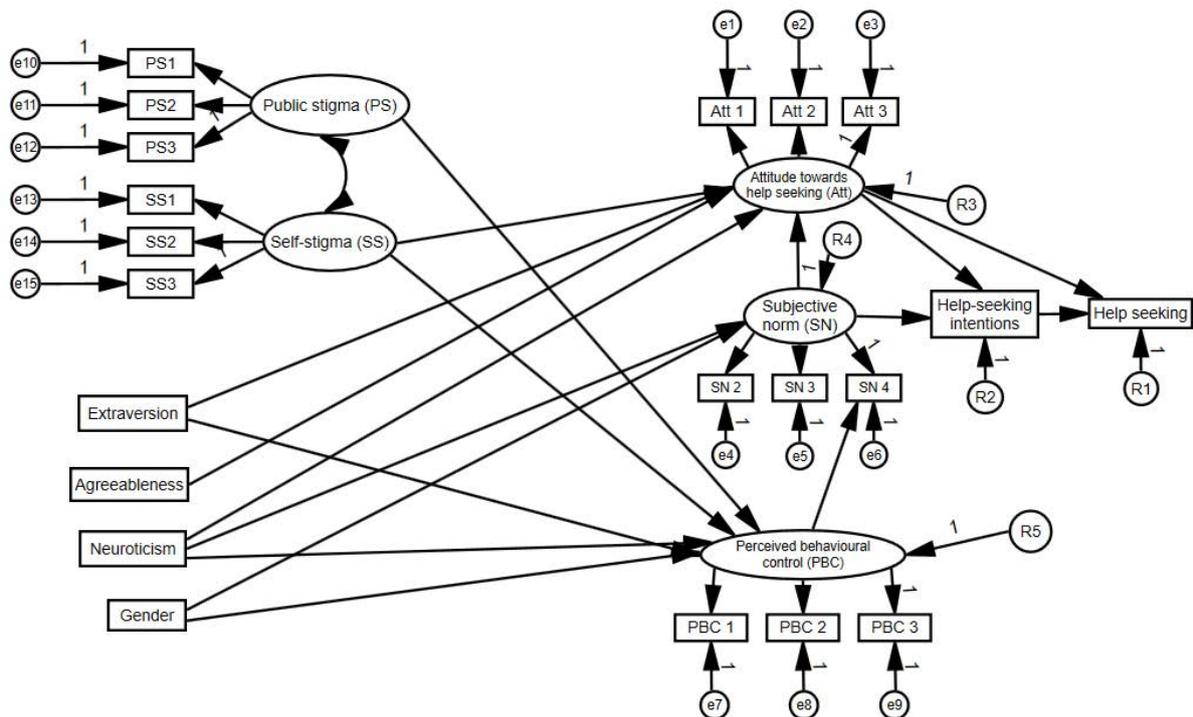
Further modifications were undertaken to improve the fit of the model. Age and study start were removed from the model as they were no longer significant predictors.

Additionally, considering modification indices, correlations were added between public stigma and self-stigma, a directional path from subjective norm to attitude towards help

seeking, a directional path from perceived behavioural control to indicator four of the subjective norm scale, and a directional path from attitude towards help seeking to help seeking. To further simplify the model, study mode was deleted because it is not in the Theory of Planned Behavior and was initially added to the original model only because of the context of higher education. Conscientiousness was deleted because the majority of reviewed studies found no relationship to help seeking (Bornschlegl et al., 2020). These modifications led to the final model (Figure 5.4) that is parsimonious, theoretically sound and fits the data well ($\chi^2/df = 1.62, p < .001$; RMSEA = 0.05, LO 90 = 0.04, HI 90 = 0.06; CFI = 0.96; TLI = 0.96; GFI = 0.89; AGFI = 0.86).

Figure 5.4

Final Model With Good Fit



As shown in Table 5.4, the confirmatory factor analyses conducted as part of the model, showed high loadings with $p < .01$ for most items or item parcels to their respective

factor and confirmed the one factor solution for all latent constructs in the model (Shi et al., 2019).

Table 5.4

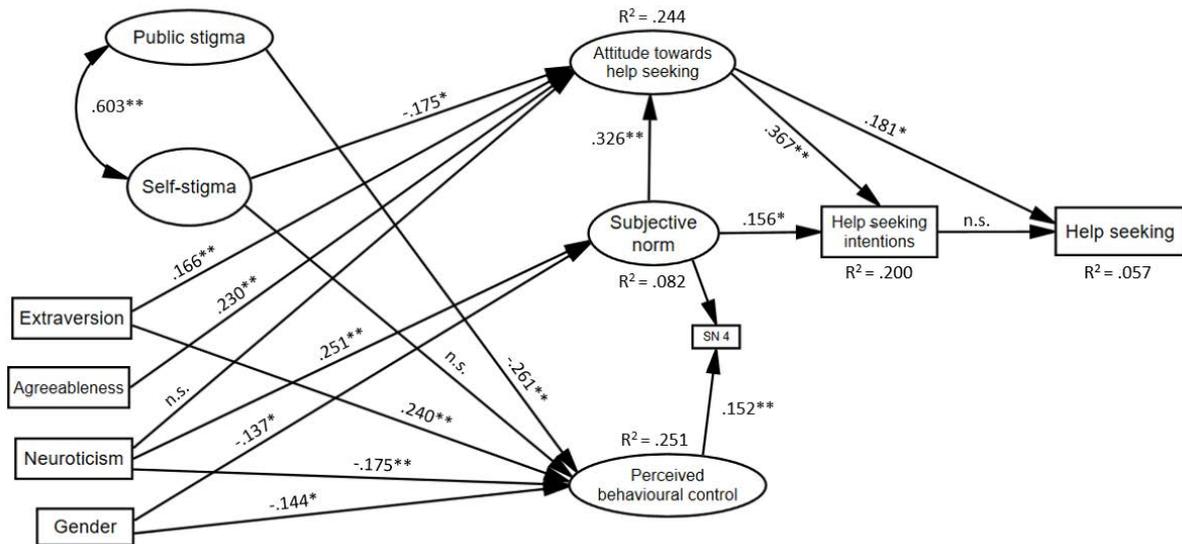
Factor Loadings for all Items or Item Parcels and Their Respective Latent Construct

Factor	Number of items in each parcel	Item/Item parcel	Factor loading
Public stigma	4	PS 1	.97
	4	PS 2	.91
	3	PS 3	.97
Self-stigma	3	SS 1	.95
	3	SS 2	.86
	3	SS 3	.87
Attitude towards help seeking	3	Att 1	.84
	2	Att 2	.95
	2	Att 3	.79
Subjective norm	1	SN 2	.81
	1	SN 3	.90
	1	SN 4	.83
Perceived behavioural control	3	PBC 1	.87
	3	PBC 2	.75
	3	PBC 3	.94

As shown in Figure 5.5, attitude towards help seeking was significantly predicted by self-stigma ($\beta = -.18, p = .01$), extraversion ($\beta = .17, p = .01$) and agreeableness ($\beta = .23, p < .001$) indicating that lower self-stigma is associated with a more positive attitude towards academic help seeking, and higher levels of extraversion and agreeableness are associated with a more positive attitude. Subjective norm is predicted by neuroticism ($\beta = .25, p < .001$) and gender ($\beta = -.14, p = .05$). Therefore, higher levels of neuroticism lead to increased perception that academic help seeking is approved by the social environment (subjective norm) and males seem to have higher levels of subjective norm than females.

Figure 5.5

Standardised Regression Weights and Squared Multiple Correlations for Final Model



Note. $* = p < .05$; $** = p < .01$; n.s. = not significant.

Perceived behavioural control is predicted by public stigma ($\beta = -.26, p = .00$), extraversion ($\beta = .24, p = .01$), neuroticism ($\beta = -.18, p = .01$) and gender ($\beta = -.14, p = .02$). This suggests that students with lower levels of public stigma are more confident that they could seek academic advice (perceived behavioural control) and students with higher levels of extraversion also have higher levels of perceived behavioural control. Students with higher levels of neuroticism seem to have lower levels of perceived behavioural control and males seem to be more confident that they can seek academic help. Perceived behavioural control only predicts one of the item parcels of subjective norm ($\beta = .15, p < .001$). However, subjective norm positively predicts attitude towards help seeking ($\beta = .33, p < .001$) and help-seeking intentions ($\beta = .16, p = .03$). Attitude towards help seeking predicts help-seeking intentions ($\beta = .37, p < .001$) and help seeking ($\beta = .18, p = .02$). Therefore, the behaviour of interest, academic help seeking, is directly affected by attitude towards help seeking and indirectly affected by subjective norm and perceived behavioural control, as well as public stigma, self-stigma, extraversion, agreeableness, neuroticism, and gender.

The amount of variance explained varied among the dependent variables. There are moderate effects for perceived behavioural control, attitude towards help seeking and help-seeking intentions. Lower yet practically significant effects were found for subjective norm and help seeking (Ferguson, 2009). 25.1% of the variance of perceived behavioural control, 24.4% of the variance of attitude towards help seeking and 20.0% of the variance of help-seeking intentions was explained. For subjective norm and help seeking 8.2% and 5.7% of the variance were explained respectively.

5.2.4.1 Other Model Considerations. Among the models presented above, a slightly different model as shown in Figure C.1 (Appendix C) was also considered. The main differences to the final model as shown in Figure 5.5 are that the three Big Five dimensions extraversion, agreeableness and neuroticism were combined to a general personality factor and that directional paths were added from public stigma and self-stigma to personality. This model also fits the data well, however, was not chosen in this context for theoretical as well as statistical considerations. First, there is an ongoing debate about whether the Big Five personality dimensions can be combined to a general personality factor and many researchers believe there is no general personality factor (Chang et al., 2012). Furthermore, only three of the five Big Five dimensions were included, and a general personality factor would not comprehensively describe personality in this study. Additionally, Ortega et al. (2007) used three Big Five personality dimensions in their study and did not combine them to a general personality factor in the model analysis. Second, the factor loadings for extraversion, agreeableness and neuroticism on personality were low. Therefore, these personality dimensions did not seem to represent a general personality factor. Finally, although the direct paths from public stigma and self-stigma to personality were significant and moderate in strength, the authors preferred to omit these paths to ensure an accurate model estimation using maximum likelihood. Savalei (2008) explained that the estimator is robust against

normality violations when exogenous variables are not related. Therefore, direct paths and correlations between exogenous variables were kept at a minimum.

5.2.5 Discussion

Overall, this study has shown that some aspects of personality, some background variables, and variables related to the Theory of Planned Behavior play a role when predicting academic help-seeking behaviour in higher education. Answering research question 1 as to how these variables are related to academic help-seeking behaviour, it was shown that academic help-seeking behaviour is mostly affected indirectly by the Theory of Planned Behavior variables of subjective norm and perceived behavioural control, as well as the background variables of public stigma, self-stigma, extraversion, agreeableness, neuroticism, and gender. Consistent with the findings in this study, Ajzen (2019c) also suggested that perceived behavioural control moderates the effects of subjective norms on intentions rather than being directly related. Furthermore, academic help seeking was directly affected by the Theory of Planned Behavior variable of attitude towards help seeking. Therefore, hypothesis 1, that some personality, background variables and variables related to the Theory of Planned Behavior are related to academic help-seeking behaviour in higher education can be upheld. Consistent with the findings of Bornschlegl et al. (2020) and Ghyasi et al. (2013), extraversion indirectly positively impacts academic help seeking in this study. However, contradicting Bornschlegl et al. (2020) and Virtanen and Nevgi's (2010) findings, the results of this study suggest males may be more likely to seek academic help than females. With regard to research question 2 and hypothesis 2 (Chen, 2017; Collins, 2012), no relationship was found between academic help seeking and the students' intention to persist and the hypothesis is therefore rejected.

Although a moderate to large amount of variance was explained for attitude towards help seeking, perceived behavioural control and help-seeking intentions, the variance

explained for actual help-seeking behaviour was rather small. Furthermore, help-seeking behaviour was only predicted by attitude towards help seeking and not, as postulated in the Theory of Planned Behavior and other research (e.g., Sheeran, 2002) by help-seeking intentions. For example, contradicting the findings of this study, Sheeran and Webb (2016) explained that intentions better predict behaviour than attitude. However, the authors also explained that poor “translation of intentions into action” (p. 504) leads to an intention-behaviour gap. The intention-behaviour gap can be influenced by the quality of the intention, challenges encountered to realise the intention and self-regulation skills. However, the intention-behaviour gap can be improved by modifying its causes (Sheeran & Webb, 2016).

For example, more specific and realistic goals lead to better quality intentions and are more likely to be translated into successful behaviour (Oettingen et al., 2013). Therefore, in the context of academic help seeking in higher education, students should be taught to plan to seek help from a specific service for a specific situation. For example, a student could intend to seek help for academic writing from a Learning Advisor for the first essay of the semester rather than intending to seek academic help in general. In collaboration with academic support staff, lecturers could promote specific academic support services at the right time for upcoming assignments to support students to plan to seek help in a specific context.

Challenges to enact an intention can include forgetting the intention or missing an opportunity (Sheeran & Webb, 2016). A student might have the intention to seek academic help at the beginning of the semester but forget about it during busy assignment times or miss the opportunity because of poor time management skills possibly resulting in an assignment deadline being missed. To counteract this issue, it is crucial students are reminded of available academic support services just in time throughout the semester. Other self-regulatory challenges a student could encounter include procrastination and preparatory behaviours (Sheeran & Webb, 2016). For example, students need to make an appointment to

meet with a Learning Advisor. Harkin et al. (2016) suggested tracking the progress of the planned behaviour improves the chances of the behaviour being performed. In the context of academic help seeking in higher education students should, for example, be prompted to plan to make appointments for academic support when they plan their semester.

Furthermore, this study showed that reducing public stigma and self-stigma, and increasing attitude towards help seeking, subjective norm and perceived behavioural control may also lead to increased help seeking. Public stigma can be reduced by ensuring the names of the academic support services do not reinforce help seeking for a deficit and by locating services in open spaces to normalise accessing academic support for students (McNaught & Beal, 2012). To increase subjective norms, Thomas and Tagler (2019) advocated conducting information campaigns about academic help seeking with key stakeholders, such as lecturers, family, and other students. Similarly, Brown et al. (2020) suggested that the promotion of academic help seeking demonstrating its benefits through educators with the use of role models can increase students' attitude towards academic help seeking. University campuses should therefore carefully plan the promotion of academic support by addressing the above-mentioned factors, such as reducing stigma.

Overall, the final model in this study fit the data well. The goodness of fit indices of $\chi^2/df = 1.62$, $p < .001$; RMSEA = 0.05; CFI = 0.96; TLI = 0.96 and AGFI = 0.86 met the standard cut-offs of $\chi^2/df \leq 3$ (Kline, 2005), RMSEA ≤ 0.05 (close fit) and RMSEA = 0.05 – 0.08 (reasonable fit) (Browne & Cudeck, 1993), CFI ≥ 0.95 (Hu & Bentler, 1999), TLI ≥ 0.95 (Hu & Bentler, 1999), and AGFI ≥ 0.85 (Schermelleh-Engel et al., 2003). The GFI of 0.89 did not meet the cut-off of GFI ≥ 0.90 (Hoyle & Panter, 1995). However, the GFI was only slightly below the desired minimum value and the majority of the fit indices met the cut-off criteria. Therefore, the final model shown in Figure 5.4 fit the data well and can be used to describe what influences academic help-seeking behaviour in higher education. Furthermore,

the reliability analyses of the scales and the confirmatory factor analysis part of the structural model showed that the items and scales used in this study have high reliability and high factor loadings and could therefore be used to measure academic help seeking and related variables in higher education contexts.

The sample was drawn from various disciplines and year levels to maximise representativity. Compared to student characteristics of all enrolments at JCU in March 2021, the sample of this study represents JCU's student body well (N. Emtage, personal communication, March 17, 2021). However, due to the unique and diverse characteristics of JCU's student cohorts, the applicability of these findings should be carefully considered when used in other contexts. Larger samples in future research could allow to investigate how factors are related to academic help seeking for different groups, such as income groups, Aboriginal and Torres Strait Islander students and other ethnic groups, to better support diverse student cohorts and to target students who are not eager to access academic support services. Additionally, future research should employ longitudinal designs to examine the impact of academic help seeking on student retention instead of using the students' intention to persist, which is only an indication of whether they successfully graduate from their study. Furthermore, it would be beneficial to investigate why students' intentions to seek help did not translate into help-seeking behaviour and to plan interventions as to how this intention-behaviour gap can be decreased. Overall, this study offers comprehensive insight into variables related to academic help seeking at an Australian university and offers suggestions for interventions to better engage students in seeking academic help.

5.3 Students' Intentions to Seek Help for Different Problem Types

Students can seek academic help for various types of problems. This study considered seeking academic help for academic skills support, for content specific reasons, and for support with subject and course choices. Academic skills support includes support with

generic academic skills that are not discipline specific, such as academic writing, mathematics, statistics, effective reading strategies, time management, and study strategies. Content specific reasons mean discipline specific academic support related to the content of the students' studies. Support with subject and course choices is advice students receive about what subjects they should enrol in to achieve certain goals, or what course or course combination would best meet the students' future aspirations.

For example, a student who wants feedback on the overall structure of an essay and learn more about how to structure a good paragraph is seeking academic skills support. Additionally, a student who wants to refresh percentage calculations, because a basic understanding is essential to successfully participate in a subject, is also seeking academic skills support. Seeking academic help for content specific reasons could be a student asking for clarification of a theory or concept discussed in class (e.g. the Objectivity Principle in an Accounting class). A student who is unsure about what subjects to enrol in for their elective component of their degree to work towards a certain professional goal, would be seeking subject and course advice.

Students can access this support from various sources. The sources included in this study were College Students Support Officers, Learning Advisors, the Peer Advice Desk, Studiosity, the Student Centre, lecturers (outside of class consultations), tutors (outside of class consultations), fellow students, friends and family, and online resources. These sources focus on different problem types. Lecturers and tutors are mostly supporting students with content and discipline specific advice. Learning Advisors, the Peer Advice Desk, and Studiosity provide academic skills support (James Cook University, 2021e; Studiosity, 2021a; Studiosity, 2021b). College Student Support Officers support students in managing their study load and are, therefore, advising students regarding their subject choices (James Cook University, 2021g). The Student Centre also provides advice regarding subject and

course choices (James Cook University, 2021d). Fellow students, friends and family, and online resources could be used for all problem types. A more detailed description of the services can be found in section 4.1.1.1.

This section focusses on how students are intending to use the services described in the previous paragraph. More specifically, several questions guided the analysis presented in this chapter: (1) What specific areas do students seek academic assistance for? (2) Would students choose the most appropriate service that could offer the specific assistance being sought? (3) Are there explicit preferences for the various services available to students? The findings presented in this section contribute to research questions 3 and 4:

3. Why do students (not) engage with academic support services?
4. How should academic support services be designed to make them more accessible and engaging for students?

5.3.1 Methods

The findings presented in this chapter draw on items from the online survey. Students were asked to rate their intention to seek help for the above described three problem types:

1. If you were having issues with or wanted to improve the content of your studies, how likely is it that you would seek help from the following people/academic support services?
2. If you were having issues with or wanted to improve academic skills needed for your studies (e.g. academic writing, maths, statistics, reading, time management), how likely is it that you would seek help from the following people/academic support services?
3. If you had questions regarding your subject/course choices, how likely is it that you would seek help from the following people/academic support services?

For each problem type students were then asked to rate their intention to seek help on a 7-point Likert scale ranging from extremely unlikely to extremely likely for each support service (College Students Support Officers, Learning Advisors, the Peer Advice Desk, Studiosity, the Student Centre, lecturers (outside of class consultations), tutors (outside of class consultations), fellow students, friends and family, online), as well as how likely it would be that they do not seek help at all.

Data was analysed using descriptive and inferential statistics. To provide an overview of students' intentions to seek academic help, means and standard deviations were calculated. All data was approximately normally distributed. Although the Kolmogorov-Smirnov test was significant ($p < .01$) for all help-seeking intentions for content specific reasons items, skewness and kurtosis did not exceed ± 2 and ± 7 respectively. The values ranged from -1.43 to .36 and from -1.24 to 1.95. Therefore, the data could be considered approximately normally distributed (Kline, 2005). Similarly, the Kolmogorov-Smirnov test was also significant ($p < .01$) for all items related to help-seeking intentions regarding academic skills support. However, skewness and kurtosis ranged from -1.35 to .30 and from -1.30 to 1.40, respectively. Additionally, the Kolmogorov-Smirnov test was also significant ($p < .01$) for all items concerning help-seeking intentions for subject and course advice. Again, skewness and kurtosis were within ± 2 and ± 7 , ranging from -.76 to .78 and from -1.24 to -.40. Therefore, all data included in the analysis for this chapter could be considered approximately normally distributed (Kline, 2005).

As all data was approximately normally distributed, parametric tests were used for inferential analyses. Repeated measures ANOVAs with Bonferroni post hoc tests were used to analyse if students' help-seeking intentions differ between the three problem types. This was analysed for each source of support. Furthermore, as the sphericity was violated for all

comparisons, the Huynh-Feldt correction was used for all repeated measures ANOVAs (Field, 2018).

5.3.2 Findings

Overall, the student's intention that they would not seek academic help was relatively low. Students seem to be most likely to seek help for subject and course advice. The mean for not seeking help for subject and course advice was $M = 2.98$ ($SD = 2.06$) compared to $M = 3.34$ ($SD = 2.06$) for content specific advice and $M = 3.37$ ($SD = 2.13$) for academic skills support. A repeated measures ANOVA showed that students' intention for not seeking help for subject and course advice was significantly lower compared to the other two problem types ($F(1.76, 485.37) = 9.34, p < .001$). According to Mauchly's test, sphericity was violated ($\chi^2(2) = 42.74, p < .001$). Therefore, the Huynh-Feldt correction was used.

Furthermore, the sources students would most likely use are online resources for content specific support ($M = 5.80, SD = 1.42$), followed by online resources for academic skills support ($M = 5.68, SD = 1.52$) and fellow students for content specific support ($M = 5.62, SD = 1.57$). When considering the three problem types separately, the students' preferred choice for content specific support were online resources ($M = 5.80, SD = 1.42$). For academic skills support, students' intention to seek help was also highest for online resources ($M = 5.68, SD = 1.52$) and the Student Centre was the students' preferred choice for subject and course advice ($M = 5.07, SD = 1.88$).

The intentions to seek academic support from lecturers was highest for content specific issues ($M = 5.00, SD = 1.77$) compared to academic skills support ($M = 4.53; SD = 1.89$), and subject and course advice ($M = 4.45; SD = 2.03$). The differences between seeking help for content specific issues and academic skills support, and content specific issues and

subject and course advice were significant ($F(1.84,509.18) = 14.64, p < .001$). As sphericity was violated ($\chi^2(2) = 27.51, p = < .001$), the Huynh-Feldt correction was used.

Similarly, students would most likely seek academic support from a tutor for content specific advice ($M = 4.89, SD = 1.84$), followed by academic skills support ($M = 4.56, SD = 1.90$) and subject and course advice ($M = 4.07, SD = 2.07$). All comparisons were significantly different ($F(1.79,495.41) = 27.88, p < .001$). As Mauchly's test indicated that sphericity was violated ($\chi^2(2) = 36.85, p < .001$), the Huynh-Feldt correction was used here as well.

Students' intentions to seek help from a Learning Advisor were highest for academic skills support ($M = 4.52, SD = 1.83$). The intention to seek academic support for content specific advice was similar with $M = 4.48 (SD = 1.78)$ to seeking help for academic skills support. Students were less likely to seek help for subject and course advice from a Learning Advisor ($M = 4.29, SD = 2.01$). The means were not significantly different ($F(1.78,497.70) = 2.60, p = .08$). To account for violated sphericity ($\chi^2(2) = 38.02, p < .001$), the Huynh-Feldt correction was applied.

Similarly, students would access the Peer Advice Desk most likely for academic skills support ($M = 4.20, SD = 1.82$). The intentions to seek help from the Peer Advice Desk for content specific reasons ($M = 4.08, SD = 1.83$) or subject and course advice ($M = 4.00, SD = 1.96$) were slightly lower. The differences were not significant ($F(1.77,490.65) = 2.16, p = .12$). Again, as sphericity was violated ($\chi^2(2) = 40.28, p < .001$), the Huynh-Feldt correction was used.

