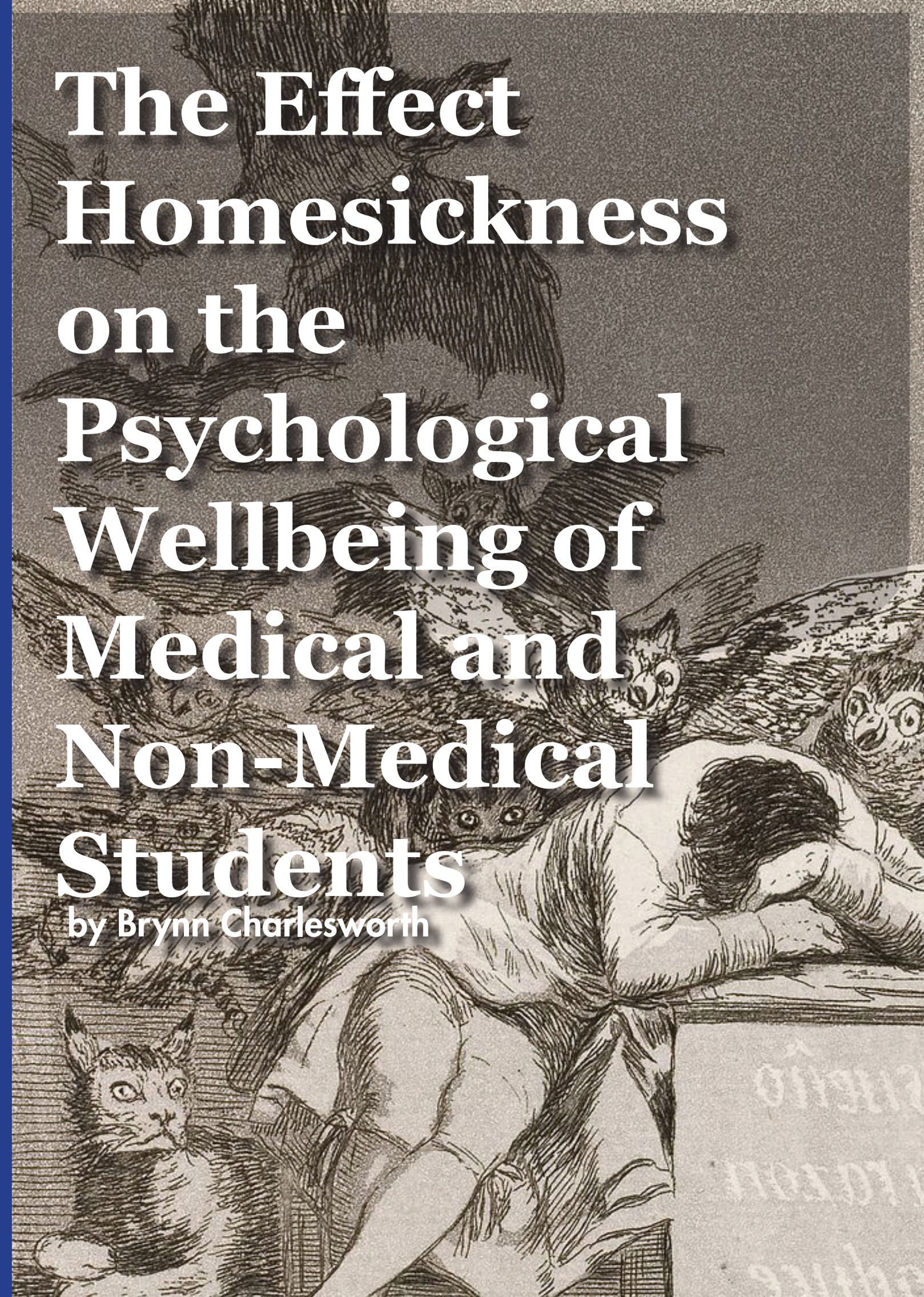

The Effect Homesickness on the Psychological Wellbeing of Medical and Non-Medical Students

by Brynn Charlesworth

Abstract

Introduction

Homesickness commonly affects students moving to college for the first time, causing physical, psychological, and emotional disturbances. Medical students are particularly vulnerable to distressing feelings due to the already high prevalence of mental illness and burnout within this population.

