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A Systematic Review of Depression, Anxiety and Stress among Higher Education University Students in the UK: Prevalence, Determinants and Strategic Interventions

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1. Prevalence of the Problem

Mental health disorders among university students represent a growing public health concern in the United Kingdom. Evidence from the Office for National Statistics indicates that young adults aged 16–24 consistently report higher levels of anxiety and depressive symptoms compared to older populations (ONS, 2023). This trend is particularly evident within higher education settings, where academic, financial, and social pressures converge.

Recent epidemiological studies suggest that approximately 25–35% of university students in the UK experience clinically significant symptoms of depression or anxiety (Bewick et al., 2010; Thorley, 2017). Moreover, demand for student mental health services has risen sharply, with NHS England reporting increased referrals for young adults (NHS England, 2023).

Critically, prevalence rates vary across studies due to methodological inconsistencies, including differing diagnostic tools such as DASS-21 and PHQ-9. This variation highlights the need for a systematic synthesis of evidence to establish clearer estimates and identify patterns. Without intervention, these conditions contribute to academic underperformance, increased dropout rates, and long-term socioeconomic consequences (Auerbach et al., 2018).

2. Introduction

Mental health among university students has become a critical public health concern in recent years. Conditions such as depression, anxiety, and stress are highly prevalent within student populations and have significant implications for academic performance, social functioning, and overall wellbeing. These conditions are interrelated and can negatively affect cognitive functioning, emotional regulation, and interpersonal relationships.

Depression is typically characterised by persistent low mood and a loss of interest in daily activities, while anxiety involves excessive worry and physiological symptoms such as restlessness and increased heart rate. Stress, often associated with academic pressures and life transitions, can further intensify both depression and anxiety (American Psychiatric Association, 2013).

The growing recognition of mental health challenges among students highlights the need for greater attention within public health and higher education systems. Understanding the scale and contributing factors of this issue is essential for developing effective interventions and support strategies.

3. Literature-Based Background

Over the past decade, global evidence suggests a significant deterioration in student mental health. A large-scale international study by Auerbach et al. (2018) found that more than 30% of university students met the criteria for at least one mental disorder, indicating the widespread nature of the issue. In the UK, research has identified key contributing factors such as transition-related stress, financial instability, and social isolation (Cooke et al., 2006; Richardson et al., 2017).

The COVID-19 pandemic further intensified these challenges. Elmer et al. (2020) demonstrated that social restrictions led to increased loneliness and psychological distress among students. However, some scholars argue that the pandemic did not create new problems but rather amplified pre-existing structural issues, including insufficient mental health support within universities (Evans et al., 2018).

There is ongoing debate regarding the primary drivers of student mental health problems. Some studies emphasise socioeconomic factors, particularly financial hardship, as key determinants (Walsemann et al., 2015). In contrast, other research highlights academic pressure, perfectionism, and performance expectations as more influential contributors (Duffy et al., 2019). This divergence reflects the multifactorial nature of student mental health.

Additionally, variability in measurement tools presents further challenges. Commonly used instruments such as DASS-21, GAD-7, and PHQ-9 often produce different prevalence estimates, raising concerns about consistency and validity across studies (Lovibond & Lovibond, 1995). As a result, there is a need for systematic approaches to synthesise existing

evidence and provide a clearer understanding of student mental health trends and determinants.

4. Rationale, Research Aim and Objectives

Rationale

Despite increasing research, the literature on student mental health remains fragmented. Variability in methodologies, populations, and measurement tools limits the ability to draw definitive conclusions. Furthermore, there is insufficient integration of findings into policy and practice.

A systematic review will:

- Provide a comprehensive synthesis of evidence
 - Identify consistent determinants and gaps
 - Inform effective intervention strategies
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Research Question

What are the prevalence, causes and strategic measures to address depression, anxiety and stress among UK university students?

Research Aim

To systematically review and synthesise existing literature to determine the prevalence, underlying causes and strategic solutions of depression, anxiety and stress among UK university students.

Research Objectives

- To identify, assess and sympathise published academic journal articles, University sector documentations, healthcare studies and government guidance on depression, anxiety and stress among UK university students.
 - To examine and compare reported prevalence rates and causes across different countries and regions
 - To identify the measurement tools used (e.g., DASS-21) in assessing mental health outcomes.
 - To summarise key findings, highlight gaps in the existing literature and provide policy recommendations for improvement
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5. Research Methodology

This study adopts a systematic review methodology, widely regarded as the highest level of evidence in public health research (Higgins et al., 2019). Unlike traditional literature reviews, systematic reviews employ structured and transparent processes to minimise bias. This methodological approach is particularly valuable when addressing complex and multifactorial issues such as mental health among university students, where findings are often dispersed across different disciplines and study designs.