Students' intentions to access Studiosity were highest for academic skills support ($M = 4.39, SD = 2.15$) and content specific advice ($M = 4.36, SD = 2.10$). The intentions to seek help for subject and course advice were lower with $M = 2.88 (SD = 1.93)$. Intentions to access

Studiosity for academic skills support and intentions to access Studiosity for content specific advice were significantly different to intentions to seek help from Studiosity for subject and course advice ($F(1.67,454.67) = 102.61, p < .001$). The Huynh-Feldt correction was used again in this repeated measures ANOVA, as sphericity was violated ($\chi^2(2) = 63.19, p < .001$).

Students' intention to seek help from a College Student Support Officer was highest for seeking help regarding subject and course advice ($M = 4.61, SD = 1.98$). The students' intention to seek help from a College Student Support officer for content specific support was $M = 3.82 (SD = 1.78)$ and $M = 3.82 (SD = 1.86)$ for academic skills support. The differences between seeking help for subject and course advice and content specific support, as well as between seeking help for subject and course advice and academic skills support were significant ($F(1.73,479.70) = 40.57, p < .001$). As the sphericity was violated ($\chi^2(2) = 48.59, p < .001$), the Huynh-Feldt correction was also used for this repeated measures ANOVA.

Students were most likely to visit the Student Centre for subject and course advice ($M = 5.07, SD = 1.88$) compared to content specific support ($M = 4.39, SD = 1.82$) and academic skills support ($M = 4.29, SD = 1.82$). The difference between help-seeking intentions for subject and course advice and help-seeking intentions for content specific support, as well as the difference between help-seeking intentions for subject and course advice and intentions to seek help for academic skills support were significant ($F(1.68,467.44) = 33.46, p < .001$). Again, the Huynh-Feldt correction was applied, as Mauchly's test indicated that sphericity was violated ($\chi^2(2) = 62.06, p < .001$).

Students' intention to ask fellow students for academic advice was highest for content specific support ($M = 5.62, SD = 1.57$), followed by academic skills support ($M = 5.12, SD = 1.80$) and subject and course advice ($M = 4.92, SD = 1.85$). The intention to seek support for content specific reasons was significantly different to academic skills support, and subject

and course advice ($F(1.89,524.67) = 25.39, p < .001$). Sphericity was also violated ($\chi^2(2) = 19.11, p < .001$) for this repeated measures ANOVA. Therefore, the Huynh-Feldt correction was used again.

Students' intention to ask friends and family for academic advice was quite similar across the three problem types. The intention to ask friends and family for content specific advice ($M = 4.72, SD = 1.96$) was slightly higher than for subject and course advice ($M = 4.58, SD = 2.06$) or academic skills support ($M = 4.54, SD = 1.99$). A repeated measures ANOVA showed that the means did not differ significantly ($F(1.71,476.45) = 1.12, p = .32$). The Huynh-Feldt correction was used because sphericity was violated ($\chi^2(2) = 52.76, p < .001$).

Finally, students' intention to access online resources was highest for content related issues ($M = 5.80, SD = 1.42$) followed by academic skills support ($M = 5.68, SD = 1.52$), and subject and course advice ($M = 4.73, SD = 1.98$). Using online resources for content related issues and academic skills support was significantly different to subject and course advice ($F(1.72,470.24) = 52.61, p < .001$). Again, as sphericity was violated ($\chi^2(2) = 49.93, p < .001$), the Huynh-Feldt correction was applied.

5.3.3 Summary and Conclusions

Overall, students have lower intentions to seek help for content related reasons and academic skills support than for subject and course advice. With regard to the students' public stigma and self-stigma and consistent with other findings of this study, it might seem more challenging for students to admit what may seem like a personal weakness and seek help for content specific reasons or academic skills support. Instead, seeking subject and course advice may be seen as a necessary step towards planning a professional career rather than a personal weakness. This may also explain why the students' intentions to seek

academic help were highest for content specific support from online resources, academic skills support from online resources, and content specific support from fellow students. Students may prefer to seek help anonymously from online resources or from fellow students in an informal environment rather than accessing professional academic support services offered by the university.

Furthermore, in line with other findings in this study, students may not have enough knowledge about what certain academic support services offer. For example, students' intentions to seek academic support from a Learning Advisor or the Peer Advice Desk were similar across all problem types. However, Learning Advisors and the Peer Advice Desk only provide academic skills support and cannot advise students regarding specific content or subject and course choices (James Cook University, 2021e). Similarly, students would mostly access Studiosity for academic skills support and content specific advice. While Studiosity can assist students with mathematics and science, this only covers basics and not higher education course content. For higher education students, Studiosity's main focus also lies on academic skills support.

Students seem to have a better understanding of the type of academic support College Student Support Officers and the Student Centre offer. Consistent with what both services can provide, students' intentions to seek help were significantly higher for subject and course advice compared to the other two problem types (James Cook University, 2021g; James Cook University, 2021d). The content experts, lecturers and tutors, are most likely asked for support for content specific reasons. As lecturers and tutors are also aware of academic skills needed in their degree, students would also ask for academic skills support. Fellow students are also mostly asked for content specific advice.

Friends and family, and online resources can be accessed for content specific advice, academic skills support, and subject and course advice. Therefore, students' intentions to ask friends and family for support was similar across all problem types. Students' intentions to use online resources were higher for content related issues and academic skills support compared to subject and course advice.

Overall, students' intention to seek academic support is rather high. However, students do not seem to have enough information about some of the support services provided to make informed decisions about which service to access for a specific problem. Related to the students' stigma, students may also prefer to access support from informal or anonymous sources or for problem types that are not seen as personal weaknesses. These reasons are contributing to answering research question 3 (Why do students (not) engage with academic support services?) and provide a basis for the response to research question 4 (How should academic support services be designed to make them more accessible and engaging for students?). These findings and conclusions are further discussed in light of other findings of this study and in light of current literature in the discussion chapters of this thesis.

5.4 Students' Satisfaction with Academic Support

To further contribute to research questions 3 (Why do students (not) engage with academic support services?) and 4 (How should academic support services be designed to make them more accessible and engaging for students?), this section focusses on the students' satisfaction with the available academic support and on the perceived helpfulness of the services provided. In particular, it was examined whether the students' satisfaction and the perceived helpfulness of the support services can predict help-seeking intentions and help-seeking behaviour. It was postulated that (H3) the students' satisfaction with academic support services is positively related to their engagement with these services. The academic support services included in this section are support services students can access through the

university. This incorporates lecturers, tutors, Learning Advisors, the Peer Advice Desk, Studiosity, College Student Support Officers, and the Student Centre. The description of these services can be found in section 4.1.1.1. Academic support not provided by the university, such as support from friend and family, or online resources are not included in the following analyses.

5.4.1 Methods

The findings reported in this section are drawn from the online survey. Students were asked to rate their satisfaction with the above-mentioned services and the perceived helpfulness of the services using 7-point Likert scales ranging from strongly disagree to strongly agree. Furthermore, students were asked to estimate how many times they access each service in one semester. Below are example items from the survey:

1. I was satisfied with the service: Learning Advisor
2. The service was helpful: Learning Advisor
3. Please estimate how many times you have accessed the following support services each semester: Learning Advisor

Data were analysed using descriptive and inferential statistics. As an overview of the students' satisfaction with the services and their perceived helpfulness of the services, means and standard deviations were calculated. All data used for the analysis of the findings presented in this chapter were approximately normally distributed. Although the Kolmogorov-Smirnov test was significant ($p < .01$) for all data indicating it is not normally distributed, approximate normal distribution can be assumed, as skewness and kurtosis did not exceed ± 2 and ± 7 , respectively (Kline, 2005). The values ranged from -1.10 to .16 for skewness and from -.14 to 3.28 for kurtosis. Therefore, parametric tests were used for all inferential analyses.

Multiple linear regressions were used to examine the relationship between satisfaction and helpfulness, and help-seeking intentions and help-seeking behaviour. Pearson correlations were used to identify intercorrelations between predictors in the regression model. If intercorrelations were too high ($r > .90$) causing multicollinearity and making one of the two variables redundant, only one predictor was used in the regression model to ensure unbiased findings (Tabachnick & Fidell, 2019). Tabachnick and Fidell (2019) argued that the large size of standard errors caused by multicollinearity may falsely lead to insignificant predictors.

5.4.2 Findings

Overall, students accessed the academic support services considered in this section $M = 0.82$ ($SD = 0.78$) times every semester. The students' satisfaction with academic support at JCU was relatively high with $M = 5.56$ ($SD = 1.23$). The perceived helpfulness of the services was also relatively high with $M = 5.59$ ($SD = 1.24$). The intercorrelation between these two variables was very high ($r = .93$, $p < .001$). Therefore, in the following regression analyses, only the predictor satisfaction was used. The students' overall satisfaction with academic support services did not predict their overall intention to seek help ($F(1,226) = 2.36$, $p = .13$). Furthermore, it did not predict the students' actual help-seeking behaviour ($F(1,238) = 2.23$, $p = .14$).

Students accessed lecturers for academic support 1.51 ($SD = 1.98$) times on average each semester. Students were quite satisfied ($M = 5.69$, $SD = 1.55$) with the academic support they received from lecturers and thought that the support was helpful ($M = 5.64$, $SD = 1.61$). The students' satisfaction and the perceived helpfulness were highly correlated with $r = .96$ ($p < .001$). Hence, the subsequent regression analysis to examine the relationship to the students' help-seeking behaviour was calculated with only one predictor. The students' satisfaction with the academic support received from lecturers was used as the predictor. The

results indicate that the predictor explained 14.9% of the variance ($F(1,176) = 30.85, p < .001; R^2 = .149$). The students' satisfaction significantly positively predicted the number of times students sought academic support from lecturers ($\beta = .39, p < .001$).

Regarding the academic support provided by tutors, students were rather satisfied ($M = 5.65, SD = 1.47$). The students also perceived the support as helpful ($M = 5.63, SD = 1.51$). Students sought help from tutors 1.23 ($SD = 1.91$) times on average every semester. Again, the students' satisfaction and their perceived helpfulness of the academic support tutors provide, were highly correlated ($r = .97, p < .001$). Therefore, the regression analysis conducted to explore the relationship of how many times students actually seek academic support from tutors only used the students' satisfaction as a predictor. Results revealed that the students' satisfaction with the academic support tutors provide accounted for 23.4% of the variance in the number of times students seek help from a tutor ($F(1,140) = 42.65, p < .001; R^2 = .234$). The students' actual help-seeking behaviour was significantly predicted by their satisfaction ($\beta = .48, p < .001$).

Compared to lecturers and tutors, students were less satisfied with the academic support provided by Learning Advisors ($M = 4.86, SD = 1.57$). The students' perceived helpfulness of the service was similar with $M = 4.82 (SD = 1.58)$. Learning Advisors were accessed 0.46 ($SD = 1.01$) times on average each semester. The students' satisfaction was strongly correlated to the perceived helpfulness of the academic support Learning Advisors provide ($r = .98, p < .001$). Therefore, only the students' satisfaction was used as a predictor in the regression analysis conducted to examine the relationship to the number of times students access Learning Advisors. Results suggest that the students' satisfaction significantly predicts how many times students access Learning Advisors for academic support ($\beta = .50, p < .001$). 25.0% of the variance in the number of times Learning Advisors

were accessed was explained by the students' satisfaction ($F(1,108) = 50.29, p < .001; R^2 = .250$).

The Peer Advice Desk was accessed 0.32 ($SD = 0.88$) times on average every semester. The students' satisfaction with the Peer Advice Desk ($M = 4.58, SD = 1.54$) was slightly lower compared to their satisfaction with the academic support received from Learning Advisors. The perceived helpfulness of the Peer Advice Desk was similar with $M = 4.54 (SD = 1.51)$. Again, the students' satisfaction and the perceived helpfulness of the Peer Advice Desk were highly correlated ($r = .97, p < .001$). Therefore, the following regression analysis was only conducted with one predictor, the students' satisfaction with the academic support provided by the Peer Advice Desk. Results show that 41.7% of the variance in the number of times students have accessed the Peer Advice Desk could be explained by the students' satisfaction with this service ($F(1,90) = 64.41, p < .001; R^2 = .417$). The students' satisfaction was a strong positive predictor ($\beta = .65, p < .001$).

Students accessed Studiosity 0.83 ($SD = 1.43$) times on average each semester. The students' satisfaction with the online academic support service Studiosity was relatively high with $M = 5.12 (SD = 1.61)$. With an average of 5.16 ($SD = 1.59$), the students also perceived this service as rather helpful. The students' satisfaction with Studiosity and their perceived helpfulness of this service were strongly correlated ($r = .97, p < .001$). Therefore, the following regression analysis to examine if the number of times Studiosity was accessed can be predicted, was conducted as a simple linear regression analysis with the students' satisfaction as the only predictor. 29.0% of the variance in the number of times Studiosity was accessed could be predicted by the students' satisfaction with this service ($F(1,136) = 55.43, p < .001; R^2 = .290$). The students' satisfaction positively predicted the dependent variable ($\beta = .54, p < .001$).

College Student Support Officers were accessed 0.41 ($SD = 1.00$) times on average every semester. With regard to the academic support services College Student Support Officers offer, students were rather satisfied ($M = 4.76$, $SD = 1.64$) and also perceived it as rather helpful $M = 4.79$ ($SD = 1.58$). These two variables were also strongly related ($r = .96$, $p < .001$). Consequently, the regression analysis conducted to investigate the relationship to the number of times College Student Support Officers were accessed was conducted with the students' satisfaction as the only predictor in the model. The students' satisfaction positively predicted the number of times students sought academic support from a College Student Support Officer ($\beta = .47$, $p < .001$) and 21.8% of the variance could be explained ($F(1,125) = 34.89$, $p < .001$; $R^2 = .218$).

On average, students accessed the Student Centre 0.98 ($SD = 1.38$) times each semester. Students were also quite satisfied with the academic support provided by this service ($M = 5.42$, $SD = 1.56$) and thought that the service was helpful ($M = 5.44$, $SD = 1.54$). Again, the students' satisfaction with the Student Centre and their perceived helpfulness of this service were strongly correlated ($r = .97$, $p < .001$). Therefore, the subsequent regression analysis was conducted with only one predictor, the students' satisfaction with the academic support provided by the Student Centre. The students' satisfaction positively predicted the number of times students accessed the Student Centre ($\beta = .44$, $p < .001$). Furthermore, 19.2% of the variance in the number of times students sought support from this service were explained by the predictor ($F(1,139) = 33.05$, $p < .001$; $R^2 = .192$).

5.4.3 Summary and Conclusions

Overall, students were quite satisfied with the academic support services provided at JCU. These services were also perceived as rather helpful. When comparing the academic support services considered in this section, students were most satisfied with the academic support provided by lecturers. Students also perceived lecturers as most helpful. The lowest

satisfaction, as well as the lowest perceived helpfulness was recorded for the Peer Advice Desk. This is consistent with the number of times students access certain services. Lecturers were accessed most often for academic support and the Peer Advice Desk was accessed the least number of times.

Although the students' overall satisfaction did not predict their overall intentions to seek academic support nor their actual overall help-seeking behaviour, the students' satisfaction seems to be crucial when considering support services separately. The students' satisfaction was a significant positive predictor for the students' help-seeking behaviour regarding a particular service in all cases with values up to $\beta = .65$. Furthermore, large and very large amounts of up to 41.7% of the variance in the number of times students have accessed a specific service could be explained by the students' satisfaction (Cohen, 1988, as cited in Allen et al., 2019). Therefore, hypothesis 3 (H3), proposing that the students' satisfaction with academic support services is positively related to their engagement with these services can be confirmed.

With regard to further contributing to research questions 3 and 4, the findings presented in this section showed that the students' satisfaction with particular services may be a reason for students deciding to engage or to not engage with academic support services. Furthermore, this also emphasises the need to consider how students' satisfaction can be maximised when designing academic support. These findings are elaborated more in light of other findings, and other literature in the discussion chapters of this thesis.

Chapter 6: Qualitative Findings

The chapter Qualitative Findings contains the published article Increasing Accessibility to Academic Support in Higher Education for Diverse Student Cohorts. It was published in *Teaching and Learning Inquiry* (Bornschlegl & Caltabiano, 2022). The article presents the findings from the semi-structured interviews, answers research question 3 and contributes to the response of research question 4. Minor formatting changes, including referencing style adjustments, were made to adjust the publication format to ensure consistency throughout the thesis. The author contributions are as follows:

I planned and conducted the data collection, planned, and conducted the data analysis, wrote the manuscript, addressed reviewer feedback, and made revisions. The contribution of the co-author is outlined below:

Nature of Assistance	Contribution	Names, Titles (if relevant) and Affiliations of Co-Contributors
Intellectual support	Supervision & contribution to editing and review	A/Prof Nerina Jane Caltabiano, James Cook University

In addition to the published article, findings from qualitative questions in the online survey regarding students' reasons for (not) accessing academic support are presented.

6.1 Increasing Accessibility to Academic Support in Higher Education for Diverse Student Cohorts

Bornschlegl, M., & Caltabiano, N. J. (2022). Increasing accessibility to academic support in higher education for diverse student cohorts. *Teaching and Learning Inquiry*, 10.13, 1-18.

<https://doi.org/10.20343/teachlearningqu.10.13>

6.1.1 Abstract

Academic support at Australian universities has become an important aspect of higher education, as student cohorts continue to diversify, and universities need to ensure the

students' success and the institutions' reputations. Often, students in need do not access academic support services and little is known about what influences students' decisions to seek academic support. This small-scale qualitative study aims to clarify why students (do not) engage in support and what could be changed to make services more accessible and engaging. Semi-structured interviews revealed that the promotion of services needs to be improved and public stigma about seeking academic help should be addressed to normalise accessing academic support services at university. A high standard of ease of use and the opportunity to participate in support in various modes (e.g. online, face-to face, peer learning, individual learning) contribute to the helpfulness and the overall positive perception of academic support services.

6.1.2 Introduction

“Help-seeking behaviours (...) are central to the learning process and have a profound impact on academic success” (Wirtz et al., 2018, p. 62). Given the increasingly diverse student cohorts (Stefani, 2008) and varying entry standards at Australian universities, academic help seeking is becoming more important to ensure student success (McIntosh et al., 2021). Seeking help in the academic context includes discipline and content specific help from, for example, lecturers and tutors, but also generic academic skills advice, such as academic writing and numeracy support.

The aim of all faculty members involved in providing academic support should be to provide developmental rather than prescriptive advice (Alexitch, 2002). Developmental advising is a collaborative process between the student and the faculty whereby independent learning is encouraged, whereas prescriptive advising is controlled by the advisor and focusses on outcomes rather than the learning process (Crookston, 1994). As an example of developmental advising, or instrumental help seeking, the Learning Centre at James Cook University (JCU) providing academic skills support aims to “facilitate independent,

successful learning” (James Cook University, 2021a). JCU offers a range of support services that are further explained in the results section.

Seeking academic help has been shown to be beneficial for student success (Chen, 2017; Collins, 2012). However, often students, mostly those in need, do not engage in seeking help for academic purposes (Hoyne & McNaught, 2013; Mann, 2020). Help seeking, particularly help seeking for mental health reasons, has been of great interest in recent literature. Many reasons for not seeking help and person-related characteristics that influence help-seeking behaviour have been identified in the literature. For example, Amarasuriya et al. (2018), and Vogel et al. (2010) found that stigma is negatively related to help seeking. Furthermore, personality was shown to be related to help seeking. For example, LaLonde (2014) found that neuroticism was negatively related to help-seeking intentions and Bathje et al. (2014) found that openness was positively related to attitude towards help seeking. Yet, academic help seeking has not seen the same attention in recent research. Only little evidence is available of what impacts a student’s decision to seek academic help (Bornschlegl et al., 2020).

As student cohorts at Australian universities and perhaps also elsewhere become progressively more diverse, the importance of supporting students to ensure their success and the institutions’ reputations is increasing. Academic support increases student success and government funding is often linked to retention rates (McNaught & Beal, 2012). Hammond et al. (2015) also saw the importance of academic support and designed a targeted learning session to increase access. “Programs of academic support must meet the needs of students from increasingly diverse backgrounds, with different learning styles and at different stages of learning development” (Waters, 2002, p. 8). In a comprehensive systematic literature review, Bornschlegl et al. (2020) found that various background factors, such as age, gender,

and personality, are related to psychological help seeking and academic help seeking. However, not much evidence was found for academic help seeking.

Therefore, this qualitative study investigates the crucial, yet insufficiently researched, topic of academic help seeking with a small, targeted diverse sample of JCU students. In 2021, 17,247 students were enrolled across six campuses (90.19%) and online (9.81%). As this study focussed on JCU students in Australia, the following numbers are related to the students enrolled at one of the Australian campuses or online. In total, 14,578 students were studying at an Australian campus or online. JCU's diverse student body includes Aboriginal and Torres Strait Islander students (5.16%), mature age students (46.40%), first in family students (47.56%), students from low socio-economic backgrounds (20.26%), and international students (10.56%) (students can belong to more than one of these categories) (N. Emtage, personal communication, March 17, 2021). The aim of this study is to identify reasons for students (not) engaging in academic support and to reveal how academic support can be improved to make it more accessible and more engaging for diverse student cohorts at JCU, an Australian University in North Queensland. The following research questions are explored in this study:

3. Why do students (not) engage with academic support services?
4. How should academic support services be designed to make them more accessible and engaging for students?

6.1.3 Methods

This study used qualitative methods to explore detailed reasons for students' decision to access or to not access available academic support services. This approach was chosen, as not much is known about the students' perceptions of academic support services in general or at JCU. The interviews conducted revealed interesting details about how students seek

academic help and how academic support services can be designed to make them more accessible and engaging for students.

6.1.3.1 Instrument. To keep the interview focussed on the topic of interest (Jamshed, 2014), a semi-structured interview was chosen to explore the participants' help-seeking behaviour and perceptions of support services at JCU. As shown in Table 4.3, the interview consisted of 13 core questions to explore students' reasons for (not) accessing support services and their experiences. Furthermore, there were 16 more detailed questions associated with the core questions (Jamshed, 2014) that were asked depending on the participants' previous answers, thereby asking for clarification and examples (Taylor et al., 2015).

The interview was developed using a range of different steps. Firstly, following Kallio et al.'s (2016) recommendations, knowledge necessary to create interview questions was obtained by conducting an extensive literature review (Bornschlegl et al., 2020). In addition, the principal investigator of this study works in academic support and was able to draw on her experience to generate interview questions.

Using this knowledge, the next step was to develop interview questions. This step was then further refined by conducting a pilot test for the interview guide (Kallio et al., 2016). No changes were required to the initial core questions and more detailed questions. The pilot interview, however, showed the researcher the need to be flexible regarding the order of questions during the interview, and that some, more detailed questions were not necessary to be asked depending on the respondents' previous answers.

As suggested by Taylor et al. (2015), the interviews were conducted in a flexible and dynamic way to obtain detailed information about the students' personal perception of academic support services and their academic help-seeking behaviour. As multiple students were interviewed, the interview guide ensured key areas of interest were consistent in all

interviews (Taylor et al., 2015). Furthermore, to ensure voice is given to participants, they were asked if they wanted to provide any additional information on the topic that may not have been covered by the questions in the interview guide. The principal investigator conducted all interviews and may have been familiar to students. To avoid any bias in students' responses, students were ensured that data would be kept strictly confidential, that students could stop taking part in the interview at any time without explanation and that they could withdraw any unprocessed data they had provided.

The interviews lasted between 11 and 32 minutes with an average time of 17 minutes. To ensure effective data capturing, all interviews were audio recorded and later transcribed by the researcher (Jamshed, 2014).

6.1.3.2 Sample. The sample was drawn from a preliminary sample of an online survey conducted in March, April, and May 2020, which was part of a larger PhD project. At the time the interview sample was drawn, $N=174$ students had completed the online survey. The students studied nine different courses (programs of study) and were enrolled across five different Australian campuses. The aim of the online survey was to identify student-related variables associated with attitudes towards seeking academic help, academic help-seeking intentions, and academic help-seeking behaviour. An initial analysis of the online survey data was conducted to identify groups of interest that could provide meaningful insight into the students' perception of academic support services and academic help seeking. Hammarberg et al. (2016) explained that in qualitative research the sample is often drawn specifically and purposefully to investigate the phenomenon of interest.

