# Psychological distress among students in enabling education: An exploratory study

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Studying at university can be a transformative experience; however, it can also be a stressful experience for many students. Research has shown that university students experience rates of psychological distress at higher rates than the general population. However, studies investigating the mental health of students enrolled in enabling programs are largely lacking. This study investigated the prevalence and severity of psychological distress among students enrolled in an enabling program at a regional university in Australia. The data provides evidence of high levels of psychological distress in enabling students, with the majority of students (95%) experiencing above normal levels of psychological distress. Significant inverse relationships were found between age and depression, and age and anxiety. No significant relationship was found between age and stress, gender, and psychological distress, nor between study mode and psychological distress. These findings suggest that enabling students are a high-risk population for mental health problems. The results highlight the need for further research on the psychological wellbeing of enabling students, to improve students' mental wellbeing and

prevent the development of mental illness. High psychological distress is associated with reduced academic performance, but it can also lead to a lower quality of life and increased morbidity and mortality.

*Keywords:* mental health, psychological distress, enabling education, university students, academic success, wellbeing

#### Introduction

The university study experience can be a transformative one, providing students with access to skills and knowledge that can change their lives and give them access to a wide range of employment options. Many students enter university via an enabling program (James & Walters, 2020). University enabling programs are pre-award programs that enable students to gain admission to undergraduate programs while preparing students for the rigours of higher education (Roche & Syme, 2018). Enabling programs in Australia are similar to access programs in the United Kingdom, developmental education in the United States, and bridging or foundation programs in other countries such as New Zealand (Roche & Syme, 2018). Enabling programs have become an increasingly popular pathway to higher education in Australia. In 2014, 11,588 equivalent full-time students were enrolled in enabling programs across 19 Australian enabling programs (Pitman et al., 2016).

Enabling programs help students to transition to university, but students enrolled in enabling programs may be particularly vulnerable to experience psychological distress (James & Walters, 2020). Students enrolled in enabling programs are typically highly diverse and from multiple equity groups (Lomax-Smith, Watson, & Webster, 2011). For example, students are typically from diverse socioeconomic backgrounds, may have financial constraints, may be juggling multiple responsibilities as single parents or carers of elderly parents, may lack family support, and may have physical health issues (Taylor, van Eyk, & Syme, 2018) and mental health difficulties (Crawford et al., 2016). Research found that financial problems increase the risk of psychological distress in younger university students (Cvetkovski, Reavley, & Jorm, 2012). This has important implications for socioeconomically disadvantaged students (Cvetkovski et al., 2012) that

are often enrolled in enabling programs. However, research is lacking investigating the psychological wellbeing of students enrolled in enabling programs. This current research investigates psychological distress among students enrolled in an enabling program at a regional university in Australia. The program is 12 weeks in duration and consists of four subjects. The program is offered three sessions a year and can be studied online or on campus. The three compulsory subjects equip students with communication, study, and numeracy skills. The fourth subject is an elective, and students can choose between an arts-based or science-based subject. Successful completion of the program provides a distinct pathway into tertiary study at this university.

While the attainment of a tertiary education can enrich students' lives by improving their career prospects and increasing their self-esteem (McCall, Western, & Petrakis, 2020), studying at university can be a stressful experience for many students (Geng & Midford, 2015; Larcombe et al., 2016; Pitt, Oprescu, Tapia, & Gray, 2018; Sharp & Theiler, 2018). Research indicates that university students experience rates of psychological distress (Leahy et al., 2010; Sharp & Theiler, 2018; Stallman, 2010; van Agteren, Woodyatt, Iasiello, Rayner, & Kyrios, 2019) and depression (Goldney, Eckert, Hawthorne, & Taylor, 2010; Ibrahim, Kelly, Adams, & Glazebrook, 2013) at comparable rates or higher than individuals in the general community. Mental disorders are associated with lower quality of life and increased morbidity and mortality (Rehm & Shield, 2019). In 2010, 83.9% of the students in a sample from two large Australian universities experienced elevated levels of distress (Stallman, 2010), while 48% of another sample of university students were distressed (Leahy et al., 2010). In 2015, it was reported that 52.9% of a sample of university students experienced some level of stress (Papier, Ahmed, Lee, & Wiseman, 2015), while another study found that about one in four university students experienced severe or extremely severe psychological distress (Larcombe et al., 2016). A 2019 study found that 65% of the university students in their sample were psychologically distressed (van Agteren et al., 2019). Furthermore, Australian studies found the prevalence of depression among university students was 8% (Farrer, Gulliver, Bennet, Fassnacht, & Griffiths, 2016; Said, Kypri, & Bowman, 2012), while between 12.6% (Said et al., 2012) and 17.5% of the students had symptoms of anxiety (Farrer et al., 2016).

