

Review Article

Prevalence of Mental Health Disorders in General Practice from 2014 to 2024: A literature review and discussion paper

Nandakumar Ravichandran¹ , Emily Dillon¹, Geoff McCombe¹ , Emils Sietins¹, John Broughan² , Karen O' Connor^{3,4}, Gautam Gulati⁵ , Timmy Frawley⁶, Brendan D. Kelly⁷, Allys Guérandel⁸ , Brian Osborne⁹ and Walter Cullen¹

¹School of Medicine, University College Dublin, Dublin, Ireland, ²Clinical Research Centre, School of Medicine, University College Dublin, Dublin, Ireland, ³RISE, Early Intervention in Psychosis Team, South Lee Mental Health Services, Cork, Ireland, ⁴Department of Psychiatry and Neurobehavioral Science, University College Cork, Cork, Ireland, ⁵University of Limerick and University College, Cork, Ireland, ⁶School of Nursing, Midwifery and Health Systems, University College Dublin, Dublin, Ireland, ⁷Trinity Centre for Health Sciences, Tallaght University Hospital, Dublin, Ireland, ⁸RCSI / UCD Malaysia Campus (RUMC), Georgetown, Penang, Malaysia and ⁹Irish College of General Practitioners, Dublin, Ireland

Abstract

Background: Many consultations in primary care involve patients with mental health problems, and primary care is typically the place where many such patients initially seek help. While considerable research has examined the prevalence of mental health disorders in primary care, relatively few papers have examined this issue in recent years. This study aims to address this gap by reviewing contemporary literature from 2014 to 2024 on the prevalence of mental health disorders among general practice patients.

Methods: A comprehensive search across PubMed, PsycINFO, and Google Scholar was conducted, adhering to Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines for article selection and assessment, examining the prevalence of mental health disorders in general practice.

Results: Studies varied in methodologies and healthcare settings, with reported prevalence rates of mental health disorders ranging from 2.4% to 56.3%. Demographic characteristics (female gender, older age) were associated with a higher prevalence of mental health disorders in the studies identified. Studies based on patient interviews reported broader prevalence (2.4–56.3%) compared to studies using electronic medical record reviews (12–38%). Prevalence also varied between countries. Notably, there has been a lack of post-COVID-19 studies, especially within Europe, examining the prevalence of mental health prevalence in primary care.

Conclusions: Mental health problems are still common among patients attending general practice; the approach to data collection (i.e., prospective interviews with patients), female gender and older age appear to be correlates of higher estimates. Further research involving a large-scale study with multiple sites is a priority.

Keywords: Family practice; general practice; mental health disorders; prevalence; primary care; screening

(Received 5 December 2024; revised 7 April 2025; accepted 12 April 2025)

Introduction

Mental health and well-being have increasingly taken centre stage in global health discussions. In recent years, the focus has shifted toward promoting mental health awareness and understanding psychological well-being as essential components of overall health (McCabe, 2023). Mental health conditions, such as depression, anxiety, and other psychological disorders, not only impact an individual's emotional and cognitive functioning but

Corresponding author: Nandakumar Ravichandran; Email: nandakumar.ravichandran@ucd.ie

Cite this article: Ravichandran N, Dillon E, McCombe G, Sietins E, Broughan J, O' Connor K, Gulati G, Frawley T, Kelly BD, Guérandel A, Osborne B, and Cullen W. Prevalence of Mental Health Disorders in General Practice from 2014 to 2024: A literature review and discussion paper. *Irish Journal of Psychological Medicine* https://doi.org/10.1017/ipm.2025.24

are also associated with a higher risk of developing chronic physical conditions. These include cardiovascular diseases, diabetes, and respiratory disorders. The interplay between mental and physical health is often referred to as 'co-morbidity', where both types of health issues occur simultaneously. The challenge of addressing co-morbidity is particularly relevant in recent years, as the burden of mental health disorders has been rising globally, contributing to greater health risks and healthcare complexities (Galson, 2009).