Because of the relationships and differences found in the online survey data, it was attempted to sample students with a range of different characteristics for the qualitative semi-structured interviews. Firstly, students scoring high or low on agreeableness, extraversion,

and conscientiousness, three of the Big 5 personality traits (McCrae & Costa, 1987), were invited to participate. Furthermore, students of various ages were included in the initial selection of possible interview participants. Recent literature also showed that certain aspects of personality and age affect academic help seeking (e.g. Ghyasi et al., 2013; Roessger et al., 2018). Finally, it was attempted to include students from a range of different disciplines, as it was shown that the discipline relates to the students' attitude towards help seeking and their actual help-seeking behaviour. The sample was selected based on these criteria as they were shown to be related to academic help seeking and to ensure students' diverse perspectives are represented in the interview data.

Therefore, 45 students selected to equally represent the characteristics outlined above were contacted and a total of $N = 6$ students agreed to participate in an interview. Table 6.1 shows the characteristics of the interview participants. The participants had varying personality characteristics, an age range of 19 to 57 years, and were studying five different degrees. Furthermore, only one male student participated in the interview. Overall, based on the analysis of the initial survey responses, a diverse interview sample with crucial different characteristics for academic help seeking was achieved.

Table 6.1*Interview Sample Characteristics*

Student	Personality	Degree	Gender	Ethnicity	Nationality
1	Low on conscientiousness	Bachelor of Education	Male	Caucasian/ Aboriginal	Australian
2	High on agreeableness	Bachelor of Information Technology	Female	Caucasian	Australian
3	High on neuroticism	Bachelor of Business	Female	Caucasian/ Asian	Australian/ Indonesian
4	High on extraversion	Bachelor of Nursing Science	Female	Not available	Australian
5	High on agreeableness	Bachelor of Psychological Science	Female	Aboriginal and Torres Strait Islander/Asian	Australian
6	High on agreeableness	Bachelor of Psychological Science	Female	Not available	Canadian

6.1.3.3 Qualitative Data Analysis. Data was coded and analysed using Interpretative Phenomenological Analysis (IPA), a commonly used approach in psychology and health research (Biggerstaff & Thompson, 2008; Brocki & Wearden, 2006), to explore the students' personal experiences with academic help seeking at JCU. IPA is concerned with individuals' experiences in their social, as well as personal world (Shinebourne, 2011). The qualitative data analysis software NVivo 12 was used to support this process. This approach was chosen for multiple reasons. Its inductive nature was suitable, as previous knowledge about the phenomenon of interest is limited. While deductive analyses work with codes and keywords derived from literature and defined prior to data analysis, IPA allowed the researcher to describe the phenomenon of interest, academic help seeking at JCU, with limited existing research, and define themes emerging from the data (Smith, 2004).

Furthermore, IPA supports in-depth qualitative analysis. It is strongly idiographic and suggests that cases are analysed separately before emerged themes are compared for similarities and differences. Therefore, each of the six cases has been coded and analysed

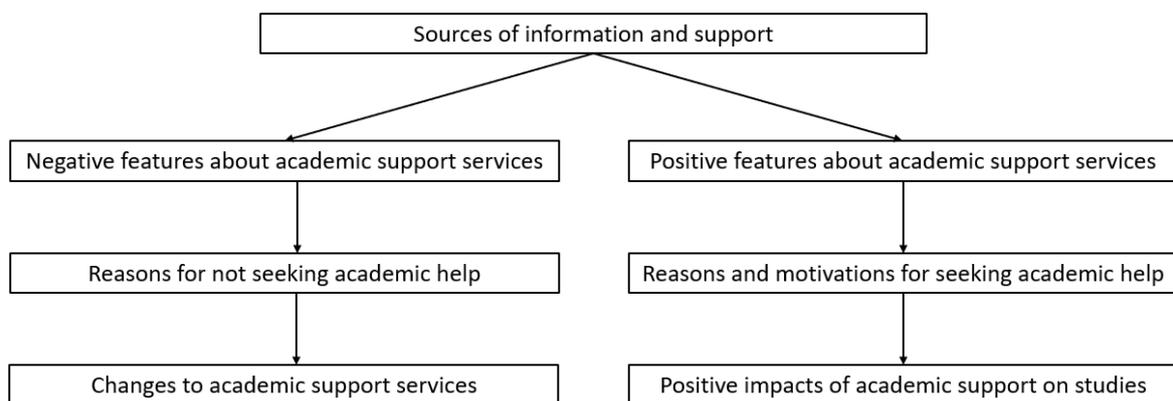
separately first, before themes and subcategories within the themes were compared and, if appropriate, combined. In addition, “IPA operates at a level which is clearly grounded in the text but which also moves beyond the text to a more interpretative and psychological level (Smith, 2004, p. 44)” and, therefore, supports in-depth analysis of qualitative data on multiple levels (Smith, 2004).

6.1.4 Results

The data could be categorised into seven main themes: sources of information and support, positive features about academic support services, negative features about academic support services, reasons and motivations for seeking academic help, reasons for not seeking academic help, changes to academic support services, and positive impacts of academic support on studies. The findings will be presented following the structure illustrated in Figure 6.1.

Figure 6.1

Overview of Emerged Themes



The theme sources of information and support includes the services that were used as well as how students found out about these services. Before discussing positives about the services available, negative features about academic support services are explained. This further leads to reasons students had for not seeking academic help and possible changes to

academic support services. Following this, positive features about academic support services are discussed. Reasons for seeking academic help and the students' motivation, whether it was their own or external, was also an important theme that emerged from the data. Finally, the positive impacts of using academic support that students experienced are examined.

6.1.4.1 Sources of Information and Support. The academic support service most accessed by the participants was PASS, Peer Assisted Study Sessions, which is available for selected first and second year subjects (units of study). PASS integrates subject specific content with academic skills in an informal learning environment where students can study together (for more information see James Cook University, 2020c). Students' feedback was mostly positive. Student 3 explained "Uh well that PASS class, they definitely helped a lot. I see many students loving PASS class, getting interaction (...). But PASS has helped. I know that some of my classes don't have PASS classes, which is disappointing." However, the collaborative approach in PASS classes did not work for student 5. Student 5 indicated they did not enjoy peer learning. As this service is primarily provided in first year, participants also spoke about attending PASS in their first year. For example, student 4 mentioned "I did that the first year I was there, and I signed up with a mentor and a thing called PASS."

The second most accessed academic support services were the Mentor Program and the Indigenous Education and Research Centre (IERC). "The JCU Student Mentor Program matches experienced, successful undergraduate students (mentors) with commencing undergraduate students from the same course of study" (see James Cook University, 2020d). The participants did not have any negative comments about this program. Instead, the mentor program was perceived very positively. For example, student 4 experienced that "the mentors are really good because they are very high achieving students from the previous year. So, they are sort of still on the ground when it comes to the content of the subject." Student 2 also explained why the mentors were helpful.

I knew exactly where to go, who to see if I had problems and I had two, I had a fantastic mentor in, when I went to do my uhm, when I did my, when I did my first degree. And for this degree I had a fantastic one as well and I went to see him a few times how to, you know “help me with this, help me locate this or locate that.”

Despite a range of different services, the IERC also provides study assistance and a learning environment with peer support for Aboriginal and Torres Strait Islander students at JCU (see James Cook University, 2020b). There were also no negative comments about this service. The service was perceived as positive and helpful in different ways. For example, student 1 enjoyed being able to meet other people in the Centre, whereas student 5 and 6 experienced the IERC as a safe and non-judgemental study space.

Uhm and with the IERC, it was just, it's a, it felt like a good uhm, like non-judgemental kinda community that I could just go to in between classes and it would be a good place for study if I needed to study or recuperate if I needed to recuperate and so on. (Student 5)

And actually be with the girls in there and actually help, get them to help me with uhm again, just looking at the structure of my essays. Uhm and even if it was just bouncing ideas backwards and forwards, or even having that safe space to be able to just sit and uh it was sort of like, it was locked and you could just sit in there and work all the way through and I felt, I felt very safe there, as well. (Student 6)

In the Learning Centre, students can receive learning support in individual or group consultations with a Peer Advisor or a Learning Advisor in a range of different areas, such as academic writing, maths, statistics, and study skills (see James Cook University, 2020g). Student 4, who accessed the Learning Centre for support with medical calculations thought “the Learning Centre was awesome actually. They put on a lot more uhm tutorials and such

to get people pass.” The Learning Centre and other services, such as the library, also provide learning support on the JCU website in the form of pdfs (also available as printed booklets) and interactive webpages, which was used by student 1, student 2 and student 3, and perceived as helpful.

The Student Centre, which supports students with a range of administrative tasks and provides subject and course advice, was mentioned by student 2 (see James Cook University, 2021d). The student used the Student Centre to seek help regarding the subject choice for her degree. All participants knew about the online after-hours service Studiosity for academic skills support (see Studiosity, 2021b) but only student 4 used the service and student 1 reported regretting not using the service. Other sources of support were library staff, lecturers and tutors, tutoring and extracurricular workshops.

The students raised three different sources where they received information about the above-described services. Firstly, highlighting the importance of orientation, student 2, student 4, and student 6 reported that they found out about the services during orientation week or during the first week of the semester. As student 2 explained, “they were told to me when, on my very first day.” Student 4 and student 6 mentioned that they also received information from the JCU website. Lastly, student 6 also used subject outlines (syllabuses) to find out about available services.

6.1.4.2 Negative Features About Academic Support Services. Only two negative features about the available academic support services were mentioned. Student 5 mentioned that she did not enjoy the peer learning when accessing PASS. She explains “It was very collaborative. I’m, I don’t particularly enjoy group projects.” Student 6 reported that she does not like the fact that Studiosity is online. She explained “I tend to be old-fashioned and a bit old-school, so wanting to go and see someone face-to-face.” Furthermore, she said “I guess

feeling a bit uhm foolish because I am older and because I don't want to be asking them dumb questions and wasting their time." These negative features may also be seen as positive features by other students; however, they may be reasons for not accessing academic support services.

6.1.4.3 Reasons for Not Seeking Academic Help. The participants mentioned a range of different reasons for not seeking academic help. The most frequent reason was that it was not necessary. Student 1 explained "I just didn't feel like I felt like I had enough support already." Similarly, student 5 said "I didn't feel that I needed an extra help on top of that." Student 2 and student 4 clarified that some services did not apply to them, for example, visiting the IERC is not applicable for non-Indigenous students. Student 4 also highlighted that "whatever is more pressing is what you do." This shows that students prioritise different academic needs and access or do not access services accordingly.

Another important reason for not accessing academic support is the lack of knowledge about particular services. For example, student 1 suggested "I didn't really uhm learn much about it myself, so I guess I didn't really do enough research on my part" and student 3 described that a service has been mentioned during orientation but was then forgotten. Student 6 explained that she does not "really know how to use the Learning Centre" and said, "I think there is probably a lot that I am not aware of." Furthermore, student 2 and student 3 described two instances where academic support services would have been accessed but were not available. For example, student 3 did not access the online service Studiosity because there is a time limit on how long a student can use the service and she wanted to keep her time for the future. However, she never decided to use the service. Student 2 explained how the Covid-19 pandemic impacted the availability of PASS sessions and the impact on her studies.

I wanted to join a PASS group, but they, but they didn't have the PASS, for, for uhm, what is it, for [subject name deleted to support anonymity of student 2]. It would have been a lot easier if they had the PASS, but then Covid came along and they didn't have it. Whereas with the year before, they had the PASS for uhm [subject name deleted to support anonymity of student 2]. And that would have helped a lot with [subject name deleted to support anonymity of student 2]. I found that was hard.

Student 1 mentioned three other reasons for not accessing academic support services, which were all related to his personal circumstance rather than the nature of the service: lack of organisation, laziness, and not having enough time. For example, there was not enough time to obtain feedback for an assignment before it needed to be submitted.

Another important reason, public stigma, was described by student 3. Public stigma is defined as the perception that seeking help is socially not accepted (Vogel et al., 2006). Student 3 described that "seeking help to [her] is like saying that [she is] struggling a lot and [she does not] want anyone to perceive that." She continued that she feels judged when seeking academic help and compared it with seeking help from a guidance counsellor:

Student: I feel like, like the, going to the guidance counsellor, there is very much judgement about guidance counselling. I think that's, so, I think I still had that in my mind, I guess.

Interviewer: Okay, yeah. What about, how do you feel about seeking help for, let's say statistics or for an essay? Do you feel the same way about that?

Student: Uhm yeah, yes I do, yeah.

The negative features, online learning, and peer learning, mentioned by student 5 and student 6 were not explicitly mentioned as reasons for not seeking academic help. However, they could still contribute to the decision not to use a particular service. Furthermore, the

reasons for not seeking academic help are a valuable basis for considering possible changes to existing academic support services to make them more accessible and engaging for students.

6.1.4.4 Changes to Academic Support Services. When participants were asked how academic support services would work better for them or what could be changed so they would access academic support services more, student 1, student 2, student 5, and student 6 initially mentioned that the services work well and that they cannot think of anything as to how the support could be improved. As the interviews continued, more ideas as to how academic support services could be improved arose.

One of the most frequent ideas was changes regarding the information provided about academic support services. The comments regarding the information provided were twofold. On the one hand, student 3 explained that academic support services need more promotion and suggested that there could be hands-on presentations of academic support services to illustrate to students what is being offered and how the services work. She also added “I think Studiosity just needs more promotion about it, I think. I think some students tend to forget about it that there is an option there.” On the other hand, student 1 and student 6 described that “there is so much information. There is such a flooding of information but there are some things that would really make a huge difference to your learning ability” (Student 6). Student 1 also suggested that more specific information needs to be provided and student 6 explained that she does not know whether she is eligible for particular academic support services. Student 6 also suggested that some information about services available should be conveyed by lecturers at the right time in the semester.

Another frequently mentioned possible change is to provide more peer learning opportunities. Although this was also seen as a negative feature by some participants, student

1, student 3, and student 6 perceived this as something positive and as something that could improve services. For example, student 3 explained that she would access academic support services more easily if she could access them together with other students. Student 6 suggested that she would benefit from the mentor program beyond the first year. Student 1 also described why more peer learning is important to him:

More chances to get to meet people I think would be good. Especially for me because I just moved here. Uhm that's a big thing that I felt like I was lacking. I think that was and like a, I guess, a solid group to like get to know and then and then you can like that are in the same course and you can build rapport with them and then you can like end up working with them. I think that's probably the thing I would change the most.

Other suggestions to improve academic support services included a bridging subject to learn necessary academic skills, increased availability in terms of the number of support staff and in terms of business hours, and to normalise help seeking to reduce stigma. For example, student 4 said “more people offering. Cause when they get hammered, they get really, really hammered. When, when the med calculations thing was happening, uh we couldn't see them. Uhm and they were just getting slammed by 250 students.” Student 3 suggested that it should be promoted that it is acceptable to seek help and that many students need support and are accessing academic support services.

6.1.4.5 Positive Features About Academic Support Services. Although mentioned as a negative feature by one student, four other students, student 1, student 3, student 4, and student 6, perceived peer learning as a positive feature of academic support services. In this context, the students particularly mentioned the PASS program and the mentor program. Being able to hear the perspective on subject content of high achieving and next level up students was an important aspect of peer learning. Student 4 highlighted the importance of

drawing on the experience of mentors with regard to subject content. Student 6 described similar learning experiences in PASS classes:

If PASS classes are part of this as well, then I really enjoyed being able to go and ask the questions of another student or like an older next level up student who understood what the lecturers were looking for, what the issues were, what things were highlighted and what was important. I enjoyed having that sort of peer-to-peer.

Participants also thought that the services provided quick feedback. Student 4, student 5, and student 6 mentioned online as well as face-to-face services in this context. For example, Studiosity promises writing feedback on a draft within 24 hours (Student 4; Studiosity, 2021b). Student 5 explained that lecturers and tutors respond quickly, and student 6 enjoyed face-to-face library support because she received feedback instantaneously. In this context, student 6 also emphasised that face-to-face support is an important positive aspect of academic support services for her.

Student 5 and student 6 explained that the academic support they received was easy to understand. Student 5 highlighted that “they explained things in like layman's terms. They weren't too uhm difficult to understand.” Furthermore, student 2, and student 6 mentioned that they felt supported when accessing academic support services and the feeling that someone was there for them was perceived as positive. In addition, student 4 and student 5 described academic support services as non-judgemental.

Other positive features include social aspects of academic support services and more time to clarify content. For example, student 1 spoke about the friendly culture in the IERC:

I liked the, just the friendliness in the group, everyone was really welcoming, and it was just like it's okay to ask for help. That was like the first kind of thought that I got,

which was really really nice to see. Uhm and then, probably my favourite thing that actually just like the uh personable culture or like the approachable culture, I guess.

And student 4 spoke about consolidating knowledge in PASS classes:

They could go back over something and do it a little bit slower than uh you know, the lecturer or whatever. Uhm and because the lecturer hasn't time in you know the criteria to get through, the PASS guys can just look at everyone and say, "okay so no one really got it" and they will slow down.

6.1.4.6 Reasons and Motivations for Seeking Academic Help. Participants accessed academic support services for a range of different academic reasons: academic writing, mathematics, statistics, course content, course/subject advice, IT, organisation, and social aspects. The most frequently mentioned reasons were academic writing and statistics. Student 1, student 2, student 3, student 4, and student 6 accessed support services for academic writing support and student 2, student 3, and student 5 accessed statistics support.

The motivations to seek help also varied among the participants. While two students mentioned increasing academic success motivated them to seek support, one student described the fear of failing as encouragement to access academic support services. For example, student 6 described that she wanted to avoid losing marks and increase her success: "Wanting again, wanting to do well, because if I can research anything, if I am losing marks for just the way I am presenting my work, not referencing correctly and not academically writing, then I just losing points unnecessarily."

Furthermore, student 2, student 4, and student 6 said it was their own idea to access academic support services. However, student 2 and student 6, as well as student 1, student 3, and student 5 also mentioned that a referral through others motivated them to seek academic help. For example, student 4 and student 5 received a referral from their lecturer or tutor. In

addition, student 3 and student 5 said that they were motivated by their peers and student 1 described how accessing one service led to accessing other services:

Well, I looked at the PASS program as well, I did that. Uhm yeah so in one of the first lectures that I had, uhm in the literacy and English one I think. Uhm yeah so that was like a big kind of like opening my eyes to like the start and then I kind of uhm applied for a like mentor that was the start of that and then they kind of referred me to more and more, cause I went which was good.

6.1.4.7 Positive Impacts of Academic Support on Studies. All participants perceived the academic support services they accessed as positive and helpful. In more detail, students found the support services helpful in different ways and their studies were impacted positively, yet diversely. Student 1, student 4, student 5, and student 6 reported that accessing academic support services has impacted their studies positively in terms of organisation. In this regard, student 1 and student 5 referred to organising a day and balancing workload. Student 5 explained how her studies were impacted:

Uh a lot of the tips, like how to uh balance everything uhm and like the whole table analogy with the four legs, if you don't have all four legs it's gonna tumble over kinda thing. Uhm and yeah putting that into place has helped especially in my third-year subjects and the more difficult subjects.

Student 4 and student 6 described how accessing academic support services has supported them in being more organised when processing information. For example, student 4 said that she learned to use the information provided in med calculations, to better use the marking rubric for assignments and, therefore, to be more structured and organised. She reported she used to get overwhelmed but can now stay calm and work through the task.

Student 6 reported that she now knows exactly what to look for when writing references and can apply what she has learned to different referencing styles.

Furthermore, student 4 and student 5 perceived that their confidence has increased as a result of accessing academic support services. Student 4 said “I think I am becoming a more confident student” and student 5 explained that it has helped her to confirm that she was going in the right direction with her assignments. Additionally, student 2 and student 5 reported that accessing academic support services supported their persistence with their studies and has helped them to get through challenging subjects and through their degree. In the same context, student 5 reported that accessing support has relieved her perceived stress related to her studies.

Overall, there has been a lot of positive feedback about available academic support services at JCU. However, participants also mentioned negative features and possible changes to support services for improvement. In addition, characteristics that have worked well and have had positive impacts on the students’ studies are important and should be further developed and fostered. In the following sections, the participants’ responses are discussed in the light of current literature and recommendations to further improve academic support services for diverse student cohorts are made.

6.1.5 Discussion

6.1.5.1 Promoting Academic Support Services. The findings show that students seem to know about different services and access a range of diverse services. However, students do not seem to have a full picture of the academic services available at JCU. The lack of knowledge about services was even explicitly mentioned as a reason for not accessing particular services. McNaught and Beal (2012) also found that a “lack of uptake was underpinned by a lack of awareness about the services on offer” (p. 201) at a university in

New South Wales and Western Australia, and Raby (2020) reported that the majority of students seek advice from familiar support staff rather than directly accessing more relevant services. Furthermore, one student suggested offering a bridging subject for academic skills. This, as well as a bridging course, are already being offered (James Cook University, 2020a). This further supports the claim that students are not fully aware of the academic support services on offer.

The importance of orientation week and the mentor program regarding the transmission of information about academic support services was conveyed multiple times in the participants' answers. However, students also spoke about a flooding of information via emails at the beginning of their studies and throughout their studies. Conversely, the participants suggested more promotion is needed for academic support services. Consequently, in order to make academic support services more easily accessible for students, information about the services needs to be provided more effectively in a way which avoids a flooding of information and, at the same time, ensures students' adequate knowledge about what is available.

McNaught and Beal (2012) found that the most effective way to make students aware of services is through emails and their lecturers. The authors successfully changed their marketing approach as evident through increased use of academic support services. This included the introduction of a strategy for lecturers and tutors to promote programs directly to their students and the use of video testimonials on the services' website. A good strategy for academic staff to promote services to their students could help avoid flooding students with information, as lecturers and tutors would be able to determine relevant services at the right time.

Consistent with the concept of relentless welcome, which promotes that orientation practices need to occur throughout a student's time at university (Teaching Matters blog, 2019), email (or other preferred communication channels) promotion through lecturers and tutors could function as a more detailed reiteration of relevant academic support services after students first hear about all services available during orientation. This might provide students with the necessary knowledge to access academic support services at the right time during their studies. For example, if a subject requires students to submit an assignment in a new academic genre, students would benefit if the lecturer promotes available academic writing services, such as Learning Advisors and Studiosity, sometime before the submission date.

Furthermore, relevant video testimonials could be used in the emails (or other preferred communication channels) to better promote services. Appiah (2006) found that using video testimonials on commercial websites were more effective than text or picture-based testimonials or no testimonials at all. One way for JCU to address these issues is to ensure close collaboration between academic support staff and academic staff. Both parties can work together to create informative and convincing promotion material. Promotion schedules could be developed for each subject or each year level in a discipline, which provide an overview of assessments, their due dates, other important dates, and related services. Academic support staff can create promotion packages in collaboration with academic staff that are then distributed to students by their lecturers in a timely fashion.

6.1.5.2 Modes of Academic Help Seeking. Another interesting finding is that peer learning, as well as online learning, were perceived as both positive and negative features of academic support services. Thompson and Mazer (2009) found that peer learning can be very beneficial, as students reported that their peers could explain content more effectively than academic staff in some cases. Furthermore, emotional support that students may receive from their peers in a peer learning environment is also beneficial for students to reduce the feeling

of isolation (Waters, 2002). However, as shown in this study, some students do not enjoy peer learning. Student 5, whose ethnicity is Aboriginal and Torres Strait Islander, as well as Asian reported she did not enjoy collaborative peer learning. Idris et al. (2019) also found that Asians accessed peer tutoring less compared to other groups. Similarly, online learning can be seen as positive and negative. The participants of this study reported the convenience of online services, but also the disadvantages, such as waiting times, misunderstandings, and insecurity to use the service due to limited IT knowledge. This shows the need for JCU to continue to offer different modes of academic support. Although it might be difficult to offer peer learning and face-to-face learning opportunities during the Covid-19 pandemic, alternatives, such as synchronous rather than asynchronous distance learning support, should be considered. Tisdell and Shekhawat (2019) found that video conferencing was very beneficial in an e-mentor program but archiving the videos for later access was just as important.

