Journal of Mental Health

ISSN: 0963-8237 (Print) 1360-0567 (Online) Journal homepage: www.tandfonline.com/journals/ijmh20

The impact of social support on university students living with mental illness: a systematic review and narrative synthesis

Emily Vicary, Dharmi Kapadia, Penny Bee, Mia Bennion & Helen Brooks

To cite this article: Emily Vicary, Dharmi Kapadia, Penny Bee, Mia Bennion & Helen Brooks (2025) The impact of social support on university students living with mental illness: a systematic review and narrative synthesis, Journal of Mental Health, 34:4, 463-475, DOI: 10.1080/09638237.2024.2408237

To link to this article: https://doi.org/10.1080/09638237.2024.2408237

JOURNAL OF MENTAL HEALTH
2025, VOL. 34, NO. 4, 463–475
https://doi.org/10.1080/09638237.2024.2408237

Taylor & Francis
Taylor & Francis Group

REVIEW ARTICLE

The impact of social support on university students living with mental illness: a systematic review and narrative synthesis

Emily Vicary[a], Dharmi Kapadia[b], Penny Bee[a], Mia Bennion[a] and Helen Brooks[a]

[a]Division of Nursing, Midwifery and Social Work, School of Health Sciences, Manchester Academic Health Science Centre, University of Manchester, Manchester, UK; [b]Department of Sociology, University of Manchester, Manchester, UK

ABSTRACT

Background: Limited reviews address the role of social support for university students with mental health issues, despite its proven significance for other vulnerable groups.

Aims: The current review aims to examine the current evidence on the nature and impact of social support for students with self-reported and diagnosed mental health problems, along with the availability and effectiveness of social support interventions.

Methods: Electronic databases (CENTRAL, CINAHL, Embase, HMIC, MEDLINE, PsycINFO, SCOPUS, Web of Science) and grey literature databases (EThOS, SSRN) were systematically searched from inception to March 2024 Articles were eligible for inclusion if they reported on the nature and role of social support for university students with mental health problems. Data from included articles were extracted and narratively synthesised. Quality of included studies was assessed using the Mixed Methods Appraisal Tool.

Results: Ten studies, involving 3669 participants, were included. Findings indicated high social support significantly mitigated against suicide, depression, anxiety, and psychological distress. Barriers to support access and both positive and negative impacts on mental health were identified.

Conclusions: Results underscore the need to consider the distinct support requirements of students with mental health problems, who often face insufficient access to high social support. This emphasises the potential for effective interventions in this population.

PRISMA/PROSPERO

The protocol for this review was registered with PROSPERO in December 2021 (CRD42022286385). The Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines were adhered to during the development and reporting of the systematic review (Page et al., 2021).

ARTICLE HISTORY
Received 22 March 2024
Revised 30 May 2024
Accepted 14 August 2024

KEYWORDS
social support; mental health; student; systematic review; narrative synthesis

Introduction

On average, students begin their university education at the age of 22 (OECD, 2022), placing them in the age bracket (18 to 25 years) universally acknowledged as the prime vulnerability period for the development of mental health problems (National Institute of Mental Health, 2023). In addition to age, there are several other risk factors that result in the emergence of mental health issues among students. Beginning university marks a significant life change, characterised by the management of multiple academic and social pressures while also facing developmental challenges as students strive for independence in adulthood. Factors such as heightened academic demand (Barker et al., 2018), stress related to handling finances independently (Unite Students, 2016), and the loss or restructuring of support networks as a result of leaving home (Macaskill, 2013) are all evidenced in the onset of mental health problems amongst undergraduate students.

While comprehensive worldwide data is lacking, the available evidence from multi-country studies and systematic review suggests that mental health problems are highly prevalent among university students with an increasing trend over the past 10–15 years (Ochnik et al., 2021; Sheldon et al., 2021). A recent international cross-sectional study suggests that 35% of first year students report symptoms of lifetime mental illness and 31.5% report symptoms in the previous 12 months (Bruffaerts et al., 2019). Currently, existing research on the prevalence of mental illness largely relies on students self-reporting their mental health problems directly through their university or university application system. While self-reporting is a cost-effective method for data collection, it presents significant challenges due to the likelihood of both response bias and social desirability bias, which may lead to underreported prevalence rates of mental illness among students. For instance, in the UK, there was been a 450% increase in the number of students formally

CONTACT Emily Vicary emily.vicary@manchester.ac.uk Division of Nursing, Midwifery and Social Work, School of Health Sciences, Manchester Academic Health Science Centre, University of Manchester, Manchester, UK.
Supplemental data for this article can be accessed online at https://doi.org/10.1080/09638237.2024.2408237.

disclosing their experience of mental health problems over the past decade (UCAS, 2021). While this notable increase may reflect heightened efforts in the UK to encourage young people to report their mental health issues, it is anticipated that the actual prevalence of mental illness within this demographic is substantially higher than what the current data indicates.

Mental health problems impact on many areas of students' lives. Diminished psychological wellbeing among students has been associated with poor academic outcomes (Auerbach et al., 2018)—the result of what is thought to be a combination of a weakened ability to effectively manage daily stressors and an inability to perform academic tasks productively (Keong et al., 2015). Mental health difficulties among students are also linked with increased substance abuse, difficulties with social relationships and the ability to become and remain employed (Sutherland, 2018).

Experiencing mental health problems is also associated with increased propensity to self-harm and suicidal tendencies. A survey of UK-based students revealed that 50% have considered harming themselves and 45% have abused drugs or alcohol as ways of coping with mental health problems (Neves & Hillman, 2019). Furthermore, data from Thorley (2017), revealed suicide rates among students were seen to increase by 79% during a three-year period (Thorley, 2017) with an estimated one student dying by suicide every four days (Nasir & Johns, 2022). It is therefore imperative that universities offer appropriate and effective support to students with mental health problems.

Over a decade of empirical evidence has demonstrated that both mental and physical health problems can be mitigated against by social support, but despite this well-established evidence base, there is no universal definition of social support and the way in which it is conceptualised by individual researchers can differ significantly (Vangelisti, 2009). While this lack of definition can be problematic in attempts to operationalise and measure social support, it also highlights the complexity of this topic and encourages further research to move beyond a surface-level understanding to grasp the full scope and implications of social support. Although definitions vary between disciplines and researchers, they often draw from the foundational works of Lin et al. (1979) and House (1981). Utilising this framework, the following definition of social support will be adopted for this paper: social support encompasses the different types of support that are available to an individual—e.g., emotional, instrumental, informational and appraisal support (House, 1981)—as well as the networks or social ties through which the support operates (Lin et al., 1979).

Importantly, social support does not simply refer to receiving help or interacting with others and according to Feeney and Collins (2014)'s theoretical perspective, effective social support must be responsive and match the recipient's needs. The relationship between support networks, effective social support and mental health and wellbeing has been established in diverse populations including vulnerable children (Nevard et al., 2021), individuals with chronic health conditions (Reeves et al., 2014), and elderly people with dementia (Lau et al., 2019). Despite some evidence indicating that effective social support can be crucial in mitigating mental health problems in students (Cobo-Rendón et al., 2020; Li et al., 2018), it remains comparatively unexplored in student populations and there have been no systematic review on this topic to date.

Research has consistently demonstrated that the social networks of individuals with mental health problems are impoverished and the social support they receive as a result is suboptimal (Beckers et al., 2022). This issue is compounded by the stigma associated with disclosing a mental health condition, which can further diminish social support or cut ties with member within support networks (Corrigan et al., 2014). Considering this trend alongside the prevalence of mental health problems within the student population, it is vital that support networks and social support are examined specifically within the context of students with mental health problems.

This review aimed to systematically identify and appraise the evidence base regarding social support and social support interventions for students with mental health problems.

Review questions:

1. What is the nature of social support for university students with mental health problems?
2. What is the role of social support for university students with mental health problems?
3. What is the availability and effectiveness of social support interventions for university students with mental health problems?

Methods

Eligibility criteria

Sample

The sample criteria require studies to be written in English (Morrison et al., 2012) and focus on a primary sample of students aged 18 or older in higher education. For mixed samples, the mean age must be 18 or older, with 75% being current higher education students. Mental health problems and social support must be reported by students themselves. Extractable mental health data is required, with 75% of the sample self-reporting mental health issues or alternatively, meeting clinical cutoffs. Studies with proxy-reported data, such as lecturer or parental views, are excluded. Twenty-three inaccessible articles, e.g., behind paywalls, were identified. Authors were contacted; if unresponsive, the University of Manchester Library was contacted. Twenty-one articles were subsequently excluded. No country restrictions date restrictions were applied—i.e., all databases were searched from inception to present day.