Aims & Objectives

This review aims to critically evaluate the current literature on homesickness and wellbeing of postsecondary students, assessing the impact of psychological distress and investigating the relationships between mental illness, medical student burnout, and their implications in medical school.

Methods

Searches of PubMed, PsychINFO, and Psychology and Behavioural Sciences Collection databases were conducted to analyse literature on homesickness, student wellbeing, and burnout. These were screened according to pre-defined criteria and articles were assessed for appropriateness.

Results

12 articles successfully met the eligibility criteria. Homesickness was found to affect the majority of freshman students, associated with both a significant decrease in college adjustment and an increase in depression. Within the postsecondary population, psychological distress varied, with medical students having poorer mental health than their peers. The risk for burnout was found to be predictive of mental illness and was associated with unprofessional behaviour.

Discussion

During the transition to college, students are under an enormous amount of pressure – academically and psychologically. Evidence suggests that homesickness is common, with associations found between homesickness and depression. A high prevalence of psychological distress among the postsecondary population and a positive correlation between mental illness and burnout was also found. As such, medical student homesickness and burnout should be investigated to decrease potentially devastating consequences.

Reviewed by John Mackrill and Mohammad Abdulla

Introduction

Homesickness is defined as "the distress or impairment caused by an actual or anticipated separation from home" and is considered a subconstruct of acculturative stress (1, 2). With higher education being marked by considerable change and transition, students moving for the first time are vulnerable to this feeling of distress (3). Those who have experienced intense homesickness have described symptoms including unstable emotions, isolating thoughts, severe loneliness, inability to concentrate, fluctuating sleep patterns, diet disturbances, and nausea, mirroring symptoms experienced in mental ill-health and grief (2, 4, 5). Previous research found homesick women reported decreased physical wellbeing, intellectual function, and overall mood (6). While this feeling of distress can affect anyone, homesickness is commonly experienced by individuals away to university (2, 7). People are distanced from their previous support network with simultaneous exposure to new stressors and challenging environments (2, 7). With over 5.3 million students studying outside their home country and projections showing continuous global growth, understanding the effect of homesickness in higher-level education is imperative (8, 9).

While much of the past research has focused on the personal risks and preventative factors of homesickness of first-year students, this review intends to consolidate the current literature on homesickness and mental health status in tertiary education (10-12). It will amalgamate data on the impact of mental illness within the postsecondary population, with an emphasis on a high-risk sample of medical students. Studies have suggested that a consistently higher prevalence of psychological distress exists among medical students compared to the general population and their non-medical peers (13). Further, burnout among medical school graduates has been recognized as a public health emergency, with over 80% of doctors at significant risk (13). With the emerging mental health crisis among medical students, the effect of psychological distress on medical student burnout will also be examined (14).

By elucidating the relationship between homesickness and wellbeing in students, this review will provide a foundation for third-level institutions to facilitate transition into postsecondary education, assist homesick students, promoting an environment allowing students to flourish. Further, by exploring the negative outcomes associated with mental ill-health in the medical student population, efforts can be made to decrease potentially devastating consequences to individual wellbeing, patient care, and the overall healthcare system.

