A Review on Depression Care in the Philippines—Gaps and Recommendations for Better Patient Outcomes

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ABSTRACT

Objective. Epidemiological studies on the prevalence and management of depression are limited in the Philippines. This review aimed to assess the prevalence of depression in the Philippines and explore the distribution of patient journey touchpoints including awareness, screening, diagnosis, treatment, adherence, and remission of depression.

Methods. A structured literature search was conducted in the Medline, Embase, Biosis, and HERDIN PLUS databases to identify records published in English between 01 January 2010 and 31 December 2019 that reported key patient journey touchpoints in depression management in the Philippines. An unstructured literature search was conducted in public or government websites with no date restriction. Data from all sources were extracted and presented descriptively.

Results. Of the 348 records retrieved, one article was included in the final analysis. The prevalence of depression was reported to be 3.34% in the Philippines. There was no data available on any of the identified patient journey touchpoints in depression.

Conclusion. The study findings highlight the need for more evidence-based studies in the Philippines to accurately understand the complexity of patient journey in patients with depression. This in turn can help in optimizing resource utilization, providing guidance for clinical practice, and health care reforms in the Philippines.

Keywords: depression, evidence map, prevalence, patient journey touchpoints, Philippines



elSSN 2094-9278 (Online) Published: October 31, 2024 https://doi.org/10.47895/amp.vi0.6745 Copyright: The Author(s) 2024

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INTRODUCTION

Depression is a recurrent disorder that affects 3.8% of the world's population, including adults (5.0%) and elderly population (>60 years of age, 5.7%). Around 280 million people are affected by depression and depressive symptoms worldwide.¹ Globally, depression is the leading cause of disability with an estimated productivity loss of around 1 trillion US dollars per annum.^{1,2} The prevalence of depression is rapidly increasing, especially in low- and middle-income countries (LMICs). As per the World Health Organization (WHO) report, it is estimated that 154 million people are affected by depression in the Philippines.³ Depression can strike anyone at any time in their life, and it is estimated that women are 1.5 times more likely to experience it than men. Over half of all the people who have depression are majorly from the Western Pacific and South-East Asia regions.

The risk factors for depression include poverty, unemployment, poor education, life events, and illness.⁴ Between 1990 and 2017, a 49.86% increase in the global incidence of depression has been noted.5 Though the age-standardized prevalence of depression in South-East Asia remained the same during this period, the incidence of depression increased from 8.6% (1990) to 13.58% (2017).5 Moreover, depression can lead to suicide, which accounts for 700,000 deaths every year.1 A strong association has been established between suicide and depression by various researchers. Based on the Philippine health statistics report in 2013, the mortality rate for suicide was high among the elderly population (65-69 and 70+ age groups) and young adults (i.e., 20-24, 25-29, and 30-34 age groups) ranging from 3.5-3.8 cases per 100,000 population compared with other age groups, i.e., <5 years to 19 years and 35-64 years, which ranged from 0.1-2.6 per 100,000 population, respectively.⁶ In addition, the same report highlights that men demonstrated a threefold higher suicide mortality when compared with women.⁶

Depression is a global public health issue and serious attention is required towards this medical condition, especially in LMICs such as the Philippines. Depression care in LMICs is compromised due to low awareness, inequities in access to primary care, and limitations of high-quality treatment due to resource constraints that result from the lack of sufficient government funds.^{7,8} Primary care providers (PCPs) and specialists play a vital role for depression management in the Philippines by addressing organizational barriers to best practices and knowledge gaps on the treatment of depression, underlining the significance of identifying major depressive disorder (MDD) from other depressive disorders and customizing the treatment approach accordingly.⁷ Previous studies have reported mostly on prevalence, risk factors, symptoms, correlates, and impact of depression among Filipino young adults.^{3,7,9,10} According to the WHO, 154 million Filipinos are affected by depression. A study revealed that the Philippine government and public sectors have given very little attention to mental health.³ Another study conducted among low-income communities in the Philippines showed that 21% of the study participants were experiencing depression.⁹ Additionally, a nationwide survey involving 19,017 respondents aged 15 to 24 indicated that up to 8.9% (with a 95% confidence interval of 8.3% to 9.6%) of young Filipino adults have moderate to severe depressive symptoms, with a higher prevalence among women (10.2%) compared to men (7.6%).¹⁰ Generally, Filipinos worldwide tend to be hesitant and hold an unfavorable attitude towards seeking formal psychiatric help despite high levels of psychological distress.⁷ This is one of the factors leading to paucity of data on screening, diagnosis, management, and socioeconomic burden of depression in the Philippines.