Elevated levels of psychological distress are spread across the university study body, regardless of the year of study or disciplines (Leahy et al., 2010; Sharp & Theiler, 2018). Researchers have thus been attempting to identify correlates of psychological distress among university students. High academic workloads, exams and assessments, and difficulty of studies have been identified as major sources of stress for students (Gomanthi, Ahmed, & Sreedharan, 2012; Lin & Huang, 2013). A literature review by Sharp and Theiler (2018) found that sociodemographic and situation factors (e.g., gender, age, sexuality, living arrangements, financial situation, caring for family members), personality and psychological attributes (e.g., poor coping abilities, lack of confidence, low self-esteem), and academic and performance-related factors are sources of students' distress. Many students are also worried about money (Sharp & Theiler, 2018) and maybe working part-time. The competing demands of work, study, and family responsibilities may be contributing to psychological distress (Leahy et al., 2010).

Transitions, such as the commencement of university study, are related to an increased susceptibility to lower psychological wellbeing (Brooker & Woodyatt, 2019). Students enter unfamiliar environments, requiring them to adapt to new social and academic environments (Brougham, Zail, Mendoza, & Miller, 2009). As such, first year and second year students experience the highest levels of psychological distress (Stallman, 2010) and depression (Farrer et al., 2016; Ibrahim et al., 2013; Said et al., 2012) of the university student population. Higher education institutions have a duty of care to students, as psychological distress has detrimental effects on students' lives. High psychological distress may have adverse effects on students' general quality of life (Vaez & Laflamme, 2008), and is linked to problematic health behaviours such as excessive alcohol consumption, cigarette smoking, and suicidal thoughts (Sharp & Theiler, 2018). Students who experience severe psychological distress have a reduced capacity for work and/or study activities, as elevated levels of distress lead to greater disability (Stallman, 2010). Psychological distress is associated with reduced academic performance and engagement (Stallman, 2010). thus having implications for retention and completion rates (van Agteren et al., 2019). The attrition rate approaches 50% in enabling programs (Hodges et al., 2013; Pitman et al., 2016). To decrease attrition rates and increase academic success in enabling programs, it is important to understand enabling students' mental health.

Literature on wellbeing initiatives and mental health within university education in Australia has been emerging over the past decade. However, research investigating the psychological wellbeing of students enrolled in enabling programs is largely lacking. This research will contribute to the understanding of students' mental health within enabling education. The purpose of this research is to investigate psychological distress among enabling students from a regional university in Australia. This research aimed to (a) determine the prevalence and severity of psychological distress as measured by the DASS-21, (b) determine if there are relationships between psychological distress and demographic variables, and (c) examine differences in psychological distress between subgroups of students.

#### Method

#### Data collection

Potential participants were recruited online through e-mails sent to all students enrolled in the enabling program in Session 1, 2019. The emails were sent by the researcher, on Tuesday of Week 4. Participants were invited to participate in an online survey about students' use of their time, their "grit" (i.e. the ability to persevere and passion for long term goals), and their stress and anxiety levels. A link (web address) to the survey was provided. The online survey was supported by Qualtrics research software. An information statement was provided at the start of the online survey, and consent was implied by completing the survey. Participation was voluntary, and participants could withdraw at any time of the study and were able to skip any questions they did not want to answer. Ethics approval was obtained from the Human Research Ethics Committee of this Australian university (approval number ECN-16-039). A total of 687 students were invited to participate in the online survey. Within a three-week response period (Weeks 4-6of the session), 92 students completed the survey. Eight surveys were discarded, as they were largely incomplete. The study sample was 84 (completion rate = 91.30%; response rate = 12.23%).