Abbreviation	Meaning
AEQ	Achievement Emotions Questionnaire
ASSIS	Acculturative Stress Scale for International Students
AVEM	Work-Related Behavior & Experience Pattern
CES-10	Center for Epidemiologic Studies Short Depression Scale
GHQ12	General Health Questionnaire
HADS-D	Anxiety & Depression Scale
MBI	Maslach Burnout Inventory
MBI-GS	Maslach Burnout Inventory - General Survey
MBI-SS	Maslach Burnout Inventory - General Survey for Students
PHQ-9	Patient Health Questionnaire
PMSS	Perceived Medical School Stress
PRIME-MD	Primary Care Evaluation of Mental Disorders
SES	Socioeconomic status
SF-8 QOL	Medical Outcomes Study Short-Form Quality of Life
UHS	Utrecht Homesickness Scale
UNE	University of New England

Table 1: Abbreviation used

Reason for Exclusion	Number
Review objectives not directly addressed (narrow scope)	10
Intervention implementation as primary focus (incorrect topic)	7
Systematic review (incorrect source)	5
Study population limited (highly specific)	3
Qualitative analysis (incorrect source)	2
Full free text unavailable (not accessible)	1
TOTAL	28

Table 3:
Rationale for literature exclusion

Aims & Objectives

This review aims to summarize, analyse, and evaluate the current literature on homesickness and wellbeing of postsecondary students, and the corresponding effect on burnout, by:

1. Examining the effect of homesickness on the wellbeing of postsecondary students;
2. Assessing the impact of mental ill-health in the postsecondary and medical student population;
3. Exploring the relationship between mental illness and medical student burnout;
4. Investigating the consequences of burnout in medical school.

Methods

Search Strategies

To identify the literature which satisfy the objectives of this review, four electronic searches were conducted on the 9th January 2020. Three databases were used. Final search terms were as follows:

PubMed & PsychINFO
(higher education OR tertiary education OR third-level education OR postsecondary* OR university students OR college students) AND (homesick* OR student homesick*) AND ((student mental health OR mental health OR mental well-being OR mental wellbeing OR psychological stress OR mental pressure) OR (prevalence OR statistic*))

PsychINFO & Psychology and Behavioural Sciences Collection
(student burnout OR medical student burnout OR medical student distress) AND (risk factors OR contributing factors OR predisposing factors OR predictor OR cause OR correlation) AND (medical school OR medical student OR medical undergraduates

Selection Process

After the initial searches were conducted, a total of 140 results were found on the databases. An additional 4 papers were discovered from the references of the aforementioned results. A total of 12 successfully met the entire eligibility criteria and were read in full to be included for review.

Inclusion Criteria	Exclusion Criteria
Equivalent subjects	Highly specific & limited study population
Peer reviewed	Systematic reviews
Quantitative research	Qualitative research
Full text	Full free text unavailable
Publication year: 2009-2019	Only one component of objective addressed
Population group: humans	Research on mental health interventions
Language: English	