6.1.5.3 Reducing Public Stigma. One student in this study reported that perceived public stigma was the main reason for not accessing academic support services. She further suggested that academic help seeking needs to be normalised for her to access support services more frequently. McNaught and Beal (2012) argue that the normalisation of academic help seeking is crucial for a holistic university experience. “Just as it is ‘normal’ for a university student to join a social club, or sporting team, it should be ‘normal’ to attend an academic support offering” (McNaught & Beal 2012, p. 202). The authors also found that names of services were perceived as negative and stigmatising, as they reinforced a deficit nature of help seeking. The names of the services and the language used to promote them should be aspirational rather than remedial. McNaught and Beal (2012) further argue that locating academic support services in open spaces supports perceiving the attendance of academic support as normal. Hammond et al. (2015) also successfully normalised academic

help seeking by offering an assignment targeted peer learning session in an open space. They argue that “seeking help within a group environment could avoid individuals feeling stigmatised for help-seeking” (p. 181). JCU already offers academic support in open spaces and often uses positive wording, for example Getting the Most From Your Readings, to name their services. However, it should be considered if academic support services not provided in open spaces could be showcased throughout the semester to promote the services and to normalise accessing them.

6.1.5.4 Usability of Academic Support. Participants mentioned a range of characteristics that made academic support easy and effective to use. Firstly, students enjoyed that feedback was usually provided very quickly. While students perceived immediate feedback during face-to-face sessions as positive, they also perceived that online support services, such as Studiosity or lecturers and tutors contacted via email, managed to provide feedback promptly. Ferguson (2011) also found that it is beneficial for students’ learning if feedback is provided quickly. Therefore, it is important for academic support staff to uphold a quick turn around when providing feedback. Furthermore, students benefited from the use of understandable language by academic support staff. Wiggins (2012) also argued that feedback needs to be user-friendly and understandable to be effective. It was suggested that the availability of academic support staff should be increased. However, this needs to be considered in relation to students’ needs and resources available. Better promotion of existing services may be more efficient and equally beneficial for students.

6.1.6 Conclusion and Recommendation

Overall, services were perceived as valuable and helpful and should be continued to be offered. However, there is some room for improvement to further increase the accessibility of these services. Firstly, the strategy to promote academic support services should be reconsidered. From the participants’ comments and other findings in the literature, it can be

concluded that more targeted promotion, possibly spread throughout the semester, is needed to avoid a flooding of information for students but to ensure students have adequate knowledge about services on offer. One recommendation is to send promotion emails through lecturers or tutors with video testimonials to students just in time for upcoming tasks in their subjects (Appiah, 2006; McNaught & Beal, 2012).

Secondly, as students seem to have different preferences regarding the modes of academic help seeking, for example, peer learning, individual learning, online support, and face-to-face support, the services should continue to offer multiple modes and consider if additional modes could be included to make the services more accessible for students. Particularly in the time of a global pandemic, services may need to create new ways of learning and support to meet the needs of the institution's students. Furthermore, especially when increased online support is necessary, the services should continue to uphold their high standards of quick turnaround times and student friendly, understandable communication to maximise the benefits for students (Ferguson, 2011; Wiggins, 2012).

Finally, academic support staff should continue to work on reducing public stigma about academic help seeking and to normalise seeking support (McNaught & Beal, 2012). Various changes, such as renaming services, offering support in open spaces, and offering peer learning opportunities, to normalise help seeking can be considered depending on already existing services and available resources (Hammond et al., 2015; McNaught & Beal, 2012). Reconsidering some approaches to valuable and beneficial existing academic support services may further improve services and make them more accessible for diverse student cohorts to foster academic success for all students (Wirtz et al., 2018). Mann (2020) suggested co-creating academic support services with students using design thinking to gain individual insights into their experiences and to design effective services.

This study was conducted with a small sample from an Australian University in North Queensland. JCU has very diverse student cohorts including Aboriginal and Torres Strait Islander students, mature age students, school leavers and international students. It was attempted to represent this diversity in the sample and a range of different age groups, personality types, and disciplines were included. Although various ethnicities were represented, the students' nationality was mostly Australian, and no international students participated in the interview. Additionally, male students were underrepresented in the sample. This should be taken into consideration when making changes to academic support services based on the findings of this study. Furthermore, the findings may not apply to all universities and student cohorts. However, the findings can provide valuable insight into students' perceptions about the use of academic support services when considered carefully in other contexts. Future research would benefit from using larger samples, possibly from a range of institutions, to add to the findings of this study and to gain comprehensive insights into students' perceptions of academic support services in other contexts.

6.2 Additional Students' Comments Regarding Reasons for (not) Seeking Academic Help

In addition to the reasons for not seeking academic help, and reasons and motivations for seeking academic help that emerged from the qualitative semi-structured interviews and are presented in the journal article above, this section discusses other related findings from the online survey. These findings further contribute to the response of research questions 3 and 4. In the online survey, students were asked to state reasons for (not) accessing academic support services at JCU. The reasons were stated separately for seven different support services including lecturers, tutors, Learning Advisors, the Peer Advice Desk, Studiosity, College Student Support Officers, and the Student Centre.

Of the total number of students who participated in the survey ($N = 283$), seven (2.47%) students reported reasons for not seeking academic support from lecturers. These include not needing to, not feeling confident to ask a lecturer for support, and the perception that the lecturer would not be able to provide the support needed. Ninety-five students (33.57%) stated reasons for seeking academic support from their lecturers. These reasons include support with assessments, for example clarification of task requirements, feedback, and assignment extensions. Furthermore, students often stated that they seek academic support from lecturers to clarify class content. Other less cited reasons include placement advice, subject and course choices, and discussion of grades. The students' experiences with the academic support received from lecturers were positive as well as negative. Several students stated that lecturers are helpful and willing to help. For example, one student wrote that "they're usually subject coordinator, therefore able to clarify anything about the subject as well as point of contact for assessments. Their responses are always apt and concise and hit the nail on the head." However, another student explained that "academics seem impatient and not willing to take the time to explain things." Overall, students stated more reasons for accessing lecturers for academic support instead of reasons for not accessing them and more students reported positive rather than negative experiences with the support received.

Seven students (2.5%) stated reasons for not seeking academic support from tutors. Mostly, students explained that they did not feel the need for assistance from their tutor. Other reasons were feeling intimidated, being a self-reliant and introverted person, and the perception that the support would not help. Sixty-four students (22.6%) reported their reasons for seeking academic support from a tutor. The most cited reasons were support with assessments and subject content advice. Other reasons include discussing grades, receiving feedback, and asking for assignment extensions. Students only reported positive experiences with seeking support from tutors. These comments mostly described that tutors were very

helpful. One student explained their perception of the role of tutors with regard to providing academic support:

Tutors, whilst not administering the subject/highest authority like a lecturer, are always informed and generally hold the answers to any content-based questions for the subject. Whilst they don't always have answers to specific assessment-based questions (such as what style the lecturer might be expecting responses to an assessment piece), they generally always have the answers to anything else a student might need to ask or clarify in order to understand the content of the subject.

Compared to lecturers and tutors, more students (21; 7.4%) stated reasons for not accessing academic support from Learning Advisors. The most cited reason for not accessing Learning Advisors was that students did not feel the need to seek support from this service. Other reasons include not knowing about the support Learning Advisors provide, a lack of confidence to contact Learning Advisors, the perception that the support would not be helpful, and the use of other academic support services. Twenty students (7.1%) stated reasons for accessing the academic support provided by Learning Advisors. These include academic writing, referencing, clarification of assessment requirements, creating study plans, and mathematics. No positive nor negative experiences with accessing academic support from Learning Advisors were stated.

In total, 18 students (6.4%) cited reasons for not accessing academic support from the Peer Advice Desk. The most common reason was that students did not feel they needed academic support provided by this service. Other reasons for not accessing the Peer Advice Desk are also comparable to the reasons provided for not accessing Learning Advisors. They include a lack of confidence, a lack of knowledge about the service, the use of other academic support, and the perception that the support provided would not be helpful. Furthermore, one

student commented that there was no Peer Advice Desk at their location. Nineteen students (6.7%) stated reasons for accessing the Peer Advice Desk. These include academic writing, clarification of assessment requirements, referencing, IT related issues, and enrolment advice. Students commented that the service was helpful, however, one student stated that “the wait is too long for those that are studying full time and working full time”.

Seventeen students (6.0%) mentioned reasons for not accessing the online academic support service Studiosity. Again, the most cited reason was that students did not feel the need to seek academic support from this service. Other reasons mentioned by students were a lack of knowledge about the service, a lack of confidence, a preference for face-to-face support, the perception that the support would not be helpful, and long response times. Fifty-two students (18.4%) stated reasons for accessing Studiosity. Students mostly accessed this service for support with their assignments, academic writing and referencing. Other reasons include developing good study habits and learning statistics. Students’ experiences with the service vary and a range of positive as well as negative comments were made. Negative experiences include very long waiting times of over four weeks and mismatches between Studiosity feedback and grades received in assignments. Furthermore, one student commented that the service was not very insightful. However, many students had positive experiences with Studiosity. Students described this service as helpful, easy, efficient, and prompt. Additionally, one student explained that there was no judgement regarding their person or skills compared to when accessing face-to-face support.

Twenty-five students (8.8%) stated reasons for not accessing College Student Support Officers. Most commonly, students did not need the assistance from a College Student Support Officer, or they were lacking information about this service. Other reasons were a lack of confidence and the opinion that accessing this service would not be of any help. Forty students (14.1%) mentioned reasons for seeking support from a College Student Support

Officer. These reasons include subject and course advice, personal issues and impacts on study, referral to other support services, administrative and IT related issues, academic writing, and guidance for supplementary exams. Two students reported negative experiences with College Student Support Officers and described them as unhelpful. However, one student reported positive experiences and the importance of this service for their success:

I would not be able to continue on with this degree if it's not for my College Student Support Officer. I meet up with her at least once every fortnight and we talk about my progress with assessments, my worries and fears, any questions I have with absolutely anything, etc. I would have given up studying if it wasn't for my College Student Support Officer helping me all the way through.

With regard to the Student Centre, 11 students (3.9%) stated reasons for not accessing this service. The most cited reason was that there was no need for academic support from the Student Centre. Furthermore, one student did not access it because of where they were located, and another student wrote they did not believe the Student Centre would be helpful. Fifty-eight students (20.5%) stated reasons for accessing support from the Student Centre. Students mostly received subject and course advice, enrolment help, and support with timetable issues. Students also used this service as a signpost to access other services. Furthermore, students received support from the Student Centre regarding administrative enquiries, such as student ID cards, and payments, as well as reviewing grades and organising deferred exams. One student's experience with the service was negative and the student stated that the Student Centre was "not really that helpful". Two other students reported positive experiences and described the Student Centre as "always great" and as a "great information service".

6.2.1 Summary

Overall, the findings from the open-ended questions in the online survey regarding the reasons for not accessing certain support services are consistent with the reasons students described in the semi-structured interviews. In both cases, the most common reason was that students did not feel the need to access academic support. Additional reasons students stated in the online survey include long response times and the perception that the service would not be helpful. The reasons for seeking academic support stated in the online survey are also consistent with the findings of the semi-structured interviews. These include academic writing, mathematics, statistics, course content, course/subject advice, and IT related issues. In addition, the answers given in the online survey also revealed that students seek support regarding assignment extensions, discussion of grades, referencing, clarification of assessment requirements, developing good study habits, personal issues and impacts on study, and referral to other support services. The findings of both, the semi-structured interviews and the online survey have revealed a great range of reasons for (not) accessing academic support. These are further discussed in light of other findings of this study and recent literature in order to make recommendations for designing engaging academic support.

Chapter 7: Current Challenges: The Covid-19 Pandemic and Academic Help Seeking

The first Covid-19 case was documented in Wuhan City, China in December 2019. Since then, this novel coronavirus spread around the world quickly. In March 2020, the World Health Organisation (WHO) declared the coronavirus disease 2019 (Covid-19) a pandemic (Liu et al., 2020). The Covid-19 pandemic has affected people worldwide and countries have taken measures to prevent and slow down its spread. For example, as more and more cases were confirmed in different countries, the USA closed their borders on 2nd February 2020 and parts of Italy went into a strict lockdown on 23rd February 2020. More and more fatalities were recorded, and many countries decided to go into a lockdown. From 15th March 2020 gatherings of more than 500 people were no longer allowed in Australia. Gatherings were further restricted to a maximum of 100 people on 18th March 2020. On 17th March 2020, all international travel was banned by the Australian Government (Woods, 2020). From this moment, higher education students and universities in Australia were heavily impacted by the Covid-19 pandemic.

On 18th March 2020, James Cook University's (JCU) vice chancellor Professor Sandra Harding advised students that all face-to-face teaching will pause for one week to move the university to teaching fully online from 6th April 2020. On 26th March 2020 Professor Chris Cocklin, Provost advised students that support services, including academic support services were still operating. However, most services were only accessible online (James Cook University, 2021b). Although it was acknowledged that this constituted a major challenge for students and staff, and additional support was offered, recent research has shown that the Covid-19 pandemic and its related restrictions at university immensely impacted on students.

While this chapter focusses on impacts of changes in how universities operate on students, it needs to be acknowledged that the lockdowns in Australia also led to economic

challenges for families, an increase in domestic violence and an increase in the use of alcohol (Smyth et al., 2020). “The impacts of such stresses ripple out of the family unit to education, with vulnerable students of all ages at risk of long-term implications on their studies, including disengagement and increased levels of anxiety and isolation due to restrictions” (Banki, 2021, para. 4). This indicates that higher education students had to adjust to online teaching and learning while possibly experiencing many other challenges outside their university life.

Dodd et al. (2021) found that 65.3% of higher education students in Australia reported low or very low levels of wellbeing and that low wellbeing was associated with students reporting Covid-19 impacting their studies and negative learning experiences. The vast majority of students reported that it was more challenging to learn online than face-to-face and that interacting with peers and academics has become more difficult (Dodd et al., 2021). The Tertiary Education Quality and Standards Agency’s (TEQSA) Student Experience of Online Learning Quality Project also revealed that amongst IT related issues and assessment changes, reduced academic interactions are negative outcomes of the Covid-19 pandemic. Furthermore, it was found that students experienced a lack of engagement and that access to services was negatively impacted (Martin, 2020). The findings from the study reported in this thesis also showed that moving teaching online affected academic help-seeking behaviour and access to academic support services. This chapter contributes to the response of research questions 3 and 4:

3. Why do students (not) engage with academic support services?
4. How should academic support services be designed to make them more accessible and engaging for students?

7.1 Methods

The findings presented in this chapter are drawn from the qualitative parts of this mixed methods study. Although no questions concerning the impact of the Covid-19 pandemic on students nor the Covid-19 pandemic in general were posed in the qualitative semi-structured interviews or the open-ended questions in the online survey, various comments addressing the pandemic arose. In the open-ended questions in the online survey, students were asked to state their reasons for (not) accessing various academic support services at JCU. These reasons were found to be related to the pandemic in some instances. In the qualitative semi-structured interviews, students mentioned how Covid-19 impacted their academic help-seeking behaviour at different points of the interview.

Furthermore, the data presented below to exemplify the engagement with academic support services at JCU during the Covid-19 pandemic was received via personal communication from the manager of the Learning Centre at JCU. This data is not publicly available. It was collected throughout the years and was analysed using descriptive statistics (K. Bartlett, personal communication, March 31, 2021). Due to the nature of the source of the data, no further statements about data collection and data analysis can be made.

7.2 Findings

7.2.1 Students' Perceptions of Academic Support during the Covid-19 Pandemic

Although most academic support services were still available online, one student explained in the online survey that they “didn’t get a chance [to access a Learning Advisor] due to Covid-19”. Two other students wrote that they did not access the online service Studiosity because they prefer face-to-face support, an issue that now applies to many academic support services. One student stated “I hate "communications" in any form other than face-to-face. If I wanted something impersonal and irritating and a waste of my time, I'd

go talk to an automated chat box. Nothing, absolutely nothing, ever, trumps face-to-face human contact.”

In the interviews, students also spoke about how Covid-19 changed their help-seeking behaviour. For example, student 1 explained his experience with Peer Assisted Study Sessions (PASS) before and during the pandemic when it was only offered online:

Yeah, I think uhm PASS was really good, uh especially because it was like a smaller kinda group and then it was much better in person. I don't really go to many PASS sessions online, cause I just kind of forget about them and then I just like 'uh missed it', like damn, like cause it's not, I don't really schedule it in properly and uhm, but during like for the first four weeks it was really good.

The student further explained why he did not access support services:

I mean, uh I think it's just laziness. Kind of like I am at home and uhm like it's like uh how do I describe it? It just feels much harder to like uhm and because it's not face-to-face as well it's a lot harder to actually reach out.

Student 2 described a very similar experience and further explained how challenging online learning is for her:

I wanted to join a PASS group, but they, but they didn't have the PASS, for, for uhm, what is it, for Programming II. It would have been a lot easier if they had the PASS, but then Covid came along and they didn't have it. Whereas with the year before, they had the PASS for uhm Programming II. And that would have helped a lot with Programming II. I found that was hard. And I found, and I am finding that the uhm that the lectures online and the, it is, it is hard to do your degree at home uh with Collaborate. It is really hard.

Student 6 spoke about the academic support services offered by the Indigenous Education and Research Centre and explained how not being able to access these services face-to-face anymore impacted her more than she expected:

I used to go to, just to sit in the, the uhm Indigenous rooms and just sit there with the, because that's classed as learning support, too, isn't it? And actually be with the girls in there and actually help, get them to help me with uhm again, just looking at the structure of my essays. Uhm and even if it was just bouncing ideas backwards and forwards, or even having that safe space to be able to just sit and uh it was sort of like, it was locked and you could just sit in there and work all the way through and I felt, I felt very safe there, as well. And I have really missed that this year, not being able to go and sit in these rooms. It's been, it's just not the same. And not having access to those uhm academic staff there, as well, has uh has really impacted me actually. More than I thought it would.

Furthermore, it seems that some students might not have continued to access academic support services when the pandemic began because they did not know that the services were available online. When student 6 was asked if she accessed any academic support services on a regular basis, she answered: "Uhm I don't think so but remember we are in Coronavirus now and so there is no access."

In addition to the direct impacts of the pandemic on students' academic help-seeking behaviour, students also spoke about advantages of face-to-face support and reasons for not accessing online services, important factors that now apply to most academic support services. For example, student 6 explained how insecurity about her own capabilities is hindering her to access the online academic support service Studiosity:

I don't really understand how that works and that's why I haven't actually used that online and that's why I tend to be old-fashioned and a bit old-school, so wanting to go and see someone face-to-face. I guess feeling a bit uhm foolish because I am older and because I don't want to be asking them dumb questions and wasting their time.

The student continued and clarified how asynchronous learning support in particular is challenging for her:

Well, I liked that it was, when I used the library services, I liked that it was very instantaneous, that I was able to sit down, that I was able to speak directly with a person. I am still a bit funny with online things. I mean, I am still speaking to you as a person, so even though we are screen-to-screen, I am speaking to you, whereas when it's typing, I find that tricky because you can sometimes misinterpret what's being said because it's not that extra face-to-face and uhm and yeah I liked the library service, being able to speak to a person and actually get instantaneous feedback.

Overall, some students seem to really struggle with the transition to online teaching. Students reported a lack of motivation to engage in online services and a lack of IT skills to make use of academic support services online. Furthermore, students described the impersonal nature of online support as a reason for not engaging. According to the students' statements, there may have also been problems in communicating that academic support services can still be accessed during the restrictions due to the pandemic and students may lack information about how they can make use of the offerings.

7.2.2 Usage of Academic Support Services during the Covid-19 Pandemic

As described above, having to access support online due to the Covid-19 pandemic was challenging for some students. These experiences are also reflected in the total usage of academic support services. As an example, the Learning Centre at JCU provides various

support services that needed to adjust to restrictions imposed on universities to prevent the spread of Covid-19. Usually, a Learning Advisor provides one-on-one or group consultations face-to-face, via email, via phone call or via video call. Due to the restrictions, face-to-face consultations were no longer possible from early 2020. Overall, Learning Advisors conducted 1,396 consultations in 2020 compared to 1,477 in 2019. However, the average length of a consultation increased from 48 minutes in 2019 to 52 minutes in 2020. Furthermore, in 2019, only 16 consultations were conducted via video-call, 20 consultations were conducted via phone call, and 297 consultations were conducted via email. Therefore, the majority, 1,144 consultations were conducted face-to-face. This shows the students' preference of receiving support from a Learning Advisor face-to-face instead of online (K. Bartlett, personal communication, March 31, 2021).

The attendance of PASS shows a similar pattern. Although PASS was offered in more subjects in 2020 compared to 2019, the attendance decreased significantly. In 2020, 119 subjects at JCU offered PASS compared to 101 subjects in 2019. However, in 2020, PASS was attended 8,037 times compared to 10,637 times in 2019. The usage of the online service Studiosity, however, increased in 2020 compared to 2019. In 2019, Studiosity was accessed 3,007 times compared to 4,062 in 2020 (K. Bartlett, personal communication, March 31, 2021).

7.3 Conclusion

“Students are young and energetic, and they are capable of learning through the online platform. Faculty can motivate the younger minds and draw them into active participation” (Sahu, 2020, para. 13). Considering the findings described in this chapter and JCU's proportion of mature aged students (46.4%), this statement may not be completely true for students at JCU, and some students may need additional support to navigate through their new online learning environment. The Learning Advisor consultation numbers and the PASS

attendance numbers clearly show the students' preference of accessing these support services face-to-face rather than online.

In a global study, Aristovnik et al. (2020) found that the lack of IT skills and a perceived increase in workload were challenges in the transition to online teaching and learning. However, students also reported that they were satisfied with the support the universities and its staff provided during this time. Crawford (2020) suggested that “students studying online are often unaware of their university’s student services” (p. 5) and encouraged academics to remind their students of the offerings. Students being unaware of the fact that Learning Advisor consultations and PASS sessions were being offered online after the pandemic restrictions were put in place or not knowing how to access them could also explain the decreased engagement with these services. Furthermore, the online service Studiosity saw an increase in engagement. As students were already familiar with this online service, they may have preferred to access Studiosity rather than learning how to use other services online.

Consistent with the findings of the study presented in this thesis, Banki (2021) recommended to use a range of different online teaching tools and techniques to keep students engaged. This would counteract the impersonal nature online teaching and learning can have and help students who appreciate live face-to-face (although digital) contact. This and the continued promotion of online academic support services to students who are now studying mostly online seem to be important to engage students. These findings are further discussed in light of other findings of this study and in light of the response to the research questions in the discussion part of this thesis. Furthermore, recommendations on providing good academic support online are provided.

Chapter 8: Discussion

The Discussion chapter consists of six sections, provides a response to the research questions, discusses the findings of this study, and evaluates the tool used to examine variables related to academic help-seeking behaviour in higher education. The discussion of findings includes variables shown to be crucial for academic help seeking, identified reasons for (not) accessing academic support, the identified intention-behaviour gap, and challenges encountered during the Covid-19 pandemic. Practical implications of these findings are further discussed in section 9.2.

8.1 Summary and Response to Research Questions

The findings presented in the chapters Quantitative Findings and Qualitative Findings, and their sections mostly contributed to answering more than one research question. Therefore, this section provides the response to the study's four research questions, by drawing on multiple findings simultaneously. The research questions and their related hypotheses (H1, H2, & H3) of this study were:

1. How are background variables, personality and variables related to the Theory of Planned Behavior related to academic help-seeking behaviour in higher education?
H1: Some personality and background variables in addition to the Theory of Planned Behavior are related to academic help-seeking behaviour in higher education.
2. What are the effects of academic help seeking on student retention?
H2: Seeking academic help is positively related to student retention.
3. Why do students (not) engage with academic support services?
H3: The students' satisfaction with academic support services is positively related to their engagement with these services.
4. How should academic support services be designed to make them more accessible and engaging for students?