Estimating the prevalence of common mental health conditions is essential, as it enables effective service planning and resourcing. In recent years, numerous studies have examined the prevalence of mental health disorders, particularly among patients attending general practice. It is widely acknowledged that general practice is uniquely positioned to optimise the detection, diagnosis, and treatment of mental health disorders. For individuals at risk of or

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experiencing a mental health issue, general practitioners (GPs) typically are the first point of contact with the healthcare system (Gleeson *et al.* 2016). This initial encounter is crucial, as it is often where early symptoms are first presented, and the identification or diagnosis of a mental health disorder occurs (O'Doherty *et al.* 2020). Multiple methods can be typically employed to assess the prevalence of mental health disorders, including the use of screening tools, patient surveys and reviews of medical records.

A study conducted by Klimas *et al.* in 2014 reported a high prevalence of mental health and substance use disorders among patients in general practice, with rates ranging from 10.4% to 53.6%, significant variations in prevalence across different countries and identified a co-morbidity rate of 30.3% for mental health disorders (Klimas *et al.* 2014). Since 2020, there has been an increasing recognition that mental health has posed a major challenge for health services. In updating this review of the reported prevalence of mental health disorders among patients attending general practice, we therefore examine the years between 2014 and 2024; and in that regard, also examine the reported prevalence before and after the COVID-19 pandemic, which was declared a Public Health Emergency of International Concern by the WHO on March 11, 2020.

This literature review aims to examine the prevalence of mental health disorders among general practice populations over the past decade examining data collected before and after the COVID-19 pandemic.

Methods

A literature search was conducted in October 2024 using PubMed, PsycINFO, and Google Scholar to identify studies examining the prevalence of mental health disorders in general practice settings over the past decade (2014-2024). The search strategy was developed using keywords and Medical Subject Headings terms, which were incorporated into a search string designed to capture relevant studies (see Fig. 1). Two reviewers independently screened each article. After an initial screening of titles and abstracts by the first reviewer, the second reviewer conducted a secondary screening. Full texts were retrieved for studies meeting the inclusion criteria or in cases where suitability was uncertain. If a study seemed to fulfil the inclusion criteria but data was insufficient or involved the wrong comparator, it was excluded. Of 1,333 studies identified initially, 24 studies were included in the final analysis upon which both reviewers agreed followed by joint data extraction. The selection process followed the guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram.

Inclusion criteria

- Studies conducted in primary care or general practice.
- Studies reporting on adult patients (aged 18 years and older).
- Studies that reported prevalence data for mental health disorders and were not focused on a single mental health disorder.
- Studies that did not primarily analyse the validity of screening instruments.
- Studies that are published in English language in the last 10 years (2014–2024).

Results

The initial search yielded 1,333 studies, of which fourteen duplicates were removed. The remaining studies were screened

for relevance based on their titles and abstracts. After this screening process, the full texts of 66 studies were reviewed to further assess suitability for inclusion. Of the remaining 66 studies, 24 studies met the inclusion criteria and were retained for analysis in this review (see Fig. 2).

Characteristics of included studies

All 24 studies included in the review were cross-sectional studies focusing on two or more mental health disorders conducted in general practice or primary care settings. The studies were conducted in Ireland (Gleeson et al. 2016; O'Doherty et al. 2020; McCombe et al. 2018; Hickey et al. 2018), UK (Finnegan & Randles, 2023), Netherlands (Pouls et al. 2022), Spain (Salinero-Fort et al. 2015; Baladón et al. 2015), Norway (Piiksi Dahli et al. 2020), Latvia (Rancans et al. 2020), Switzerland (Messer et al. 2023), Sweden (Taloyan et al. 2023), Croatia (Vlah Tomičević & Lang 2021), Brazil (Häfele et al. 2023), Saudi (Altwaijri et al. 2023), Qatar (Bener et al. 2013), Kuwait (Alkhadhari et al. 2018), Singapore (Chua et al. 2024), Israel (Laufer et al. 2013), Kenya (Aillon et al., 2014), East Africa (Muanido et al. 2023), South Africa (Edet, 2023), Egypt (Sayed Ahmed et al. 2024) and Ghana (Ae-Ngibise et al. 2023) (Table 1).