Phenomenon of interest

The phenomenon of interest includes empirical studies examining ego-nets or social support for students, as well as research investigating social support as a mediator between mental health outcomes and other variables. Given the

barriers to receiving a mental health related diagnosis, 'mental health outcomes' was a term used to capture validated measures of mental illness (i.e., PHQ-9, GAD-7) alongside self-reported psychological distress (Gulliver et al., 2010). Psychological distress has been defined as "non-specific symptoms of stress, anxiety and depression" (Viertiö et al., 2021). It encompasses studies on the efficacy of social support interventions aimed at enhancing support quantity or quality and building social skills. Excluded are studies solely on quality of life, help-seeking behaviour, loneliness, neurodivergence, imposter syndrome, and loneliness without mental health outcome reporting. Also excluded are studies on distress-causing events, experimentally manipulated social support, individual skills-based interventions and situational distress without reporting on the prevalence of stressful experiences.

Design

Single case study designs were excluded.

Evaluation

In the evaluation process, duplicates are excluded from consideration. Additionally, quantitative studies that do not utilise a validated measure of social support (e.g., MSPSS, OSSS) or support networks (e.g., ego-net analysis) to investigate the impact of social support on mental health are excluded. Qualitative studies that do not explore the role of social support for students in higher education are also excluded.

Research type

The research type criteria include peer-reviewed published journals, dissertations, and relevant grey literature reports and government documents. Studies that are only available in abstract form, single case studies, and conference abstracts were excluded, but authors were contacted for additional related full-text publications. Only primary data studies are accepted, while systematic reviews, literature searches and reviews, commentaries, and opinion pieces are excluded from consideration. Individual studies within reviews them were screened for eligibility alongside citations within included articles and systematic reviews.

Search strategy and data sources

Electronic databases were searched in January 2022, using PsycINFO, Cochrane Trials (CENTRAL), CINAHL Embase, The Healthcare Management Information Consortium, MEDLINE, Scopus, and Web of Science. Grey literature searches were undertaken in February 2022, using EThOS, and Social Science Research Network. Searches were updated in January 2023 and February 2024. The EThOS database was unavailable for searching in 2024 due to a ransomware attack on the database. The researcher set up email alerts on Google Scholar, reviewed them weekly, and screened relevant studies until finalising data extraction in March 2024.

Search terms addressed four key conceptual areas:

1. Students
2. Tertiary education
3. Social support/support networks
4. Mental health/psychological distress

Initial keywords were gathered from prior knowledge, relevant systematic reviews, and a preliminary search of PsycINFO. This keyword list was expanded by adding synonyms, spelling variants, and related terms. The search strategy was piloted in PsycINFO and adapted for each database. A University of Manchester specialist librarian reviewed the final draft using the Peer-Review of Electronic Search Strategies method (McGowan et al., 2016). Their recommendations were incorporated into the modified search strategy, which used Boolean operators (AND, OR), truncation, phrase searching, and proximity operators. Database returns were documented, outlining the search methods and results obtained. Supplementary material 1 contains search strategies for each database.

Study selection

Data management

Results of all database searches were imported into reference management software (Microsoft EndNote) where identified duplicates were removed. The resulting set of citations was imported into Covidence where remaining duplicates were removed.

Selection process

All records from electronic and manual searches underwent two-stage relevance assessment against predetermined eligibility criteria. EV conducted title and abstract screening, rejecting articles failing to meet criteria. MB screened a random 10% sample (1100 records) at this stage. 3 conflicts were resolved by the entire research team to reach consensus. Full texts of included studies were obtained and screened by EV. MB independently reviewed a random 10% sample (70 full texts). 1 conflict was resolved by the entire research team. The error rate during the screening process, 0.27% at title and abstract and 1.42% at full-text, never exceeded the recommended 10.76% (Wang et al., 2020) and so double screening all potential studies was not considered necessary. A final list of 10 full-text articles meeting inclusion criteria underwent quality appraisal, data extraction, and synthesis. The search strategy and selection process are detailed in a PRISMA diagram (see Figure 1).

Data collection process and data items

Standardised data extraction forms were created for quantitative, qualitative and intervention studies, following relevant recommendations such as those from JBI for quantitative evidence, previous templates for qualitative evidence (James et al., 2020), and the TIDieR checklist for intervention studies (Hoffmann et al., 2014). These forms were piloted to ensure they captured all necessary data comprehensively and were applicable. EV extracted data

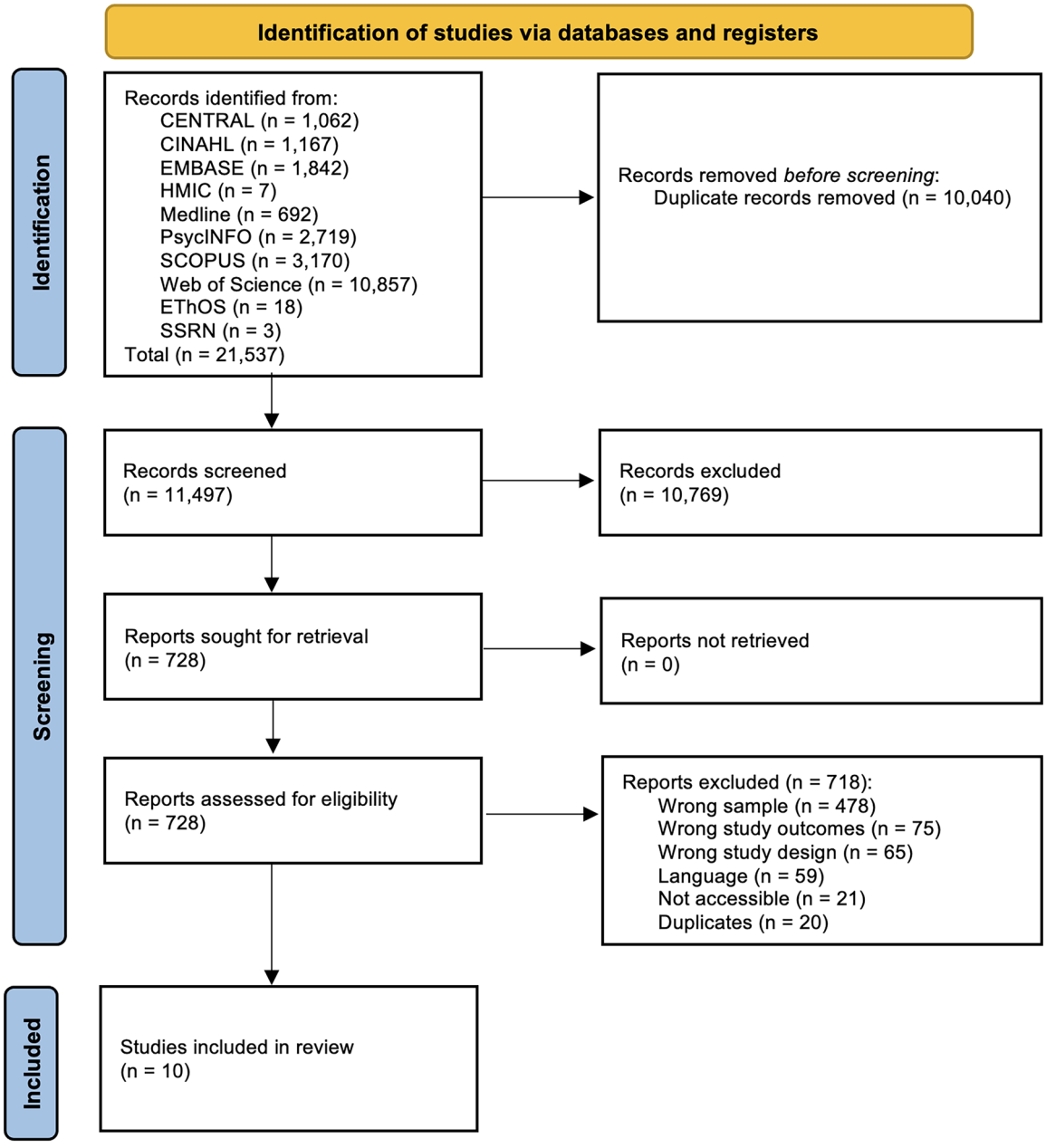

Figure 1. PRISMA flow diagram (Page et al., 2021).

from included studies, and any missing or unclear data prompted contact with original authors for clarification. Supervisory team members (DK, PB, HB) checked 30% of extractions for accuracy.