Therefore, this review aims to assess the prevalence of depression in the Philippines and explore the distribution of patient journey touchpoints including awareness, screening, diagnosis, treatment, adherence, and remission of depression and, in addition, to provide insights about the epidemiology of depression, healthcare providers' knowledge, and depression management for both primary care and specialist scenarios in the Philippines. It also discusses care delivery challenges for depressed patients, progressive steps taken by the Philippine government to improve depression care scenario and a potential way forward based on real-world experiences shared by local healthcare providers.

METHODS

Review design

A literature review was conducted and records describing patient journey touchpoints in terms of disease awareness, screening, diagnosis, treatment, adherence, and remission of depression in the Philippines were screened over a period of 10 years (01 January 2010 to 31 December 2019). The methods of conducting the review have been detailed elsewhere as Mapping the Patient Journey Towards Actionable Beyond the Pill Solutions (MAPS).¹¹ The definitions of the terms used in the study are as follows:

- **Depression:** Depression is defined based on the criteria outlined in the Diagnostic and Statistical Manual (DSM)-III, DSM-IV, and DSM-V. It involves the presence of 25 symptoms within the last two weeks, with at least one symptom being either a depressed mood or loss of interest or pleasure.
 - *Mild depression:* When the severity of the symptoms is distressing but manageable, and there are few, if any, additional symptoms beyond those required for the diagnosis. The symptoms only slightly affect social or occupational functioning.
 - *Severe depression:* When the severity of the symptoms is highly distressing and uncontrollable, with a greater number of symptoms than necessary for diagnosis. These symptoms significantly impair social and occupational functioning.
- Awareness: It refers to the self-reported knowledge or awareness individuals have regarding depression or depressive disorders.
- **Screening:** The use of assessment questionnaires to identify potential depression or depressive symptoms and disorders.
- **Diagnosis:** The process of diagnosing depression or depressive disorders by a healthcare professional (HCP).
- **Treatment:** Involves the use of pharmacotherapy (medication) or psychotherapy (talk therapy) to address depression or depressive disorders.
- Adherence: Self-reported compliance or adherence to the prescribed pharmacotherapy or psychotherapy.
- **Control/Remission:** Refers to the improvement in depressive symptoms experienced during treatment.

Steps applied in this study to construct the evidence map include: (1) developing a comprehensive search strategy;

(2) establishing the inclusion and exclusion criteria; (3) screening and shortlisting; (4) data extraction and synthesis; and (5) mapping the data points for each stage in patient journey.¹¹ This current review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines,¹² with minor modifications in line with the scope of this study (Figure 1).

Data collection

An electronic structured literature search was conducted on the databases (Medline, Embase, Biosis, and HERDIN PLUS) using medical subject headings (MeSH terms) and relevant keywords for depression, combined with search terms related to patient journey touchpoints. The detailed search strategy is presented in Table 1. An additional literature search (unstructured) was also conducted using the search terms pertaining to depression, MDD, mental health, via Google Scholar, websites of Department of Health (DOH) Philippines, Incidence and Prevalence Database (IPD), the WHO, and national clinical practice and treatment guidelines to address data gaps in the structured search. We made no assumptions regarding missing data. No date limits were applied to the unstructured literature search.

Inclusion and exclusion criteria

Studies identified through structured search were included if they were: (i) peer-reviewed published observational study, randomized controlled study, systematic review and/or metaanalysis, and narrative reviews (full-texts published and conference abstracts) which reported quantitative data from the patient journey touchpoints for depression, i.e., awareness, screening, diagnosis, treatment, adherence, and remission; (ii) conducted in the Philippines and involving individuals aged ≥ 18 years; (iii) not restricted to a specific patient subgroup, such as patients with comorbidities and pregnant women; and (iv) published in English language between 01 January 2010 and 31 December 2019.

Case studies, letters to the editor, editorials, duplicate studies, studies with specific patient subgroups, data from countries other than Philippines, studies lacking data pertaining to patient journey touchpoints, and studies whose full text was unavailable were excluded.

Data review

Two independent reviewers conducted both structured, unstructured searches, and screened the titles, abstracts, and keywords of each study for relevance. The first reviewer retrieved the records from the literature sources and performed level 1 screening based on the title and abstract of each publication. After the records were shortlisted, the second reviewer performed level 2 screening, which determined the eligibility of the shortlisted records to be included in the analysis based on the pre-defined inclusion and exclusion criteria. Any disagreements that arose were reconciled by a discussion among both the reviewers.