Research question 1 is answered with the findings presented in the section Application of the Theory of Planned Behavior to Identify Variables Related to Academic Help Seeking in Higher Education within the chapter Quantitative Findings. This section also presented findings relevant for the response to research question 2. Research question 3 is mainly answered using the findings presented in the Qualitative Findings section Increasing Accessibility to Academic Support in Higher Education for Diverse Student Cohorts. The quantitative sections Students' Intentions to Seek Help for Different Problem Types and Students' Satisfaction with Academic Support, as well as the additional findings chapter Current Challenges: The Covid-19 Pandemic and Academic Help Seeking also contribute to the response of research question 3. Research question 4 is answered by drawing on all findings presented in this thesis.

8.1.1 Response to Research Question 1

As described in the section Application of the Theory of Planned Behavior to Identify Variables Related to Academic Help Seeking in Higher Education, structural equation modelling and the testing of various model alternatives revealed that background variables, personality and variables related to the Theory of Planned Behavior are related to academic help-seeking behaviour in higher education. Hypothesis 1 (H1) suggesting that some personality and background variables in addition to the Theory of Planned Behavior are related to academic help-seeking behaviour in higher education can therefore be confirmed. In detail, it was found that the background variables of gender, public stigma, and self-stigma, the personality dimensions of extraversion, agreeableness, and neuroticism, as well as the Theory of Planned Behavior variables of attitude towards help seeking, subjective norm, and perceived behavioural control play a role in predicting academic help seeking in higher education.

Only the variable attitude towards help seeking was directly positively related to academic help seeking and explained a small amount of the variance. All other variables were indirectly related to academic help seeking through attitude towards help seeking. Perceived behavioural control was positively related to one of three item parcels of subjective norm and subjective norm positively predicted attitude towards help seeking. The intercorrelations presented in the Quantitative Findings section Descriptive and Preliminary Statistics (see sections 5.1.1 and 5.1.2) also showed that from the Theory of Planned Behavior variables, only attitude towards help seeking was related to academic help seeking, and subjective norm and perceived behavioural control were not. Public stigma was negatively related to perceived behavioural control and self-stigma was negatively related to attitude towards help seeking, indicating that lower stigma has positive effects on variables indirectly and directly related to academic help seeking. Gender was negatively related to subjective norm and perceived behavioural control. This shows that males had higher levels of subjective norm and perceived behavioural control than females, which positively impacts academic help seeking through attitude towards help seeking.

The personality dimensions extraversion, agreeableness, and neuroticism indirectly impacted on academic help seeking through other variables. Extraversion was positively related to perceived behavioural control and attitude towards help seeking, suggesting that students with higher levels of extraversion have higher levels of perceived behavioural control and higher levels of attitude towards help seeking. This indirectly and directly leads to increased academic help seeking. Similarly, agreeableness was positively related to attitude towards help seeking, signalling that students with higher levels of agreeableness have a more positive attitude towards help seeking, which leads to increased academic help seeking. Neuroticism was positively related to subjective norm and negatively related to perceived behavioural control, therefore also indirectly affecting academic help seeking.

Overall, attitude towards help seeking only explained a small amount of the variance in academic help seeking. However, the background variables and personality dimensions explained a slightly larger amount of the variance in subjective norm, and medium to large amounts of the variance in perceived behavioural control and attitude towards help seeking. Furthermore, subjective norm and attitude towards help seeking positively predicted help-seeking intentions and explained a medium amount of the variance. The intercorrelations presented in the section Descriptive and Preliminary Statistics confirm these findings: Subjective norm and attitude towards help seeking were positively related to help-seeking intentions, while perceived behavioural control was not.

The above results found in response to research question 1 are consistent with Ajzen's (2005) predictions that some but not all variables may play a role in predicting a certain behaviour in a given context. However, contrary to Ajzen's (2005) predictions formulated in the Theory of Planned Behavior, students' help-seeking intentions did not predict academic help-seeking behaviour in the final model found in the structural equation modelling analysis. This results in an intention-behaviour gap meaning that students could not translate their intentions into behaviour (Sheeran & Webb, 2016). Although weak, the intercorrelation between these variables presented in the section Descriptive and Preliminary Statistics (see section 5.1.1) was significant. In addition to variables crucial for academic help seeking found in the structural equation modelling analysis, intercorrelations revealed that age, study start, and conscientiousness were positively related to academic help seeking. The intention-behaviour gap, statistical inconsistencies, as well as the importance of variables that play a role in academic help seeking are further discussed in light of other theoretical perspectives and recent literature in the following sections to inform the design of engaging academic support services in higher education.

8.1.2 Response to Research Question 2

In addition to the response to research question 1, the Quantitative Findings section *Application of the Theory of Planned Behavior to Identify Variables Related to Academic Help Seeking in Higher Education* also provided the response to research question 2. The findings of structural equation modelling revealed that in the case of James Cook University (JCU) students, academic help seeking did not have an effect on student retention. This is consistent with the insignificant intercorrelation found between academic help seeking and student retention presented in the Quantitative Findings section *Descriptive and Preliminary Statistics*. Therefore, hypothesis 2 (H2) suggesting that seeking academic help is positively related to student retention is rejected.

This finding contradicts previous conclusions in educational research. For example, Chen (2017) found that academic advising and formal interactions between students and the faculty positively affected student completion of a two-year college and the transfer to a four-year institution. These effects were shown for various racial groups, age groups and first in family students. Furthermore, Collins (2012) investigated the effects of an academic support program at a large university in the United States. She found that the program positively affected student success and retention.

Although students in this study perceived academic support services at JCU as helpful, accessing these services was not related to retention. One possible explanation for this finding is that student retention was operationalised as the students' intention to persist in their study. Shin's (2003) intention to persist scale was used to measure the students' intention to continue their studies at JCU as an indication of student retention. The scale achieved good internal consistency in this study, and it has been shown that the students' intention to persist is a good indicator of actual student persistence (Metzner & Bean, 1987; Cabrera et al., 1993). Furthermore, the relationship between intentions and behaviour is also

postulated in the Theory of Planned Behavior and has been confirmed in a meta-analysis conducted by Sheeran (2002). However, an intention-behaviour gap (Sheeran & Webb, 2016) may also be present for the students' intention to persist and their actual retention in the context of this study. Therefore, using the students' intention to persist as an indication of retention may not be an accurate operationalisation in this context. Recommendations for future research and how to address this issue are further discussed in the section Study Limitations and Recommendations for Future Research.

8.1.3 Response to Research Question 3

The response to research question 3 is mainly drawn from the Qualitative Findings section Increasing Accessibility to Academic Support in Higher Education for Diverse Student Cohorts. However, additional aspects of the response were presented in the Quantitative Findings sections Students' Intentions to Seek Help for Different Problem Types and Students' Satisfaction with Academic Support, as well as the findings chapter Current Challenges: The Covid-19 Pandemic and Academic Help Seeking.

This study found that students engage in academic support services for a range of academic reasons. These include academic writing, mathematics, statistics, course content, course/subject advice, IT related issues, assignment extensions, discussion of grades, referencing, clarification of assessment requirements, developing good study habits, personal issues and impacts on study, and referral to other support services. Overall, students' intentions to seek academic support were highest for subject and course advice compared to content related reasons and academic skills support. Furthermore, students seek support if the advice is prompt, understandable, and helpful. In turn, academic support is avoided if these service characteristics are not met.

Another important reason for not engaging with academic support is the unavailability of the preferred mode of the academic support in question. These modes include face-to-face support, online support, peer learning, and one-on-one support. This study showed that most students' preference is face-to-face support, an immense problem during the Covid-19 pandemic, which restricted the learning to online learning. Academic support services were not accessed (anymore) because they were offered online. Furthermore, students may have not known about the availability of the services and how to access the services online. An additional issue reported was the lack of confidence in sufficient IT skills to successfully engage in online academic support.

The lack of knowledge about services was not only an issue with regard to academic support services only being offered online due to the Covid-19 pandemic. Students often reported not knowing about services and being flooded with too much information about academic support particularly during orientation as reasons for not engaging. Furthermore, the analysis of the students' intention to access specific support services for different problem types revealed that students would often intend to use a service for problem specific advice that is not offered by that particular service. Overall, this study showed that one reason students did not engage in academic support services is that they did not know about some services and that they lack information to choose the most appropriate service for their needs.

Other reasons for not engaging in academic support are the students' perception that academic support is not needed and public stigma. Although academic support is beneficial for all students, not only for those who are struggling, many students reported they did not need academic support. Furthermore, public stigma was mentioned as a reason for not accessing academic support. Students felt they would not be accepted by their peers for seeking academic support. Furthermore, they felt they would be judged by their social

environment, such as peers, academic staff, friends, and family, and would experience negative consequences when accessing academic support.

Finally, the students' satisfaction with academic support was found to be important regarding their engagement in academic support. Specifically, the students' satisfaction with academic support was found to be a significant predictor for academic help-seeking behaviour and explained large amounts of variance for various academic support services. Therefore, hypothesis 3 (H3), suggesting that the students' satisfaction with academic support services is positively related to their engagement with these services can be confirmed. Overall, this study revealed a great range of reasons for (not) engaging in academic support that will be further discussed in the following sections and that will contribute to making informed recommendations regarding the design of accessible and engaging academic support services.

8.1.4 Response to Research Question 4

The response to research question 4, How should academic support services be designed to make them more accessible and engaging for students?, is based on all findings presented in this thesis. The findings presented in response to research question 1 offer valuable insight into which variables impact academic help seeking and can be intervened to increase engagement. The response to research question 3 is crucial to inform the design of accessible and engaging academic support services, as it provides reasons contributing to students' decisions (not) to access academic support.

This study has shown that when designing academic support, a range of variables should be considered and integrated in possible accompanying activities, such as promotion of academic support services. To make academic support services more engaging, increasing the students' attitude towards seeking academic help would have a direct positive impact.

Furthermore, if subjective norm and perceived behavioural control can be increased, the students' attitude towards academic help would be more positive, thereby increasing engagement. Females showed lower levels of subjective norm and perceived behavioural control and could therefore be specifically targeted when planning interventions. Similarly, younger students and students who have been enrolled for a shorter amount of time seek less support and interventions could therefore be aimed at these cohorts. Furthermore, public stigma and self-stigma should be reduced, thereby reducing negative associations with academic help seeking. The personality dimensions of extraversion, agreeableness, and neuroticism also play a role in academic help-seeking behaviour. Therefore, academic support services should be designed to suit various personality types, for example by offering different options of accessing support.

Academic support services should also be designed to ensure students are satisfied with the service, as this will increase the likelihood of accessing academic support. To increase engagement, support should be prompt, understandable, and helpful, and should be offered in various modes including online, face-to-face, peer-based, and one-on-one. Furthermore, academic support staff need to develop a clear promotion and communication strategy to avoid flooding students with information at inopportune times, but also to ensure students have adequate knowledge about the offerings. In response to research question 4 and as outlined in this section, the design of academic support services and accompanying activities need to meet many criteria to maximise engagement. The section Practical Implications: Designing Engaging Academic Support (see section 9.2) will discuss interventions accompanying academic support services that can modify the above-described crucial variables and will showcase what ideal academic support could look like on the basis of the findings of this study.

8.2 Variables Related to Academic Help Seeking

This section discusses the variables related or indirectly related to academic help seeking, previously presented in response to research question 1, in light of theory and other research. These variables include gender, public stigma and self-stigma, the personality dimensions of extraversion, agreeableness, and neuroticism, as well as the Theory of Planned Behavior variables of perceived behavioural control, subjective norm, and attitude towards help seeking. The theories considered to interpret these findings are the Theory of Planned Behavior (Ajzen, 2005) and the Transtheoretical Model of Change (Prochaska & DiClemente, 1982). Due to limited evidence in academic help-seeking research, research from the areas of psychological and physiological help seeking, as well as career counselling are used to discuss the variables related to academic help seeking in the context of higher education in this study.

8.2.1 Gender

In this study, males showed higher levels of subjective norm and perceived behavioural control, which indirectly positively impacts academic help seeking. This may lead to the conclusion that males seek academic help more often than females. However, the analysis also revealed that females seek academic help significantly more often. Gender was only indirectly related to academic help seeking through perceived behavioural control, subjective norm, and attitude towards help seeking. Furthermore, only a small amount of variance in academic help seeking was explained. This suggests that there might be other variables mediating this relationship that were not investigated in this study.

The role gender plays in various areas of help seeking (psychological, physiological, academic, career counselling) is also not consistent and rather ambivalent in recent literature (Bornschlegl et al., 2020). Some studies found no relationship (Bidjerano, 2005; Downs & Eisenberg, 2012; Du et al., 2015; Keith, 2007; Rosenthal & Wilson, 2008; Stewart et al.,

2001) while others found that females are more likely to seek help in the areas of psychological, as well as academic help seeking (e.g. Cowart, 2013; Eisenberg et al., 2007; Flisher et al., 2002; Virtanen & Nevgi, 2010). Only three studies found that males used help-seeking services more frequently than females in the areas of academic help seeking, psychological help seeking, and career counselling (Amarasuriya et al., 2018; Powell, 2009; Roessger et al., 2018). For a comprehensive overview of the literature analysed, see the literature review section Variables Related to Academic Help-Seeking Behaviour in Higher Education – Findings from a Multidisciplinary Perspective (Bornschlegl et al., 2020).

With regard to counselling services for mental health problems at a university in South Africa, Dunn et al. (1980) found that females access support more frequently than males. As a possible explanation, the authors suggested that females may be more likely to acknowledge that support for mental health problems is needed (as cited in Flisher et al., 2002). Judd et al. (2008) suggested that lower levels of stigma and higher levels of openness to experience could be reasons why women seek help for mental health problems more often than males. Females in this study had slightly lower levels of public stigma and self-stigma. However, the differences were not significant. On the contrary, Amarasuriya et al. (2018) argued that female Asian students may prefer informal support for mental health problems from family and friends and that men are therefore more likely to seek professional help in this context. Cultural differences and a culture-gender interaction effect could explain the different findings regarding the relationship between gender and help seeking.

Overall, females seem to be more likely to seek help than males. However, in some contexts, gender may not play a role at all, or males may be more likely to seek help. This is consistent with Ajzen's (2005) proposal that whether a variable is crucial to the performance of a certain behaviour depends on the context. With regard to academic help seeking of students at JCU, female students in particular could benefit from interventions aiming to

increase perceived behavioural control and subjective norm. Furthermore, more research is needed to investigate why females are seeking academic support more frequently and if this is affected by lower levels of public stigma and self-stigma. Male students could then benefit from academic support promotion with the aim to reduce stigma, thereby possibly reducing negative effects of masculinity on stigma (Steinfeldt & Steinfeldt, 2012). This may change the masculine norm that males need to be able to help themselves (Berger et al., 2013).

8.2.2 Stigma

Public stigma and self-stigma were negatively related to variables related to academic help-seeking behaviour. There was a negative relationship between public stigma and perceived behavioural control, as well as between self-stigma and attitude towards help seeking. This suggests that lower levels of both types of stigmata would have a positive effect on seeking academic support. Based on the literature review conducted by Bornschlegl et al. (2020), stigma has not been examined in the context of academic help seeking. Yet, the findings of this study are consistent with the majority of the findings in the area of psychological help seeking. Overall, recent literature also found that stigma is negatively related to help seeking, indicating that lower stigma increases help-seeking frequency. Particularly, negative relationships were found between stigma and attitude towards help seeking (e.g. Ballesteros & Hilliard, 2016; Bathje & Pryor, 2011; Hackler et al., 2010), as well as with regard to help-seeking intentions (e.g. Amarasuriya et al., 2018; Cheng et al., 2015; Yakunina et al., 2010) and actual help-seeking behaviour (e.g. Gsell, 2011; Seamark & Gabriel, 2018).

Ballesteros and Hilliard (2016) found that self-stigma predicted attitude towards online counselling for mental health problems among Latina/o college students in the United States, suggesting that, like in this study, lower self-stigma leads to a more positive attitude towards help seeking. The authors explained that, given the cultural background, their target

population may believe that accessing mental health support may embarrass their family. This perception is then internalised by the individual, creating high levels of self-stigma, which then leads to negative attitudes. To address this issue, it is suggested to promote these services in a culturally appropriate way for specific target populations (Ballesteros & Hilliard, 2016). Furthermore, Cheng et al. (2015) reported that increased self-stigma was related to weaker help-seeking intentions for mental health problems among a sample of university students in the United States. The authors recommended that promotion programs to increase help seeking should address personal beliefs about help seeking and uncover myths in an attempt to decrease self-stigma (Cheng et al., 2015).

Bathje and Pryor (2011) found that not only self-stigma, but also public stigma was negatively related to attitude towards psychological help seeking in the context of higher education in the United States. The authors suggested that the aim to reduce stigma should be integrated in the actual help-seeking session, as well as in campaigns that challenge stereotypes and raise awareness. This is consistent with proposals in Prochaska and DiClemente's (1982) Transtheoretical Model of Change. As discussed in the section Theoretical Perspectives (see section 3.1.2), the change process of social liberation can be compared to the concept of public stigma and the change process of counterconditioning can be compared to self-stigma. Social liberation can be supported by increasing the opportunity to change the behaviour in question in the social environment, thereby normalising help seeking and reducing public stigma (Prochaska & Velicer, 1997). Counterconditioning is comparable to self-stigma and can be understood as learning alternative behaviours for unwanted behaviour. Therefore, (potential) help-seekers can be taught strategies to defend their behaviour against possible peer pressure, thereby reducing self-stigma (Prochaska & Velicer, 1997). According to Prochaska and DiClemente's (1982) Transtheoretical Model of

Change, individuals use these change processes to move through the stages of behavioural change to achieve the desired behaviour, in this context (academic) help seeking.

Overall, the findings of this study related to the impact of public stigma and self-stigma are consistent with recent findings in the literature, as well as with aspects of Prochaska and DiClemente's (1982) Transtheoretical Model of Change. Regarding academic help seeking at JCU, it is necessary to address public stigma and self-stigma when designing academic support services. By reducing students' stigma, academic help-seeking frequency could be increased. Ways of reducing stigma in this context and how to integrate them into promotion and actual help-seeking processes are further discussed in the section Practical Implications: Designing Engaging Academic Support.

8.2.3 Personality

The personality dimensions of extraversion, agreeableness, and neuroticism were directly and indirectly related to attitude towards help seeking, therefore impacting on academic help-seeking behaviour. Positive relations were found for extraversion and agreeableness. With regard to neuroticism, one positive, as well as one negative relationship was found. Most studies included in Bornschlegl et al.'s (2020) literature review also found that parts of personality are related to help-seeking behaviour. However, when considering the personality dimensions separately, findings are quite inconsistent and support the assumption that the influence of variables depends on the context (Ajzen, 2005).

In the context of this study, extraversion was positively related to perceived behavioural control and attitude towards academic help seeking. Intercorrelations also showed positive relationships to attitude towards help seeking, help-seeking intentions, and academic help-seeking behaviour. This is consistent with the findings in Bornschlegl et al.'s (2020) literature review. Most studies which examined the impact of extraversion on help

seeking found a positive relationship. For example, Atik and Yalçin (2011), O'Connor et al. (2014), and Tsan and Day (2007) confirmed this finding in the area of psychological help seeking. Rogers et al. (2008) found a positive relationship to help-seeking intentions in the context of career counselling. In the area of academic help seeking, extraversion was positively related to attitude towards help seeking (Goodwin, 2009) and to actual help-seeking behaviour (Bidjerano & Dai, 2007; Ghyasi et al., 2013). In the context of psychological help seeking among university students in Turkey, Atik and Yalçin (2011) explained that extroverted individuals are social, assertive, and talkative and may therefore be more likely to want to talk to someone when a problem occurs. Similarly, Ghyasi et al. (2013) suggested that extroverts seek academic help more often due to their self-confidence and their social nature in the context of Iranian university students. This is consistent with Costa and McCrae (1986), who define extroverts as affectionate, joiners, talkative, active, fun loving, and passionate.

Agreeableness was positively related to attitude towards seeking academic help. This finding is consistent with Atik and Yalçin (2011). The authors found that agreeableness was positively related to attitude towards help seeking in the context of psychological help seeking among university students in Turkey. Furthermore, Rogers et al. (2008) reported a positive relationship between agreeableness and help-seeking intentions with regard to career counselling for Australian High School Students. In the area of academic help seeking, Larose et al. (2009) found that the level of agreeableness of Canadian college students was positively related to help-seeking behaviour. The authors argued that students with higher levels of agreeableness may value relationships with others and may have more trust in others, which then supports the decision to access academic support. Costa and McCrae (1986) also described individuals scoring high on agreeableness as rather trusting.

Structural equation modelling conducted in this study revealed that neuroticism was positively related to subjective norm and negatively related to perceived behavioural control. Therefore, neuroticism seems to indirectly affect academic help seeking positively as well as negatively. These findings are contradictory. Intercorrelations confirm these findings. Furthermore, there was no direct relation to attitude towards help seeking, help-seeking intentions, and help-seeking behaviour. In the literature review conducted by Bornschlegl et al. (2020), seven studies found no relationship between neuroticism and attitudes towards help seeking, help-seeking intentions and actual help-seeking behaviour (academic help seeking: Bidjerano & Dai, 2007; Ghyasi et al., 2013; Larose et al., 2009; psychological help seeking: Feng & Campbell, 2011; Toivonen et al., 2018; Tsan & Day, 2007; career counselling: Rogers et al., 2008) Three studies in the contexts of psychological, academic, and physiological help seeking respectively found a relationship (Atik & Yalçin, 2011; Goodwin, 2009; O'Carroll et al., 2001), and two studies found somewhat contradictory findings (Kakhnovets, 2011; LaLonde, 2014). Kakhnovets (2011) found that neuroticism was only positively related to attitude towards psychological help seeking for men and not for women. In LaLonde's (2014) study, neuroticism was negatively related to help-seeking intentions, but no relationship was found to attitude towards psychological help seeking. Furthermore, consistent with the findings of this study, positive as well as negative relationships were found. In addition to Lalonde (2014), Atik and Yalçin (2011), and Goodwin (2009) also found negative relationships, whereas Kakhnovets (2011) and O'Carroll et al. (2001) found positive relationships.

Kakhnovets (2011) argued that neurotic individuals are emotionally unstable and struggle with stressful situations. Therefore, individuals with high scores on neuroticism are more likely to seek psychological help. Costa and McCrae (1986) described neurotic people as rather worrying, temperamental, self-pitying, self-conscious, emotional, and vulnerable.

Considering Costa and McCrae's (1986) definition of neuroticism, Kakhnovets' (2011) justification as to why neurotic individuals are more likely to seek psychological help is reasonable. However, in the area of academic help seeking, this definition also makes it plausible that students scoring lower on neuroticism are more likely to access support. Students scoring high on neuroticism may worry about how they are perceived among peers and academic staff, they are more vulnerable and may not be willing to share their academic work or perceived academic weaknesses. Overall, consistent with the findings in Bornschlegl et al.'s (2020) literature review, the role of the personality dimension neuroticism in the context of academic help seeking in higher education is not clear and requires further investigation to decide whether it needs to be accounted for when designing academic support.

8.2.4 Perceived Behavioural Control

Structural equation modelling revealed that perceived behavioural control was indirectly positively related to academic help seeking through one of the item parcels of subjective norm and through attitude towards help seeking. The intercorrelations also showed a positive relationship to attitude towards help seeking. This is inconsistent with the findings of Bornschlegl et al.'s (2020) literature review. In previous research, findings revealed no relationships (Fleming et al., 2018; Li et al., 2018). However, these studies were only conducted in the area of psychological help seeking. The findings of this study are consistent with Ajzen's (2005; 2019c) Theory of Planned Behavior, which suggests an indirect relationship between perceived behavioural control and the behaviour in question. Furthermore, Ajzen (1991) argued that higher perceived behavioural control leads to higher intentions to perform a certain behaviour. In addition, it should be noted that Ajzen (1991) explained that it depends on the context whether perceived behavioural control is crucial for

performing a certain behaviour. This may explain the contradictory findings found in psychological help seeking research and this study.

The findings of this study are also consistent with Prochaska and DiClemente's (1982) Transtheoretical Model of Change. The authors argued that individuals need to move through change processes to achieve a desired behaviour. The change process of self-liberation is comparable to perceived behavioural control and, in the context of academic help seeking, refers to a student's belief that accessing academic support is possible. Overall, the findings regarding the influence of perceived behavioural control are consistent with theory and when designing academic support, it should be ensured that students feel they are in control of the behaviour and have the ability to seek academic help.