Table 2:
Criteria to determine study eligibility

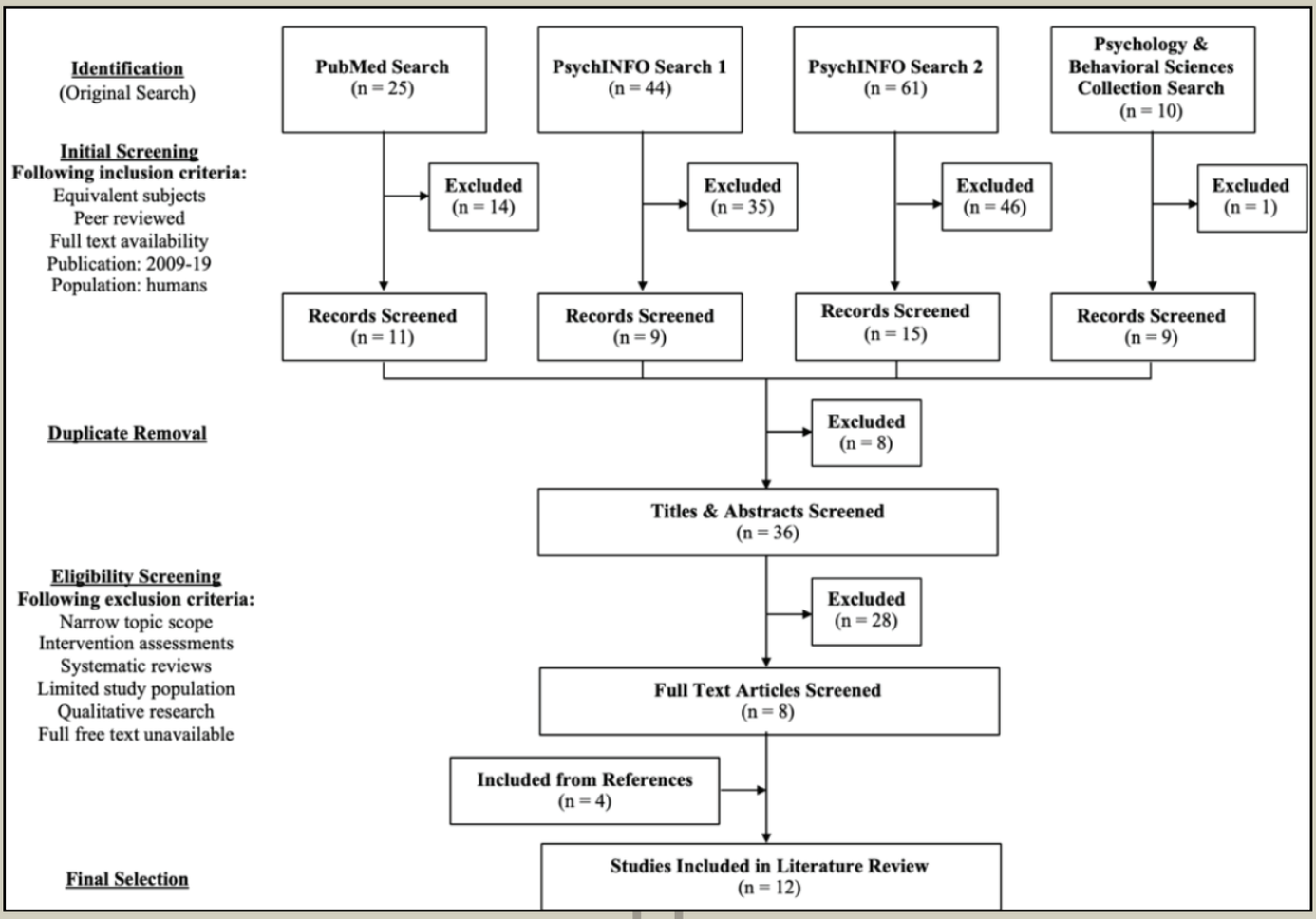

Figure 1:
Literature Search Strategy: Identification to selection

Data Collection

Information was obtained and critically assessed using the EBL Checklist and all 12 articles were determined to be high quality.

Results

Following the appraisal, data was collected from 10 cross-sectional and 2 longitudinal studies. Analysis of the studies has provided a deeper understanding of homesickness, wellbeing, and burnout in the postsecondary population.

Homesickness & Student Wellbeing

A study of undergraduates who had moved away from home found that 94% experienced homesickness within the first 10 weeks of their freshman year, where level of homesickness was found to decrease throughout their first semester (15). Homesickness was found to lead to a significant decrease in college adjustment, negatively correlated with social and academic life satisfaction, feeling settled at school, and relationship quality at college (15). Females were found to have a higher prevalence of homesickness & a significant positive predictors of homesickness included feeling the need to belong (16). Alternatively, a significant negative predictor was the feeling of acceptance in the new location, independent of the number of friends made (16). Furthermore, homesickness was found to be positively correlated with depression, acting directly and indirectly through self-confidence (17).