The review will follow PRISMA guidelines, ensuring methodological rigour and reproducibility. This includes predefined search strategies, inclusion criteria, and data extraction protocols. Adhering to PRISMA enhances transparency by clearly documenting each stage of the review process, thereby allowing replication and critical appraisal by other researchers. Furthermore, the use of explicit criteria reduces the risk of selective reporting and improves the overall reliability of findings.

Critically, systematic reviews allow for both qualitative synthesis and quantitative comparison, making them particularly suitable for complex public health issues such as mental health. They enable the identification of patterns, consistencies, and contradictions within the literature, supporting more robust conclusions. However, it is important to acknowledge that the quality of a systematic review is inherently dependent on the quality of the included studies, which may introduce limitations despite the rigorous methodology.

6. Research Design

This study uses a **case study research design**, focusing on student mental health in the UK as an important public health issue. A case study approach helps to explore a specific topic in detail within its real-life context, which makes it suitable for understanding the complex nature of depression, anxiety, and stress among university students.

Rather than collecting new data directly, this study is based on a **systematic review of existing research**. This allows information from different studies to be brought together, giving a broader and more complete understanding of the issue while still following a structured and reliable approach.

The research follows a clear four-stage process:

1. **Identification** – searching databases such as PubMed, Scopus, and PsycINFO
2. **Screening** – removing duplicate and irrelevant studies
3. **Eligibility** – reviewing full-text articles for relevance
4. **Inclusion** – selecting the final studies for analysis

This process is aligned with the principles of the **PRISMA framework**, which enhances transparency, consistency, and reduces selection bias (Moher et al., 2009).

In the identification stage, a comprehensive search strategy will be employed using multiple databases to ensure broad coverage of relevant literature (Higgins et al., 2019). The use of keywords and Boolean operators will facilitate targeted retrieval of studies. However, reliance on published databases may limit access to grey literature, potentially introducing publication bias.

The screening stage involves removing duplicates and assessing titles and abstracts against predefined criteria. While this improves efficiency, it may introduce subjectivity. To minimise this, clear inclusion and exclusion criteria will be established in advance (Petticrew and Roberts, 2006).

During the eligibility stage, full-text articles will be critically evaluated for methodological quality and relevance. This ensures that only robust and appropriate studies are included, although access limitations may restrict some sources.

The inclusion stage finalises the selection of studies that meet all criteria. These studies will form the evidence base for analysing the case of student mental health in the UK.

Overall, the case study design allows for an in-depth and context-specific analysis, while the systematic review process ensures a rigorous and evidence-based approach. However, the findings remain dependent on the quality and variability of existing literature, which may present challenges in comparison and synthesis.

7. Recruitment, Sampling and Study Selection

As a secondary research study, no participants will be recruited. Instead, this research will focus on the systematic identification and selection of relevant published studies.

Inclusion Criteria

- Peer-reviewed studies (2015–2025)
- Focus on university students
- UK-based or comparable contexts
- Quantitative or qualitative studies

Exclusion Criteria

- Non-English publications
- Non-academic sources lacking empirical data
- Studies unrelated to mental health

Purposive sampling will ensure relevance and quality.

In addition, the inclusion and exclusion criteria will be applied consistently throughout the selection process to enhance transparency and reduce the risk of bias (Higgins et al., 2019). The use of peer-reviewed sources ensures that only high-quality and credible evidence is included, strengthening the validity of the findings. However, limiting studies to English-language publications may introduce language bias and exclude potentially relevant research conducted in other contexts (Petticrew and Roberts, 2006).

Furthermore, purposive sampling is appropriate for systematic reviews as it allows the researcher to focus on studies that are most relevant to the research question, rather than aiming for statistical representativeness (Etikan et al., 2016). While this approach enhances depth and relevance, it may also limit generalisability. Despite this limitation, the structured selection process ensures that the final sample of studies is both methodologically sound and aligned with the objectives of the research.

8. Data Collection Methods

Data will be collected through systematic searches using keywords:

- Student mental health UK
- Depression anxiety university students
- DASS-21 prevalence students

Boolean operators such as **AND** and **OR** will be used to refine search results and improve the precision of retrieved studies (Higgins et al., 2019). In addition, search limits such as publication date (2015–2025) and language (English) will be applied to ensure relevance and manageability of the data.

Data Extraction Fields

- Author/year
- Study design
- Sample size
- Measurement tools
- Key findings

This ensures consistency and comparability across studies.

