

Comparing Prevalence of Burnout in Psychiatric Doctors Before and After the COVID-19 Pandemic:

A Systematic Review and Meta-Analysis

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Abstract

Objective: To determine the prevalence of burnout among psychiatry residents, fellows, and attendings (“psychiatry doctors”) prior to and following the COVID-19 pandemic.

Data sources: A systematic search of MEDLINE, Embase, PsycINFO, and PubMed databases was performed to identify studies reporting the prevalence of burnout pre-COVID-19 (pre-March 2020) and post-COVID-19 (post March 2020). The search was limited to articles written in English and published in peer-reviewed journals from January 1, 2010, until June 27, 2024.

Study selection: There were 1,825 studies screened by 2 independent reviewers,

with 36 eligible for inclusion. Observational studies and randomized controlled trials reporting the prevalence of burnout using validated tools were eligible for inclusion.

Data extraction: Prevalence data were independently extracted by 2 authors and pooled using a random effects model. A subgroup analysis was performed, stratifying burnout by country income status.

Results: The prevalence of burnout was 37.5% (95% confidence interval [CI], 28.2–47.3; 25 studies; 12,524 psychiatry doctors) prior to the COVID-19 pandemic and 32.0% (95% CI, 18.6–47.0; 12 studies; 7,458 psychiatry doctors) following the COVID-19 pandemic. Almost 1 in

2 psychiatry doctors from middle-income countries reported burnout pre-COVID-19 (49.8% [95% CI, 34.5–65.1]; 3 studies), with no studies reporting the prevalence of burnout in low-income countries. There was significant heterogeneity between studies.

Conclusions: Burnout among psychiatry doctors is common, affecting 1 in 3 both prior to and following the COVID-19 pandemic. Additional studies are needed from psychiatrists in low- and middle-income countries to better characterize the prevalence of burnout in this cohort.

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In March 2020, the COVID-19 pandemic resulted in unprecedented public health challenges, as well as social and economic disruption.¹ A rapid review by De Kock et al highlights the specific psychological impact on health care workers who worked through the pandemic, including lack of access to personal protective equipment, fear of catching the virus, and fear of passing it on to their families.² Many countries experienced an increase in the average levels of psychological distress among the population and an increase in demand for mental health services.^{3–5}

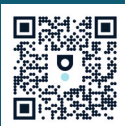
Burnout is included in the 11th Revision of the International Classification of Diseases as an occupational syndrome resulting from unsuccessfully managed chronic work stress⁶ and is characterized by emotional

exhaustion, depersonalization, and reduced personal accomplishment.⁷ Although it is a work-related syndrome, it has significant impact both in the workplace and in normal life.⁸

Two meta-analyses published prior to the COVID-19 pandemic demonstrate that burnout was already at problematic levels within the psychiatric medical workforce.^{9,10} It has been hypothesized that psychiatrists may be at heightened risk of burnout compared to other medical professionals due to their unique exposure to suicidal patients and physically aggressive patients in the context of acute mental health distress.¹⁰

Isolation and loss of connectivity between doctors have been identified as risk factors for burnout,¹¹ with this social disconnectedness likely exacerbated in the context

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Clinical Points

- Burnout affects 1 in 3 psychiatric doctors. This remained the case prior to and following the COVID-19 pandemic. The prevalence of burnout is likely higher in low- and low-middle-income countries, although studies in this cohort are lacking.
- With unprecedented demand for mental health services in the post-COVID-19 era, we must be mindful of the impact this has on clinicians.

of COVID-19 as a consequence of mandated lockdowns and a shift from in-person to telehealth psychiatry.¹² Yet, the impact of the pandemic on burnout remains uncertain. Despite several studies in this area, there is no meta-analysis to date.

The aim of this paper is to therefore determine the prevalence of burnout among psychiatry doctors prior to and following the COVID-19 pandemic. Low- and middle-income countries were disproportionately affected by COVID-19,¹³ and we secondarily sought to determine whether the prevalence of burnout among psychiatry doctors differed based on country income status.

METHODS

This study was prospectively registered through PROSPERO, with the protocol available online (registration ID: CRD42024562840). This study is in keeping with the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines.¹⁴

Systematic searches of MEDLINE, Embase, PsycINFO, and PubMed databases were conducted, including studies published between January 1, 2010, until June 27, 2024. A senior librarian was consulted in generating the search, with terms including (1) “psychiatry” as an exploded search term, (2) “physician” “medical staff, hospital” “hospitalists” as exploded search terms, or “physician” “doctor” “registrar” “resident” “hospitalist” as keywords, and (3) “burnout” “burnt out” “burned out” as keywords. Reference lists of included studies were manually searched for additional studies not identified by electronic searches. Ethical approval was not required as this study includes exclusively previously published research.