Assessment of methodological limitations and strengths of individual studies

The MMAT quality appraisal tool (Hong et al., 2018) was used to assess the methodological quality of evidence. Quality appraisal was included in the synthesis of the data and as a result, was conducted at the same time as extraction by EV. DK and PB cross-checked appraisal, no conflicts were found.

Synthesis of results

Searches returned studies with significant heterogeneity and as a result, a narrative approach was taken to analyse, integrate, and synthesise study findings following the guidance set out by Popay et al. (2006):

- Preliminary synthesis– extracted tabulated data were organised into clusters (e.g., student type, mental health conditions, data describing nature of social support, data describing role of social support, data describing intervention studies).
- Inductive thematic analysis - followed the 6-phase coding framework developed by Braun and Clarke (2013).

- Throughout the thematic analysis, relationships within and between studies were explored using conceptual mapping.

Descriptive statistics were calculated where possible.

Results

Search strategies returned a total of 21,537 records. 10,040 were removed as duplicates and the remaining 11,497 records were screened via title and abstract. 10,769 records were excluded at this stage and the remaining 728 records were sought for retrieval. These 728 records underwent full-text review and 718 were ultimately excluded. The final 10 studies were included in the review.

Ten publications reported findings from 10 unique studies (Demery et al., 2012; Ellis et al., 2011; El-Matury & Besral, 2021; Kirsh et al., 2015; Martín-Cano et al., 2022; Moghtader & Shamloo, 2019; Sung & Puskar, 2006; Tran et al., 2015; Woof et al., 2021; Zhang et al., 2018). Included studies were published between 2011 and 2022 and research locations were diverse, including: Australia, Canada, China, Indonesia, Iran, Mexico, South Korea, Spain, the United Kingdom, and the United States. The data were reported from a total of 3669 participants with over half of students being females (61.5%) and the vast majority studying at an undergraduate level (98.5%). Ages of participants ranged from 18 to 58 and on average, students reported experiencing more than one mental health problem (M = 1.3, SD = 0.13). Further study characteristics are available in Table 1 and prevalence rates of mental health problems reported across all studies are reported in Table 2.

The nature of social support

The nature of social support encompasses perceived levels of support, the sources through which the support operates, and perceived social support needs of students with mental health problems.

Defining social support and its sources

Across all 10 included studies, authors failed to provide a clear definition of social support. Instead, they opted to discuss social support in relation to the sources it operates through.

Across nine studies, friends emerged as the most frequently cited source of support, closely followed by family, which was reported in eight studies. A group labelled as 'others' was discussed across four studies, but authors failed to define this group or its members.

Table 1. Key characteristics of included studies.

Study number	Author, year	Country	Study design	N	Age		Gender (% female)	Mental health outcome / inclusion criteria	Sources of support discussed
					Range	Mean (SD)			
1	Demery et al. (2012)	UK	Narrative inquiry using semi-structured interviews	5	25–35	–	60%	Clinical diagnosis of mood disorder	Family, friends, university services, statutory services
2	Ellis et al. (2011)	Australia	Randomised controlled trial using a questionnaire battery	39	–	19.67 (1.66)	77%	DASS-21 ATQ	Peers, friends
3	El-Matury and Besral (2021)	Indonesia	Cross-sectional analysis using surveys	504	18–22	–	54%	DASS-21 C-SSRS	Family, friends, others
4	Kirsh et al. (2015)	Canada	Grounded theory using semi-structured interviews	19	18–32	–	79%	Self-identified mental health problems	Family, friends
5	Martín-Cano et al. (2022)	Spain, Mexico	Comparative case study using surveys	1252	18–58	22.4 (5.27)	92%	DASS-21	Family, friends, others
6	Moghtader and Shamloo (2019)	Iran	Correlational analytic study using a questionnaire battery	351	–	22.72 (4.80)	–	SAQ	Family, friends, others
7	Sung and Puskar (2006)	South Korea	Content analysis using semi-structured interviews	21	20–27	23.1*	38%	Clinical diagnosis of schizophrenia	Family, friends
8	Tran et al. (2015)	USA	Interpretative phenomenological analysis using online surveys with opened ended questions	58	19–35	21.12 (3.12)	69%	Have considered suicide in the previous 12 months	Family, friends, romantic partners, university staff
9	Woof et al. (2021)	UK	Qualitative thematic analysis using semi-structured interviews	20	19–23	–	60%	Clinical diagnosis of any mental health condition	University based services
10	Zhang et al. (2018)	China	Cross-sectional descriptive using surveys	1400	–	19.15 (1.21)	36%	K10	Family, friends, others

NB: *Standard deviation not reported. Dashes indicate where other data were not reported. DASS-21 = Depression, Anxiety and Stress Scale (Lovibond & Lovibond, 1995). ATQ = Automatic Thoughts Questionnaire (Steven & Phillip, 1980). C-SSRS = Columbia-Suicide Severity Rating Scale (Posner et al., 2011). SAQ = Social Anxiety Questionnaire (Jerabek, 1996). K10 = Kessler Psychological Distress Scale (Kessler et al., 2002).

Table 2. Prevalence of mental health problems across included studies.

Mental health problem	No. of participants reporting problem (%)	Studies
Psychological distress	1311 (26.1%)	2, 10
General anxiety	1037 (20.6%)	3, 5
General stress	975 (19.4%)	3, 5
Depression	897 (17.8%)	3, 5
Suicidal thoughts/ideation	370 (7.4%)	3, 8
Social anxiety	351 (7.0%)	6
Mental health problem (not otherwise specified)	38 (0.8%)	4, 9
Schizophrenia	21 (0.4%)	7
Suicide attempt	20 (0.4%)	3
Mood disorder	5 (0.1%)	1
Total number of reported mental health problems	5026 (100%)	1–10

Perceived levels of social support

Included quantitative studies provided a general overview on the perceived availability of social support for students (El-Matury & Besral, 2021; Martín-Cano et al., 2022; Moghtader & Shamloo, 2019; Zhang et al., 2018). These four studies employed the Multidimensional Scale of Perceived Social Support (MSPSS). While this enhances generalisability and methodological consistency, it underscores a notable absence of diversity in measuring perceived social support. El-Matury and Besral (2021) presented perceived levels of social support as a percentage with a majority, 56.7%, reporting moderate social support. All other authors (Martín-Cano et al., 2022; Moghtader & Shamloo, 2019; Zhang et al., 2018) chose to calculate average levels of support within their samples. Similar to El-Matury's findings, students (n = 3003) in these three studies reported perceiving their social support as 'moderate' with an average MSPSS score of 4.9 (SD = 1.49) across all these studies.

Priorities, preferences, and barriers relating to social support needs

Insight into the support needs of students was provided through the five included qualitative studies (Demery et al., 2012; Kirsh et al., 2015; Sung & Puskar, 2006; Tran et al., 2015; Woof et al., 2021). Studies highlighted four main areas where students experience barriers to accessing social support: (i) diagnosis acceptance, (ii) impact of symptoms associated with mental health difficulties, (iii) lack of awareness among university staff.

Diagnosis acceptance & perceived stigma. Potential social support providers feeling unable or reluctant to accept a mental health diagnosis was viewed as a significant and nuanced obstacle to receiving support from those individuals (Demery et al., 2012; Kirsh et al., 2015; Sung & Puskar, 2006). Difficulty in accepting a diagnosis was not confined to any one source of support; however, one study indicated that family members experience the greatest difficulty in this regard (Demery et al., 2012). While the challenges associated with accepting a diagnosis were occasionally linked to the type of disorder diagnosed, more frequently these difficulties were associated with cultural disparities (Kirsh et al., 2015). In this study, students of immigrant parents (n = 10) reported profound difficulties in sharing concerns related to their mental health and as a result were less likely to utilise their family as a source of support for all other concerns.