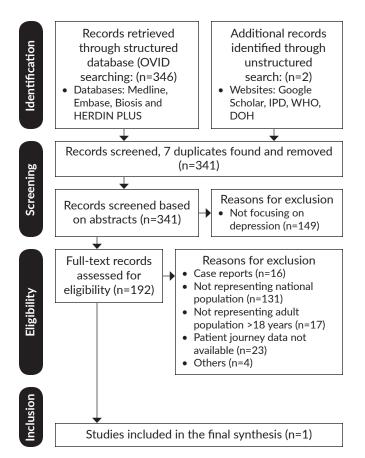


Figure 1. Flow diagram indicating screening of studies on depression in the Philippines.

n, number of records; IPD, Incidence and Prevalence database; DOH, Department of Health Philippines; WHO, World Health Organization

 Table 1. Search Strings Used for Literature Search to Identify

 Publications on Depression in the Philippines

- Depression OR major depressive disorder OR Depressive disorder OR major depression OR mental health OR mental disorder OR mood disorder OR MDD OR persistent depressive disorder OR unspecified depressive disorder OR antidepressant AND
- National OR registry OR survey OR real world OR real-world OR Incidence OR Prevalence OR Epidemiolog* OR Screen* OR Treat* OR Therap* OR Aware* OR Knowledge OR Diagnos* OR Undiagnos* OR underdiagnos* OR Adheren* OR Complian* OR Control* OR uncontrol* AND
- philippin* OR philipin* OR filipino* OR filippino* OR philipin* OR filipino* OR philippin*

Notes: Search Filters: Year 2010-2019, Human, English, Deduplicated

Data extraction

After the manual screening, relevant data from the selected records were exported into a data extraction grid and was verified by both the reviewers. The data was synthesized, and an evidence gap map framework was developed to illustrate the synthesized evidence. The following information was extracted from each selected study: 1) Last name of the first author, year of publication, and citation; 2) study title;

Table 2. Key Findings from the Included Study

S. No.	Title	Citation	Year	Prevalence of Depression in the Philippines	Awareness/Screening/Diagnosis/ Treatment/Adherence/Remission
1	Estimated population- based prevalence of depression	WHO GHO Visualizations Tool Population size: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects 2015, Volume I: Comprehensive Tables. https://www.who.int/data/gho/data/ indicators/indicator-details/GHO/estimated- population-based-prevalence-of-depression	2015	3.34%	Data not available

3) patient journey data for depression, awareness, screening, diagnosis, treatment, adherence, and remission.

Statistical analysis

Quantitative data synthesis was performed using simple mean (for single observations without sample size) or weighted mean (for multiple observations with a sample size for each record), whereas qualitative information was presented as narrative summary.

This study has been subjected to ethics review and has been endorsed favorably by the said board or committee.

RESULTS

Search results

A total of 348 records were retrieved using structured (n=346) and unstructured searches (n=2). Following the data mining process, 1 record met the inclusion criteria. The most common reasons for studies being excluded were not being relevant (n=149), and not describing the nationally representative population (n=131).

Description of included study

The overall key findings on patients with depression obtained from the included report are summarized in Table 2. In 2015, the Global Health Observatory reported that the estimated population-based prevalence of depression in the Philippines was 3.34%. Prevalence is defined as the number of persons with depressive disorder (MDD/depressive episode or dysthymia) in the last year. Data were collected from Global Health Estimates. No data related to awareness, screening, treatment, adherence, and remission in depressive disorders were obtained in the literature search.

DISCUSSION

The objective of this review was to assess the prevalence of depression and explore patient journey touchpoints for depression in the Philippines, which could be helpful to develop a patient-centered management strategy. There has been a significant lack of epidemiological evidence in the Philippines regarding mental health and depressive disorders, including public sources and registries. To the best of our knowledge, this is the first report that highlights lack of information on patient journey touchpoints on depression based on the existing literature in the Philippines. The findings of this report indicated that the prevalence of depression in the Philippines is 3.34%. The literature search did not yield any studies with information on patient journey touchpoints including awareness, screening, diagnosis, treatment, adherence, and remission of depressive disorders in the Philippines during the time period covered by this study. Thus, the objective of the study could not be fulfilled. Addressing this scarcity of data on depression in the Philippines will contribute significantly to the avowed call for better management of mental health conditions. We propose a multilevel approach that highlights the areas for improvement to effectively manage and mitigate the impact of depression within the Filipino population.