After removing duplicates, two authors (K.J. and H.G.) independently screened titles, reviewed full texts, and extracted data from eligible studies. Any discrepancies were resolved through discussion between the authors.

Inclusion and Exclusion Criteria

Studies were included if they were published in peer-reviewed journals, written in English, and measured the

prevalence of burnout in psychiatric doctors using validated tools. We included cross-sectional studies, longitudinal studies, baseline data from randomized controlled trials, and cohort studies from peer-reviewed journals. All doctors working in psychiatry were included in this review, including psychiatrists and trainee, registrar, and resident psychiatry doctors. For simplicity and consistency, this review uses the term “psychiatry doctors” to describe the populations studied.

Systematic reviews, qualitative articles, conference abstracts, opinion pieces, and letters to the editor were excluded. Any studies reporting prevalence data on burnout subscales (emotional exhaustion, depersonalization, or personal accomplishment) without defining or reporting the prevalence of overall burnout syndrome were also excluded.

Data Extraction

Two authors (K.J. and H.G.) independently extracted the following data: authors, year of publication, country of study, study type, population studied, total number of study participants, number of cases of burnout, the method of assessing burnout used, the cutoff point used to determine burnout, and whether the survey was conducted prior to or following the COVID-19 pandemic. The beginning of the COVID-19 pandemic was taken to be March 2020, as this is when the World Health Organization officially declared a pandemic.¹⁵

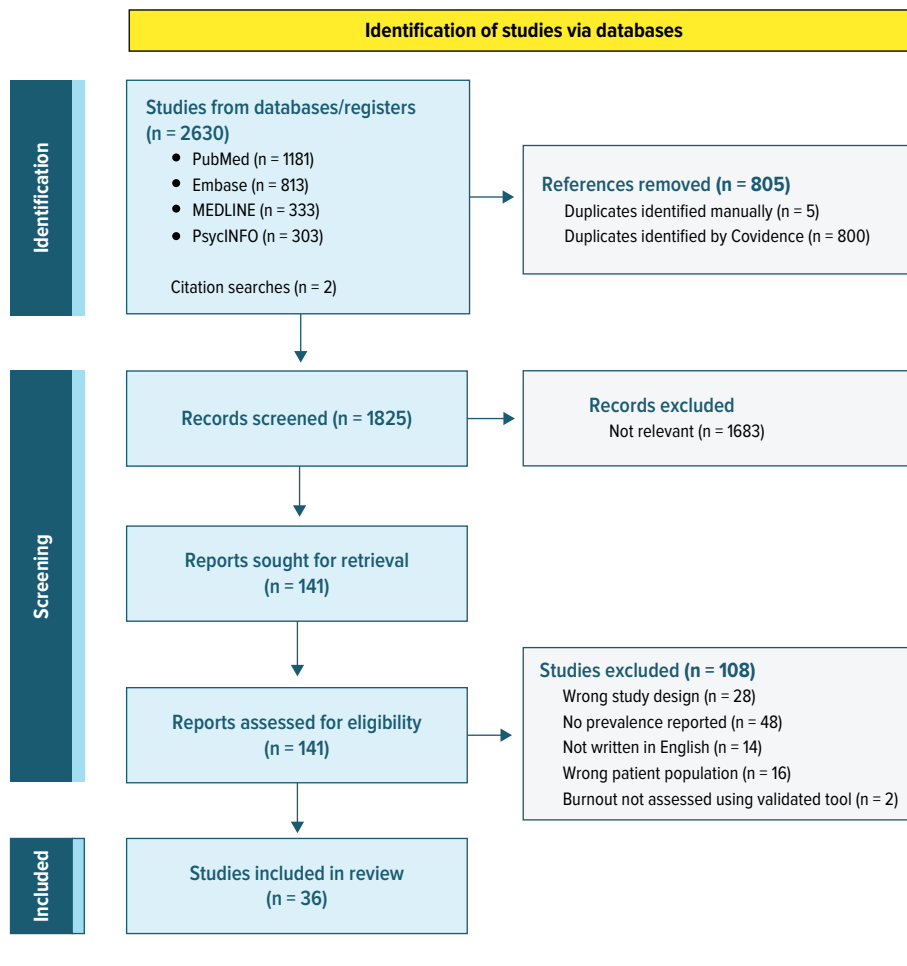
Data Analysis

Statistical analysis was completed using StataMP 18.¹⁶ In light of prevalence estimate close to zero across a small number of eligible studies, our data underwent Freeman-Tukey double arcsine transformation.¹⁷ Results were pooled in 2 forest plots based on timing of assessment (pre-March 2020 “Pre-COVID-19”, post-March 2020 “Post-COVID-19”) using a random effects model to account for heterogeneity between studies. Overall percentage prevalence was reported with 95% confidence intervals. A subgroup analysis was performed, stratifying prevalence of burnout by country income status (high income, or low and middle income), as defined by the World Bank.