> "*I don't really talk to them about anything like this. I think it's just in Asian culture we don't do it. They don't know that I have been seeing psych services.*" (Kirsh et al., 2015, p. 330)

Students of immigrant parents described these cultural disparities as being ultimately rooted in perceived stigma that has been deeply ingrained and passed down through generations in their family. Importantly, perceived stigma did not affect students of immigrant parents in isolation and appears to be a consistent barrier to accessing social support across the student experience (Demery et al., 2012; Woof et al., 2021). Demery et al. (2012) provided an insight into the consequences of stigma for students diagnosed with a mood disorder. The authors found that internalised perceived stigma lowered the students' inclination to be candid with those around them, particularly friends, academic staff, and university support services, regarding their diagnosis and its impact on daily life. Consequently, this, in combination with the fear of being 'labelled' if they sought support from university services, decreased the likelihood of students seeking help during challenging times or crises (Demery et al., 2012; Woof et al., 2021). Another study (Woof et al., 2021) highlighted how the risk of being discriminated against led to students having reservations in reaching out to a peer-led and university-based crisis hotline. Some students went so far as to terminate calls out of embarrassment when they realised their anonymity could not be protected.

> "*I rang up Nightline and somebody answered (…) within two or three minutes I realised it was a student I knew, now that was awful because I just had to put the receiver down and it was so embarrassing.*" (Woof et al., 2021, p. 757)

Impact of symptoms associated with mental health difficulties. Symptomology impacted significantly on students' ability to develop new relationships and derive optimal support from existing relationships (Sung & Puskar, 2006; Tran et al., 2015; Woof et al., 2021). Sung and Puskar (2006) noted that students with diagnosed mental health problems reported an intense desire to seek intimacy from others, with many wanting a close friend or romantic partner. However, students described how their ability to pursue these relationships was impeded by the perceived burden that a student's mental health condition would place on another individual (Sung & Puskar, 2006; Tran et al., 2015).

> "*Part of the point of suicide would also be relieving my loved ones of the burden of my mistakes and depression.*" (Tran et al., 2015, p. 503)

In studies where students were able to establish such relationships, they often reported their symptoms as a barrier to effective communication, thereby limiting their access to adequate support from friends and romantic partners (Sung & Puskar, 2006, Woof et al., 2021). One study (Sung & Puskar, 2006) also highlighted students having communication difficulties with their family members, with some expressing no interest in conversing with them. Although

some attributed this lack of interest to a preference for keeping their problems to themselves, others attributed it directly to negative symptoms - e.g., apathy, difficult talking, withdrawing from others.

Lack of awareness and understanding among academic staff. Finally, students across included studies highlighted a lack of knowledge and understanding of mental health among academic staff, which hindered their ability to receive adequate support from this group (Tran et al., 2015; Woof et al., 2021). Woof et al. (2021) reported there was a notable sense of frustration felt by students having to repeatedly explain their diagnosis to academic staff, such as lecturers and tutors, to receive suitable support that caters to their needs.

> "*…I guess a staff understanding of illnesses might be better just so you don't feel like you're having to teach someone about your illness before you actually get the support.*" (Woof et al., 2021, p. 757)

Included studies also identified changes that could be implemented within university settings to address this barrier which included educating academic staff about prevalent mental health problems in the student community to enable them to signpost support more effectively (Tran et al., 2015; Woof et al., 2021), and making outreach programs more accessible to those who are in need but are less likely to seek help (Tran et al., 2015).

> "*Having the law school and other academic programs be more aware of depression in students and provide support services.*" (Tran et al., 2015, p. 503)

Once staff understand the mental health needs of their students, continuity of support from these staff members was imperative. Students reported difficulty in having to adjust to new staff, specifically academic advisors, at the start of each academic year with references being made to struggling to disclose a diagnosis to an unfamiliar and different staff member every 12 months (Woof et al., 2021). Where staff consistency was not possible, such as modules changing and staff turnover, a Student Mental Health Advisor was found to be helpful for students. Student Mental Health Advisors were often seen as a personal advocate for students with mental health problems, noticing when symptoms were worsening and communicating this to relevant parties on behalf of students, ultimately playing a substantial role in positive experiences of accessing support (Demery et al., 2012).

> *"I was very lucky the warden got me to the doctors, he got my mum to come up - he could just see I was out of control really."* (Demery et al., 2012, p. 526)

The role of social support

The role of social support encompasses the impact effective and ineffective support on students with mental health problems.

The impact of social support on mental health outcomes: quantitative insights

The synthesis of findings across multiple studies suggests a consistent pattern linking higher levels of social support to positive mental health outcomes among university students. El-Matury and Besral (2021) reported a significant decrease in suicide rates ($r = -0.16$) associated with high social support and identified a positive relationship between social support, self-esteem development ($r = 0.28$), and improved mental health outcomes ($r = 0.42$). However, the absence of reported p-values in their study calls for cautious interpretation. Martín-Cano et al. (2022) reinforced these findings, revealing significant associations between substantial social support from family and relevant individuals and reduced symptoms of anxiety (OR = 0.68, 95% CI [0.56–0.83], p = .001; OR = 0.72, 95% CI [0.55–0.88], $p < .01$) and depression (OR = 0.58, 95% CI [0.46–0.73], p = .001; OR = 0.75, 95% CI [0.58–0.91], p = .001) in respective students at Spanish and Mexican universities. Notably, the impact of relevant people and friends on stress did not consistently reach statistical significance, but a noteworthy increase in stress symptoms was identified in students with stable romantic relationships. Moghtader and Shamloo (2019) contributed to this consensus by reporting a significant negative correlation between social support and social anxiety ($r = -.30$, p = .01). Finally, Zhang et al. (2018) highlighted a significant association between higher social support and lower psychological distress ($\beta = -.18$, $p \leq .001$), with this relationship being more pronounced among female students. The collective evidence underscores a significant relationship between social support and mental wellbeing in students. However, given that these studies are all cross-sectional in design, it is currently not possible to infer causation or establish the directionality of this relationship. For a visual representation of these findings, refer to Figure 2.

The positive impact of social support on mental health: qualitative insights

Qualitative studies (Demery et al., 2012; Kirsh et al., 2015; Sung & Puskar, 2006; Tran et al., 2015; Woof et al., 2021) highlighted three main ways that effective social support was perceived to positively impact the mental health of students experiencing mental health problems or psychological distress: (i) building capacity to manage mental health, (ii) creating wider networks of support, (iii) managing suicidal ideation and self-harm.

Building capacity to manage mental health. Social support can be beneficial in helping individuals build the capacity to self-manage their mental health. Three studies demonstrated the value of social support in this regard (Demery et al., 2012; Kirsh et al., 2015; Tran et al., 2015). Kirsh et al. (2015) provided a broad overview by reporting that students emphasised the importance of support, regardless of the source, and the personal strength they were able to draw from and build on the back of "good relationships." Demery et al. (2012) demonstrated how developing strength through