Prevalence

Overall, a high prevalence of mental health disorders was reported, though variations existed between the recorded prevalence rates (Aillon et al. 2014). For example, Rancans et al., reported a prevalence of 37.2% (Rancans et al. 2020), Piiksi et al. reported 18.8% (Piiksi Dahli et al. 2020) and Gleeson et al. noted 20% in this population (Gleeson et al. 2016). O' Doherty et al. observed a prevalence of 16% based on patient data (O'Doherty et al. 2020). Other documented rates included 19.1% in the older population in Ireland (McCombe et al. 2018), 38% in UK military veterans (Finnegan & Randles 2023), 12% in young Irish adults (Hickey et al. 2018), 25.3% in patients with Intellectual disability in the Netherlands (Pouls et al. 2022) and 40% in HIV patients in South Africa (Edet, 2023). A higher prevalence of 49.9% was recorded across 15 primary care centres in a study by Salinero-Fort et al. (Salinero-Fort et al. 2015). The highest prevalence was 56.3% in Kenya (Aillon et al. 2014), while interestingly, and the lowest was 2.4% in Switzerland (Messer et al. 2023).

The prevalence rate of mental health disorders averaged 26.5%, with an estimate of 27.9% based on pre-pandemic data and 21.4% based on post-2019 data (n = 5) (Fig. 3).

The qualitative analysis of 24 included studies identified the following five key themes.

Methodologies identified

Prevalence rates varied based on diagnostic methods. Studies using the Patient Health Questionnaire (PHQ), a self-report screening tool, reported higher prevalence rates (up to 42.3% for at least one mental health condition)(Alkhadhari *et al.* 2018). Conversely, diagnostic tools like the Mini International Neuropsychiatric Interview (MINI), clinical interviews for DSM-IV Axis I Disorders, Depression, Anxiety and Stress Scale (DASS-21) and the Impact of Event Scale-Revised (IES-R) yielded varied outcomes. In one study examining an elderly population, these methods revealed a lifetime prevalence of 30% for mental health disorders, including 19.52% for mood disorders and 11.73% for anxiety disorders (Baladón

Figure 1. Search syntax.

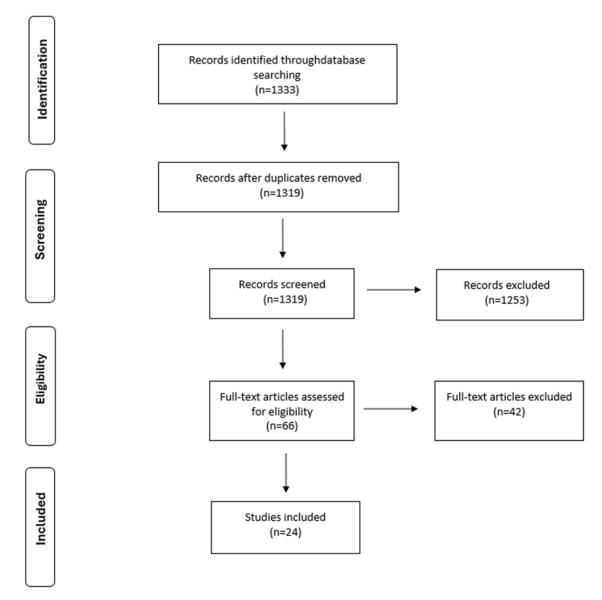


Figure 2. Flowchart of the study.

et al. 2015). Another study reported a prevalence of 56.3% using the MINI Plus version 5 (Aillon et al. 2014).