Risk of Bias Assessment

Quality of included papers was independently assessed by 2 reviewers (K.J. and H.G.) using a modified version of the Newcastle Ottawa Scale for observational studies. Discrepancies were resolved through reviewer discussion. Risk-of-bias schematics were generated using robvis.¹⁸ Assessment of publication bias was performed using Doi plots plotting transformed effect size against standardized estimate, with asymmetry quantified using the Luis Furuya-Kanamori (LFK) index. An LFK index

Figure 1.
PRISMA Diagram



exceeding ± 1 was considered consistent with asymmetry suggesting publication bias, in keeping with what has been previously published.¹⁹

RESULTS

There were 2,630 records identified for potential inclusion, with an additional 3 records found through citation searching. Following the exclusion of duplicates, 1,825 underwent title and abstract screening, and 142 records underwent full-text screening, with 36 studies eligible for inclusion (Figure 1).

Study Characteristics

There were 36 included studies, with 25 reporting the point prevalence of burnout among 12,524 psychiatry doctors pre-COVID-19 and 12 studies including 7,458 psychiatry doctors post-COVID-19. This included 1 observational longitudinal study that crossed March

2020, to directly compare the impact of COVID-19 on burnout prevalence.²⁰ All other studies had a cross-sectional design. Table 1 summarizes the main characteristics of included studies.

Based on the World Bank Income Classification, 31 studies were from high-income countries, and 5 studies were from upper-middle-income countries,^{29,30,39,41,54} including China,^{29,30,54} South Africa,³⁹ and Thailand⁴¹ No studies identified by this review were from low- or low-middle-income countries.

The measures used to assess burnout included different versions of the Maslach Burnout Inventory (Human Services Survey, General Survey, German Version, Thai version, and abbreviated Maslach Burnout Inventory), Professional Quality of Life Scale, a single item measure of burnout, 2 burnout-related questions, the Oldenburg Burnout Inventory, Copenhagen Burnout Inventory, and a validated resident wellness survey. Studies that used the same measure for burnout often used different cutpoints to define burnout as a dichotomous entity.

Table 1.

Characteristics of Included Studies

Reference	Study design	Year survey conducted	Country	Population studied	Total population (n)	Tool used	Cutoff value of screening tool	Burnout pre-COVID-19 (n)	Burnout post-COVID-19 (n)
Agrawal et al ²⁰	Observational longitudinal study	2019, 2020	US	Junior doctors	48 pre-COVID-19; 51 post-COVID-19	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion ≥ 27 and/or depersonalization ≥ 13	23	26
Alkhamees et al ²¹	Cross-sectional	2020	Saudi Arabia	Junior doctors	121	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion ≥ 27 and/or depersonalization ≥ 13	NA	33
Almadani et al ²²	Cross-sectional	2021	Saudi Arabia	Psychiatrists and junior doctors	229	Professional Quality of Life Scale	High burnout ≥ 42	NA	0
Beschoner et al ²³	Cross-sectional	2016	Germany	Psychiatrists and junior doctors	800	Maslach Burnout Inventory (D-German version)	Emotional exhaustion item mean > 4.5	40	NA
Broderick et al ²⁴	Cross-sectional	2019	Ireland	Psychiatrists and junior doctors	13	Copenhagen Burnout Inventory	≥ 50	4	NA
Chambers et al ²⁵	Cross-sectional	2021	New Zealand	Psychiatrists	368	Single item measure of emotional exhaustion from the Maslach Burnout Inventory	Occurring at least once per week (≥ 5 on Likert scale)	NA	127
Chaukos et al ²⁶	Cross-sectional	2016	US	Junior doctors	14	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion > 26 or depersonalization > 9	2	NA
Chew et al ²⁷	Cross-sectional	2019	Singapore	Junior doctors	93	Oldenburg Burnout Inventory	Mean scores of ≥ 2.25 on exhaustion and ≥ 2.1 on disengagement	51	NA
Domaney et al ²⁸	Cross-sectional	2017	US	Psychiatrists and junior doctors	52	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion > 27 , or depersonalization > 13 , or personal accomplishment < 31	33	NA
Dong et al ²⁹	Cross-sectional	2022	China	Psychiatrists	564	Maslach Burnout Inventory-General Survey	≥ 3 in 1 or more dimensions	NA	229
Gu et al ³⁰	Cross-sectional	2021	China	Psychiatrists	3,783	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion ≥ 27 , or depersonalization ≥ 10	NA	948
Hardy et al ³¹	Cross-sectional	2017	France	Psychiatrists	285	Copenhagen Burnout Inventory	Work related burnout ≥ 50	171	NA
Jovanovic ³²	Cross-sectional	2016	Multiple European countries	Junior doctors	1980	Maslach Burnout Inventory-General Survey	Mean sum exhaustion scores ≥ 2.20 and cynicism ≥ 2.00 or professional efficacy scores ≤ 3.66	726	NA
Kealy et al ³³	Cross-sectional	2014	Canada	Junior doctors	400	Single item burnout scale, scored 1 ("I have no symptoms of burnout") to 5 ("Completely burned out...")	Score ≥ 3 , "I am definitely burning out and have one or more symptoms of burnout..."	84	NA
Kim et al ³⁴	Cross-sectional	2020	US	Psychiatrists	1976	Two burnout questions in the "All Employee Survey"	Depersonalization or emotional exhaustion symptoms occurring once a week or more (scored $\geq 5/7$ on Likert scale)	NA	703

(continued)

Table 1 (continued).