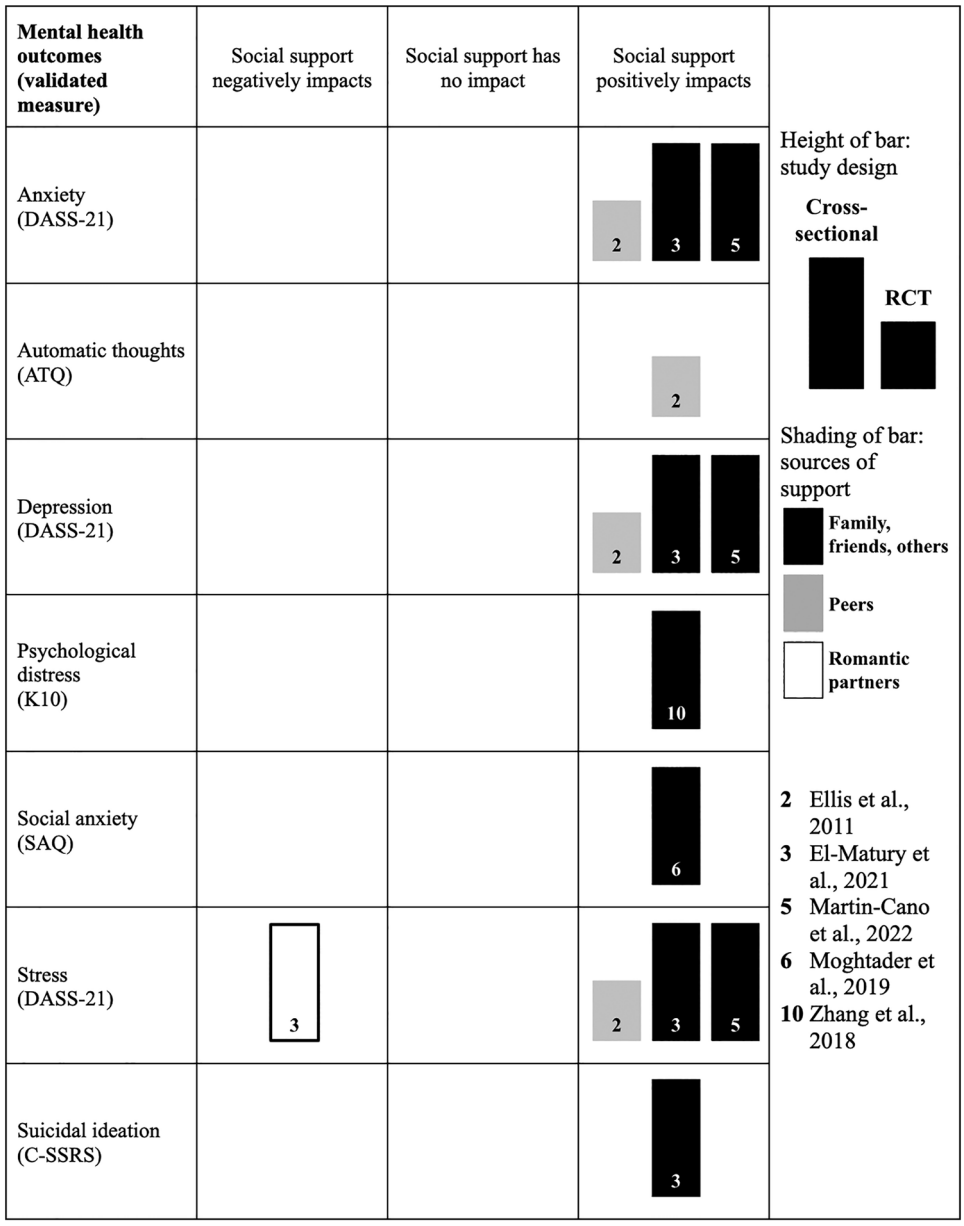

Figure 2. Harvest plot used to visualise trends within quantitative data.

social support can aid students in independently managing their mental health problems. In this study, students reported that receiving effective support from their family—i.e., support that meets the needs of the students—helped them to identify and avoid triggers that worsen their symptoms. They also observed their family members modelling methods of coping, which, when combined with the strength gained from effective support, empowered the students to use these coping methods on their own and without prompt from others.

> *"(Sister-in-law) even like made a little painting of things to do when to keep yourself calm and things."* (Demery et al., 2012, p. 527)

Tran et al. (2015) reported that students often placed the needs of others before their own. Contrary to expectations, students in this study discovered that prioritising the needs of others, particularly family members, actually aided in developing valuable coping mechanisms for managing mental health crises independently.

> *"I have […] built a system to prevent it (suicidal thoughts) getting out of hand."* (Tran et al., 2015, p. 503)

Creating wider networks of support. Effective social support was also considered to facilitate links with valued activities and social inclusion which led to the creation of wider communities of support that had a positive impact on students' mental health (Kirsh et al., 2015; Tran et al., 2015). Kirsh et al. (2015) found that effective social support provided by peers—i.e., fellow students—helped students with mental health problems integrate into communities that prioritised activities or topics beyond mental health. These communities allow students with mental health problems to feel valued as an individual rather than being reduced to their diagnostic label, thus aiding a sense of normalcy.

> *"Now that I'm part of this first-year learning community, that's probably like the most helpful thing I've ever done."* (Kirsh et al., 2015, p. 229)

Tran et al. (2015) reported on the sense of community built between students living in the same accommodation, noting that these communities helped students living with suicidal thoughts by serving as a source of distraction.

> *"Being with them (roommates) distracted me from my suicidal thoughts."* (Tran et al., 2015, p. 503)

Managing suicidal ideation and self-harm. Finally, being able to mobilise effective social support from others during times of crisis was fundamental to the management of suicidal ideation and self-harm (Demery et al., 2012; Sung & Puskar, 2006; Tran et al., 2015; Woof et al., 2021). Across three studies, effective social support, when operating through familial systems (Demery et al., 2012) friends (Sung & Puskar, 2006), or mental health practitioners (Woof et al., 2021), was sufficient to facilitate periods of recovery for students with mental health problems as they felt comfortable enough to share concerns regarding their diagnosis to the relevant people. Being able to obtain effective support from mental health practitioners was described as lifesaving (Woof et al., 2021). Tran et al. (2015) provided more depth and reported that the effective social support from a student's entire network was vital in assisting them through a suicidal crisis, as well as protecting students from the progression from suicidal thoughts to a suicide attempt. Unconditional love felt from the students' families was specifically highlighted as important in aiding the resolution of suicidal crises, as well as buffering against self-injury inflicted because of their mental health problems.

> *"I was eventually able to overcome depression through the support of family."* (Tran et al., 2015, p. 503)

The negative impact of inadequate social support on mental health: qualitative insights

Four out of the five qualitative studies (Demery et al., 2012; Kirsh et al., 2015; Sung & Puskar, 2006; Woof et al., 2021) highlighted three main ways inadequate social support can negatively impact the mental health of students experiencing mental health problems or psychological distress: (i) worsening of clinical symptoms, (ii) diminished wellbeing and increased daily stress, (iii) feelings of loneliness and isolation.

Worsening of clinical symptoms. Receiving inadequate social support could exacerbate clinical symptoms for students with mental health problems. This perceived inadequacy was exacerbated by psychological and geographical space between a student and their support system (Demery et al., 2012) or prolonged wait times for appointments with mental health practitioners (Woof et al., 2021).

> *"They (counselling service) booked an appointment for like April (…) I was like that's too late, like I need advice now."* (Woof et al., 2021, p. 756)

The transition to university life puts considerable pressure on students to develop new social connections. This pressure appeared to be particularly problematic for students with mood disorders (Demery et al., 2012) who described caution when developing such connections and, as a result, choose not to disclose their diagnosis. Failing to disclose their diagnosis was considered to contribute to the manifestation of clinical symptoms of mania and depression.

> *"Maybe I think by the time I had contacted them (my family), I just felt it was too late."* (Demery et al., 2012, p. 525)

Diminished wellbeing and increased daily stress. Ineffective social support was also thought to diminish general wellbeing and increase daily stress for students. Notably, when support from mental health practitioners and academic staff is inconsistent, students feel a sense of diminished wellbeing and daily stress increases. Demery et al. (2012) highlighted that support received between counselling sessions was inconsistent, as the university counsellors would often change from one session to the next. In turn, this diminished wellbeing to the extent that they began to avoid utilising the university's counselling services altogether.

> *"…if you knew that the next time you go to see the student counsellors, it would probably be a completely different person and having to go through everything all over again. I just found it too energy sapping really, so I didn't do that (make use of the university counselling services)."* (Demery et al., 2012, p. 526)

Kirsh et al. (2015) were the only group of authors to consider the impact of reciprocal support on students with mental health problems. The students who participated in this study needed support from all members of their network, but in some instances, family members within that network expected support to be reciprocated—i.e., family expected support from the student as well. When these students were expected to provide such support to their family members, it added a significant burden on top of the daily stressors they were already dealing with, such as managing university coursework, preparing for exams, and handling personal finances.

Feelings of isolation and loneliness. Ineffective social support could have a negative impact on students through generating feelings of isolation and loneliness (Kirsh et al., 2015; Sung & Puskar, 2006). Kirsh et al. (2015) found that when there was a fundamental lack of understanding among a student's family regarding their diagnosis, the student may feel misunderstood and alienated.

> *"(My parents) thought I was putting on an act. They thought I was rebelling. I was not…"* (Kirsh et al., 2015, p. 330)

This study highlighted the challenges faced by students with immigrant parents when attempting to express their mental health concerns, given the discrepancies in cultural expectations. Sung and Puskar (2006) also highlighted ways

in which social support provided by family can have a negative impact on students. Though familial support was generally seen favourably, some students faced challenges in their family relationships. Issues included accusations of medication non-adherence and family members expressing fear of the student due to their mental health issues. This led to communication gaps and a sense of psychological isolation among students, fostering a feeling of disconnection from their families. Importantly, Sung and Puskar (2006) emphasised that family members are not the only sources of support that can contribute to students feeling lonely and alienated. Authors revealed that students experienced more loneliness when relying solely on friendship circles for social support, highlighting the importance of diverse support sources. Students often felt invalidated by friends regarding their mental health issues, leading to emotional difficulties, withdrawal, and feelings of both physical and psychological loneliness.