In one study, 92% of patients with mental disorders were not identified when diagnostic coding was used exclusively(Gleeson et al. 2016). A similar study found an 18.8% prevalence of psychological diagnoses (Piiksi Dahli et al. 2020). This discrepancy

highlights the challenges of relying on medical records and suggests that using screening tools in addition to clinical evaluation can provide more comprehensive prevalence data.

In several studies, self-reported screening tools (such as the PHQ) yielded higher prevalence rates, as these instruments may be more sensitive in detecting symptoms of mental health disorders.

However, clinical interviews often produced more conservative estimates, as they involved a more detailed assessment and diagnostic process. This difference underscores the need for careful interpretation when comparing prevalence data from different sources.

Post COVID-19 literature

The studies conducted prior to COVID-19 reported prevalence rates of mental health disorders ranging from 2.4% in Switzerland (Messer et al. 2023) to 56.3% in Kenya (Aillon et al. 2014), with most studies showing rates exceeding 20%. During the pandemic, the highest recorded prevalence was 40%, reported in a district in South Africa among individuals living with HIV (Edet, 2023), while the lowest was 5.4%, observed in general practice settings in Singapore (Chua et al. 2024). In a study conducted among family medicine healthcare professionals in Croatia during COVID-19, the prevalence of stress was 30.9%, PTSD was 33.0%, and anxiety was 33.1% (Vlah Tomičević & Lang 2021). The study conducted using instruments adapted from Psychological Resilience in Mental Health (PRIME) study in Ghana primary care settings reported 15.6% (Depression), 12% (psychotic symptoms), 11.8% (suicidality) (Ae-Ngibise et al. 2023) (Fig. 4).

Gender distribution

Gender was significantly associated with the likelihood of being diagnosed with a mental health disorder. Numerous studies showed that females were more likely to have mental health disorders than males. Females found to be 93% more likely to have a mild to moderate mental disorder and 23% more likely to have a more severe mental health condition than males (Taloyan et al. 2023).

Differences in the types of disorders diagnosed also emerged between genders. Females were more likely to be diagnosed with panic, depression, or anxiety-related disorders, whereas males were more prone to substance and alcohol use disorders (McCombe *et al.* 2018). Rancans *et al.* also noted that alcohol dependence and misuse were more prevalent in men, while females exhibited higher rates of generalised anxiety and depressive episodes (Rancans *et al.* 2020).

Age distribution

The prevalence of mental health disorders was shown to increase with age. For example, in a study of adults aged 55 and over, the prevalence of mental disorders rose from 14.8% for individuals aged 55–59 to 28.8% for those aged 80–84 (McCombe *et al.* 2018). Similarly, several studies have reported high prevalence of depression (54%) and stress/anxiety (47%) associated with increased age (O'Doherty *et al.* 2020), with the 55–64 age group associated with higher odds of having a mood disorder(Messer *et al.* 2023).

In contrast, Taloyan *et al.* reported that younger adults were more likely to be diagnosed with mild-moderate or severe mental health conditions (Taloyan *et al.* 2023).Interestingly, one study observed a lower than usual prevalence (12%) of mental disorders among young adults, which could indicate low attendance at general practices by this demographic (Hickey *et al.* 2018).

Co-morbidity

Co-morbidity among mental health disorders was common. In this review, comorbidity refers to the co-occurrence of multiple mental

health conditions in a single individual, such as depression and anxiety or bipolar disorder and PTSD. It should be noted that substance use, or physical health comorbidity is not the focus of this paper. Alkhadhari *et al.* found an overall co-morbidity rate of 53.7% (Alkhadhari *et al.* 2018). Chua *et al.* (2024) reported a higher prevalence of co-morbid clinical depression and anxiety (5.4%) compared to clinical depression (3.3%) and anxiety (1.9%) alone (Chua *et al.* 2024) (Table 1).