Reference	Study design	Year survey conducted	Country	Population studied	Total population (n)	Tool used	Cutoff value of screening tool	Burnout pre-COVID-19 (n)	Burnout post-COVID-19 (n)
Lee et al ³⁵	Cross-sectional	Not specified	Singapore	Junior doctors	50	Oldenburg Burnout Inventory	Mean exhaustion scores ≥ 2.25 and disengagement scores ≥ 2.1	39	NA
McLoughlin et al ³⁶	Cross-sectional	2018	Ireland	Junior doctors	69	Abbreviated Maslach Burnout Inventory	Emotional exhaustion >9 or Depersonalization >6	25	NA
McLoughlin et al ³⁷	Cross-sectional	Not specified	Ireland	Junior doctors	105	Abbreviated MBI	Emotional exhaustion >9 or depersonalization >6	NA	68
McNicholas et al ³⁸	Cross-sectional	2017	Ireland	Psychiatrists	52	Copenhagen Burnout Inventory	≥ 50	31	NA
Morar et al ³⁹	Cross-sectional	2018	South Africa	Junior doctors	31	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion ≥ 27 , or depersonalization ≥ 10 , or personal accomplishment ≤ 33	21	NA
Morovicsova et al ⁴⁰	Cross-sectional	Not specified	Slovakia	Psychiatry doctors	182	Maslach Burnout Inventory	Emotional exhaustion ≥ 26 , depersonalization ≥ 12 , or personal accomplishment ≤ 30	NA	116
Nimmawitt et al ⁴¹	Cross-sectional	2018	Thailand	Psychiatrists and junior doctors	227	Maslach Burnout Inventory—Thai version	Emotional exhaustion >26	112	NA
Nuss et al ⁴²	Cross-sectional	2017	France	Psychiatrists	860	Copenhagen Burnout Inventory	$\geq 75\%$ across personal-related, work-related and patient-related scores	34	NA
Rakofsky et al ⁴³	Cross-sectional	2017	US	Psychiatry clerkship directors (psychiatrists)	54	Maslach Burnout Inventory-General Survey	Two of: mean exhaustion scores ≥ 3.2 , cynicism scores ≥ 2.2 , professional efficacy scores ≤ 4.0	8	NA
Razakarivony et al ⁴⁴	Cross-sectional	2018	France	Psychiatrists	24	Professional Quality of Life Scale, version 5	Compassion satisfaction scale score ≥ 57	8	NA
Robbins-Welty ⁴⁵	Cross-sectional	2023	US	Junior doctors	57	Abbreviated Maslach Burnout Inventory-Human Services Survey, including emotional exhaustion questions only	Score >27	NA	11
Rossi et al ⁴⁶	Cross-sectional	2012	Italy	Psychiatrists and junior doctors	44	Professional Quality of Life	Burnout subscale >28	5	NA
Summers et al ⁴⁷	Cross-sectional	2018	US and Canada	Psychiatrists and junior doctors	2084	Oldenburg Burnout Inventory	≥ 35	1,626	NA
Tateno et al ⁴⁸	Cross-sectional	2017	Japan	Junior doctors	91	Maslach Burnout Inventory-General Survey	Mean emotional exhaustion scores ≥ 2.20 and cynicism ≥ 2.00	36	NA
Tipa et al ⁴⁹	Cross-sectional	2019	Romania	Junior doctors	116	Oldenburg Burnout Inventory	>59	26	NA
Vacca et al ⁵⁰	Cross-sectional	2021	Italy	Psychiatrists and junior doctors	8	Professional Quality of Life scale	Not reported/defined	NA	0

(continued)

Table 1 (continued).