8.2.5 Subjective Norm

Subjective norm was positively related to attitude towards help seeking and, therefore, indirectly related to academic help seeking. Intercorrelations confirm this relationship. This is consistent with recent literature synthesised by Bornschlegl et al. (2020). The majority of the studies found a positive relationship between subjective norm and help seeking. For example, Li, Denson, and Dorstyn (2017) found a positive relationship to attitude towards help seeking, as well as help-seeking intentions in the context of psychological help seeking among Chinese higher education students. Additionally, Codd and Cohen (2003), as well as Kim and Park (2009) found positive relationships between subjective norm and help-seeking intentions with regard to psychological help seeking.

The findings of this study are also consistent with the Theory of Planned Behavior (Ajzen, 2005) and the Transtheoretical Model of Change (Prochaska & DiClemente, 1982). Ajzen (2005) suggested an indirect relationship to the desired behaviour through the intentions to perform the behaviour. With regard to the Transtheoretical Model of Change,

the change process of helping relationships that individuals move through to achieve the desired behaviour is comparable to subjective norm. Both concepts relate to the social environment accepting the desired behaviour (Prochaska & Velicer, 1997; Ajzen, 1991). To increase help seeking, Li, Denson, and Dorstyn (2017) recommended psycho-educational promotion campaigns not only to their target group but also to the community to promote social acceptance. Similarly, Kim and Park (2009) also suggested to intervene at the subjective norm level by conducting educational programs targeting the students' social environment to increase psychological help-seeking intentions. Strategies to increase social acceptance of academic help-seeking behaviour in higher education are further discussed in the section Practical Implications: Designing Engaging Academic Support.

8.2.6 Attitude Towards Help Seeking

Structural equation modelling showed that the students' attitude towards seeking academic help was directly positively related to help-seeking intentions, as well as actual help-seeking behaviour. Intercorrelations revealed similar findings. This is consistent with the findings in Bornschlegl et al.'s (2020) literature review. For example, Pumpa and Martin (2015) found a positive relationship between attitude towards seeking psychological help and help-seeking intentions. Furthermore, Chang (2014) found that attitude towards help seeking was positively related to psychological help seeking among Chinese university students. In the context of Australian university students, Li et al. (2018) found that attitude towards psychological help seeking was positively related to help-seeking intentions.

The findings of this study are also consistent with Ajzen's (2005) Theory of Planned Behavior and the Transtheoretical Model of Change (Prochaska & DiClemente, 1982). Ajzen (2005) suggested that attitude towards the desired behaviour is indirectly related to performing the behaviour through the person's intentions. Similarly, Prochaska and Velicer (1997) described self-reevaluation as one of the change processes that individuals complete to

move towards the desired behaviour. Self-reevaluation is comparable to attitude towards a behaviour, as it refers to the attitude towards oneself with the desired behaviour. In the Theory of Planned Behavior, as well as the Transtheoretical Model of Change, more positive attitudes and more positive self-reevaluation would increase chances of the desired behaviour being performed. With regard to the importance of attitude towards a behaviour, Pumpa and Martin (2015) suggested to implement educational programs in schools to reduce negative beliefs and, therefore, improve attitudes towards psychological help seeking. Intervention programs possibly beneficial to improve higher education students' attitude towards academic help seeking are further discussed in the section Practical Implications: Designing Engaging Academic Support.

8.2.7 Summary

Overall, the findings of this study are consistent with previous research and theory, particularly the Theory of Planned Behavior (Ajzen, 2005) and the Transtheoretical Model of Change (Prochaska & DiClemente, 1982). Synthesising the findings of this study with findings in previous research and theory revealed that particularly the variables public stigma, self-stigma, extraversion, agreeableness, perceived behavioural control, subjective norm, and attitude towards help seeking should be considered when offering academic support. Furthermore, previous research as well as the Theory of Planned Behavior (Ajzen, 2005) and the Transtheoretical Model of Change (Prochaska & DiClemente, 1982) offer a range of intervention strategies that are taken into consideration and applied to the context of academic help seeking in higher education. The section Practical Implications: Designing Engaging Academic Support provides a comprehensive overview of strategies to increase academic help seeking and describes how these strategies could be integrated into academic support services.

8.3 Students' Reasons for (not) Seeking Academic Help

This section discusses the findings presented in the following sections:

- Increasing Accessibility to Academic Support in Higher Education for Diverse Student Cohorts
- Students' Intentions to Seek Help for Different Problem Types
- Students' Satisfaction with Academic Support
- Current Challenges: The Covid-19 Pandemic and Academic Help Seeking

These sections contributed to the response of research questions 3 and 4. Students' reasons for (not) seeking academic help presented in these sections are discussed in light of previous research, as well as the Transtheoretical Model of Change (Prochaska & DiClemente, 1982), and Deci and Ryan's (1985) Self-Determination Theory. Students' reasons for (not) seeking academic support revealed in this study are a lack of knowledge about academic support services while, simultaneously, receiving a flooding of information, modes of academic support services, public stigma, usability of academic support services, and satisfaction with academic support services.

8.3.1 Lack of Knowledge and Flooding of Information

One main reason for students not seeking academic support revealed in this study was that students did not have sufficient knowledge about the existence of available academic support services or the type of support they can receive from particular services. The lack of knowledge is also underpinned by the findings regarding the students' intentions to seek help for different problem types. As described in the section Students' Intentions to Seek Help for Different Problem Types, there was student uncertainty concerning the type of assistance particular academic support services could provide. This is consistent with McNaught and Beal's (2012) finding that academic support services were not accessed due to limited

awareness at a university in Australia. Furthermore, students reported a flooding of information about academic support services, which then led to not being able to form a clear understanding of the services available. Bawden and Robinson (2020) described that when information overload is occurring, relevant information becomes a barrier. Information overload is defined as the state in which the amount of information provided exceeds an individual's capacity to process it (Eppler & Mengis, 2004). This is due to constrained storage capacity of the working memory leading to information not being stored in the long-term memory (Byyny, 2016). This shows that there is a great need for carefully planned promotion of academic support services that ensures students' adequate knowledge about services while not overloading them with too much information. Ways of promoting academic support effectively in higher education are further discussed in the section Practical Implications: Designing Engaging Academic Support.

8.3.2 Modes of Academic Support Services

Another reason for not accessing academic support services was that the preferred mode of the service (e.g. online, face-to-face, peer learning, individual learning) was not available. Students also mentioned that certain services were accessed because the preferred mode of the service was offered. However, students' preferences were very different. Some students prefer peer learning, while others do not feel comfortable in a peer-based learning environment. Although peer learning has been shown to be beneficial for conceptual (Thompson & Mazer, 2009), as well as emotional reasons (Waters, 2002), students' preferences for individual learning need to be taken into consideration. Similarly, some students prefer face-to-face support, while others see advantages in online support. The perceived disadvantages of online support include lack of IT skills, long waiting times, and misunderstandings in written communication, while the main advantage is the convenience of accessing support online. As described in the section Current Challenges: The Covid-19

Pandemic and Academic Help Seeking, the preference for face-to-face academic support also became apparent during the Covid-19 pandemic and related restrictions. Although available online, usage of services primarily offered face-to-face before the pandemic, such as Learning Advisor consultations and PASS, decreased during Covid-19 restrictions.

The findings of this study show the need to provide academic support in various modes to account for students' preferences, and to make academic support services more accessible to all students. While offering face-to-face support for students who study on campus and prefer this mode, external students need to have the opportunity to access equivalent academic support online. Furthermore, if online support is the only support, for example due to restrictions or remote locations, it needs to be ensured that perceived disadvantages of online learning are being counteracted. The perceived lack of IT skills found as a reason for not accessing online academic support in this study is consistent with recent research. For example, Aristovnik et al. (2020) reported the lack of IT skills as a challenge in online learning. Furthermore, long waiting times and misunderstandings can be counteracted by offering synchronous online support using video calls. Students studying online also seem to be less aware of the availability of support services (Crawford, 2020), further supporting the need for carefully developed promotion applicable to both face-to-face and online learning. Finally, academic support should be offered in individual, as well as peer learning environments to address the diversity of students' preferences, and to make the advantages of both modes available to students. Ways of how to integrate various modes into academic support services are showcased in the section Practical Implications: Designing Engaging Academic Support.

8.3.3 Public Stigma

Consistent with the variables identified as being related to academic help seeking using structural equation modelling, students also mentioned public stigma as a reason for not

seeking help in the qualitative data. This also became apparent in the way students intend to seek help. Analysing students' intentions to seek help for different problem types revealed that students are more inclined to access online resources and fellow students than other academic support services offered by the university. This may be interpreted as students trying to access support in an anonymous way or in an informal environment to avoid exposing their perceived weakness to lecturers or academic support staff. Haner (2016) argued the importance of anonymous mental health support for young people who would not access support otherwise. Furthermore, students' intentions to seek academic support were highest for subject and course advice compared to seeking help for content-related reasons and academic skills support. This might relate to students feeling more comfortable to seek support for something needed to plan the rest of their study and their professional career, whereas seeking academic support for content related reasons or academic skills support could be perceived as admitting a personal weakness. As outlined in the previous section, this study's intercorrelations and structural equation modelling outcomes are consistent with previous research, and Prochaska and DiClemente's (1982) Transtheoretical Model of Change, and further support the need for interventions to reduce public stigma. McNaught and Beal (2012) support the view that academic help seeking needs to be normalised to create a holistic university experience for students. Possible ways of integrating this in the promotion or delivery of academic support is further discussed in the section Practical Implications: Designing Engaging Academic Support.

8.3.4 Usability of Academic Support

Another main reason for students deciding to access or not to access a particular academic support service is the usability of the service. Immediate feedback was one of the main positive aspects mentioned by students. This, of course, is easy to realise during face-to-face support but should also be a priority for online support, for example by offering

synchronous online academic help. If asynchronous modes of support are used, a short response time should be attempted to be achieved. Quick feedback is not only a preference of students, but also beneficial for their learning process and outcomes (Ferguson, 2011).

Another main factor contributing to the usability of academic support services is the use of understandable language. Understandable and user-friendly feedback has been shown to be crucial for feedback to be effective (Wiggins, 2012). Recommendations on how academic support services can be designed to be user friendly are discussed in the section Practical Implications: Designing Engaging Academic Support.

8.3.5 Satisfaction with Academic Support

This study showed that the students' satisfaction with a particular academic support service was predictive of how often the service was accessed. Therefore, the students' satisfaction can be considered a reason for students deciding to access or not to access a particular service. This finding is consistent with previous research. With regard to psychological help seeking, Garland et al. (2000) discovered that the more satisfied clients were with the service the longer they would access mental health support. Ramayah and Lee (2012), as well as Ataburo et al. (2017) found that higher education students' satisfaction with online services was related to usage frequency.

Among other aspects, Ryan and Deci (2000) argued that intrinsic motivation is a crucial contributor for satisfaction and that if a behaviour is intrinsically motivated, individuals feel satisfied when performing this behaviour. In the workforce Dave et al. (2011), and Stringer et al. (2011) confirmed the importance of intrinsic motivation for satisfaction. In the context of student satisfaction in higher education, it was found that satisfaction with blended learning environments was positively related to the students' level of intrinsic motivation (Li, Yang et al., 2017). This emphasises the need to design academic support services that support the development of intrinsic motivation to increase satisfaction,

which then leads to increased engagement with academic support services. Deci and Ryan's (1985) Self-Determination Theory is a framework for developing intrinsically motivated behaviour through satisfying three basic psychological needs: autonomy, competence and relatedness. This framework, as well as previous findings in the literature will be used and further discussed in the section Practical Implications: Designing Engaging Academic Support to develop academic support services that foster students' intrinsic motivation.

8.3.6 Summary

In addition to the variables related to academic help seeking, this study revealed variables students mentioned as reasons for seeking or not seeking academic support. These include the lack of knowledge about academic support available, as well as being flooded with too much information about offerings. Furthermore, students have different preferences regarding the mode of academic support services. Online, face-to-face, peer learning, and individual learning were perceived as advantageous and disadvantageous. Consistent with variables related to academic help seeking, public stigma was mentioned as a reason for not accessing academic support. Additionally, usability of academic support and the satisfaction with academic support services were crucial for students' decision to engage or to not engage. These variables should be considered when designing academic support and are integrated in the discussion of how academic support services can be designed to make them engaging and accessible for higher education students.

8.4 The Intention-Behaviour Gap

As postulated in the Theory of Planned Behavior (Ajzen, 2005), personality and background variables contributed to a large amount of variance in attitude towards help seeking, perceived behavioural control, and help-seeking intentions. However, the amount of variance explained in actual help-seeking behaviour was rather small, and contradictory to Ajzen's (2005) postulation. Help-seeking intentions did not relate to actual help-seeking

behaviour. This was revealed in the structural equation modelling analysis. The intercorrelation between these two variables was significant, yet weak. In the structural equation modelling analysis, the only variable predicting actual help-seeking behaviour was attitude towards help seeking.

This contradicts the postulations in the Theory of Planned Behavior and previous research findings. For example, Sheeran (2002) summarised various theories and research findings and concluded that intentions are a good predictor of behaviour. Furthermore, Webb and Sheeran (2006) conducted a meta-analysis of experimental evidence and found that a change in behavioural intentions leads to a change in actual behaviour. Sheeran and Webb (2016) confirmed that overall, intentions predict behaviour better than attitude. However, they also explained that an intention-behaviour gap can be created if an individual's intention does not translate into actual behaviour. For example, Groening et al. (2018) found that there is a great discrepancy between sustainable consuming intentions and actual consuming behaviour. Furthermore, Rhodes and de Bruijn (2013) conducted a meta-analysis and discovered an intention-behaviour gap in physical activity. An intention-behaviour gap is also described in Prochaska and DiClemente's (1982) Transtheoretical Model of Change. In the model's contemplation stage individuals have the intention to change behaviour, however, they consider costs and benefits, which can lead to not moving to the preparation and action stage for a prolonged time (Prochaska & Velicer, 1997).

8.4.1 Intention-Behaviour Gap Causes

An intention-behaviour gap can have a range of different causes. Broadly, these include the quality of someone's intentions, and self-regulatory challenges that hinder the realisation of the intention (Sheeran & Webb, 2016). For example, Sheeran and Webb (2016) listed the following characteristics of intentions that may contribute to an intention behaviour gap: preventative intentions instead of promotional intentions (Higgins, 1997, as cited in

Sheeran & Webb, 2016), controlled instead of autonomous intentions (Ryan & Deci, 2000, as cited in Sheeran & Webb, 2016), intentions aimed at performance rather than learning (Elliot & Church, 1997, as cited in Sheeran & Webb, 2016), and general rather than specific intentions (Locke & Latham, 2013, as cited in Sheeran & Webb, 2016). Furthermore, Sheeran et al. (2003) found that intentions better translate into behaviour when the behaviour in question is easier to perform. Sheeran and Orbell (1999) revealed that intentions to perform a behaviour based on social norms compared to personal beliefs can lead to an intention-behaviour gap.

Sheeran and Webb (2016) argued that self-regulatory challenges can occur at different phases while pursuing to perform a behaviour. These include making a start, keeping on track, and finishing successfully. This view is consistent with Prochaska and DiClemente's (1982) Transtheoretical Model of Change, which also outlines that behavioural change occurs in different stages. Challenges to make a start on performing a behaviour can involve insufficient preparation and forgetting or missing opportunities to act (Sheeran & Webb, 2016). Keeping on track with performing a behaviour can be interrupted by other goals, habits, or thoughts. This is comparable to the change process of stimulus control within Prochaska and DiClemente's (1982) Transtheoretical Model of Change. Prochaska and Velicer (1997) explained that individuals move through change processes to achieve behavioural change and the change process of stimulus control involves eliminating disruptive cues. Finally, successfully completing a behaviour can be prevented by withdrawal, ineffectiveness, and excessive demands (Sheeran & Webb, 2016). Overall, translating intentions into actual behaviour can be challenging and can be interrupted by many aspects at various stages.

8.4.2 Overcoming an Intention-Behaviour Gap

Besides aspects causing intention-behaviour gaps, Sheeran and Webb (2016) discussed a range of different ways to overcome an intention-behaviour gap and to improve the translation of an individual's intention to actual behaviour. One way is to create if-then plans that keep the individual on track to successfully complete the desired behaviour. This involves identifying opportunities and possible challenges and finding ways to respond to them. Another way is to monitor the progress in achieving the behaviour in question by comparing the current state with the desired outcome. Progress can be monitored through, for example, diaries (Sheeran & Webb, 2016). Harkin et al. (2016) also explained that tracking progress is beneficial for achieving the desired behaviour. Furthermore, Oettingen et al. (2013) suggested that the quality of intentions can be improved by setting specific and realistic goals, which may then lead to a better translation of intentions into behaviour.

8.4.3 Summary

Sheeran and Webb (2016) concluded that “the intention-behavior gap is large” (p. 511), which has also been found in this study. Various aspects related to the quality of intentions, and self-regulatory challenges could have caused the gap between the students' intention to seek academic help and their actual help-seeking behaviour. To maximise student success, it is crucial to find ways to overcome this discrepancy. As outlined in this section, there are various approaches to improve the translation of intentions into behaviour. These are further discussed and applied to the academic help seeking context in higher education in the section Practical Implications: Designing Engaging Academic Support.

8.5 Addressing Current Challenges: Offering Academic Support Online

The restrictions imposed during the Coronavirus pandemic across the world and in Australia substantially impacted the education sector (Woods, 2020). Common practices of providing education were no longer feasible. More specifically, the higher education sector

had to react quickly and rethink the way students can continue to study and access services offered by tertiary education institutions. To avoid personal contact and slow down the spread of Covid-19, the most common solution was to move lectures, tutorials, academic support, and all other services provided by universities, online. For example, at the end of March and in early April 2020, JCU students were advised that face-to-face teaching will move to online teaching, and that services offered by the university will only be available online (James Cook University, 2021b). Although the pandemic may end at some point in the future, and face-to-face teaching, learning, and support may be possible again without any restrictions, certain characteristics of the *new* way of learning will remain. Offering academic support online is not only crucial during the Coronavirus pandemic but remains important for external students, and students with many other commitments who wish to access academic support after hours from home.

However, this study has shown that providing academic support online is related to some challenges. Students reported not being motivated to access online support, a lack of IT skills, and online support being impersonal. Furthermore, there may have been a lack of knowledge about how to access academic support online. These challenges are reflected in the usage numbers of Learning Centre services. The numbers were considerably lower in 2020 compared to 2019 (K. Bartlett, personal communication, March 31, 2021). This is consistent with the findings of Aristovnik et al. (2020), as well as Crawford (2020), and shows the need to address the challenge of offering academic support online.

8.5.1 Promoting Online Academic Support Services

Due to the lack of knowledge about online academic support services found in this study and suggested by Crawford (2020), the first crucial aspect of providing academic support online is to ensure students know about the offerings and how to access them. Academic support services are often promoted during a short time frame, for example

orientation. As found in this study and supported by Crawford (2020), this may lead to an information overload about the services provided. Therefore, more targeted promotion that continues after orientation and is spread out through the first semester and beyond could be beneficial.

One way to implement a more targeted promotion of online academic support services is to establish a collaboration between academic support staff and academic staff. With the support of academic support staff, academic staff can send email reminders or make announcements in asynchronous and synchronous lectures to remind students of the academic support offered by their university (Crawford, 2020; McNaught & Beal, 2012). To ensure these reminders are distributed at the best time for students, staff should only promote academic support services students may need for their upcoming assessments. For example, academic writing support should be promoted when students have an upcoming assignment that requires academic writing, mathematics support should be promoted when students have an upcoming assessment that involves solving mathematical problems and so forth. Furthermore, subject and course advice can be promoted when students need to make decisions about future enrolments. In collaboration, academic support staff and academic staff should develop promotion schedules uniquely for every course and each year level.

Appiah (2006) suggested integrating video testimonials in online advertising to maximise the effect. This can be applied to the context of promoting academic support services by developing student video testimonials of their experience with particular support services. Furthermore, academics could highlight the importance of certain services and the related skills in videos that are then integrated into the promotion. Examples of such videos can already be found on the JCU Learning Centre website:

<https://www.jcu.edu.au/students/learningcentre/pass;>

<https://www.jcu.edu.au/students/learningcentre/short-courses-and-workshops>. However,

these videos were developed for all students, and not targeted to a specific course or year level. Targeted promotion would benefit from video testimonials specifically developed for their purpose with students and lecturers from the same course. These videos can then be used in specifically timed promotion, such as emails and announcements during lectures/tutorials, as well as in online repositories, such as Learning Management Systems, where students can access information about support services at any time. If the targeted promotion then follows a schedule specifically developed for the target cohort, it can be ensured that students receive the most relevant information at the right time. An example promotion schedule will be presented in the section Practical Implications: Designing Engaging Academic Support.

8.5.2 Providing Effective Academic Support Online

In addition to a lack of knowledge about online academic support services, this study has also shown that students have preferences for a variety of learning modes. These are peer learning, individual learning, online support, and face-to-face support. Most importantly, the students' preferences differed. Therefore, there is not one best way of providing academic support. Instead, offering a wide range of modes for students to choose from will be beneficial and increase engagement. For example, as opposed to providing a pre-recorded academic writing workshop, a live online workshop that allows for group activities and virtual face-to-face support may better meet the needs of some students. However, this study also showed that some students prefer individual rather than peer learning. Furthermore, stigma has been shown to hinder student engagement in academic support. As suggested by Bornschlegl and Cashman (2019), additionally offering recorded academic support workshops where students can participate in passively and anonymously may therefore be crucial to meet the needs of diverse student cohorts. Crawford (2020) also suggested that, in addition to synchronous online sessions, asynchronous online sessions are needed to cater for

students with conflicting commitments. This is particularly important for JCU's diverse student cohorts with a high proportion of mature age students who may have many other commitments, such as family and work. Bouchey et al. (2021) also highlighted the importance of balancing synchronous and asynchronous support.

Furthermore, Crawford (2020) suggested ensuring that technology is simple and accessible, and to provide opportunities for peer interaction. Due to interrupted and slow internet connections in some areas, students should have the option to download asynchronous sessions and materials instead of streaming them. In addition, to cater for students with the preference to learn collaboratively, academic support services provided to multiple students at the same time (e.g. workshops) should integrate opportunities for students to informally interact and learn together.

8.5.3 Professional Development (PD) and Resources for Staff

As found in Shearman et al.'s (2021) study on providing mathematics and statistics support at a university in Australia and a university in Ireland, personal development opportunities regarding the provision of academic support online were often limited during the onset of the pandemic and the shift to teaching and learning online. However, universities were committed to provide the best possible resources and support to help transition to teaching online, including providing academic support. For example, under the category Support during Covid-19, The University of Sheffield (2021) provides information about digital tools that can be used when working with students. Similarly, James Cook University (2021f) provides information about online teaching tools on the university's website. In the future, more PD opportunities for academic support staff will be necessary to ensure adequate knowledge about the provision of effective online academic support among staff.

8.5.4 Software and Tools for Online Academic Support

The software suggested in resources by the above-mentioned universities includes various tools for synchronous and asynchronous communication. When designing online academic support, choosing mobile friendly software can improve accessibility for students. Tools for synchronous communication with multiple students, for example for workshops and group consultations, are Blackboard Collaborate, Jamboard, and Miro (The University of Sheffield, 2021), as well as Collaborate Ultra and GoSoapBox (James Cook University, 2021f). These tools also allow students to share other content, such as drawings and notes, while collaborating. Furthermore, video call software, such as Zoom and Microsoft Teams, can also be used to communicate live with multiple students. With regard to asynchronous communication with multiple students, the Blackboard discussion board, Ultra Conversations, and social media can be used to foster engagement (The University of Sheffield, 2021; James Cook University, 2021f).

Synchronous online academic support for a single student can also be provided via video call software, such as Zoom and Microsoft Teams. Given many students' preference for face-to-face support, the advantage of using a video call software instead of regular phone calls is that, although digital, students can still receive face-to-face support. To provide asynchronous individual academic support, The University of Sheffield (2021) suggests the use of the Blackboard Assignment tool to annotate student work and provide feedback. Of course, feedback on student work can also be provided by tracking changes and making comments in Microsoft Word documents. Furthermore, emails can be used to communicate with individual students regarding subject and course advice, content related support, and academic skills advice.