Discussion

Key findings

The review highlights the high prevalence of mental health disorders among general practice patients, with gender and age being significant factors influencing prevalence rates (Klimas *et al.* 2014; Taloyan *et al.* 2023). However, the studies included varied significantly in assessment methods, including measurement tools, diagnostic criteria, and populations, precluding reliable metanalysis due to data heterogeneity.

Prevalence rates are consistently higher in women than in men, with rates ranging from 2.4% to 56.3% pre-COVID-19. Screening methods, such as patient surveys and clinical interviews, generally report higher prevalence rates compared to medical record-based data (Aillon *et al.* 2014; O'Doherty *et al.* 2020; Gleeson *et al.* 2016).

The prevalence rate of mental health disorders averaged 26.5%, with an estimate of 27.9% based on pre-pandemic data and 21.4% based onpost 2019 data (n = 5). The post-2019 average was notably impacted by the Swiss study, which reported only a 2.4% average prevalence rate, likely due to underdiagnosis of mental health issues within this specific study population.

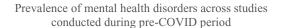
The data on post-pandemic prevalence is very limited. Among the few studies available, only one European study specifically focused on healthcare professionals (Vlah Tomičević & Lang 2021). Research from non-European countries suggests lower prevalence rates compared to pre-pandemic estimates (Sayed Ahmed *et al.* 2024; Chua *et al.* 2024). However, it is essential to note that these comparisons are limited due to the small number of studies available and variations in methodologies. While this study aims to examine the prevalence of mental health disorders in general practice before and after COVID-19, it highlights the significant lack of post-pandemic prevalence studies in this population.

Comparison with existing literature

Pre-COVID prevalence rates in this review range from 2.4% in Switzerland to 56.3% in Kenya, consistent with findings by Klimas *et al.*, who reported rates from 10.4% in Luxembourg to 53.6% in Spain in primary care between 2004 and 2014 (Klimas *et al.* 2014; Aillon *et al.* 2014; Messer *et al.* 2023).

A systematic review noted a decrease in mental health diagnoses during the pandemic, despite a general population increase in prevalence, partly due to reduced patient visits and fear of infection (Ahmed *et al.* 2023). Williams *et al.* found a 50% decrease in mental health condition diagnoses during the first three months of the pandemic (Williams *et al.* 2020), but as it progressed, mental health conditions in general practice increased, though still below pre-pandemic levels (Ahmed *et al.* 2023).

The method of diagnosis significantly affects prevalence estimates. Self-screening tools often yield higher figures than structured clinical interviews, which may underreport true prevalence. For instance, bipolar screening questionnaires



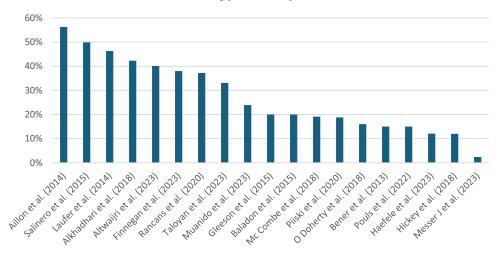
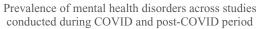


Figure 3. Prevalence of mental health disorders across studies conducted pre-pandemic.



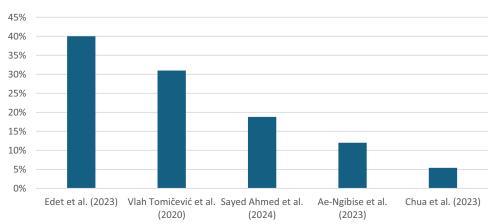


Figure 4. Prevalence of mental health disorders across studies conducted during COVID-19 and following COVID-19.

estimated prevalence as 20.9–30.8%, whereas clinical interviews reported 3.4–9% (Cerimele *et al.* 2013).

Additionally, Klimas *et al.*, noted that the GP diagnostic rate in this same population resulted in a slightly lower prevalence of 28.6%, suggesting that GP consultations may not capture all cases (Klimas *et al.* 2014).