Psychological Wellbeing in the Postsecondary & Medical Student Population

Significant differences in mental illness were found to exist across different demographics, including place of origin, relationship status, and gender (17, 18). One study found that depression scores were highest among international students from Africa and Asia relative to their peers elsewhere (17). Married students were also found to have significantly higher levels of depression

Reference	Population Validity	Data Collection Validity	Study Design Validity	Results Validity	Overall Validity
1	83.3%	71.4%	100.0%	83.3%	84.6%
15	100.0%	85.7%	80.0%	100.0%	91.7%
16	87.5%	100.0%	80.0%	100.0%	92.0%
17	83.3%	71.4%	100.0%	83.3%	84.6%
18	100.0%	100.0%	100.0%	83.3%	95.6%
19	83.3%	71.4%	100.0%	83.3%	83.3%
20	100.0%	83.3%	100.0%	83.3%	91.3%
21	83.3%	83.3%	100.0%	100.0%	91.3%
22	83.3%	87.5%	100.0%	83.3%	87.5%
23	100.0%	83.3%	100.0%	83.3%	91.3%
24	100.0%	100.0%	100.0%	100.0%	100%
25	83.3%	57.1%	80%	83.3%	75.0%

Table 4:
Study Validity

compared to those who were single (17). However, it should be noted that the study did not include if this data pertained only to long-distance relationships (17). While one study did not find a significant difference between gender in the general postsecondary population, others found that female medical students were more likely to have moderate-severe depression (17-19). Male medical students were more likely to have depression rather than anxiety (17-19). Additionally, significant positive correlations of depression with homesickness, poor cultural competence, and low self-confidence were found to exist (17).
Further investigation into the medical student population revealed that 62% and 92% of medical students were classified as having minor psychiatric illnesses in India and Jordan, respectively (20, 21). Specifically, 2-10% of students were previously diagnosed with a mental illness before entering medical school and an additional 5-11% were diagnosed while in the program (20, 21). One study found that 14.3% of their students had moderate-severe depression and 22% had been suicidal since beginning the program, with students in their clinical years more likely to report suicidal ideation (18). Another study found that medical students had poorer mental health than age-matched references, with significant differences in mean scores between these two groups (19).

Psychological Wellbeing and Medical Student Burnout

Using the MBI, 26.4-52.8% of medical students presented with burnout, increasing to 71% when examining the preclinical years alone (22-24). In particular, subscales of the MBI determined 70.6% had high emotional exhaustion, 52.8% high cynicism, and 48.7% low academic efficacy, with personal characteristics accounting for 14.4% of burnout variability (23). A cross-sectional study found first-year students at the highest risk of burnout; however, a longitudinal study found the proportion of students at risk increased throughout their medical education (19, 23).

Consequences of Medical School Burnout

The risk for burnout was found to be predictive of depression and anxiety among medical students, positively correlated with sleep deprivation and unprofessional behaviour (19, 24). Whereas altruistic views of the societal responsibility of physicians, feelings of control, and professional self-confidence were found to be negatively correlated (19, 22, 24). Burnout was the only feature of distress with a direct effect on these views and behaviours (24).

Discussion

Key Findings

The majority of students (94%) were found to experience homesickness at the beginning of college with feelings of distress caused by displacement from the home decreasing their satisfaction with student life, ability to form new relationships, and overall college adjustment (15). With the established link between homesickness and depression and the high prevalence of mental illness among the postsecondary population, especially among medical students, students are under both immense psychological stress and academic pressure (17-21).