Another way of providing asynchronous online support is by providing self-access online resources. Online resources can be provided in a range of different ways. These

include non-interactive written documents, such as PDFs, word documents and PowerPoint presentations, as well as video and audio recorded workshops or lessons. However, compared to face-to-face learning, students studying online concentrate less, particularly when studying non-interactive learning materials (Croxtton, 2014). Therefore, the use of software that allows the creation of interactive online content, so students can engage and interact with the academic support content may be beneficial. For example, with H5P, interactive HTML5 content can be created, shared and reused (H5P, 2021). Reyna et al. (2020) found that first-year science students had a positive attitude towards online learning resources created with H5P and were able to learn the content well. Additionally, H5P does not require any licenses and could therefore be used for free by academic support staff. Alternatives to H5P to create interactive online learning content are Smart Sparrow (Smart Sparrow, 2018), iSpring Suite, Adobe Captivate, Open Elearning, Knowledgeworker Create, and Adapt Learning (AlternativeTo, 2021).

8.5.5 Conclusion

In conclusion, universities worldwide were facing a great challenge to move learning and teaching online and to ensure an equivalent educational experience during the Covid-19 pandemic. However, this challenge may also result in opportunities and improvements regarding the provision of academic support online. Bouchey et al. (2021) found that “institutional leaders have realized that providing online student support serves all students, not only online students” (p. 33). Therefore, higher standards may be upheld, even when the pandemic is over. This study revealed that the challenges of providing academic support online are the promotion of online services and the provision of effective online support, indicating areas for improvement for institutions. Overall, Bouchey et al. (2021) found that the Covid-19 pandemic has improved online support services also for external students who have accessed support online even before the pandemic, and, hopefully, this experience will

continue to lead to improvements regarding the provision of academic support online. More PD opportunities for academic support staff and technical support for the use of interactive learning software will be needed to achieve the best possible online academic support for diverse student cohorts in higher education.

8.6 A Tool to Examine Academic Help Seeking in Higher Education

To examine academic help seeking and other related factors in higher education, a survey with mostly established scales was used in this study (see Appendix B). However, most scales were developed for different contexts. Therefore, this section discusses the usability of the survey and its questionnaires for the context of academic help seeking in higher education. The scales included in the survey for this study are the BFI-10 (Rammstedt & John, 2007), an attitude towards help seeking scale, a perceived behavioural control scale and a subjective norm scale developed by Kraft et al. (2005), as well as Shin's (2003) intention to persist. Furthermore, the Perceptions of Stigmatization by Others for Seeking Psychological Help (PSOSH) scale (Vogel et al., 2009) and the Self-Stigma of Seeking Help (SSOSH) scale (Vogel et al., 2006) were used in the survey to examine public stigma and self-stigma.

To keep the survey as short as possible, the short version of the BFI-44 (John & Srivastava, 1999), the BFI-10 (Rammstedt & John, 2007), was used to assess students' personality. As described in the Methods chapter, the scale of openness was excluded from all analyses due to very low internal consistency. The scale of extraversion had good internal consistency and the scales of agreeableness, conscientiousness, and neuroticism had rather low values of internal consistency but were over Balgiu's (2018) suggested cut-off value of $\alpha = .45$ for 2-item scales. For future assessment of students' personality in higher education, it is therefore recommended to use the BFI-44 (John & Srivastava, 1999) to achieve better reliability values. However, the BFI-10 would be an acceptable tool to examine students'

personality as part of a longer survey to keep the completion time below a certain limit. This would avoid incomplete responses or low response rates due to a lengthy survey (Evans & Mathur, 2005).

Both, the PSOSH scale (Vogel et al. 2009) and the SSOSH scale (Vogel et al. 2006) were developed for the context of psychological help seeking and were adapted for the use in the context of academic help seeking for this study. Both scales achieved high internal consistencies in this study. Furthermore, items of both scales were each combined to three item parcels for structural equation modelling analyses. As part of this, confirmatory factor analyses results revealed very high factor loadings for each item parcel and their respective scale (Shi et al., 2019). Therefore, the one factor solutions for the concepts of public stigma and self-stigma in the context of academic help seeking were confirmed. Based on these findings, continued use of these adapted scales is supported.

Kraft et al.'s (2005) scale to examine attitude towards a certain behaviour was adapted to make items suitable for the use in the context of academic help seeking in higher education. The scale as used in this study had high internal consistency. The items of this scale were item-parcelled for structural equation modelling. The confirmatory factor analysis conducted as part of the structural equation modelling revealed that all three item parcels showed high factor loadings on the latent construct of attitude towards seeking academic support (Shi et al., 2019). This confirms the unidimensional structure of the construct and supports future use of this scale in the context of academic help seeking.

Kraft et al.'s (2005) scale to assess perceived behavioural control was also adapted to the context of academic help-seeking behaviour. This scale also achieved a high value for internal consistency in the context of this study. Furthermore, as described above, the items were item-parcelled for structural equation modelling. Again, all three item parcels were

loading high on the latent construct of perceived behavioural control (Shi et al., 2019). Based on this, this scale can be used in future research in the context of academic help seeking to examine students' perceived behavioural control.

Lastly, Kraft et al.'s (2005) scale to examine subjective norm was also modified for the use in this study. Again, high internal consistency was achieved. As for previously described scales, items were item-parcelled for structural equation modelling and all three item parcels showed high factor loadings (Shi et al., 2019). Therefore, in addition to the scales described above, Kraft et al.'s (2005) scale to examine subjective norm as used in this study, is suitable for future use in the context of academic help seeking.

Based on Ajzen's (2019) recommendations, students' help seeking intentions were measured with one item and can be used in future research about academic help seeking. Actual help-seeking behaviour was assessed using self-generated items. Items were created for different support services and a total score of the number of times students access academic support services on average per semester could be calculated. These items can be used in other academic help seeking contexts by replacing services relevant to JCU with services in other contexts.

Shin's (2003) intention to persist scale was used to assess students' intention to continue their studies at JCU and to examine the proposed relationship between academic help seeking and retention (Chen, 2017; Collins, 2012). The scale can easily be amended by replacing the institution name. The internal consistency and factor loadings were acceptable. However, contradicting previous findings, academic help seeking was not related to the students' intention to persist and the construct was removed from the structural model (see section Application of the Theory of Planned Behavior to Identify Variables Related to

Academic Help Seeking in Higher Education). Therefore, it is recommended to conduct longitudinal studies and use actual retention data instead of the students' intention to persist.

Overall, the psychometric criteria of the scales used in this study are satisfactory and the survey can be used to examine academic help seeking in other contexts with minor amendments. By conducting an online survey, the impact of the researcher was minimised, supporting the objectivity of the data collection (Scharrer & Ramasubramanian, 2021). The reliability, measured as internal consistency, was high for all scales except the BFI-10 (Rammstedt & John, 2007). With regard to the validity of the measure, face validity was achieved. The principal investigator, employed in the area of academic support in higher education, and her supervisor, an experienced researcher, reviewed the survey items and found them to be a good representation of the concepts examined (Scharrer & Ramasubramanian, 2021). Furthermore, construct validity was confirmed through the findings of the confirmatory factor analyses conducted as part of the structural equation modelling (McArdle, 1996). Other scales and items can be included or some of the scales used in the survey designed for this study can be removed depending on their relevance in future research projects. For example, the survey used in this study also included items about the students' background and their satisfaction with academic support services as these factors were of interest in this study. This survey could also be used as the basis to specifically develop and test the psychometric properties of an instrument for academic help seeking.

Chapter 9: Conclusions and Recommendations

This chapter, the final chapter of this thesis, consists of three sections. Revisiting all steps of this research project, the first section provides overall conclusions on various aspects of this study. The second section presents practical implication based on the findings of this research that concern improving academic support services to make them as engaging and accessible for diverse student cohorts as possible. The third section discusses the limitations of this study and provides recommendations for future research.

9.1 Overall Conclusions

In order to address accompanying challenges of widening participation in higher education and increasingly diverse student cohorts with different educational backgrounds and varying entry standards, the aim of this study was to identify variables related to academic help-seeking behaviour in higher education. Furthermore, this study intended to identify why students decide (not) to engage with academic support. Ultimately, it was anticipated that the findings of this study could lead to practical implications to improve the accessibility of academic support services for diverse student cohorts.

As engaging in academic support has been shown to be crucial for student success (Chen, 2017; Collins, 2012; Wirtz et al., 2018) this study makes an important contribution in supporting positive outcomes for students and helps to strengthen the university's reputation. Challenges that this study addresses are that often students do not seek support for academic purposes (Hoyne & McNaught, 2013) although it would be necessary for students to meet the academic requirements in their discipline (Banner, 2007).

The findings of this comprehensive study make important contributions to this research field. In a comprehensive systematic scoping review, Bornschlegl et al. (2020) found that not many studies have examined factors influencing academic help seeking and even less

have been conducted in the context of higher education. Furthermore, only one study was conducted in the context of Australian higher education. Many factors shown to play a role in other help seeking areas, such as the area of psychological help seeking, have not been addressed in previous academic help-seeking research. By drawing on knowledge from other help-seeking areas, this study attempted to address these gaps.

Additionally, Ajzen's (1991) Theory of Planned Behavior was used to guide this research. The theory describes how behavioural intentions are formed and subsequently lead to behaviour. This framework was used to identify factors that lead to academic help seeking. Many aspects of the theory were shown to be related to academic help seeking and offered the basis for valuable practical implication to improve academic support services. Furthermore, Prochaska and DiClemente's (1982) Transtheoretical Model of Change, as well as Deci and Ryan's (1985) Self-Determination Theory made valuable contributions to the explanation of this study's findings and provided guidance for improving academic support services.

The study's research design was mixed methods, including a correlational quantitative and a qualitative part. A mixed methods design was chosen to comprehensively examine academic help seeking in higher education. To the best of the researcher's knowledge, no other study to date has combined quantitative and qualitative approaches in the context of identifying crucial factors for academic help seeking. Furthermore, a great range of possibly crucial concepts has been included in the quantitative part, making this study more comprehensive than previous research.

As many different concepts including multiple-item measures were included in the analysis, structural equation modelling was chosen to analyse quantitative data to achieve high quality and credible findings (Bowen & Guo, 2012). Qualitative data was analysed using

Interpretative Phenomenological Analysis (IPA). This allowed the researcher to perform an in-depth analysis of students' personal experiences with academic support at James Cook University (JCU). The combination of both, testing the statistical significance of factors related to academic help-seeking behaviour, as well as the analysis of students' perceptions led to very comprehensive outcomes that allowed for the recommendation of practical implications for improving academic support services.

The sample achieved for the online survey varied greatly and represented JCU's diverse student cohorts well. It included mature age students, different nationalities and ethnicities, Aboriginal and Torres Strait Islander students, different socio-economic backgrounds, a great range of disciplines, all undergraduate year levels, and various study modes and locations. Furthermore, although the sample for the interview was small, it was selected purposefully, based on student characteristics, and represented many characteristics of JCU's student cohorts.

Four research questions were pursued in this study and can be answered as follows:

1. How are background variables, personality and variables related to the Theory of Planned Behavior related to academic help-seeking behaviour in higher education?

In summary, some background variables and some variables related to the Theory of Planned Behavior were found to be related to academic help seeking in higher education.

2. What are the effects of academic help seeking on student retention?

There were no effects of academic help seeking on student retention (operationalised as the students' intention to persist in their study).

3. Why do students (not) engage with academic support services?

Many reasons for students (not) engaging with academic support services were identified. These include usability, satisfaction, stigma, and available information.

4. How should academic support services be designed to make them more accessible and engaging for students?

When designing academic support services and accompanying activities (such as promotion of services) a range of aspects need to be taken into consideration.

In general, the results showed that out of 19 variables examined, nine variables affect academic help seeking at JCU. These include public stigma and self-stigma, extraversion, agreeableness and neuroticism, gender, attitude towards help seeking, subjective norm, and perceived behavioural control. However, the relationships found regarding gender and neuroticism were contradictory and were, therefore, not included in recommendations for practical applications of these findings. Concepts included in the analysis that do not seem to be related to academic help seeking at JCU are conscientiousness, age, marital status, nationality, first language, study mode, study load, discipline, and when the study was commenced. Furthermore, additional important factors identified in the qualitative data include information about available academic support services, modes of academic support services, usability of academic support services, and the students' satisfaction with academic support services.

Overall, this study provides comprehensive insights into factors related to academic help seeking at JCU, an Australian university in the tropics with multiple campuses and very diverse student cohorts. While taking the context of this research into account, the findings of this study can add valuable contributions to providing academic support services at other universities. The following section Practical Implications: Designing Engaging Academic

Support takes all crucial variables into consideration and provides practical implications for designing engaging and accessible academic support services.

9.2 Practical Implications: Designing Engaging Academic Support

This section discusses and showcases how academic support and accompanying promotion activities can be designed to maximise accessibility for diverse student cohorts. Based on the findings of this study, the following aspects should be considered in designing engaging academic support: Attitude towards help seeking, perceived behavioural control and subjective norm should be increased, while public stigma and self-stigma need to be reduced. Furthermore, the offerings need to be suitable for different personality types. Academic support is also more engaging for students if advice is prompt and understandable, offered in a range of modes, and designed to ensure high satisfaction among students. Finally, to ensure high uptake of academic support offerings, targeted promotion needs to be established and the gap between the students' intention to seek academic help and their actual help-seeking behaviour needs to be closed. In a meta-analysis, Xu et al. (2018) found positive short and long-term effects of interventions on mental health help-seeking attitudes and intentions, as well as actual help-seeking behaviour. In the following, possible interventions targeting the above-mentioned variables are presented and discussed in the context of academic help seeking in higher education.

9.2.1 Improving Attitude Towards Help Seeking, Perceived Behavioural Control and Subjective Norm

According to Ajzen (2019a), the author of the Theory of Planned Behavior, “interventions designed to change behavior can be directed at one or more of its determinants: attitudes, subjective norms, or perceptions of behavioral control” (p. 2). He further argued that interventions to improve these variables need to be designed based on experience and expertise of the person or group of people wanting to change the behaviour in

question. In general, interventions could include promotion and communication through various channels, discussions and showcasing (Ajzen, 2019a). Additionally, the means and relative weights of the variables in question should be considered when designing targeted interventions. In the context of this study, and in relation to academic help seeking at JCU, students scored highest on their attitude towards help seeking ($M = 5.76$, $SD = 1.01$), followed by perceived behavioural control ($M = 5.35$, $SD = 1.06$) and subjective norm ($M = 4.55$, $SD = 1.53$). Therefore, the biggest room for improvement lies in the variable subjective norm. However, the relative weights of the variables also need to be considered. Zero-order correlations revealed that attitude towards academic help seeking was positively related to help-seeking intentions and to actual help-seeking behaviour. Subjective norm was positively related to help-seeking intentions while perceived behavioural control was not related to any of the outcome variables. Structural equation modelling confirmed these findings. Therefore, interventions should focus on increasing students' attitude towards seeking academic help and subjective norm.

To increase attitude towards help seeking and subjective norm, educational programs have been suggested by Kim and Park (2009), and Pumpa and Martin (2015). As discussed in the chapter Theoretical Perspectives, the change processes of self-reevaluation and helping relationships described as part of Prochaska and DiClemente's (1982) Transtheoretical Model of Change, can be compared to attitude towards help seeking and subjective norm respectively (Ajzen, 1991; Prochaska & Velicer, 1997). These change processes can therefore be used to inform interventions to address attitude towards seeking academic help and subjective norm. In the context of academic help seeking, self-reevaluation means considering advantages and disadvantages of seeking support and not seeking support. Helping relationships in the context of academic help seeking are people in the students'

social environment, including university staff, other students, or friends and family, that support academic help-seeking behaviour.

Miller and Prentice (2016) described how changing norms can be an effective way to change behaviour. According to the authors, educational programs should include information about “what peers or relevant others think, feel, or do” (Miller & Prentice, 2016, p. 340), as this information is often not known by other people. This could help students change their understanding of how academic help seeking is supported by their social environment. This aligns with the helping relationships needed to change a behaviour. Based on this, educational programs should include information about what other students and university staff think about accessing academic support services. To reinforce this message, this information can be presented by the students’ peers, in the form of testimonials with names and pictures, or in the form of face-to-face presentations, and synchronous and asynchronous online and digital means. In the context of academic help seeking, Thomas and Tagler (2019) suggested educational campaigns with key contributors, such as lecturers and other students.

Furthermore, to increase attitude towards behaviour, the concept of role induction, successfully used to improve men’s attitude towards career counselling (Kantamneni et al., 2011), could be applied to the context of academic help seeking. The process of role induction means informing clients about what they can expect during therapy (Connors et al., 2002). In the context of academic help seeking, students should be informed about their role, the role of the academic support person, and possible outcomes. This information should also be integrated in educational programs to promote academic support services.

Correspondingly, in order to improve students’ attitude towards academic help seeking, Brown et al. (2020) recommended demonstrating the advantages of using academic support through the use of role models.

9.2.2 Reducing Stigma

Both, public stigma, and self-stigma negatively affected academic help-seeking. In addition, both factors were highly positively related. Therefore, addressing one type of stigma should decrease the other type (Cheang & Davis, 2014). In a meta-analysis, Xu et al. (2018) found that interventions aimed to destigmatise had positive effects on help seeking for mental health problems. Interventions designed for people at risk of mental illness or people with mental illnesses were more effective than targeting their social environment. Psycho-educational interventions with varying duration were used to inform people about the illness and the treatment (Xu et al., 2018). When applied to the context of promoting academic support services in higher education, students should receive information about areas they can receive academic support for and how academic support is provided. This is comparable to the above-mentioned strategy of role induction and can therefore be integrated with a promotion strategy aimed at improving attitude towards seeking academic help.

Heijnders and Van Der Meij (2006) found that interventions to reduce stigma for various illnesses were most effective on the personal and community level compared to interventions on the institutional and governmental level. The authors also argued that education is a very common strategy to reduce stigma. In the context of academic help seeking in higher education and in addition to the above-mentioned interventions aimed at university students, educational strategies to reduce stigma for academic help seeking can be implemented at the community level. This could include educational programs for high school students either organised by high schools or during school outreach activities, such as Open Day organised by the university.

In the context of academic help seeking, McNaught and Beal (2012) argued that measures on the institutional level are effective to reduce stigma. These include using public and open spaces to provide academic support, so academic support is made visible to

students, which normalises academic help seeking. Hammond et al. (2015) successfully provided academic support in an open space in a peer environment to normalise academic help seeking. Furthermore, McNaught and Beal (2012) found that names of academic support services with remedial characteristics can be stigmatising and suggested to use positive and motivating wording. For example, the workshop name ‘Overcoming Academic Writing Struggles’ uses deficit language, implies students are struggling with academic writing, and only targets students who perceive they have a deficit in this area. Instead, the workshop name ‘Effective Academic Writing’ is more positive and speaks to all students who want to learn about writing in the academic context.

9.2.3 Academic Support for Various Personality Types

The findings of this study showed that the personality dimensions of extraversion and agreeableness were indirectly positively related to academic help-seeking behaviour. This means that students with higher scores on extraversion and agreeableness seek more academic support than students with lower scores on these personality dimensions. This raises the question of how academic support services and accompanying activities can be designed to encourage less agreeable and less extroverted students to access academic support. Students scoring lower on extraversion are rather reserved, loners, quiet, passive, sober, and unfeeling. Less agreeable students are somewhat ruthless, suspicious, stingy, antagonistic, critical, and irritable (Costa & McCrae, 1986).

Previous research found that personality is related to students’ learning preferences. For example, Afzaal et al. (2019) found that rather agreeable higher education students prefer the kinaesthetic learning style, “a hands-on practical approach and as such learn[ing] by doing” (p. 145). Consistently, Ibrahimoglu et al. (2013) discovered that students scoring high on extraversion and agreeableness also prefer a hands-on approach and like to learn by doing, therefore adopting diverging and accommodating learning styles. Kamarulzaman (2012)

confirmed that extroverts prefer the accommodating learning style. In addition, Kamal and Radhakrishnan (2019) found that extroverts are rather active learners and introverts are rather reflective learners. These findings support the need to offer academic support in various ways to accommodate students' learning preferences and to make academic support more engaging for diverse students.

Based on the above-reported findings, universities should ensure that academic support offerings allow equally good experiences for students who are active, hands-on learners and students who are rather passive and reflective learners. As an example, academic support for medical calculations in Nursing could be offered in a synchronous face-to-face or online environment for groups to give active and hands-on learners the opportunity to interact with peers and ask questions while practicing medical calculations. On the other hand, asynchronous support in the form of online videos or written learning resources may appeal to rather passive and reflective learners. Furthermore, as students scoring lower on agreeableness are less trusting (Costa & McCrae, 1986), students should be given the opportunity to access confidential or anonymous academic support. In addition, students should be ensured that academic support staff will not communicate with anyone, including other university staff, such as lecturers and tutors, about the support provided unless permission is granted by the student. In addition to providing suitable academic support for different personality and learner types, other characteristics of the service are also important.

9.2.4 Characteristics of Engaging Academic Support

This study revealed that to make academic support more engaging, it needs to be prompt, understandable, offered in a range of modes and designed to develop high satisfaction among students. Consistent with providing academic support for various personality types, students have reported preferences for different modes of academic support. Therefore, academic support staff should consider various modes, such as

synchronous, asynchronous, online, and face-to-face, when planning how the support will be delivered. For example, statistics support could be provided in the form of face-to-face workshops, online workshops, recorded learning videos, one-on-one consultations, one-on-one chats, emails, or written learning materials. With regard to asynchronous support, academic support staff should ensure timely feedback and responses to meet students' needs.

Furthermore, high satisfaction with academic support leads to increased usage. Dave et al. (2011), Li, Yang et al. (2017), Ryan and Deci (2000), and Stringer et al. (2011) showed that satisfaction can be achieved through intrinsic motivation. According to the Self-Determination Theory, intrinsic motivation can be achieved through satisfying the basic psychological needs of autonomy, competence, and relatedness (Ryan & Deci, 2020). Alamri et al. (2020) found that using personalised learning principles supports students' perception of autonomy and competence, and therefore the development of intrinsic motivation. These personalised learning principles include, personalised instructional goals, personalised instruction, learner needs and interests, learner choices, learning control and independence, and personalised assessment and evaluation (Alamri et al., 2020).

In the context of academic help seeking, these personalised learning principles can be applied in various ways to develop intrinsic motivation among students. For example, the principle of personalised instructional goals can be applied in online or face-to-face workshops and consultations by asking learners to set their individual learning goals at the beginning of the session. Alamri et al. (2020) suggested that the use of adaptive learning technology supports the principle of personalised instruction. In an academic writing workshop where students from all disciplines and all year levels can attend, personalised instruction could also be implemented by using examples from different areas and by offering differentiated support depending on students' needs. Similarly, a first-year student will need

different academic writing support in a one-on-one consultation compared to a third-year or postgraduate student.

Furthermore, Alamri et al. (2020) found that providing students with meaningful learning choices supports the development of intrinsic motivation. In the context of an academic support workshop, the presenter/facilitator could let students form their own groups for groupwork-based activities. This gives students the choice about the peers they want to work with. Additionally, for example, in a statistics or mathematics workshop, the presenter/facilitator can provide students with various activities featuring different problems to choose from. Students can then choose the problem task they perceive they need to work on most. Similarly, to let students take control of their own learning, in one-on-one and group consultations the advisor could let students decide what aspect of a given area they would like to focus on. For example, if a student seeks academic writing advice from an academic support staff member, the staff member could ask the student what aspect of academic writing they would like to focus on during the consultations. The student can then take control over whether to discuss overall structure, paragraph structure, sentence structure, integrating evidence, grammar, and punctuation, and so forth.

Overall, there is a range of characteristics that can make academic support more engaging and accessible for students. In addition to the design of the services, the promotion of those is equally important to ensure students can access the services they require.