Interestingly, Haller *et al.*, reported that younger adults have higher lifetime prevalence rates of anxiety disorders compared to older populations (Haller *et al.* 2014). This finding is consistent with one of the studies included in this review, which also identified higher rates of mental health conditions among young adults (Taloyan *et al.* 2023).

Variability in prevalence across countries likely stems from cultural attitudes, stigma, and healthcare access. Social determinants such as socioeconomic status and education further shape these figures (Kirkbride *et al.* 2024). While primary care is often the first point of contact for patients with mental health disorders (Gleeson *et al.* 2016), managing these conditions in this setting presents numerous challenges. Barriers to effective integration of

mental health care into primary care include GPs' attitudes towards mental health care, with some displaying low interest in delivering mental health services and others lacking sufficient knowledge to diagnose and treat mental health disorders adequately. These challenges often lead to excessive referrals to secondary care (Wakida et al. 2018). Moreover, inadequate training in the use of mental health screening tools, combined with a lack of current evidence-based treatment approaches, further compounds the difficulty for GPs in effectively managing mental health disorders. Increased workload and limited consultation time, inequities in funding, and a general low prioritisation of mental health care at both the local and national levels also hinder the delivery of optimal care in primary care settings (Wakida et al. 2018).

Methodological strengths and limitations

The key strengths of this literature review include its adherence to a systematic protocol featuring a clearly defined, reproducible search

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Table 1. Studies included in the review

Author	Country	N	Instrument	Prevalence
Studies conducted prior to the	COVID-19 pand	emic		
Bener et al. (2013)	Qatar	2,150	GHQ-12, PHQ-8, GAD-7, PHQ-15, PSM-9	15%
Aillon et al. (2014)	Kenya	300	MINI Plus	56.3%
Laufer et al. (2013)	Israel	2,948	GHQ-12, CIDI	46.3%
Gleeson et al. (2016)	Ireland	690	EMRs	20%
Salinero-Fort et al. (2015)	Spain	1,594	PRIME-MD	49.9%
Baladón et al. (2015)	Spain	1,192	SCID-I-RV, MINI, SDS	20%
O'Doherty et al. (2020)	Ireland	3,845	EMRs	16%
McCombe et al. (2018)	Ireland	74,261	EMRs	19.1%
Alkhadhari et al. (2018)	Kuwait	1,046	PHQ-SAD	42.3%
Hickey et al. (2018)	Ireland	479	EMRs	12%
Piiksi Dahli et al. (2020)	Norway	17,973	EMRs	18.8%
Rancans et al. (2020)	Latvia	1,485	MINI	37.2%
Pouls et al. (2022)	Netherlands	220,298	EMRs	15%
Häfele et al. (2023)	Brazil	525	MHQ	12.1%
Finnegan & Randles (2023)	UK	2,449	EMRs	38%
Altwaijri et al. (2023)	Saudi	4,004	CIDI,	40.1%
Muanido et al. (2023)	East Africa	502	MINI 5.0	23.9%
Messer J et al. (2023)	Switzerland	1,103	PHQ-4, PHQ-2, GAD-2	2.4%
Taloyan et al. (2023)	Sweden	1,105,065	EMRs	33.1%
Studies conducted during COV	'ID-19 (After Mar	ch 11, 2020)		
Vlah Tomičević & Lang (2021)	Croatia	534	DASS-21, IES-R	30.9% (stress), 33.1% (anxiety), 30.7% (depression)
Edet <i>et al.</i> (2024)	South Africa	403	PHQ-9, GAD-7	40%
Chua et al. (2024)	Singapore	3,505	PHQ-9, GAD-7	5.4%
Sayed Ahmed et al. (2024)	Egypt	425	NEQ, ISI, PHQ-4	21.6% (NES), 15.3% (Insomnia), 18.8% (Psychological distress)
Studies conducted following C	OVID-19 (After N	1id 2022)		
Ae-Ngibise et al. (2023)	Ghana	909	PHQ-9, few instruments adapted from PRIME study	15.6% (Depression), 12% (psychotic symptoms), 11.8% (suicidality)