Reference	Study design	Year survey conducted	Country	Population studied	Total population (n)	Tool used	Cutoff value of screening tool	Burnout pre-COVID-19 (n)	Burnout post-COVID-19 (n)
Volpe et al ⁵¹	Cross-sectional	2014	Italy	Psychiatrists	50	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion ≥ 27 , depersonalization ≥ 13 , and personal accomplishment ≤ 33	26	NA
Westercamp ⁵²	Cross-sectional	2015	US	Junior doctors	255	Validated resident survey assessing emotional exhaustion and interpersonal disengagement	Mean combined score for emotional exhaustion and personal disengagement ≥ 2.5	105	NA
Wilkie et al ⁵³	Cross-sectional	2022	Canada	Forensic psychiatrists	41	Single question from Mini-Z survey, scored from 1 “...I have no symptoms of burnout” to 5 “I feel completely burned out...”	Score of ≥ 3 (“I am definitely burning out”)	NA	21
Yao et al ⁵⁴	Cross-sectional	2019	China	Psychiatrists	4,520	Maslach Burnout Inventory-Human Services Survey	Emotional exhaustion ≥ 27 , depersonalization ≥ 10	1735	NA
Yoon et al ⁵⁵	Cross-sectional	2010	US	Psychiatrists	312	Single item measure of burnout, scored from 1 “...I have no symptoms of burnout” to 5 “I feel completely burned out...”	Score ≥ 3 : “I am definitely burnt out...”	45	NA

Meta-Analysis

Prior to the COVID-19 pandemic, the pooled prevalence of burnout in psychiatric doctors was 37.5% (95% CI, 28.2–47.3) compared with 32.0% (95% CI, 18.6–47.0) following COVID-19 (Figures 2, 3). There was significant between-study heterogeneity (I^2 : 99.0% pre-COVID-19; 99.2% post-COVID-19).

Subgroup Analysis

In high-income countries, the prevalence of burnout among psychiatry doctors pre-COVID-19 was 35.6% (95% CI, 25.6–46.4), compared with 31.7% (95% CI, 15.8–50.1) post-COVID-19 (Figures 2 and 3). Comparatively, in middle-income countries, almost 1 in 2 psychiatry doctors reported burnout pre-COVID-19 (prevalence 49.8% [95% CI, 34.5–65.1]). There were 2 studies that reported burnout prevalence among psychiatry doctors from middle-income countries post-COVID-19, with a pooled prevalence of 32.5% (95% CI, 18.4–48.5).

Quality of Included Studies

This meta-analysis included papers at varying risk of bias. Eight papers were found to be at high risk of bias (Figure 4).^{23,24,38,40,42,43,50,53} This was most commonly in the context of participants surveyed working at a single

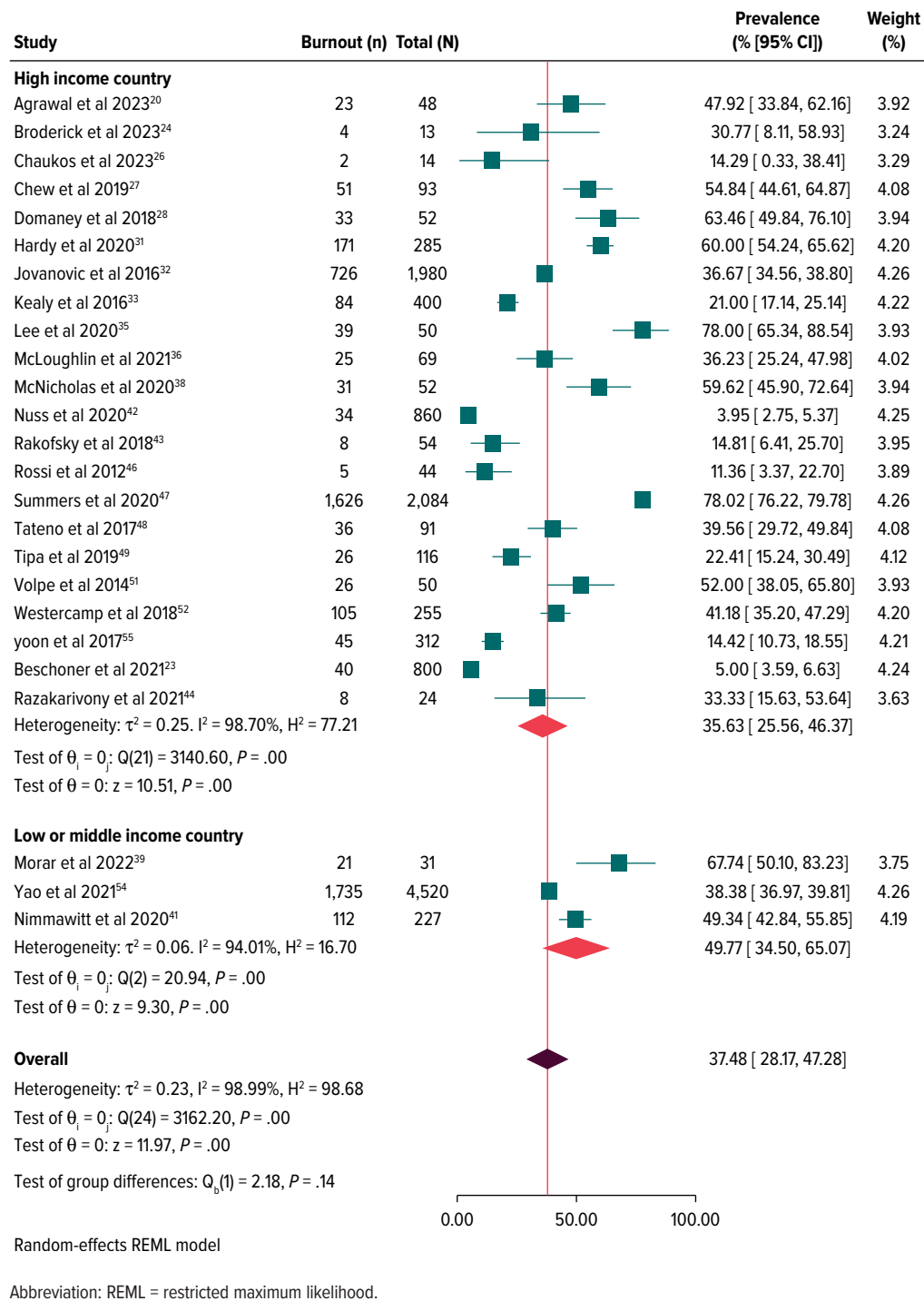
center, convenience sampling, studies that only included junior doctors, and a response rate of less than 50%. Studies were otherwise at moderate or low risk of bias. There was evidence of publication bias in the studies published post-COVID-19 (LFK index 1.35), but not pre-COVID-19 (LFK index -0.20).