The availability, acceptability and effectiveness of social support interventions

Ellis et al. (2011) examined social support interventions for students with mental health issues. Their study assessed an online peer support program aimed at enhancing social support, reducing dysfunctional thoughts, and alleviating depression and anxiety symptoms. Compared to both an online CBT group and a control group, the peer-support intervention significantly reduced anxiety level ($t = -2.64$, $p = .01$) and improved online social support ($t = 2.31$, $p = .03$).

Quality assessment

Quality assessment revealed strengths in formulating clear research questions and collecting relevant data. Qualitative studies generally exhibit high quality, employing appropriate methods, deriving findings effectively, substantiating results, and ensuring coherence. Quantitative studies were strong in their clear setting of research questions and the choice of measurement tools and statistical analyses used to answer those research questions. However, these studies often lacked sample description clarity. Three out of five studies lacked sufficient detail for sample representativeness, and one lacked randomisation information. Poor result reporting weakened the literature, with some quantitative studies presenting statistics without context, and one qualitative study lacking supporting quotes. Copies of completed data extraction and quality assessment tables are available in supplementary materials 3 and 4, respectively.

Discussion

The current review aimed to address the following research questions: (i) What is the nature of social support for university students with mental health problems? (ii) What is the role of social support for university students with mental health problems? (iii) What is the availability and effectiveness of social support interventions for university students with mental health problems?

10 studies met all eligibility criteria and were included in the final review. A total of 3,669 participants were included from universities across 10 unique countries. Students were typically females studying at an undergraduate level and had experience more than one mental health condition. Following a narrative synthesis, the review identified seven sources of social support for students, emphasising friends as their primary support network, challenging the traditional role of family support (Li et al., 2018; Pittman & Richmond, 2008; Sweet et al., 2018). Students perceived their support as moderate, mirroring common perceptions among individuals with mental health issues (Roohafza et al., 2014; Vaingankar et al., 2012). Students relied most heavily on friends for support, challenging the assumption that familial support remains a constant primary support source from 18 to 85 years (Li et al., 2018). Friendship proves significant for university students, fostering a sense of belonging and easing the psychological transition to university (Pittman & Richmond, 2008). Included studies unveiled priorities, preferences, and barriers in supporting students, including reluctance to accept psychiatric diagnoses as a result of stigma, symptom impact, and lack of understanding among academic staff.

Previous research indicates that perceived stigma hinders help-seeking behaviours of university students (Eisenberg et al., 2009). This review found further evidence for as perceived stigma hindered help-seeking behaviours and access to support networks, especially for individuals with mood disorders. There was limited evidence regarding the effectiveness and preference for universities to have dedicated mental health advisors. Before universities can be encouraged to employ staff in this role, more research is required to establish whether mental health advisors are the most user and cost-effective way to educate staff and advocate for students with the aim alleviating disclosure burdens and stigma-related barriers. Such roles have proven effective in healthcare settings, so this highlights a potential future intervention point for universities (Morant et al., 2015).

The review found a consistent relationship between social support and rates of suicide, suicidal ideation, anxiety, depression, and psychological distress, consistent with previous studies (Eldeleklioglu, 2006; Kleiman & Liu, 2013). These interpretations are rooted in cross-sectional quantitative studies, to establish the directionality between social support and mental health high-quality, longitudinal studies are required. However, one study suggested that stable romantic relationships could increase stress for students with mental health issues, with the level of stress possibly influenced by the stage or duration of the relationship (Lau et al., 2018). While this review supports the idea that long-term relationships might raise stress levels, further research is necessary for a complete understanding.

Effective social support enhanced student mental health by promoting independent mental health management, fostering supportive communities, and aiding crisis resolution. Social participation interventions, while potentially beneficial for students, require further research on acceptability (Webber & Fendt-Newlin, 2017). Student-centred support interventions should strengthen existing relationships to facilitate efficient

mental health management. Diverse network participation positively influenced perceived support and mental wellbeing, echoing benefits seen in clinical populations (Rhee et al., 2021). As a result, institutions should further encourage student engagement in university clubs or study groups with the aim of diversifying student support networks. In line with the current review, previous research has indicated that by promoting such engagement can help universities promote a sense of normalcy and individual value for students with mental health problems (Finnerty et al., 2021).

Inadequate social support adversely affected students' mental health, particularly during university transitions, leading to emotional and physical detachment from their support system. This detachment prolonged support delays, worsened clinical symptoms and intensified the stress of forming new connections. The challenge of disclosing mental health issues to new acquaintances can escalate symptoms, aggravated by long wait times for university services. Ineffective support further reduces overall wellbeing, heightening daily stress due to inconsistent pastoral and academic support. Consistent staff presence, such as academic advisors/tutors or mental health advisors, throughout a student's university journey, can alleviate confusion and distress. Inadequate support is linked to social and emotional isolation, exacerbating feelings of loneliness amid conflicts with family and friends. Peer-support mental health groups may mitigate loneliness and isolation among students, but further research is required to clarify their effectiveness.

The review found evidence on social support interventions for students with mental health issues. One study investigated such interventions, showing that an online peer-support program could be more effective than cognitive behavioural therapy in reducing anxiety and improving perceived levels of support. A similar peer-support program—Honest, Open, Proud—has been found effective in reducing self-stigma about mental illness and appraisals of their perceived resources used to cope with stigma-related distress in students (Conley et al., 2020). Our current understanding is that peer-support programs not only hold the potential to dismantle the barrier of stigma but also have the capacity to reduce symptoms of mental illness as well.

Strengths and limitations

While the current review followed PRISMA guidelines for systematic reviews (Page et al., 2021) and draws its strengths from the breadth of searches and rigour of data extraction and analysis, there are still limitations that need to be considered. Most notably, the included quantitative insights into social support were offered exclusively through use of the MSPSS. While included studies using the same measurement tool was helpful for methodological cohesion, it demonstrates a lack of diversity and there may be aspects of social support that remain unrecognised due to the constraints of the MSPSS. Additionally, the grey literature search was limited to two online databases and as a result the number of potential search returns was limited. Broader searches may have yielded additional papers.

Conclusion

This review highlights the need to consider the distinct support requirements of students with mental health problems. Social support should be considered as a potential target for interventions to support students with mental health problems. Further research is required to comprehensively profile student support networks and explore how barriers to support can be addressed while minimising negative impacts of ineffective support.

Disclosure statement

The authors declare that there is not conflict of interest.

Funding

The author(s) reported there is no funding associated with the work featured in this article.

References

Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., Demyttenaere, K., Ebert, D. D., Green, J. G., Hasking, P., Murray, E., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Stein, D. J., Vilagut, G., Zaslavsky, A. M., & Kessler, R. C. (2018). WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*, *127*(7), 623–638. https://doi.org/10.1037/abn0000362

Barker, E. T., Howard, A. L., Villemaire-Krajden, R., & Galambos, N. L. (2018). The rise and fall of depressive symptoms and academic stress in two samples of university students. *Journal of Youth and Adolescence*, *47*(6), 1252–1266. https://doi.org/10.1007/s10964-018-0822-9

Beckers, T., Maassen, N., Koekkoek, B., Tiemens, B., & Hutschemaekers, G. (2022). Can social support be improved in people with a severe mental illness? A systematic review and meta-analysis. *Current Psychology (New Brunswick, N.J.)*, *42*(17), 1–11. https://doi.org/10.1007/s12144-021-02694-4

Braun, V., & Clarke, V. (2013). Successful qualitative research: A practical guide for beginners. SAGE. https://play.google.com/store/books/details?id=EV_Q06CUsXsC

Bruffaerts, R., Mortier, P., Auerbach, R. P., Alonso, J., Hermosillo De la Torre, A. E., Cuijpers, P., Demyttenaere, K., Ebert, D. D., Green, J. G., Hasking, P., Stein, D. J., Ennis, E., Nock, M. K., Pinder-Amaker, S., Sampson, N. A., Vilagut, G., Zaslavsky, A. M., & Kessler, R. C. (2019). Lifetime and 12-month treatment for mental disorders and suicidal thoughts and behaviors among first year college students. *International Journal of Methods in Psychiatric Research*, *28*(2), e1764. https://doi.org/10.1002/mpr.1764