9.2.5 Timely and Targeted Promotion

This study revealed that students often feel they are flooded with information about available support services. But, at the same time, students also often do not know about certain academic support services or do not have sufficient information to make an informed decision about which service to access and how to access services. Therefore, this issue

cannot be addressed by simply providing more or less information about available academic support services to students. Instead, timely and targeted promotion could help make academic support more accessible for students. Timely and targeted promotion means informing students about available academic support that is relevant for an upcoming subject topic or assessment. For example, Business students have to complete a statistical report about a case study as part of the requirements of a second-year subject. The lecturer(s) of this subject could then inform students about available academic writing and statistics support services two to four weeks before the due date of the assignment.

As discussed in the section Addressing Current Challenges: Offering Academic Support Online, in collaboration with academic support staff, academic staff should develop a promotion schedule for each course, year level, or subject to ensure students receive relevant information about available services at the right time. The promotion material can be provided by academic support staff or can be newly developed by academic support staff in collaboration with academic staff to make it most suitable for different cohorts. Table 9.1 shows an example promotion schedule for a fictional second year Business subject run in a 13-week study period that could be used as a guide for other subjects. This promotion schedule may be additional work for both, academic staff, and academic support staff, but once established it can be an effective tool and way to engage students in academic support services.

Another option is to integrate the promotion of academic support services into students' subject outlines. Subject outlines at JCU contain detailed task descriptions for all assessments in a subject. Services relevant to the respective assessment could be added to the task description. This would ensure students are informed about appropriate support at the right time. Below is an example of how students can be guided to different resources and services for an essay at JCU:

Academic support for the essay (assessment task 2):

1. Self-access resources: [Planning your essay](#); [academic writing webinar](#)
2. Questions about planning your essay or feedback on your draft: [Visit the Peer Advice Desk or send a message](#) or [chat to Studiosity/submit your draft to Studiosity](#)
3. Need more support? [Book an appointment with a Learning Advisor](#)

Table 9.1*Example Promotion Schedule for Academic Support Services for a Second-Year Business Subject*

Time of promotion	Services to be promoted	Promotion materials	Promotion channels	Related subject topic, assessment, or event	Due date
Week 2	Statistics support - Learning Advisors - Peer Advice Desk - Studiosity	- PowerPoint slide with information and contact details - Short videos introducing services	- During lecture through lecturer - During tutorial through tutor - Email sent to all students via Learning Management System (LMS) by subject coordinator or academic support staff	Descriptive statistics take home assignment	End of week 3
Week 4	Enrolment/subject advice - Student Support Officer - Student Centre	- PowerPoint slide with information and contact details - Short videos introducing services	- During lecture through lecturer - During tutorial through tutor - Email sent to all students via LMS by subject coordinator or academic support staff	Census date*	Week 5
Week 5	Content-related support drop-in session - Subject coordinator - Lecturer - Tutor	- PowerPoint slide with information and contact details	- During lecture through lecturer - During tutorial through tutor - Email sent to all students via LMS by subject coordinator or academic support staff	Mid-semester exam	Week 7
Week 8	Statistics and academic writing support - Learning Advisors - Peer Advice Desk - Studiosity	- PowerPoint slide with information and contact details - Short videos introducing services	- During lecture through lecturer - During tutorial through tutor - Email sent to all students via LMS by subject coordinator or academic support staff	Statistical case study report	End of week 11
Week 12	Statistics and content-related support - Learning Advisors - Peer Advice Desk - Studiosity - Lecturer/tutor	- PowerPoint slide with information and contact details - Short videos introducing services	- During lecture through lecturer - During tutorial through tutor - Email sent to all students via LMS by subject coordinator or academic support staff	Exam	Exam period after week 13

Note: *Census date “is the date in which your enrolment for that Study Period/Trimester is considered to be finalised. Census Date is the deadline for students to pay or defer their subject fees and the last date that students can withdraw from subjects for that Study Period/Trimester without incurring a financial penalty” (James Cook University, 2021h)

9.2.6 Closing the Gap Between Help-Seeking Intentions and Behaviour

Based on the findings of this study, JCU students' intentions to seek academic support do not seem to translate into actual academic help-seeking behaviour. As discussed in previous chapters, various characteristics of intentions can be the cause for an intention-behaviour gap, but there are also ways to overcome these gaps (Sheeran & Webb, 2016). According to Sheeran and Webb (2016), to avoid intention-behaviour gaps, intentions should be promotional (Higgins, 1997, as cited in Sheeran & Webb, 2016), autonomous (Ryan & Deci, 2000, as cited in Sheeran & Webb, 2016), aimed at learning (Elliot & Church, 1997, as cited in Sheeran & Webb, 2016), and specific (Locke & Latham, 2013, as cited in Sheeran & Webb, 2016). Furthermore, the behaviour should be easy to perform (Sheeran et al., 2003).

In the context of academic help seeking, ways to overcome the intention-behaviour gap with regard to academic help seeking can include creating specific intentions to seek academic support for a specific purpose. In line with the timely and targeted promotion schedule exemplified in Table 9.1, promoting academic support services for specific topics, assessments, or events in a subject can create specific academic help-seeking intentions. Furthermore, Sheeran and Webb (2016) suggested if-then plans to identify opportunities and possible challenges in completing the desired behaviour. In this context, if-then plans could be integrated in the promotion of academic support services. For example:

- If you would like to receive feedback on the structure of your statistical report, paragraphs, and sentences, then contact a Learning Advisor, drop into the Peer Advice Desk, or submit your draft to Studiosity.
- If you would like to discuss the option of withdrawing from one subject before Census date, then make an appointment with the Student Support Officer or the Student Centre.

- If you would like to go over your data analysis for the descriptive statistics take home assignment before you submit, then contact a Learning Advisor or chat to a Studiosity tutor.
- If you do not know how to contact the academic support service you would like to access, then ask your lecturer or tutor.

Sheeran and Webb (2016) also found that forgetting about the intention can lead to not performing the desired behaviour. This can also be counteracted by promoting academic support services throughout the semester. Furthermore, tracking the progress of the intentions can support the translation into the behaviour in question (Harkin et al., 2016). In the context of academic help seeking, students can be encouraged to include accessing academic support services in their semester plan thus ensuring they are reminded to contact relevant services in time. In addition, academic support services should be flexible and offered in various modes to make accessing them and performing the behaviour of academic help seeking as easy as possible for students (Sheeran et al., 2003).

9.2.7 Summary

Overall, there are various aspects to making academic support services more engaging and more accessible for students. In the context of academic help seeking at JCU, these include interventions to increase students' attitude towards seeking academic help and subjective norm, as well as interventions to reduce stigma related to academic help seeking. Furthermore, academic support at JCU should be confidential, offered in various modes, prompt and understandable, and designed to develop intrinsic motivation among students to ensure high satisfaction with academic support services. Implementing timely and targeted promotion in each subject or year level should counteract the reported issue of students being flooded with information but also the lack of knowledge about certain services. Finally,

activities supporting closing the gap between intentions and behaviour should lead to a better translation of students' intention to seek academic support into actually accessing academic support.

In line with the practical implications suggested in this section, Sacha Nouwens, Executive Director, Student Experience and Insights, suggested the use of learning analytics “to uplift the student experience by informing [...] the delivery of more personalised, timely and impactful support” (OES, 2021). Future research should consider examining the use of learning analytics to consider personal preferences and support tailored to students' needs to make academic support more engaging for students. Furthermore, the measures to make academic support in higher education more engaging and accessible discussed in this section are based on theories and previous research. However, only limited research in this area has been conducted in the context of higher education. Therefore, future research, which will be further discussed in the section Study Limitations and Recommendations for Future Research should test the effectiveness of the interventions discussed in this section to ensure academic support in higher education can be improved.

9.3 Study Limitations and Recommendations for Future Research

Although this theoretically well-underpinned study used a very comprehensive methodological approach and diverse samples, there are some study limitations to consider that may guide future research projects. These limitations concern the online survey sample as well as the interview sample, the use of the BFI-10 (Rammstedt & John, 2007), the study design, and the time of data collection.

Online survey data was collected across both semesters in 2020, in March, April and May 2020, as well as in August, September and October 2020. This rather long timeframe was chosen to achieve a large and representative sample. Although the online survey sample

was large and representative of JCU's student cohorts, there are some limitations and recommendations for future research. JCU has very diverse student cohorts including relatively high numbers of mature age students (46.4%), Aboriginal and Torres Strait Islander students (5.2% compared to 1.8% in Australia), and students from low socio-economic backgrounds (20.3%) (Australian Government, 2020; N. Emtage, personal communication, March 17, 2021). Therefore, due to this university's population characteristics, the online survey sample may not be representative for other universities in Australia and worldwide. A recommendation for future research is to include even larger samples from a random selection of multiple (Australian) universities. If possible, future research should also consider probability sampling strategies, such as stratified sampling when multiple universities are included, to ensure random subsamples from each university are equally represented in the sample. This would make findings more generalisable and would further allow researchers to analyse data separately for different groups. For example, factors related to academic help seeking can be examined separately for international students, mature age students, and students from low socio-economic backgrounds. Hence, diverse student cohorts could be better supported and students particularly less willing to engage in academic support could be targeted.

The interview sample was purposefully selected to represent JCU students. However, due to a limited response rate, some groups were underrepresented. Only one male student participated in the interview. No international students were interviewed and, furthermore, mostly Australian students participated in the interview. This needs to be taken into consideration when applying the findings from the interview data to other contexts. Future research could interview diverse student cohorts from a range of universities, including universities outside Australia, to build on the findings of this study and to include students' perceptions from backgrounds not represented at JCU.

Although the study design was very comprehensive, including quantitative methods examining a great range of possibly crucial factors, and qualitative methods, the cross-sectional nature of this study may have been limiting for some aspects. Firstly, inconsistent with previous findings, the students' academic help-seeking behaviour was not related to retention (Chen, 2017; Collins, 2012). However, due to the study being cross-sectional, actual retention and completion rates could not be examined. Instead, retention was operationalised as the students' intention to persist in their study. Future research should employ longitudinal research designs to include actual retention and completion rates in their data analysis to ensure the academic support of interest is effective for student success.

Secondly, while the intention-behaviour gap found in this study can have multiple reasons as outlined in the section The Intention-Behaviour Gap, it may be due to a conceptual issue of this study. In this study, students' current intentions to seek academic support were correlated with past academic help-seeking behaviour rather than students' help-seeking behaviour in the future. Sheeran (2002) conducted a meta-analysis and found a correlation of $r = .53$ between current intentions and behaviour measured at a later point in time. A longitudinal study design would enable the researcher to collect actual help-seeking data later after data regarding the students' intention to seek academic help has been collected. If the intention-behaviour gap persists, future research should attempt to identify why students' intention to seek academic support do not translate into behaviour. This can then inform interventions to decrease the intention-behaviour gap to ensure students receive the support they need.

With regard to data collection, there are two minor issues to consider: the BFI-10 (Rammstedt & John, 2007) used in the online survey to collect data about the students' personality, and the time during which data was collected. Because of rather low reliability values achieved for the subscales of the BFI-10, it is recommended that future research uses

the longer version of the scale, the BFI-44 (John & Srivastava, 1999), if survey time limits permit it. Alternatively, the NEO-FFI (Costa & McCrae, 1992) has shown good values of reliability in the context of academic help seeking in higher education (Ghyasi et al., 2013). Furthermore, when using the findings of this study, it needs to be considered that data was collected during the Coronavirus pandemic. Restrictions imposed during the pandemic greatly affected universities and how academic support could be provided. This may have affected students' perceptions of face-to-face and online academic support services. For future research, it could be of great interest to examine whether students' perceptions of academic support and their help seeking behaviour have changed since the pandemic, for example because online academic support has been improved and students are more familiar with studying online.

Although there are some limitations to this study, overall, it offers very thorough insight into academic help seeking in higher education, related variables, and students' perceptions. It therefore provides the basis for many different practical implications to improve academic support and to make it more engaging and accessible for diverse student cohorts. Ultimately the universities' aim needs to be to provide the best possible experience for students and to ensure student success at university and beyond.

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Appendix A

This administrative form
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Appendix B

Information Sheet

The impact of personality and demographic background factors on academic help seeking in tertiary education and its long-term effects on student success and retention.

You are invited to take part in a research project about the impact of personality and demographic background factors on academic help-seeking behaviour. The aim of this study is to identify student related factors that influence academic help-seeking behaviour. This would enable support and academic staff to provide appropriate academic support for JCU's diverse student cohorts. The study is being conducted by Madeleine Bornschlegl and will contribute to a PhD project in Educational Psychology at James Cook University.

If you agree to be involved in the study, you will be invited to complete this survey and to give your permission for us to use your responses to this questionnaire for the purpose of the research project described above. You will be asked questions about your demographic background, personality, attitudes towards academic help seeking and your actual engagement with academic support services. In total, the survey will take approximately 10-15 minutes to complete.

In addition, with your permission, we would like to access your academic achievement (GPA) and retention data. Linking your survey responses to this information will be useful, as it will help us to better understand the impact of academic help seeking on success at university. Knowing this may help to more effectively provide academic support services for JCU students. If we have your permission, we can get this information from the internal JCU database 'eAcademic' 6, 12, 18 and 24 months after completion of the survey. We will recontact you (via email) to get your permission 6, 12, 18 and 24 months after completion of the survey and you can say no whenever you wish without explanation or prejudice.

Furthermore, we invite you to provide your email address, so we can contact you about potentially participating in a follow-up interview.

Taking part in this study is completely voluntary and you can stop taking part in the study at any time without explanation or prejudice.

There are no risks associated with participating in this study. If you experience any distress during or after the online survey, you can access JCU's counselling service. This service is free for all JCU students. You can contact them via email (studentwellbeing@jcu.edu.au) or phone (Cairns: (07) 423 21150 or Townsville: (07) 478 14711).

Your responses and contact details will be strictly confidential. The data from the study will be used in research publications and reports (journal articles, thesis, and conference presentations). You will not be identified in any way in these publications.

If you have any questions about the study, please contact Madeleine Bornschlegl and/or Nerina Caltabiano.

Principal Investigator:

Name: Madeleine Borschlegl

College: College of Healthcare Sciences

James Cook University

Phone:

Email: madeleine.borschlegl@my.jcu.edu.au

Supervisor:

Name: Nerina Caltabiano

College: College of Healthcare Sciences

James Cook University

Phone:

Email: nerina.caltabiano@jcu.edu.au

If you have any concerns regarding the ethical conduct of the study, please contact:

Human Ethics, Research Office

James Cook University, Townsville, Qld, 4811

Phone: (07) 4781 5011 (ethics@jcu.edu.au)

Informed Consent**INFORMED CONSENT**

PRINCIPAL INVESTIGATOR: Madeleine Borschlegl

PROJECT TITLE: The impact of personality and demographic background factors on academic help seeking in tertiary education and its long-term effects on student success and retention.

COLLEGE: College of Healthcare Sciences

I understand the aim of this research study is to identify student related factors that influence academic help-seeking behaviour. I consent to participate in this project, the details of which have been explained to me, and I have been provided with a written information sheet to keep.

I understand that my participation will involve the completion of a questionnaire and that if I choose to provide my consent, my questionnaire results will be matched to achievement (GPA) and retention data. I agree that the researcher may use the results as described in the information sheet.

I acknowledge that:

- taking part in this study is voluntary and I am aware that I can stop taking part in it at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;
- that any information I give will be kept strictly confidential and that no names will be used to identify me with this study without my approval.

I consent to complete this questionnaire (Please select to indicate consent)

- Yes
- No

Demographic Background

Student ID

JC Number

Email address

Age

Gender

- Male
- Female
- Other
- Prefer not to say

Marital status

- Married
- In a relationship
- Divorced
- Separated

- Single
- Widowed

Nationality

First language

Ethnicity (select all that apply)

- Caucasian
- Aboriginal
- Torres Strait Islander
- Asian
- African
- Other

Study mode

- Cairns internal
- Townsville internal
- External
- Other

Study load

- Full time
- Part time

What are you studying? (e.g. Bachelor of Business)

Are you an international student?

- Yes
- No

How often do you wish you were still in your home country?

not often at all very often

When did you commence your studies at JCU? (e.g. SP 1 2017)

Current GPA (type NA if not applicable)

Degree currently enrolled in

- Tertiary Access Course
- Diploma of Higher Education
- Bachelor
- Graduate Certificate
- Graduate Diploma
- Master
- PhD/Doctor

Household income: What is the combined yearly income of the household you currently live in?

- Less than \$20,000
- \$20,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- Over \$100,000
- Not sure
- Prefer not to say

Time resided in Australia (in years)

Personality

How well do the following statements describe your personality?

I see myself as someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
is reserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is generally trusting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tends to be lazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is relaxed, handles stress well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has few artistic interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is outgoing, sociable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
tends to find fault with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
does a thorough job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
gets nervous easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
has an active imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is considerate and kind to almost everyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Attitudes towards help seeking

Please rate the following statements:

Note: Seeking academic advice means getting support for academic purposes, such as subject content related advice, development of academic skills (e.g. academic writing, maths, statistics, reading strategies, English language development, study strategies, time management) and subject choices.

Seeking academic advice for me would be...

unwise	<input type="radio"/>	wise						
harmful	<input type="radio"/>	beneficial						
useless	<input type="radio"/>	useful						
wrong	<input type="radio"/>	right						
bad	<input type="radio"/>	good						
stressful	<input type="radio"/>	relaxing						

unpleasant pleasant
boring interesting

Perceived behavioural control

For me to seek academic advice would be difficult.

disagree completely agree completely

If I wanted to, I would not have problems in succeeding to seek academic advice.

disagree completely agree completely

I have full control over seeking academic advice.

disagree completely agree completely

It is completely up to me whether or not I seek academic advice.

disagree completely agree completely

How easy or difficult would it be for you to seek academic advice?

very difficult very easy

How much control do you feel over seeking academic advice?

no control at all complete control

How confident are you that you could seek academic advice?

completely unconfident completely confident

It is first and foremost up to myself whether or not I seek academic advice.

disagree completely agree completely

If you actually tried, how likely is it that you would succeed to seek academic advice?

very unlikely very likely

Subjective norm

I feel under social pressure to seek academic advice.

disagree completely agree completely

Most people who are important to me would wish that I seek academic advice.

very unlikely ○ ○ ○ ○ ○ ○ ○ very likely

Most people who are important to me think that I should seek academic advice

absolutely not ○ ○ ○ ○ ○ ○ ○ absolutely

Most people who are important to me would very much that I seek academic advice.

dislike ○ ○ ○ ○ ○ ○ ○ like

Social stigma

Imagine you wanted to seek academic advice. If you sought academic advice, to what degree do you believe that the people you interact with would _____

See you as weak

not at all ○ ○ ○ ○ ○ a great deal

Like you less

not at all ○ ○ ○ ○ ○ a great deal

Say something negative about you to others

not at all ○ ○ ○ ○ ○ a great deal

Be ashamed of you

not at all ○ ○ ○ ○ ○ a great deal

Treat you like a child

not at all ○ ○ ○ ○ ○ a great deal

See you as less attractive

not at all ○ ○ ○ ○ ○ a great deal

Think it was your fault

not at all ○ ○ ○ ○ ○ a great deal

Deny you access to a job

not at all a great deal

Be angry with you

not at all a great deal

Treat you differently

not at all a great deal

Believe that you could not handle things on your own

not at all a great deal

Self-stigma

Please rate your agreement with the following statements. (1 = Strongly disagree; 3 = Agree and disagree equally; 5 = Strongly agree)

	Strongly disagree		Agree and disagree equally	Strongly agree	
	1	2	3	4	5
I would feel inadequate if I went to seek academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My self-confidence would NOT be threatened if I sought academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seeking academic advice would make me feel less intelligent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My self-esteem would increase if I sought academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My view of myself would not change just because I made the choice to seek academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would make me feel inferior to seek academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would feel okay about myself if I made the choice to seek academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I went to seek academic advice, I would be less satisfied with myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My self-confidence would remain the same if I sought academic advice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree		Agree and disagree equally	Strongly agree	
	1	2	3	4	5
I would feel worse about myself if I could not solve my own problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Help-seeking intentions

I intend to seek academic support in the future

unlikely likely

If you were having issues with or wanted to improve the content of your studies, how likely is it that you would seek help from the following people/academic support services?

College Student Support Officer

extremely unlikely extremely likely

Learning Advisor (academic skills support)

extremely unlikely extremely likely

Peer Advice Desk (academic skills support)

extremely unlikely extremely likely

Studiosity (online after-hours study help)

extremely unlikely extremely likely

Outside of class consultation with lecturer

extremely unlikely extremely likely

Outside of class consultation with tutor

extremely unlikely extremely likely

No one

extremely unlikely extremely likely

Other students

Friends or family

extremely unlikely extremely likely

Online resources

extremely unlikely extremely likely

Student Centre

extremely unlikely extremely likely

If you were having issues with or wanted to improve academic skills needed for your studies (e.g. academic writing, maths, statistics, reading, time management), how likely is it that you would seek help from the following people/academic support services?

College Student Support Officer

extremely unlikely extremely likely

Learning Advisor (academic skills support)

extremely unlikely extremely likely

Peer Advice Desk (academic skills support)

extremely unlikely extremely likely

Studiosity (online after-hours study help)

extremely unlikely extremely likely

Outside of class consultation with lecturer

extremely unlikely extremely likely

Outside of class consultation with tutor

extremely unlikely extremely likely

No one

extremely unlikely extremely likely

Other students

extremely unlikely extremely likely

Friends or family

extremely unlikely extremely likely

Online resources

extremely unlikely extremely likely

Student Centre

extremely unlikely extremely likely

If you had questions regarding your subject choices, how likely is it that you would seek help from the following people/academic support services?

College Student Support Officer

extremely unlikely extremely likely

Learning Advisor (academic skills support)

extremely unlikely extremely likely

Peer Advice Desk (academic skills support)

extremely unlikely extremely likely

Studiosity (online after-hours study help)

extremely unlikely extremely likely

Outside of class consultation with lecturer

extremely unlikely extremely likely

Outside of class consultation with tutor

extremely unlikely extremely likely

No one

extremely unlikely extremely likely

Other students

extremely unlikely extremely likely

Friends or family

extremely unlikely extremely likely

Online resources

extremely unlikely extremely likely

Student Centre

extremely unlikely extremely likely

Actual help-seeking behaviour

Please estimate how many times you have accessed the following support services each semester and state the main reasons for accessing them. If you have not accessed the service, please tick 0 and go to the next service. If you have accessed a service, please also rate your satisfaction with the service and how helpful the service was.

College Student Support Officer

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

strongly disagree strongly agree

The service was helpful

strongly disagree strongly agree

Learning Advisor

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

- strongly disagree strongly agree

The service was helpful

- strongly disagree strongly agree

Peer Advice Desk

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

- strongly disagree strongly agree

The service was helpful

strongly disagree strongly agree

Studiosity

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

strongly disagree strongly agree

The service was helpful

strongly disagree strongly agree

Outside of class consultation with lecturer

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

strongly disagree strongly agree

The service was helpful

strongly disagree strongly agree

Outside of class consultation with tutor

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

strongly disagree strongly agree

The service was helpful

strongly disagree strongly agree

Student Centre

- 0
- 1
- 2
- 3
- 4
- other
- I don't know this service

Reason(s)

I was satisfied with the service

strongly disagree strongly agree

The service was helpful

strongly disagree strongly agree

Please list any other support services you have accessed during your time at JCU and estimate how many times you access this service each semester:

Intention to persist

Please rate your agreement with the following statements.

	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
Graduating from JCU is important to me	<input type="radio"/>				
I am confident that I can overcome obstacles encountered in the course of studying at JCU	<input type="radio"/>				
I will finish my studies at JCU no matter how difficult it may be	<input type="radio"/>				
I will certainly enrol for the next semester	<input type="radio"/>				
I am not likely to continue my studies at JCU	<input type="radio"/>				
I would like to quit my studies at JCU	<input type="radio"/>				

Appendix C

Figure C.1

Alternative Model With Standardised Regression Weights and Squared Multiple Correlations. ($\chi^2/df = 1.66, p < .001$; RMSEA = 0.06, LO 90 = 0.04, HI 90 = 0.07; CFI = 0.96; TLI = 0.96; GFI = 0.89; AGFI = 0.86)