DISCUSSION

In this study of almost 20,000 psychiatry doctors, we have determined the burnout is common, affecting 1 in 3 psychiatric doctors prior to and following the COVID-19 pandemic. This is of concern on an individual level, with multiple studies reporting a correlation between burnout and mental health conditions such as depression and anxiety,^{56–58} as well as suicidal ideation.^{59,60} More broadly, extant research demonstrates a significant relationship between doctor burnout and self-reported medical errors,⁶⁰ patient dissatisfaction,⁶¹ and lower quality of care.⁶¹ These high rates of burnout are also significantly concerning at a population level, with burnout being correlated with reduced productivity,⁶¹ absenteeism,⁶¹ and intention to leave or resign,⁶² demonstrating the implications of doctor burnout on health services and wider society.

Figure 2.

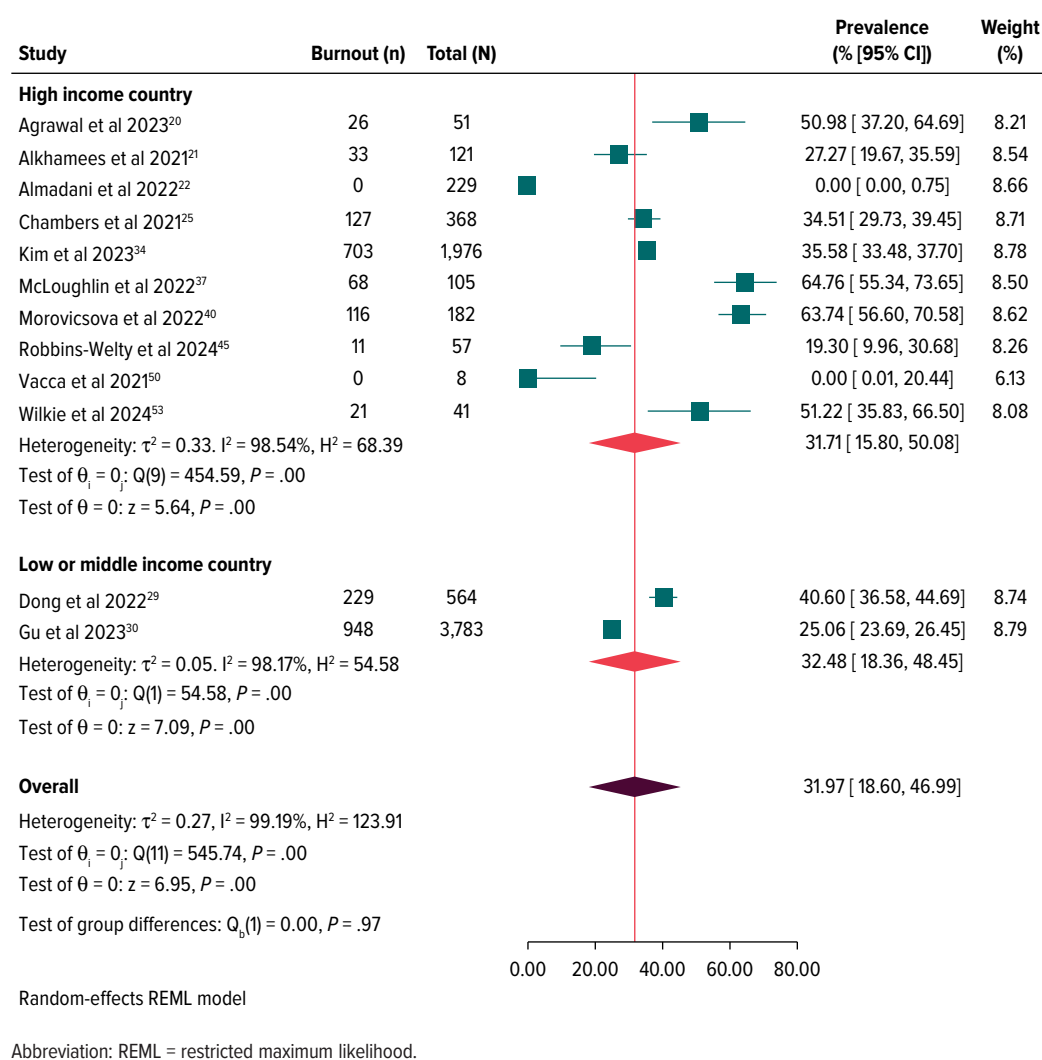
Prevalence of Burnout in Psychiatric Doctors Pre-COVID-19