strategy guided by the PRISMA flowchart, along with the use of multiple databases. This approach ensures transparency, reproducibility, and comprehensiveness in identifying and synthesising relevant studies. As this is not a systematic review, a formal risk of bias assessment for study quality was not conducted. Although studies focusing solely on one disorder were excluded to maintain a broader perspective on mental health conditions in general practice, it is possible that such studies might have provided valuable insights, especially those focused on common conditions like depression, anxiety, and substance abuse. For studies examining anxiety disorders, if they involved multiple anxiety conditions, they were included. This allowed us to focus on the comorbid nature of mental health in primary care, which is critical for understanding the full scope of mental health issues in this setting. Studies conducted in countries where mental health services are not systematically integrated into primary care - such as the absence of structured referral pathways, validated screening tools, or mental health specialists within primary care teams – were excluded.

The studies included in this review employed various diagnostic methods and were conducted over different time periods, with population sizes varying among the studies. These factors could contribute to increased or decreased prevalence figures. Additionally, only a few papers reported on the prevalence of mental health disorders during or after the COVID-19 pandemic. Consequently, the figures presented in this study may not accurately reflect the true data, highlighting the need for further research.

This research excluded grey literature and non-English language publications. A publication bias and 'tower of Babel' bias is therefore a consideration when interpreting the results.

Research, practice and policy

Our findings suggest that mental health problems remain common in primary care. Given the extensive research on mental health and existing systematic reviews prior to the pandemic, the lack of prevalence studies during or following COVID-19, necessitates the design of new studies focusing on mental health prevalence. While some studies have begun to assess the impact of the COVID-19 pandemic on mental health prevalence, the lack of comprehensive data post-pandemic presents a significant gap in the literature. Understanding how the pandemic has influenced the burden of mental health disorders, particularly in primary care settings, remains an essential area for future research. This gap highlights the need for ongoing studies to evaluate the long-term effects of the pandemic on mental health, especially as healthcare access and patient behaviours evolve.

In parallel, it is important to explore factors that may prevent people who are experiencing mental health disorders from seeking help in primary care. While the primary care sector plays a pivotal role in addressing mental health, addressing barriers such as low prioritisation of mental health access to healthcare professionals, absence of standard national guidelines for integration of mental health services in primary care, and lack of funding could enhance the quality and accessibility of care, ultimately reducing the burden on secondary healthcare systems. Future research and interventions should consider ways to improve GP training, resources, and support in managing mental health at the primary care level, particularly considering the post-pandemic challenges. To address these challenges, interventions such as telemedicine could play a vital role in maintaining the connection between patients and healthcare providers, ensuring continued support for mental health needs. Furthermore, integrating mental health into national chronic disease management programmes can yield better patient outcomes in general practice (Wan et al. 2021). This approach not only allows for the better management of mental health within the broader context of chronic disease but also aligns mental health care with existing healthcare structures, which can improve accessibility and continuity of care for patients.

Key messages

- Mental health disorders remain prevalent among patients in general practice.
- Higher prevalence estimates are associated with specific demographics, particularly gender and age.
- The absence of post-COVID-19 prevalence studies in Europe and the limited number elsewhere highlight the urgent need for a well-designed, large-scale study.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/ipm.2025.24

Acknowledgements. We would like to acknowledge support from the University College Dublin School of Medicine, and College of Health and Agricultural Sciences. We would also like to thank the Ireland East Hospital Group and the Health Research Board who supported this study through its CRF/C 2021 grant.

Financial support. This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

Competing interests. The authors declare no competing interests.

Ethical standard. The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. Ethics approval was not required for this study as it did not involve human participants, identifiable personal data, or animal subjects.

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