Cobo-Rendón, R., López-Angulo, Y., Pérez-Villalobos, M. V., & Díaz-Mujica, A. (2020). Perceived social support and its effects on changes in the affective and eudaimonic well-being of Chilean University students. *Frontiers in Psychology*, *11*(1), 590513. https://doi.org/10.3389/fpsyg.2020.590513

Conley, C. S., Hundert, C. G., Charles, J. L. K., Huguenel, B. M., Al-Khouja, M., Qin, S., Paniagua, D., & Corrigan, P. W. (2020). Honest, open, proud–college: Effectiveness of a peer-led small-group intervention for reducing the stigma of mental illness. *Stigma and Health*, *5*(2), 168–178. https://doi.org/10.1037/sah0000185

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest: A Journal of the American Psychological Society*, *15*(2), 37–70. https://doi.org/10.1177/1529100614531398

Demery, R., Thirlaway, K., & Mercer, J. (2012). The experiences of university students with a mood disorder. *Disability & Society*, *27*(4), 519–533. https://doi.org/10.1080/09687599.2012.662827

Eisenberg, D., Downs, M. F., Golberstein, E., & Zivin, K. (2009). Stigma and help seeking for mental health among college students. *Medical Care Research and Review: MCRR*, *66*(5), 522–541. https://doi.org/10.1177/1077558709335173

Eldeleklioglu, J. (2006). The relationship between the perceived social support and the level of depression and anxiety in university students. *Kuram ve Uygulamada Egitim Bilimleri*, *6*(3), 742–752. https://www.proquest.com/scholarly-journals/relationship-between-perceived-social-support/docview/236994009/se-2?accountid=12253

Ellis, L. A., Campbell, A. J., Sethi, S., & O'Dea, B. M. (2011). Comparative randomized trial of an online cognitive-behavioral therapy program and an online support group for depression and anxiety. *Journal of Cyber Therapy and Rehabilitation*, *4*(4), 461–467. https://psychologicalsciences.unimelb.edu.au/__data/assets/pdf_file/0006/3522579/Santamaria-2011.pdf#page=39

El-Matury, H. J., & Besral, B. (2021). Structural equation model factors affecting suicidal ideation among undergraduate students. *European Journal of Molecular & Clinical Medicine*, *8*(3), 2424–2437. https://ejmcm.com/journal/about;%20https://ejmcm.com/article_10582.html

Feeney, B. C., & Collins, N. L. (2014). A new look at social support: A theoretical perspective on thriving through relationships. *Personality and Social Psychology Review: An Official Journal of the Society for Personality and Social Psychology, Inc*, *19*(2), 113–147. https://doi.org/10.1177/1088868314544222

Finnerty, R., Marshall, S. A., Imbault, C., & Trainor, L. J. (2021). Extra-curricular activities and well-being: results from a survey of undergraduate university students during COVID-19 lockdown restrictions. *Frontiers in Psychology*, *12*, 647402. https://doi.org/10.3389/fpsyg.2021.647402

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry*, *10*(1), 113. https://doi.org/10.1186/1471-244X-10-113

Hoffmann, T. C., Glasziou, P. P., Boutron, I., Milne, R., Perera, R., Moher, D., Altman, D. G., Barbour, V., Macdonald, H., Johnston, M., Lamb, S. E., Dixon-Woods, M., McCulloch, P., Wyatt, J. C., Chan, A.-W., & Michie, S. (2014). Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. *BMJ (Clinical Research ed.)*, *348*(3), g1687–g1687. https://doi.org/10.1136/bmj.g1687

Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.-P., Griffiths, F., Nicolau, B., O'Cathain, A., Rousseau, M.-C., Vedel, I., & Pluye, P. (2018). The mixed methods appraisal tool (MMAT) version 2018 for information professionals and researchers. *Education for Information*, *34*(4), 285–291. https://doi.org/10.3233/EFI-180221

House, J. S. (1981). *Work stress, and social support*. Addison Wesley.

James, K., Brooks, H., Susanti, H., Waddingham, J., Irmansyah, I., Keliat, B.-A., Utomo, B., Rose, D., Colucci, E., & Lovell, K. (2020). Implementing civic engagement within mental health services in South East Asia: A systematic review and realist synthesis of current evidence. *International Journal of Mental Health Systems*, *14*(1), 17. https://doi.org/10.1186/s13033-020-00352-z

Jerabek, L. (1996). *Social Anxiety Questionnaire*. Unpublished manuscript.

Keong, P., Lai, C., Foong, M., & Ibrahim. (2015). The relationship between mental health and academic achievement among university students – A literature review [Paper presentation]. In *GTAR 2015*, Bandung, Indonesia. https://www.researchgate.net/publication/278481569_The_Relationship_between_Mental_Health_and_Academic_Achievement_among_University_Students_-_A_Literature_Review

Kessler, R. C., Andrews, G., Colpe et al. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, *32*, 959–956.

Kirsh, B., Friedland, J., Cho, S., Gopalasuntharanathan, N., Orfus, S., Salkovitch, M., Snider, K., & Webber, C. (2015). Experiences of university students living with mental health problems: Interrelations between the self, the social, and the school. *Work (Reading, Mass.)*, *53*(2), 325–335. https://doi.org/10.3233/WOR-152153

Kleiman, E. M., & Liu, R. T. (2013). Social support as a protective factor in suicide: Findings from two nationally representative samples. *Journal of Affective Disorders*, *150*(2), 540–545. https://doi.org/10.1016/j.jad.2013.01.033

Lau, K. K. H., Randall, A. K., Duran, N. D., & Tao, C. (2018). Examining the effects of couples' Real-Time stress and coping processes on interaction quality: language use as a mediator. *Frontiers in Psychology*, *9*, 2598. https://doi.org/10.3389/fpsyg.2018.02598

Lau, Y. W., Vaingankar, J. A., Abdin, E., Shafie, S., Jeyagurunathan, A., Zhang, Y., Magadi, H., Ng, L. L., Chong, S. A., & Subramaniam, M. (2019). Social support network typologies and their association with dementia and depression among older adults in Singapore: A cross-sectional analysis. *BMJ Open*, *9*(5), e025303. https://doi.org/10.1136/bmjopen-2018-025303

Li, J., Han, X., Wang, W., Sun, G., & Cheng, Z. (2018). How social support influences university students' academic achievement and emotional exhaustion: The mediating role of self-esteem. *Learning and Individual Differences*, *61*(1), 120–126. https://doi.org/10.1016/j.lindif.2017.11.016

Lin, N., Simeone, R. S., Ensel, W. M., & Kuo, W. (1979). Social support, stressful life events, and illness: A model and an empirical test. *Journal of Health and Social Behavior*, *20*(2), 108–119. https://www.ncbi.nlm.nih.gov/pubmed/479524 https://doi.org/10.2307/2136433

Lovibond, S. H., & Lovibond, P. F. (1995). *Depression Anxiety Stress Scales (DASS--21, DASS--42) [Database record]*. APA PsycTests.