Multilevel Approaches to Manage Mental Health Conditions

Depression Care at Primary Care Level

Patients with mental health problems, including depression, are often seen by PCPs. There are limited tools available for use in the primary care setting and these include Patient Health Questionnaire 2 (PHQ-2) and PHQ-9, both readily available in medical literature as well as the Diagnostic and Statistical Manual of Mental Disorders taught during medical training. Although PCPs are the first point of contact for the majority of patients with depression in LMICs, it is reported that a very limited proportion of depressed patients seek medical care and nearly 50% of them remain undetected.¹³ Cultural barriers as well as the lack of adequate mental health services contribute to this.¹⁴ Studies have suggested that lack of help-seeking behavior could be attributed to social stigma.¹⁵

Adequate management of depressed patients depend largely on these PCPs as well as the availability of psychiatrists or even psychologists they can collaborate with.^{6,7} A 2019 report on mental health services reveal the shortage of mental health practitioners in the Philippines as well as the limited support for mental health care in primary care settings. This shortage could probably be circumvented by more training on mental health for PCPs.¹⁴ At the primary care level, doctors can be trained to recognize the presence of depressive symptoms and to differentiate between cases that can be managed at their level, and those that require referral to a specialist.

Depression Care at Psychiatrist Level

In standard clinical psychiatric practice, the DSM-V diagnostic criteria for major depression is primarily used to establish the diagnosis of MDD. General screening of major depression can be done using the PHQ-9 and Beck Depression Inventory (BDI), which are the standard tools that help diagnose depression in a timely manner.¹⁶ However, inconsistencies in the use of these screening instruments often occur during the screening scenario due to a lack of uniform methodology regarding the use of screening instrument for patients with depressive disorders. Other specialized tools used for the assessment of depression include Hamilton Depression Rating Scale (MADRS).¹⁷

A psychiatrist's treatment strategy involves psychopharmacology, psychotherapy, and counselling, which is identical to the management measures used at the primary care level to treat depression. However, it is frequently referred to as interventional psychotherapy because it has a targeted, outcome-oriented approach. Interpersonal psychotherapy, cognitive behavioral therapy (CBT), and psychodynamic psychotherapy are the major forms of psychotherapy in clinical practice. Psychoeducation and supportive psychotherapy with active listening techniques are also used by the majority of practitioners.¹⁸

Philippine Mental Health Services

Based on the findings from current review, it is evident that there is paucity of data on awareness, screening, treatment, adherence, and remission about depressive disorders in the Philippines. Hence, it is essential for the Philippine government to understand the social and economic burden of people due to mental health illness and the need to initiate healthcare reforms and strategies for reducing it. The Philippine healthcare system is moving from a centralized governance towards decentralization through the provision of services by local government units (LGUs). However, mental health services are governed by national health and related laws from the DOH in the Philippines. Unlike the government of Thailand, which has a dedicated initiative to control the widespread depression, there is a broad-level umbrella program that has been launched by DOH to meet SDG pertaining to mental health and depression.¹⁹ Moreover, there is a noticeable resource scarcity with only around 630 psychiatrists available for psychiatric care in the Philippines, which is less than the recommended standard by the WHO (10 psychiatrists per 100,000 population).¹⁴ Similarly, a lower density of psychiatric nurses (0.5 per 100,000) and psychologists (0.1 per 100,000) was reported in the national level policy.20

Based on the health system evaluation, a few progressive steps have been strategized by the Philippine government for better health outcomes of Filipinos through equitable health financing and a proactive assessment of overall health system. This includes primary care integration, decentralization of central health delivery system into LGUs, and integration into general hospitals through phase-wide implementation. The concept of service delivery network is introduced which enables the referral mechanism to be optimally functional with a network of public and private healthcare providers offering a core package of health services.⁶