Title (Reference)	Design, Setting & Participants	Main Outcome Measures
Acculturative stress and influential factors among international students in China: A structural dynamic perspective (1)	Analysis of a cross-sectional International Student Health & Behaviour Survey among all international students enrolled at 4 universities in Wuhan, China (n = 567)	• *Acculturative stress* – ASSIS
Homesickness and adjustment across the first year of college: A longitudinal study (15)	Weekly, longitudinal surveys among all freshman students who moved away from home & were enrolled at a university in the United States (n = 174)	• *Homesickness* (single item measure) • *Emotional experience* • *Adjustment to college* • *Social network* – a measure of contact frequency, contact, enjoyment, difficulty & emotional support • *Social & academic adjustment* – measure of social & academic adjustment • *Global adjustment* to college – SWLS
Effects of social belonging on homesickness: An application of the belongingness hypothesis (16)	Study 1: Cross-sectional survey administered to all international students enrolled at 5 universities in Australia (n = 161) Study 2: Experimental design conducted in the first 6 school among all new intake students enrolled at the University of New England (UNE) in New South Wales (n = 144)	• *Homesickness* – modified UHS • *Chronic need to belong* – measure of individual differences • *Contact with home* – measure of interaction with family & friends over 4 weeks • *Social network in Australia* – measure of the number of relationships students had in Australia • *Social activity* – measure of the frequency of which the student goes out socially • *Acceptance by Australians* – modified Nesdale & Mak Acceptance Scale
Path analysis of acculturative stress components and their relationship with depression among international students in China (17)	Analysis of a cross-sectional International Student Health & Behaviour Survey among all international students enrolled at 4 universities in Wuhan, China (n = 567)	• *Acculturative stress* – ASSIS • *Depression* – CES-10
Depression, stigma, and suicidal ideation in medical students (18)	Cross-sectional survey among students enrolled at the University of Michigan Medical School in the United States (n= 769)	• *Depression* – PHQ-9 • *Stigmatizing views* – measures attitudes about mental illness &mental health care seeking • *Key influencing factors* – measure of diagnosis/treatment of depression & stress/coping in medical school
Perceived medical school stress and the development of behavior and experience patterns in German medical students (19)	Weekly, longitudinal surveys administered to first, second- & fifth-year medical students at Lübeck Medical School in Northern Germany (n = 182)	• *Professional Distress* – AVEM • *Stress perception* – a modified PMSS questionnaire • *Subjective health* – Short Form-12 Health Survey measure of 8 dimensions of health • *Psychological disturbances* – HADS-D
Wellbeing and burnout in medical students in India; A large-scale survey (20)	Cross-sectional survey among students enrolled at 4 major medical schools in India (n = 597)	• *Burnout* – Oldenburg burnout ratings • *Substance abuse* – CAGE questionnaire • *Minor psychiatric disorders* – GHQ12
Wellbeing and mental health amongst medical students in Jordan: A descriptive study (21)	Cross-sectional survey among students enrolled at 5 medical schools in Jordan (n = 479)	• *Burnout* – Oldenburg burnout ratings • *Substance abuse* – CAGE questionnaire • *Minor psychiatric disorders* – GHQ12
The prevalence and correlations of medical student burnout in the pre-clinical years: A cross-sectional study (22)	Cross-sectional among students enrolled at Mount Sinai School of Medicine in New York (n = 86)	• *Professional distress* – MBI-GS measure of emotional exhaustion, depersonalization & personal accomplishment • *Sleep deprivation* – Epworth Sleepiness Scale
Burnout among medical students during the first years of undergraduate school: Prevalence and associated factors (23)	Cross-sectional survey among all undergraduate medical students enrolled at Barretos School of Health Sciences, Dr. Paulo Prata in São Paulo, Brazil (n = 330)	• *Professional distress* – MBI-GS for Students measure of emotional exhaustion, cynicism & academic efficacy • *Daily regimes* – measures of academic, personal & outside-of-school domains
Relationship between burnout and professional conduct and attitudes among US medical students (24)	Cross-sectional survey among students enrolled at 7 medical schools across the United States (n = 4400)	• *Professional distress* – MBI measure of emotional exhaustion, depersonalization & personal accomplishment • *Depression* – PRIME-MD depression screening instrument • *Personal distress* –SF-8 QOL assessment tool • *Professionalism* – measure of professional attitudes & conduct
The relationship of emotions and burnout to medical students' academic performance (25)	A total of 4 cross-sectional survey among first- & second-year undergraduate medical students in the Midwest of the United States (n = 264)	• *Professional distress* – MBI-SS measure of emotional exhaustion, cynicism & academic efficacy • *Achievement emotions* – a modified AEQ measure of hope, pride, shame & anxiety subscales • *Academic performance* – final overall percentage for the semester