Macaskill, A. (2013). The mental health of university students in the United Kingdom. *British Journal of Guidance & Counselling*, *41*(4), 426–441. https://doi.org/10.1080/03069885.2012.743110

Martín-Cano, M. D C., Díaz-Jiménez, R. M., Caravaca-Sánchez, F., & de La Fuente-Robles, Y. M. (2022). Depression, anxiety and stress in social work students during COVID-19 confinement. A comparative study of Spanish and Mexican universities. *Social Work in Mental Health*, *20*(3), 259–281. https://doi.org/10.1080/15332985.2021.2005739

McGowan, J., Sampson, M., Salzwedel, D. M., Cogo, E., Foerster, V., & Lefebvre, C. (2016). PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. *Journal of Clinical Epidemiology*, *75*(1), 40–46. https://doi.org/10.1016/j.jclinepi.2016.01.021

Moghtader, L., & Shamloo, M. (2019). The correlation of perceived social support and emotional schemes with students' social anxiety. *Journal of Holistic Nursing and Midwifery*, *29*(2), 106–112. https://doi.org/10.32598/JHNM.29.2.106

Morant, N., Kaminskiy, E., & Ramon, S. (2015). Shared decision making for psychiatric medication management: beyond the micro-social. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, *19*(5), 1002–1014. https://doi.org/10.1111/hex.12392

Morrison, A., Polisena, J., Husereau, D., Moulton, K., Clark, M., Fiander, M., Mierzwinski-Urban, M., Clifford, T., Hutton, B., & Rabb, D. (2012). The effect of English-language restriction on systematic review-based meta-analyses: A systematic review of empirical studies. *International Journal of Technology Assessment in Health Care*, *28*(2), 138–144. https://doi.org/10.1017/S0266462312000086

Nasir, R., & Johns, E. (2022). Estimating suicide among higher education students. Experimental Statistics - Office for National Statistics. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/estimatingsuicideamonghighereducationstudentsenglandandwalesexperimentalstatistics/2017to2020

National Institute of Mental Health. (2023). *Mental illness*. National Institute of Mental Health (NIMH). https://www.nimh.nih.gov/health/statistics/mental-illness

Nevard, I., Green, C., Bell, V., Gellatly, J., Brooks, H., & Bee, P. (2021). Conceptualising the social networks of vulnerable children and young people: A systematic review and narrative synthesis. *Social Psychiatry and Psychiatric Epidemiology*, *56*(2), 169–182. https://doi.org/10.1007/s00127-020-01968-9

Neves, J., & Hillman, N. (2019). *Student Academic Experience Survey*. https://www.hepi.ac.uk/wp-content/uploads/2019/06/Student-Academic-Experience-Survey-2019.pdf

Ochnik, D., Rogowska, A. M., Kuśnierz, C., Jakubiak, M., Schütz, A., Held, M. J., Arzenšek, A., Benatov, J., Berger, R., Korchagina, E. V., Pavlova, I., Blažková, I., Aslan, I., Çınar, O., & Cuero-Acosta, Y. A. (2021). Mental health prevalence and predictors among university students in nine countries during the COVID-19 pandemic: A cross-national study. *Scientific Reports*, *11*(1), 18644. https://doi.org/10.1038/s41598-021-97697-3

OECD. (2022). *Average age of new first-time entrants to higher education in OECD countries in 2020, by age [Graph]*. Statista. https://www.statista.com/statistics/1346421/students-entering-higher-education-oecd-age/

Page, M. J., Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … McKenzie, J. E. (2021). PRISMA 2020 explanation and elaboration: Updated guidance and exemplars for reporting systematic reviews. *BMJ (Clinical Research ed.)*, *372*, n160. https://doi.org/10.1136/bmj.n160

Pittman, L., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *The Journal of Experimental Education*, *76*(4), 343–362. https://doi.org/10.3200/JEXE.76.4.343-362

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. *A Product from the ESRC Methods Programme Version*, *1*(1), b92. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=ed8b23836338f6fdea0cc55e161b0fc5805f9e27

Posner, K., Brown, G. K., Stanley, B., Brent, D. A., Yershova, K. V., Oquendo, M. A., Currier, G. W., Melvin, G. A., Greenhill, L., Shen, S., & Mann, J. J. (2011). The Columbia–Suicide Severity Rating Scale: Initial validity and internal consistency findings from three multisite studies with adolescents and adults. *The American Journal of Psychiatry*, *168*(12), 1266–1277. https://doi.org/10.1176/appi.ajp.2011.10111704

Reeves, D., Blickem, C., Vassilev, I., Brooks, H., Kennedy, A., Richardson, G., & Rogers, A. (2014). The contribution of social networks to the health and self-management of patients with long-term conditions: A longitudinal study. *PloS One*, *9*(6), e98340. https://doi.org/10.1371/journal.pone.0098340

Rhee, T. G., Marottoli, R. A., & Monin, J. K. (2021). Diversity of social networks versus quality of social support: Which is more protective for health-related quality of life among older adults? *Preventive Medicine*, *145*, 106440. https://doi.org/10.1016/j.ypmed.2021.106440

Roohafza, H. R., Afshar, H., Keshteli, A. H., Mohammadi, N., Feizi, A., Taslimi, M., & Adibi, P. (2014). What's the role of perceived social support and coping styles in depression and anxiety? *Journal of Research in Medical Sciences: The Official Journal of Isfahan University of Medical Sciences*, *19*(10), 944–949.

Sheldon, E., Simmonds-Buckley, M., Bone, C., Mascarenhas, T., Chan, N., Wincott, M., Gleeson, H., Sow, K., Hind, D., & Barkham, M. (2021). Prevalence and risk factors for mental health problems in university undergraduate students: A systematic review with meta-analysis. *Journal of Affective Disorders*, *287*(1), 282–292. https://doi.org/10.1016/j.jad.2021.03.054

Steven, D. H., & Philip, C. K. (1980). *Automatic Thoughts Questionnaire (ATQ) [Database record]*. APA PsycTests.

Sung, K.-M., & Puskar, K. R. (2006). Schizophrenia in college students in Korea: A qualitative perspective. *Perspectives in Psychiatric Care*, *42*(1), 21–32. https://doi.org/10.1111/j.1744-6163.2006.00046.x

Sutherland, P. L. (2018). The impact of mental health issues on academic achievement in high school students. Electronic Theses, *Projects and Dissertations*, *6*(1), 660.

Sweet, D., Byng, R., Webber, M., Enki, D. G., Porter, I., Larsen, J., Huxley, P., & Pinfold, V. (2018). Personal well-being networks, social capital and severe mental illness: Exploratory study. *The British Journal of Psychiatry: The Journal of Mental Science*, *212*(5), 308–317. https://doi.org/10.1192/bjp.bp.117.203950

Thorley, C. (2017). *Not be degrees: Improving student mental health in the UK's universities*. https://www.ippr.org/research/publications/not-by-degrees

Tran, K. K., Wong, Y. J., Cokley, K. O., Brownson, C., Drum, D., Awad, G., & Wang, M.-C. (2015). Suicidal Asian American College Students' perceptions of protective factors: A qualitative study. *Death Studies*, *39*(8), 500–507. https://doi.org/10.1080/07481187.2014.970299

UCAS. (2021). Starting the conversation: UCAS report on student mental health. https://www.ucas.com/file/513961/download?token=wAaKRniC

Unite Students. (2016). Unite Students Insight Report. https://www.ucas.com/file/513961/download?token=wAaKRniC

Vaingankar, J. A., Subramaniam, M., Lim, Y. W., Sherbourne, C. D., Luo, N., Ryan, G. W., Phua, A., Shahwan, S., Kwok, K. W., Brown, J. A., Bradley, M. A., Edelen, M. O., & Chong, S. A. (2012). From well-being to positive mental health: Conceptualization and qualitative development of an instrument in Singapore. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, *21*(10), 1785–1794. https://doi.org/10.1007/s11136-011-0105-3

Vangelisti, A. L. (2009). Challenges in conceptualizing social support. *Journal of Social and Personal Relationships*, *26*(1), 39–51. https://doi.org/10.1177/0265407509105520

Viertiö, S., Kiviruusu, O., Piirtola, M., Kaprio, J., Korhonen, T., Marttunen, M., & Suvisaari, J. (2021). Factors contributing to psychological distress in the working population, with a special reference to gender difference. *BMC Public Health*, *21*(1), 611. https://doi.org/10.1186/s12889-021-10560-y

Wang, Z., Nayfeh, T., Tetzlaff, J., O'Blenis, P., & Murad, M. H. (2020). Error rates of human reviewers during abstract screening in systematic reviews. *PloS One*, *15*(1), e0227742. https://doi.org/10.1371/journal.pone.0227742

Webber, M., & Fendt-Newlin, M. (2017). A review of social participation interventions for people with mental health problems. *Social Psychiatry and Psychiatric Epidemiology*, *52*(4), 369–380. https://doi.org/10.1007/s00127-017-1372-2

Woof, V. G., Hames, C., Speer, S., & Cohen, D. L. (2021). A qualitative exploration of the unique barriers, challenges and experiences encountered by undergraduate psychology students with mental health problems. *Studies in Higher Education*, *46*(4), 750–762. https://doi.org/10.1080/03075079.2019.1652809

Zhang, M., Zhang, J., Zhang, F., Zhang, L., & Feng, D. (2018). Prevalence of psychological distress and the effects of resilience and perceived social support among Chinese college students: Does gender make a difference? *Psychiatry Research*, *267*, 409–413. https://doi.org/10.1016/j.psychres.2018.06.038