Studies on burnout in psychiatric doctors following the COVID-19 pandemic conducted their surveys in the early stages of 2020 through to 2023. The impact of the COVID-19 pandemic on individuals and on health systems varied across this time, depending on severity and timing of COVID-19 “waves” and severity and length of lockdowns.⁶³ In addition, the global prevalence of

anxiety and depression increased by 25% in the first year of the pandemic at a time when there was great disruption to mental health services,⁶⁴ concurrently creating a backlog of people requiring support, adding to the unprecedented demand on mental health services currently. It is unclear whether the studies included in this systematic review and meta-analysis better capture

Figure 3.
Prevalence of Burnout in Psychiatric Doctors Post-COVID-19



the acute effects of the COVID-19 pandemic on psychiatric doctors or the aftermath.

We did not expect to find that the prevalence of burnout was unchanged by the COVID-19 pandemic. Selection bias might impact these results if the most burnt-out doctors opted not to complete surveys or left the workforce early in the pandemic, creating a falsely low prevalence of burnout in the post-COVID-19 group. This would serve to highlight concerns about potential staff attrition at a time of significant demand on psychiatric services.

Although this review identified only 3 studies from middle-income countries prior to the pandemic, the prevalence of burnout identified in these studies is concerning, affecting nearly 1 in 2 psychiatric doctors prior to the pandemic. This is of particular concern, as burnout in low- and middle-income countries is associated with sick leave, staff turnover, and emigration,⁶⁵ further worsening staff shortages in the

area. Although no apparent increase in burnout was observed in this cohort following the pandemic, this may not be a true reflection on the rates of burnout, with only 2 studies identified in the post-COVID-19 pandemic group. Lower- and middle-income countries were most affected by the COVID-19 pandemic^{5,66,67}; however, there were no studies meeting inclusion criteria from low- or low-middle-income countries. The most economically disadvantaged regions of the world with the lowest health care worker to population ratio are therefore not captured, highlighting the need for further research in these areas.

The significant heterogeneity between studies in this meta-analysis is indicative of a wider problem within the burnout literature. The definition of burnout is unclear, as exemplified by the varied tools used to measure burnout and varied cutoff points used even within the same assessment tool. It is not a diagnosis within the *Diagnostic and Statistical Manual of Mental Disorders*,