This study used a cross-sectional design with an online survey consisting of self-report measures assessing psychological distress, grit, and students' use of their time, and provided demographic information. Students' depression, anxiety, and stress were assessed with the

Depression, Anxiety, and Stress Scale – 21 Items (DASS-21). The DASS-21 consists of 21 items rated on a 4-point Likert scale, with responses ranging from o meaning that the participant felt the item did not apply to me at all, to 3 meaning that the participant felt the item applied to me very much or most of the time (Lovibond & Lovibond, 1995). The DASS-21 consists of three subscales (i.e., depression, anxiety, stress) and the scores from each item under each subscale are added up. The scores obtained using the DASS-21 provide a dimensional description (Lovibond & Lovibond, 1995). Higher scores for each subscale indicate increasing severe emotional states of depression, anxiety, and stress. Cut-off points for levels of severity allows for grouping of scores into "normal", "mild", "moderate", "severe", and "extremely severe". The DASS-21 was selected for this research as it has been used in several research studies with university students (e.g., Larcombe et al., 2016: Osman et al., 2012; Papier et al., 2015; van Agteren et al., 2019), thus making comparisons possible. Previous studies have reported good internal consistency for the subscales, ranging 807 - .909 (Osman et al., 2012; van Agteren et al., 2019).

Final grades (in percentage format) were acquired from the Blackboard Learn learning management system as an indicator for academic success. Students' grit and the use of their time will be reported separately.

### **Participants**

The sample consisted of 84 students (Managing Your Study subject = 66: Communication at University subject = 63: Applying Quantitative Concepts = 53; Studying Science subject = 46; Issues and Enquiry in Arts and Business subject = 8). Students were enrolled in Session 1, 2019, in one or more of the subjects, and in online and/or on-campus modes of study. Participants were aged 17 to 60 years (M = 28, SD = 10.47). The majority of participants were female (77.4%). Almost half (51.2%) of the participants were enrolled in on-campus study, with 40.5% studied online, 4.8% were enrolled in on-campus and online study, 3.6% did not disclose their study mode.

## Data analysis

Descriptive statistics and inferential statistical tests were used to

explore the study population's characteristics. Cronbach's alpha was used to determine the reliability and internal consistency of the DASS-21. Median (Md) and/or mean (M) values of the measurements with standard deviation (SD) were reported. Variables were not normally distributed, thus non-parametric tests were used. The level of significance was set at  $p \le .05$ . Spearman rank order correlation (rs) analyses were undertaken to examine the associations between psychological distress and students' final grades, age, gender, and study mode. Kruskal-Wallis tests were undertaken to access differences in psychological distress between different age groups, gender, and study mode. Bonferroni corrections were made to control for possible type 1 error for contrast analyses. Statistical analyses were performed using IBM SPSS, Statistics 24 (IBM SPSS; Chicago, Illinois).

#### Results

In the current study, the DASS-21 subscales had good internal consistency: depression ( $\alpha$  = 0.915), anxiety ( $\alpha$  = 0.884), stress ( $\alpha$ = 0.842). Mean scores for the DASS-21 subscales were calculated for the total sample: depression M = 23.60 (SD = 9.97) with 48% of participants experiencing severe or extremely severe depression; anxiety M = 22.99 (SD = 9.17) with 80% of participants experiencing severe or extremely severe anxiety; stress M = 28.58 (SD = 8.88) with 59% of participants experiencing severe or extremely severe stress. None of the participants had normal levels of depression and anxiety, with only 5% of participants having normal levels of stress. The severity levels of depression, anxiety, and stress as measured by the DASS-21 is shown in Figure 1. Mean depression scores were higher for male students (M = 25.37, SD = 12.65) than female students (M = 23.08, SD = 9.09); mean anxiety scores were higher for male students (M = 23.53, SD = 11.41) than female students (M = 22.84, SD = 8.57); and mean stress scores were marginally higher for female students (M = 28.69, SD = 8.49) than male students (M = 28.21; SD = 10.30).

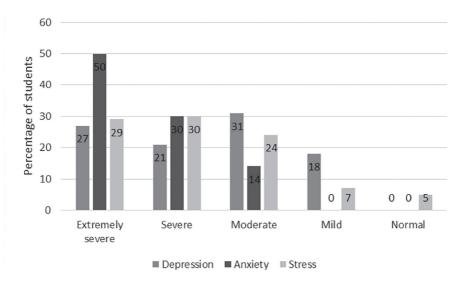


Figure 1. The severity of students' depression, anxiety, and stress as measured by the DASS-21

Spearman rank order correlation analyses found significant correlations between age and depression, and age and anxiety, but not between age and stress. Significant correlations were found between anxiety and the final grades of the Communication at University subject and the Applying Quantitative Concepts subject and between depression and the final grades of the Issues and Enquiry in Arts and Business subject (Table 1). No significant correlations were found between gender and psychological distress, nor between study mode and psychological distress.