Furthermore, a **standardised data extraction form** will be developed to systematically record information from each included study. This approach reduces the risk of errors and enhances the reliability of the review process (Moher et al., 2009). Where necessary, additional variables such as participant demographics and geographical context will be included to allow for deeper analysis.

However, it is important to acknowledge that variations in reporting across studies may limit the completeness of extracted data. Some studies may lack detailed methodological information, which could affect comparability. Despite these challenges, the structured data collection process ensures a transparent and rigorous approach, supporting the validity of the overall findings.

This ensures consistency and comparability across studies.

9. Proposed Data Analysis

A thematic synthesis approach will be used.

Steps include:

- Coding extracted data
- Identifying recurring themes (e.g., financial stress, academic pressure)
- Comparing prevalence rates
- Evaluating intervention strategies

Descriptive statistics will summarise prevalence data, while qualitative insights will provide contextual understanding.

In addition, thematic synthesis will involve a systematic process of **data familiarisation, generation of initial codes, and development of broader analytical themes**, allowing patterns across studies to be identified and interpreted (Braun and Clarke, 2006). This approach is particularly suitable for integrating findings from studies with diverse methodologies, as it enables both qualitative interpretation and comparison of quantitative results.

Furthermore, prevalence rates reported in different studies will be critically compared to identify variations and potential influencing factors, such as differences in measurement tools (e.g., DASS-21, PHQ-9) and sample characteristics. This comparative analysis will enhance the robustness of the findings and support more nuanced conclusions (Higgins et al., 2019). However, it is important to acknowledge that thematic synthesis involves a degree of researcher interpretation, which may introduce subjectivity. To minimise this, a transparent and systematic coding framework will be applied. Overall, this analytical approach enables a comprehensive understanding of both statistical trends and underlying contextual factors influencing student mental health.

10. Ethical Considerations

Although no primary data is collected, ethical principles remain essential.

- **Proper citation to avoid plagiarism** (Parahoo, 2014)
- **Use of credible and peer-reviewed sources** (Polit and Beck, 2021)
- **Transparency in methodology** (Moher et al., 2009)

Ethical approval will be sought in accordance with university guidelines.

In addition to these principles, this study will ensure academic integrity by accurately representing the findings of included studies without misinterpretation or selective reporting

(Resnik, 2020). As systematic reviews involve synthesising existing research, there is a risk of introducing bias through the selection and interpretation of studies. To minimise this, clear inclusion and exclusion criteria will be applied consistently, and all decisions during the review process will be documented, in line with best practice guidance (Higgins et al., 2019).

Furthermore, attention will be given to the ethical standards of the original studies included in the review. Only research that demonstrates appropriate ethical approval and participant protection will be considered, ensuring that the evidence base is ethically sound (World Medical Association, 2013). Issues such as confidentiality, informed consent, and data protection within the original studies will also be taken into account.

Finally, transparency will be maintained throughout the research process, allowing for reproducibility and accountability (Moher et al., 2009). Although the study does not involve direct interaction with participants, adherence to ethical research practices remains crucial in maintaining the credibility and trustworthiness of the findings (Resnik, 2020).

11. Implications of Research

This research has significant implications:

Policy

Supports the development of university mental health policies by providing a consolidated evidence base on the prevalence and determinants of depression, anxiety, and stress among students. This may enable policymakers to design more targeted and inclusive strategies that address the specific needs of diverse student populations, including international and vulnerable groups.

Practice

Improves student support services by informing universities about effective intervention strategies, such as counselling services, peer support programmes, and digital mental health initiatives. The findings may also encourage institutions to adopt proactive rather than reactive approaches, focusing on early identification and prevention.

Research

Identifies gaps for future studies, particularly in relation to under-researched populations, inconsistencies in measurement tools, and the limited availability of longitudinal data. This may guide future researchers towards more standardised and methodologically robust studies.

Public Health

Contributes to national mental health strategies by aligning university-level interventions with broader public health priorities. This is particularly relevant in the context of increasing demand for mental health services reported by healthcare systems.

Critically, the findings may inform early intervention programmes and reduce the long-term burden on healthcare systems. However, it is important to acknowledge that translating research findings into practice may be constrained by resource limitations and institutional barriers, highlighting the need for sustained investment and policy commitment.

12. Plan of Work (Gantt Chart)

Task	Timeline
Topic approval	Week 1
Literature search	Weeks 2–4
Screening	Weeks 5–6
Data extraction	Weeks 7–8
Analysis	Weeks 9–10
Writing	Weeks 11–15
Submission	Week 16

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