Figure 4.
Risk of Bias

	Risk of bias domains						
	D1	D1b	D2	D3	D4	D5	Overall
Agrawal et al ²⁰	⊗	+	+	+	−	+	−
Alkhamees et al ²¹	−	+	+	+	−	⊖	+
Almadani et al ²²	+	⊗	+	+	−	⊖	−
Chambers et al ²⁵	−	−	+	+	−	⊖	−
Dong et al ²⁹	−	+	+	+	−	⊖	+
Kim et al ³⁴	⊗	+	+	+	−	⊖	−
McLoughlin et al ³⁷	−	⊗	+	+	−	⊖	−
Broderick et al ²⁴	⊗	⊗	−	+	−	⊖	⊗
Chaukos et al ²⁶	⊗	−	+	+	−	⊖	−
Chew et al ²⁷	−	+	+	+	−	⊖	+
Domaney et al ²⁸	⊗	−	+	+	−	⊖	−
Hardy et al ³¹	+	⊗	+	+	−	⊖	−
Kealy et al ³³	−	⊗	+	+	−	⊖	−
Lee et al ³⁵	−	−	+	+	−	⊖	−
McLoughlin et al ³⁶	−	−	+	+	−	⊖	−
McNicholas et al ³⁸	⊗	⊗	+	+	−	⊖	⊗
Morar et al ³⁹	⊗	−	+	+	−	⊖	−
Nuss et al ⁴²	⊗	⊗	−	−	−	⊖	⊗
Rossi et al ⁴⁶	+	+	+	+	−	⊖	+
Summers et al ⁴⁷	+	⊗	−	−	−	⊖	−
Tateno et al ⁴⁸	−	⊗	+	+	−	⊖	−
Tipa et al ⁴⁹	−	−	−	+	−	⊖	−
Volpe et al ⁵¹	⊗	−	−	−	−	⊖	−
Yao et al ⁵⁴	−	−	+	+	−	⊖	−
Yoon et al ⁵⁵	−	−	+	+	−	⊖	−
Gu et al ³⁰	+	+	+	+	−	⊖	+
Wilkie et al ⁵³	⊗	⊗	+	+	−	⊖	⊗
Robbins-Welty et al ⁴⁵	−	⊗	+	+	−	⊖	−
Beschoner et al ²³	⊗	⊗	−	−	−	⊖	⊗
Razakaivony et al ⁴⁴	⊗	−	+	+	−	⊖	−
Morovicsova et al ⁴⁰	⊗	⊗	⊗	−	−	⊖	⊗
Nimmawitt et al ⁴¹	+	⊗	+	+	−	⊖	−
Vacca et al ⁵⁰	⊗	⊗	⊗	⊗	−	⊖	⊗
Rakofsky et al ⁴³	⊗	⊗	+	+	−	⊖	⊗
Jovanovic et al ³²	−	⊗	+	+	−	⊖	−
Westercamp et al ⁵²	−	⊗	+	+	⊗	⊖	⊗

Domains:
D1: Bias arising from the randomization process
D1b: Bias arising from the timing of identification and recruitment of Individual participants in relation to timing of randomization
D2: Bias due to deviations from intended intervention
D3: Bias due to missing outcome data
D4: Bias in measurement of the outcome
D5: Bias in selection of the the reported result

Judgement
⊗ High
− Some concerns
+ Low
⊖ Not applicable

Fifth Edition, and is only included in the *International Classification of Diseases*, 11th Revision, as an occupational phenomenon, not a medical condition.⁶⁸ There is no “gold standard” tool to use to assess it and no standard cutoff points or thresholds that need to be met to signal the presence of burnout, which, in turn, impacts the prevalence of burnout found in any given study. This was investigated by Hewitt et al,⁵⁹ who assessed burnout in surgical residents using multiple different published and accepted thresholds and found between 3.2% and 91.4% of surgical residents suffered burnout, depending on the cutpoint used. The authors noted that regardless of the burnout definition selected, increasing frequency of burnout symptoms in residents was associated with thoughts of attrition and suicidal ideation.

Strengths and Limitations

To our knowledge, this is the first meta-analysis comparing the prevalence of burnout in psychiatric doctors prior to and following the COVID-19 pandemic. This is of great relevance to providers of mental health care at a time when the demand for mental health services is exceeding workforce capacity.

This meta-analysis was limited by the heterogeneity in the tools used to measure and report burnout. This review included only studies that reported overall burnout prevalence to facilitate meaningful quantitative interpretations of the data. Accordingly, studies reporting on mean scores or prevalence of the subscales of burnout were not captured. There was also significant risk of bias in many of the included studies, with low response rates common, and inherent risk of bias with the self-report screening tools used to measure burnout, given there is no gold standard diagnostic instrument.

Most of the studies come from high-income countries, in particular the United States. Given the concerning levels of burnout in the small number of studies from the middle-income countries, these results may not be generalizable to low-income countries, which have their own health care systems and particular workplaces stresses, and were likely more impacted by the COVID-19 pandemic.⁶⁹ Furthermore, there is mixed evidence of cross-cultural validity in the tools commonly used to assess burnout.^{70–72} One must consider the relevance and conceptual similarity of burnout across cultures and the semantic equivalence of assessment tools that have been translated from English when assessing prevalence estimates.⁷³ Addressing some of these challenges should be the focus of future research.

Future Directions

For international research on burnout to be useful, burnout as a concept needs to be clarified. There needs to be research on which definition and threshold for

burnout should be used as a gold standard, with justification as to why this decision was reached. This could be a threshold at which burnout is most clearly linked to tangible and concerning outcomes such as intention to resign. This would allow for burnout research to be standardized and the possible comparison of studies across time, location, and populations.

CONCLUSIONS

Burnout is at concerning levels both prior to and following the COVID-19 pandemic, affecting 1 in 3 psychiatry doctors. This is of importance to psychiatrists on an individual level, due to the link between burnout and other mental health conditions and suicidal ideation. It is also an important finding on a societal level due to higher burnout rates being associated with staff attrition. There is a concerning trend indicating higher levels of burnout in middle-income countries, but a significant lack of research in the area. In the setting of unprecedented demand for mental health services and workforce shortages, more research into burnout in psychiatry doctors is needed.

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