Philippine Health Insurance Corporation (PhilHealth) serves as the national social health insurance agency which purchases services from public and private providers on behalf of its members. Currently, PhilHealth only offers coverage for hospitalization of patients with mental health issues for acute attacks or episodes. Therefore, other expenditure must be covered through out-of-pocket (OOP) means, unless covered by company or private health insurance. However, healthcare provision, health regulation, facility improvements, and human resource deployment, as well as capacitation, are still subsidized by the government, mainly through the DOH. The government budget also flows through the health contributions of other central institutions such as the LGUs, University of the Philippines, Philippine Healthcare financing system, Philippine Charity Sweepstakes Office (PCSO), and the Philippine Amusement and Gaming Corporation (PAGCOR). PhilHealth administers the National Health Insurance Program (NHIP) to provide all Filipinos with financial risk protection. The government fully subsidizes the PhilHealth premiums of the poor identified through the National Household Targeting Survey for Poverty Reduction (NHTS-PR).^{6,14} Recently, the Philippines has passed its first Mental Health Act to establish and provide a platform for the delivery of comprehensive and integrated mental health services as well as works to uphold the rights of those affected with mental disorders and their family members, and is considered as a major initiative to address the gaps of mental health care in the country.14 Mental health conditions are a part of training given to medical students and family physician residents in the Philippines. Usually, family medicine residents have to attend a rotation in mental health and manage a specific number of mental health cases including depression. Despite the streamlined procedure for certification of Diplomate of Specialty Board of the Philippine Psychiatry, sadly, medical graduates are found to have less interest to opt for such training, which causes a dearth in trained resources and inconsistency in the supply of resources with respect to their demand in the national health system.²¹

Although there have been several collaborative projects between the Philippine Council for Health Research and Development (PCHRD) and the Philippine Psychiatric Association (PPA), less inclination towards publishing the research findings was observed amongst the residents, rendering huge data gaps in the practice ecosystem. This is applicable in the case of family medicine residents as well. Systematic reviews from the American Association of Family Physician (AAFP), American Psychiatric Association (APA), and Canadian Network for Mood and Anxiety Treatments (CANMAT) guidelines are considered to be the guidance documents for clinical practice in the Philippines to treat depression by health care providers including PCPs and specialists. Despite the availability of PPA Consensus Treatment Guidelines since 2017 for the management of MDD, it was not widely adopted.²² This could be partially attributable to limited awareness and accessibility issues.

Multidisciplinary efforts are recommended, jointly aiming to improve the depression care scenario in the Philippines, and the recommendations for enhanced patient care and healthcare outcomes is presented in Table 3. This includes increasing support and priority from the government, changing focus, not just on case identification and treatment but also on prevention and rehabilitation, with additional emphasis on wellness strategies.

Additionally, involving not just doctors but also other medical health personnel such as health workers in local health centers, pharmacists, and nurses could be envisaged to ensure effective screening practices. From a macro-angle, espousing a community-based approach for screening, diagnosis, and management will be more beneficial to a greater number of patients. This could be helpful to disseminate knowledge about the importance of patient awareness and clinical

Table 3. Recommendations for Enhanced Patient Care and Healthcare Outcomes	
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Patient journey touchpoints	Recommendations
Awareness ^{23,24}	 Patients Regularly participating in community-awareness programs Encouraging individuals to adopt healthy lifestyle through campaigns and early screening for timely diagnosis and managemen Socializing and sharing the experiences with others
	 HCPs Imparting knowledge regarding mental health illness using: Graphical representation, or handouts and posters with simple takeaway messages Internet-based education and using social profiles to share some encouraging quotes, informative facts, suicide hotline phone numbers, and links to treatment centers
	 Organizing wellness programs which: Encourage physical health that supports mental health Highlights the interaction between physical well-being and mental health
	 Healthcare policy makers Communication: Creating awareness about healthy behaviors for the general public: Public service announcements Health fairs
	 Mass media campaigns Newsletters Disease-specific educational content
	 Creating awareness about the challenges in mental health, social and economic benefits of preventing depression, and promoting mental well-being across all groups Implementing community-wide initiatives to reduce the stigma associated with mental health problems Coordinate mental health awareness programs at community and national levels
<u> </u>	Increasing awareness of depression among the public as well as building capability in clinical peers in depression managemen
Screening and Diagnosis ²⁵⁻²⁷	 Patients Undergoing screening at primary care/specialists Maximizing annual physical examinations as mandated for employed individuals where opportunities to discuss mental health concerns with occupational physician may be present HCPs
	 The WHO recommendations for periodical screening for the following patient subsets: Universal screening for general population Pregnant and postpartum people, for depression
	 Screening should be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up
	 Face-to-face interviews and standard questionnaires including validated depression measurement scales such as PHQ-2, PHQ-9, Beck Depression Inventory (BDI), and geriatric depression scale should be used for screening Novel approaches using mobile technology such as validated mental health (mHealth) apps, Psychologist in a Pocket (PiaP) are also used for measuring depression symptoms
	• Involving other medical health personnel such as health workers in local health centers, pharmacists, and nurses could be envisaged to ensure effective screening practices
	 Healthcare policy makers Imparting knowledge through health promotion campaigns regarding the importance of early screening and diagnosis Recommend screening adults for depression in primary care settings with both feedback to the clinician regarding depression status and a system for managing treatment
	• Strengthening the implementation of annual physical examination requirement with incentives or fines as necessary