The mean final scores achieved out of a possible 100 was: Managing Your Study subject M = 64.64 (SD = 21.39); Communicating at University subject M = 62.29 (SD = 23.25); Applying Quantitative Concepts subject M = 64.98 (SD = 22.09); Studying Science subject M = 66.94 (SD = 18.67); Issues and Enquiry in Arts and Business subject M = 58.13 (SD = 22.20).

Table 1. Spearman rank order correlation between depression, anxiety, and stress as measured by the DASS-21 and the participants' final grade and age

	Age	Final Grade							
		Managing Your Study	Communicating at University	Applying Quantitative Concepts	Studying Science	Issues and Enquiry in Arts and Business			
Depression	253 (r <sub>s</sub> )					825 (r <sub>s</sub> )			
	.021 (p)					.012 (p)			
	83 (n)					8 (n)			
Anxiety	324 (r <sub>s</sub> )		271 (r <sub>s</sub> )	376 (r <sub>s</sub> )					
	.003 (p)		.033 (p)	.013 (p)					
	80 (n)		62 (n)	43 (n)					
Stress									

Kruskal-Wallis tests revealed a statistically significant difference in depression across different age groups (Group 1, n = 15; Group 2, n = 15; Group 3, n = 13; Group 4, n = 13; Group 5, n = 14; Group 6, n = 13),  $\chi 2$  (5, n = 83) 18.63, p = .002; with a revised alpha level of 0.003. Participants aged 22 – 25 years recorded a higher median score (Md = 32) than the other age groups (Table 2).

Kruskal-Wallis tests revealed a statistically significant difference in anxiety across different age groups (Group 1, n = 14; Group 2, n = 15; Group 3, n = 13; Group 4, n = 13; Group 5, n = 12; Group 6, n = 13),  $\chi 2$  (5, n = 80) 19.34, p = .002; with a revised alpha level of 0.003. Participants aged 22 – 25 years recorded a higher median score (Md = 28) than the other age groups (Table 2). No statistical significant difference in stress were revealed across different age groups (Group 1, n = 14; Group 2, n = 15; Group 3, n = 13; Group 4, n = 13; Group 5, n = 14; Group 6, n = 13),  $\chi 2$  (5, n = 82) 9.86, p = .079; with a revised alpha level of 0.003.

Table 2. Comparison of psychological distress between different age groups

	Age group							
	Group 1:	Group 2:	Group 3:	Group 4:	Group 5:	Group 6:		
	≤ 18 years	19 – 21 years	22 – 25 years	26 – 31 years	32 – 38 years	≥39 years		
Depression	15 (n)	15 (n)	13 (n)	13 (n)	14 (n)	13 (n)		
	23.73 (M)	25.20 (M)	32.15 (M)	18.61 (M)	21.00 (M)	20.92 (M)		
	11.13 (SD)	8.68 (SD)	9.88 (SD)	5.85 (SD)	7.18 ( <i>SD</i> )	11.91 (SD)		
	22 (Md)	22 (Md)	32 (Md)	16 (Md)	18 (Md)	14 (Md)		
Anxiety	14 (n)	15 (n)	13 (n)	13 (n)	12 (n)	13 (n)		
	24.71 (M)	25.73 (M)	31.08 (M)	18.61 (M)	18.00 (M)	19.38 (M)		
	11.41 (SD)	7.81 ( <i>SD</i> )	11.27 (SD)	3.86 (SD)	2.70 (SD)	7.18 ( <i>SD</i> )		
	20 (Md)	24 (Md)	28 (Md)	20 (Md)	18 (Md)	16 (Md)		
Stress	14 (n)	15 (n)	13 (n)	13 (n)	14 (n)	13 (n)		
	29.00 (M)	30.80 (M)	33.38 (M)	26.77 (M)	26.43 (M)	25.08 (M)		
	12.25 (SD)	5.65 (SD)	8.58 (SD)	9.29 ( <i>SD</i> )	6.33 (SD)	8.97 (SD)		
	24 (Md)	30 (Md)	34 ( <i>Md</i> )	24 (Md)	28 (Md)	24 (Md)		

Kruskal-Wallis tests revealed no statistically significant difference in psychological distress across study mode nor gender.