Table 5:
Summary of Studies

This review identified a relationship between mental illness and medical student burnout, which was pervasive across all years of study (19-21, 23). School stress and burnout predicted poor mental health and performance and up to 22% of medical students considered killing themselves whilst in the program (18, 19). Burnout was found to be associated with physical, emotional, and professional deficits as well, underscoring the negative impact of burnout in the healthcare field (22, 24, 25). These findings build upon the extensive body of evidence that indicates the relationship between higher levels of burnout in the clinical

environment and lower-quality patient care and satisfaction, increased medical errors, decreased professionalism, and reduced efficacy (26). Mental health problems have devastating consequences that medical professionals will continuously face throughout their careers. Evidence suggests that preclinical medical students appear to be affected by a complicated web of burnout, mental illness, and homesickness, predisposing students to an enormous amount of stress. This compromises their feelings of professional self-confidence immediately before entering the clinical field. As such, students in the early years of medical education must be provided with the necessary resources to help develop coping mechanisms needed to limit detrimental effects.

Study Quality, Strengths & Limitations

All studies were critically appraised and deemed high quality using the EBL Checklist, with overall validity scores ranging from 75-100%. Values were achieved by consistent population representation, acquisition of informed consent, use of transparent methodology, and suggestions for future research.

With self-reporting of sensitive topics, these questionnaires were vulnerable to recall, volunteer, and social desirability biases. Further, the scales measuring mental wellbeing may have been skewed based on the participant's mood or stress level. Nevertheless, many of the studies had large sample sizes and adequate response rates to minimize errors and increase validity. Confidentiality was also ensured to encourage truthful responses by participants. Additionally, while an array of confounds were adjusted for, it is possible that other factors were not accounted for and potentially altered results, such as the depth of friendships, the overrepresentation of women, and socioeconomic status (1, 16, 18).

Furthermore, 10 studies included in this review were cross-sectional in nature. As such, the majority of the research was correlational and provided associations between homesickness, mental illness, student burnout, and their associated consequences. To provide a more complete picture of the connection between these factors, an additional 2 longitudinal studies were also included to explore their causative relationships. Also, 5 were single-centre studies limiting the generalizability of the results; however, data was collected from students from up to 94 countries, studying across 5 continents.

Lastly, while many of these studies used the same validated instruments, variation did exist. Of the 7 studies investigating medical student burnout, 3 different instruments were used. Therefore, caution should be taken when directly comparing these results, as underlying subconstructs differ slightly.

Future Research

Studies should be conducted to replicate results found, across various populations including different institution types, disciplines, years of study, and ethnic backgrounds to verify findings and allow broader inferences to be made (25). Causative factors should be determined to establish directionality and to identify targets for interventions aimed at decreasing the level of homesickness, psychological stressors, and negative outcomes among students, as homesickness prevention programmes facilitating a healthy adjustment to college are rare (2). Due to the vast population in postsecondary institutions with varied cultural backgrounds, continued research into the effect of interpersonal skills, interactive stressors, and intrapersonal factors on homesickness should be undertaken to develop programmes for students best suited to their needs (1, 16, 17).

Conclusion

Evidence suggests that homesickness is common among all university students and poorer mental health is associated with increased homesickness. With the higher prevalence of mental illness in medical school and the negative impact of psychological stress on individual wellbeing and patient care, further research is needed. Specifically, investigation into the relationship between medical student homesickness and level of burnout and how it affects their overall wellbeing, and the healthcare system is essential.

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