- Strengthening the implementation of annual physical examination requirement with incentives or fines as necessary
- Implementing nationwide screening programs traversing the primary care services for depression

Patient journey touchpoints	Recommendations
Treatment ^{28,29}	 Patients Constant collaboration and follow-up with PCPs/specialists for: Better understanding about the disease Better treatment decisions Better accountability in disease management and control HCPs Individualize treatment based on specific patients and their situations Combination of pharmacotherapy and psychotherapy, based on latest treatment guidelines Use of counselling sessions Other forms of therapies such as cognitive behavioral therapy, interpersonal therapy, and psychodynamic therapy, based on patient needs Healthcare policy makers
	 Implementation of mental health policies that includes promotion, prevention and care, and treatment of individuals and their families Implementation of policies that protect and support employed patients that are diagnosed with the disease condition to encourage seeking treatment Need to consider the cost-effectiveness of treatment and interventions Involving a team including clinical pharmacists and nurses in patient management Expansion of private health insurance coverage to support treatment Patient-centric policy reforms ensuring both affordability and accessibility for depression care
Adherence ^{30,31}	 Patients Being proactive in managing health individually Factors associated with a good adherence include: the presence of family members emotional stability positive relationship with the physician perceived improvement with the drug HCPs Multi-disciplinary interventions targeting both patient and prescriber, aimed at improving medication adherence: psychoeducation providing the patient with clear behavioral interventions Follow-up counselling sessions Healthcare policy makers Collaboration with PCPs and specialists to address barriers and to create adherence strategies Implementation of mental health policies which expand current Philhealth coverage from just the acute episodes and confinement to long-term treatment of patients to encourage adherence

HCPs, healthcare practitioners; PCPs, primary care providers; PHQ, patient health questionnaire; WHO, World Health Organization

benefits of proactive self-reporting of symptoms, and to understand the negative consequences of social stigma driven avoidance towards timely clinical consultation. Although there are several ongoing initiatives on health promotion including awareness education, their intensification with the engagement of multiple stakeholders needs to be done in a more structured and outcome-oriented manner. Massmedia should also be enriched with actionable insights for creatively resolving sensitive issues like mental health stigma among the community and promoting active self-reporting of cases with depression. Lastly, patient-centric policy reforms ensuring both affordability and accessibility for depression care and equitable resource allocation at various care delivery levels is an inevitable need, warranting serious attention.³²

Limitations

The results obtained through literature review as part of the current study were limited, specifically regarding the awareness, screening, treatment, adherence, and remission of depression, despite our attempts to cover the topics through structured and unstructured search strategies. We developed one search string incorporating all the patient touchpoints, which could have limited the results.

Additionally, we did not conduct an analysis of publication bias for the chosen studies, nor were we able to incorporate specific patient subgroups. This omission may have resulted in an underestimation of the overall data.

CONCLUSION

The findings of the present study emphasize the need for patient-centric care in the Philippines. Given the data gaps, it is essential to encourage researchers to get acquainted with novel research methodologies such as patient-preference studies, patient engagement, multi-criteria decision analysis, and qualitative research to sense the pulse of the patient community in the Philippines towards the needs for depression management. Limited knowledge of individuals about the content of psychiatry, course structure, and the extent of practical exposure to pursue psychiatry as a specialty, negligible urge to publish the research data from academia, inequitable resource allocation, and limited orientation towards holistic well-being are some critical challenges affecting depression care and management in Filipino patients. To overcome these, we recommend integrating mental health services into primary care, implementing nationwide screening programs traversing the primary care services for depression, and increasing awareness of various aspects of depression among the public as well as building capability in clinical peers in depression management. Furthermore, Philippine Psychiatric Association, Philippine Academy of Family Physicians, and PCHRD-like organizations should be encouraged to motivate the residents to publish their academic research work for knowledge dissemination purposes. Ultimately, a multidisciplinary effort with a sheer focus on holistic care may help to improve depression management in the Philippines.