#### Discussion

Enabling students in this study experienced psychological distress at higher levels than Australian undergraduate university students reported in previous studies and the general Australian population. The majority of participants reported elevated distress levels, with only 5% of students experiencing normal levels of stress (Figure 1). All other students (i.e. 95%) experienced above normal levels of depression, anxiety, and stress. This study provides preliminary evidence of very high levels of psychological distress in enabling students: 80% of

participants experienced severe or extremely severe anxiety, 59% experienced severe or extremely severe stress, and 48% experienced severe or extremely severe depression (Figure 1). These results showed evidence of distress higher than the typically reported values of 25 - 65% found in Australian university students, and closer to the prevalence of 83.9% that Stallman (2010) found. Students enrolled in the enabling program are typically from diverse socioeconomic backgrounds and maybe juggling multiple responsibilities as single parents or carers of elderly parents, may lack social support, have financial constraints, and may have mental and physical health issues (Taylor et al., 2018). These variables alongside the transition to university study may put enabling students at increased risk of psychological distress. This study showed evidence of distress much higher than the general population. The most recent Australian data show that 13% of the general adult population experienced high or very high levels of psychological distress (Australian Bureau of Statistics, 2018). The severity of psychological distress among enabling students in this exploratory study is concerning and warrants further research.

This study found no significant difference in psychological distress between female and male students, and no significant relationship between gender and psychological distress. This is in contrast to previous studies that found higher levels of distress in female than male students (Eisenberg, Hunt, & Speer, 2013; Leahy et al., 2010; Stallman, 2010), depression (Brougham et al., 2009; Ibrahim et al., 2013; Said et al., 2012), and anxiety (Farrer et al., 2016; Said et al., 2012). In this study, younger students generally had higher psychological distress than older students (Table 2), with significant differences in depression and anxiety across different age groups. Previous studies also reported lower psychological distress among older university students compared to younger students (e.g., Larcombe et al., 2016; Stallman, 2010; van Agteren et al., 2019). This is also consistent with the prevalence rates of psychological distress across different age groups in the general population (Australian Bureau of Statistics, 2018) with better mental health with increasing age (Burns, Butterworth, & Crisp, 2019).

Research indicates that psychological distress has a negative impact on academic success (Sharp & Theiler, 2018; Stallman, 2010). This study partly supported the notion, as anxiety was inversely related to academic success in two subjects, and depression was inversely correlated with

academic success in one subject (Table 1). Previous studies indicated that students experiencing severe psychological distress may have reduced capacity for study activities for 10 days or more (Stallman, 2010; Stallman & Shochet, 2009). Spending quality time studying is related to academic success (Brint & Cantwell, 2010), thus, a reduced capacity for study activities for a number of days can have detrimental effects on students' academic performance. Missing scheduled classes are associated with attrition, with an increased absence from class resulting in a lower probability of completing the academic course (Whannell, 2013). Stallman (2010) explained a sick day for a student means that academic tasks are delayed and may add time pressure to students, leading to increased academic demands. This added time pressure is further exacerbated as students transitioning to university study are faced with unique and challenging circumstances (Richardson, King, Olds, Parfitt, & Chiera, 2019), and have many competing demands on their time, including work, study, and family responsibilities (Leahy et al., 2010). Students must manage their time effectively, but academic success is not necessarily related to good time management skills (Nieuwoudt & Brickhill, 2017). This is because students have to make "constrained choices in relation to what is available to them, the degree of risk involved and their sense of commitment to other aspects of their lives, such as employment and family" (Burke, Bennett, Bunn, Stevenson, & Clegg, 2017, p. 35). Students may have good time management skills, but they may simply not have enough time available for study.

Psychological distress appears to be prevalent in students studying online and on-campus, with no significant relationship nor differences found between study mode and psychological distress in this study. While studies have investigated the differences between various factors associated with psychological distress among university students, there is a lack of literature investigating the psychological wellbeing of students studying online. Regardless of the students' study mode, gender, and age; responding to student distress is a common part of an educator's role in enabling programs (Crawford & Johns, 2018). Many university educators report feeling not equipped for responding to students' distress (Brooker, Baik, & Larcombe, 2017), as most university educators are not trained counsellors (Crawford & Johns, 2018). University educators indicated that support and training for educators around mental health literacy are needed (Brooker et al., 2017) since educators provide academic and

non-academic (personal) support for their students as it is not possible to separate the academic from the non-academic when viewing the student as a whole person (Crawford & Johns, 2018).