Acknowledgments

The authors would like to thank Uma Dasam and Dr. Shridevi Venkataramani (PhD) for medical writing assistance. The authors would also like to thank Dr. Shanthakumar V from Viatris for critically reviewing the draft.

Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

Jermaine Lim and Grace Brizuela are employees of Viatris Inc.

Funding Source

This study was sponsored by Pfizer Upjohn. Pfizer Upjohn joined with Mylan to become Viatris Inc in the Philippines.

REFERENCES

- World Health Organization. Depression [Internet]. 2021 [cited 2022 Jan 6]. Available from: https://www.who.int/news-room/fact-sheets/ detail/depression.
- World Health Organization. Mental health at work [Internet]. 2022 [cited 2022 Jan.6]. Available from: http://www.who.int/mental_health/ in_the_workplace/en/.
- Maravilla NMAT, Tan MJT. Philippine Mental Health Act: Just an act? A call to look into the bi-directionality of mental health and economy. Front Psychol. 2021 Jul;12:706483. doi: 10.3389/fpsyg.2021.706483. PMID: 34367032; PMCID: PMC8334355.
- Friedrich MJ. Depression is the leading cause of disability around the world. JAMA. 2017 Apr;317(15):1517. doi: 10.1001/jama.2017.3826. PMID: 28418490.
- Liu Q₄ He H, Yang J, Feng X, Zhao F, Lyu J. Changes in the global burden of depression from 1990 to 2017: Findings from the Global Burden of Disease study. J Psychiatr Res. 2020 Jul;126:134–40. doi: 10.1016/j.jpsychires.2019.08.002. PMID: 31439359.
- National Objectives for Health. Philippines 2017-2022 [Internet]. [cited 2022 Jan 6]. Available from: https://doh.gov.ph/sites/default/ files/publications/NOH-2017-2022-030619-1.pdf.

- Martinez AB, Co M, Lau J, Brown JSL. Filipino help-seeking for mental health problems and associated barriers and facilitators: a systematic review. Soc Psychiatry Psychiatr Epidemiol. 2020 Nov;55(11):1397-413. doi: 10.1007/s00127-020-01937-2. PMID: 32816062; PMCID: PMC7578164.
- mhGAP: Mental Health Gap Action Programme: Scaling Up Care for Mental, Neurological and Substance Use Disorders [Internet]. Geneva: World Health Organization. 2008. [cited 2022 Jan 6]. Available from: https://apps.who.int/iris/handle/10665/43809.
- Flores JL, Hernandez MA, Leyva EW, Cacciata M, Tuazon J, Evangelista L. Prevalence and correlates of depression, anxiety, and distress among Filipinos from low-income communities in the Philippines. Philipp J Nurs. 2018 Jul-Dec;88(2):8-13. PMID: 33935304; PMCID: PMC8088195.
- Puyat JH, Gastardo-Conaco MC, Natividad J, Banal MA. Depressive symptoms among young adults in the Philippines: Results from a nationwide cross-sectional survey. J Affect Disord Rep. 2021 Jan;3: 10073. doi: 10.1016/j.jadr.2020.100073.
- Bharatan T, Devi R, Huang PH, Javed A, Jeffers B, Lansberg P, et al. A methodology for mapping the patient journey for noncommunicable diseases in low- and middle-income countries. J Healthc Leadersh. 2021 Jan;13:35-46. doi: 10.2147/JHL.S288966. PMID: 33542673; PMCID: PMC7853412.
- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, Ioannidis JPA, et al. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. PLoS Med. 2009 Jul; 6(7):e1000100. doi: 10.1371/journal.pmed.1000100. PMID: 19621070; PMCID: PMC2707010.
- Fekadu A, Medhin G, Selamu M, Giorgis TW, Lund C, Alem A, et al. Recognition of depression by primary care clinicians in rural Ethiopia. BMC Fam Pract. 2017 Apr;18(1):56. doi: 10.1186/s12875-017-0628-y. PMID: 28431526; PMCID: PMC5399858.
- 14. PhilHealth [Internet]. Philippines [cited 2022 Jan 17]. Available from: https://www.philhealth.gov.ph/about_us/ra7875.pdf.
- Tuliao AP. Mental health help seeking among Filipinos: a review of the literature. Asia Pac J Couns Psychother. 2014 Jul;5(2):124–36. doi:10.1 080/21507686.2014.913641.
- 16. Sung SC, Low CCH, Fung DSS, Chan YH. Screening for major and minor depression in a multiethnic sample of Asian primary care patients: a comparison of the nine-item Patient Health Questionnaire (PHQ-9) and the 16-item Quick Inventory of Depressive Symptomatology -Self-Report (QIDS-SR16). Asia Pac Psychiatry. 2013 Dec;5(4):249-58. doi: 10.1111/appy.12101. PMID: 24123813.
- 17. Depression Assessment Instruments [Internet]. [cited 2022 Jan 17]. Available from: https://www.apa.org/depression-guideline/assessment.
- Yousefi N, Kiani MA. The study of two psychotherapy approaches (Rogers Self Theory and Ellis Rational Theory) in improvement of Bowen self-differentiation and intimacy. Iran J Psychiatry Behav Sci. 2014;8(1):32-41. PMID: 24995028; PMCID: PMC4078691.
- Department of Health. Mental Health Program [Internet]. [cited 2022 Jan 10]. Available from: https://www.doh.gov.ph/national-mentalhealth-program.
- World Health Organization. Special-initiative-country-report Philippines 2020 [Internet]. 2020 [cited 2022 Jan 6]. Available from: https://www.who.int/docs/default-source/mental-health/specialinitiative/who-special-initiative-country-report---philippines---2020. pdf?sfvrsn=4b4ec2ee_8.
- Lally J, Tully J, Samaniego R. Mental health services in the Philippines. BJPsych Int. 2019 Aug;16(3):62-4. doi: 10.1192/bji.2018.34. PMID: 31385955; PMCID: PMC6646843.
- 22. Consensus Treatment Guidelines on Major Depressive Disorder in Adults [Internet]. [cited 2022 Mar 22]. Available from: https://www.ppd.ph/ppd-clinic/account/dashboard/treatment-guidelines.
- Jenkins R. Supporting governments to adopt mental health policies. World Psychiatry. 2003 Feb;2(1):14-9. PMID: 16946880; PMCID: PMC1525068.