Enabling students and educators asked for dedicated counselling services to provide timely pastoral care to students (Willans & Seary, 2018) to increase students' psychological wellbeing and prevent the development of mental illness. This will also prevent educators from taking on a pseudo-counselling role which can be detrimental to the students' wellbeing (Crawford & Johns, 2018). While some researchers call on universities to develop interventions/programs focused on providing knowledge and resources for students targeting mental health (e.g., Farrer et al., 2016; Papier et al., 2015; van Agteren et al., 2019), others argue for a whole-of-curriculum approach to student wellbeing taking into account all aspects of the curriculum instead of a single program (Brooker, McKague, & Phillips, 2019). Other researchers assert that mental health is complex, and as such may require more than generic catch-all interventions (van Agteren et al., 2019); the support should match the need of the individual student (Lakev & Cohen, 2000). Students can access mental health services on campus; however, many universities have limited services or may have a waitlist due to high demand (Kitzrow, 2003). Furthermore, many students do not seek help or receive treatment (Eisenberg, Golberstein, & Gollust, 2007; Stallman, 2010). In fact, if most affected students would seek help, the existing services would be overwhelmed (Stallman, 2012). The ratio of university counsellors to students is very high in Australia with an estimated ratio of 1:4,340 (Stallman, 2012). University counselling services do employ a range of formats to deliver services to students in an attempt to support them, but they are hindered by limited resources (Stallman, 2012). Inadequate counselling support is not only detrimental to the student's wellbeing but could increase attrition rates. Online interventions have the potential to decrease psychological distress (Farrer et al., 2013). Online interventions that are designed for university students are needed, to address issues specific to university study. Online interventions designed for university students can increase academic success while improving their psychological wellbeing (Frazier et al., 2016; Ryan, Shochet, & Stallman, 2010; Stallman, 2010). One such universal targeted online intervention designed specifically for Australian university students is thedesk (https://www.thedesk.org.au/

about). This online intervention is free and available to all Australian university students and aims to supplement existing university support services (Stallman & Kavanagh, 2018). University students indicated that they are likely or very likely to use online programs for psychological distress, with students experiencing severe psychological distress preferring this format of help (Ryan et al., 2010). Online interventions designed for university students may thus be an important part of the solution to increase students' psychological wellbeing, potentially improving academic success and decrease attrition rates.

#### Limitations and future research

It is acknowledged that the current study had several limitations. The small sample size limits the generalisations that can be made from the results obtained. The response rate was also relatively low. Future studies could collect data from a larger sample and also across institutions to ensure appropriate generalisation of findings.

The study relied on quantitative measures. Although the DASS-21 is a reliable and valid scale for measuring psychological distress, qualitative measures could be used in future studies to identify the stressors associated with enabling education. It may also be good to investigate students' coping mechanisms to identify students' strategies and gain insight into the support and services students seek and require. Research is needed so that students can be provided with timely resources, to help students cope with psychological distress and to enable students to reach their academic potential.

The present study is limited by its cross-sectional design. Future studies could collect data from various times during a session to allow the examination of time effects. Furthermore, self-selection bias also presents a limitation of sampling. For example, students experiencing high levels of distress may have been more motivated to participate as compared to students experiencing less distress, thereby inflating the prevalence of psychological distress. However, previous research has reported similar high rates among university students.

#### Conclusion

This study provides quantitative data on an estimate of the prevalence of psychological distress in enabling students. The majority of students (95%) in the sample experienced above normal levels of psychological distress: 48% of the students experienced severe or extremely severe depression, 59% experienced severe or extremely severe stress, and 80% of the students experienced severe or extremely severe anxiety. Younger students generally had higher psychological distress than older students, with significant correlations between age and depression, and age and anxiety. However, gender and study mode were not related to psychological distress. These findings suggest that enabling students, similar to undergraduate university students, are an at-risk population for mental health problems. This study highlights the need for further research on the psychological well-being of enabling students. Resources to support the psychological wellbeing of students are needed, as many university educators are not sufficiently trained to respond to students' distress, and university counselling services often have a waitlist due to high demand.

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