- Community Research Center. 8 Ways You Can Raise Community Awareness during Mental Health Month [Internet]. [cited 2022 Mar 22]. Available from: https://www.communityreachcenter.org/blog/8ways-can-raise-community-awareness-mental-health-month/.
- Thase ME. Recommendations for screening for depression in adults. JAMA. 2016 Jan;315(4):349–50. doi:10.1001/jama.2015.18406. PMID: 26813206.
- Siu AL, US Preventive Services Task Force (USPSTF), Bibbins-Domingo K, Grossman DC, Baumann LC, Davidson KW, et al. Screening for depression in adults: US Preventive Services Task Force Recommendation Statement. JAMA. 2016 Jan;315(4):380–7. doi: 10.1001/jama.2015.18392. PMID: 26813211.
- Ramos RM, Cheng PGF, Jonas SM. Validation of an mHealth app for depression screening and monitoring (Psychologist in a Pocket): correlational study and concurrence analysis. JMIR Mhealth Uhealth. 2019 Sep;7(9):e12051. doi: 10.2196/12051. PMID: 31538946; PMCID: PMC6754681.
- Oestergaard S, Møldrup C. Improving outcomes for patients with depression by enhancing antidepressant therapy with nonpharmacological interventions: a systematic review of reviews. Public Health. 2011 Jun;125(6):357-67. doi: 10.1016/j.puhe.2011.02.001. PMID: 21600619.

- 29. Better Health Channel. Depression treatment and management [Internet]. [cited 2022 Mar 22]. Available from: https://www. betterhealth.vic.gov.au/health/conditionsandtreatments/depressiontreatment-and-management.
- Sirey JA, Bruce ML, Kales HC. Improving antidepressant adherence and depression outcomes in primary care: the treatment initiation and participation (TIP) program. Am J Geriatr Psychiatry. 2010 Jun;18(6):554-62. doi: 10.1097/JGP.0b013e3181cdeb7d. PMID: 20220604; PMCID: PMC3039212.
- World Health Organization. Adherence to long-term therapies. Evidence for action [Internet]. [cited 2022 Mar 22]. Available from: https://www.who.int/chp/knowledge/publications/adherence_full_ report.pdf.
- 32. Dowrick C, Kassai R, Lam CLK, Lam RW, Manning G, Murphy J, et al. The APEC Digital Hub-WONCA collaborative framework on integration of mental health into primary care in the Asia Pacific. J Multidiscip Healthc. 2020 Nov;13:1693–704. doi: 10.2147/JMDH. S271070. PMID: 33268991; PMCID: PMC7701136.