CINICAL REVIEW

Evaluation and Management of Depression Among Adults and Elderly in Primary Care

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Depression is a mental health condition that affects more than 3.3 million Filipinos. Screening of adults and elderly patients is recommended with the use of validated tools like the Patient Health Questionnaire (PHQ-2 or PHQ-9) or the Geriatric Depression Scale-15 (GDS-15). The two-step approach can be followed for adults by using the PHQ-2 first, followed by the PHQ-9 if the PHQ-2 tests positive. Geriatric patients may be screened using the GDS-15 tool or PHQ-9. Diagnostic work-up should be done to rule out metabolic or organic conditions that can mimic or cause depression. Diagnosis of depression should be confirmed using the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) criteria. Referral to a specialist should be done in cases of severe depression, psychosis, high suicide risk, severe malnutrition, pregnant adults, or non-response to initial treatment.

Key words: Depression, primary care physicians, Geriatric Depression Scale (GDS)

Introduction

Depression is a serious mental illness that has a profound effect on a person's thoughts, feelings, and behavior; it is not merely a transient state of sadness.[1] The severity of depression can vary, from mild cases where symptoms are distressing but manageable, only slightly affect daily life, to severe cases where symptoms are highly distressing, uncontrollable, and significantly impair social and occupational functioning.

Globally, depression is a widespread public health issue, affecting an estimated 3.8% of the world's population, including 5.0% of adults and 5.7% of those over 60 years of age.[2] This translates to approximately 280 million people worldwide experiencing depression and its symptoms. It is recognized as the leading cause of disability globally, contributing to an estimated productivity loss of around 1 trillion US dollars per year.

In the Philippines, depression is a serious public health issue, with an estimated population-based prevalence reported as 3.34% in 2015. Notably, a World Health Organization (WHO) report cited in the sources remarkably estimates that 154 million Filipinos are affected by depression.[3] Regardless, depression is recognized as the eighth leading cause of disability in the country.

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Primary care physicians (PCPs) and family physicians (FPs) are crucial in tackling the widespread impact of depression, especially in low- and middle-income countries like the Philippines, where they serve as the initial point of contact for the majority of patients.

Clinical Review Development

This clinical review was developed and guided by the Adapte guideline adaptation process.[4] The Medical Writers' Committee has decided to follow this approach as developing guidelines de novo requires substantial time and resources, and it is more practical to adapt a guideline that addresses the local need.[5]

A systematic literature search was carried out to search for available clinical practice guidelines. The scope and purpose of the article were initially determined by the authors based on available published guidelines and top cases seen in primary care. Inclusion criteria are all clinical guidelines for adult and geriatric patients with major depressive disorder (MDD) that contain recommendations on the evaluation of depression in primary care settings.

A total of 8 guidelines were included in this clinical review article, which include:

- Philippine Psychiatric Association 2017 Consensus Treatment Guideline on Major Depressive Disorder in Adults[6]

- Indian Journal of Psychiatry Clinical Practice Guidelines for the Management of Depression. 2017[7]
- American Family Physician Depression: Screening and Diagnosis 2018[8]
- Clinical Guidelines for the Management of Adults with Major Depressive Disorder 2016[9]
- Malaysian Ministry of Health Management of Major Depressive Disorder (2nd Edition)[10]
- The United States of America Veterans Affairs and Department of Defense (VA/DoD) Clinical Practice Guideline for the Management of Major Depressive Disorder[11]
- NICE 2022 Guideline on Depression in adults: treatment and management[12]
- Institute for Clinical Systems Improvement (ICSI) Health Care Guideline: Major Depression in Adults in Primary Care[13]

This clinical review is intended to guide primary care physicians, and family and community physicians on the evaluation of patients with suspected depression among adults and elderly patients seen in the primary care setting.

Key Recommendations

- Screening for depression is recommended for the general adult population, including pregnant, postpartum, and older patients (Moderate quality evidence)
- Screen adults for depression in primary care using validated instruments such as PHQ-2 and PHQ-9 for adults and GDS-15 for the geriatric population (High quality evidence)
- Laboratory tests should be requested to rule out metabolic and organic conditions that can mimic or cause depression: CBC and TSH to rule out anemia or thyroid dysfunction (Low quality evidence), Serum electrolytes, and Liver function tests to rule out hyponatremia and hepatic encephalopathy (Consensus)
- ECG, EEG, and Neuroimaging should only be requested if with indications (Consensus)
- Referral to a specialist in cases of severe or recurrent depression, high suicide risk, severe malnutrition, significant personal and social impairment, pregnant adults, or non-response to initial treatment (Consensus)

Approach

Depression is diagnosed clinically, and it involves a comprehensive assessment and proper establishment of diagnosis based on detailed history, physical examination, and mental state examination.[7] History should be obtained from the patient and verified from other sources, like family members and any person living with the patient.

The diagnosis of depression should be based on the DSM-5 Criteria for Major Depressive Disorder. A person with depression should have at least one of the cardinal symptoms, which are 1) depressed mood or 2) loss of interest or pleasure (anhedonia).[1] This should be present most of the days or nearly every day for the past two weeks. Other symptoms of depression include decreased energy or fatigue, reduced concentration and attention, reduced self-esteem and self-confidence, ideals of guilt and worthlessness, ideas of self-harm or suicide, sleep disturbances, and eating problems.[7] The DSM-5 Criteria mentions that the patient should have a total of four symptoms, plus one of the cardinal symptoms suggest a diagnosis of depression, and further workup should be done.

The authors have developed the mnemonic DEPRESSED to guide primary care physicians in remembering the symptoms of depression based on the DSM-5 Criteria.

Table 1. DEPRESSED Mnemonics based on DSM-5 criteria for major depressive disorder.

D	**D**own, depressed, or hopeless
E	**E**nergy is low or fatigued
P	**P**sychomotor retardation or Psychomotor agitation
R	**R**educed interest or pleasure in doing things
E	**E**ating problems (change in weight or appetite)
S	**S**leep disorder (insomnia or hypersomnia)
S	**S**uicidal ideation, suicidal attempt, or thoughts of death
E	**E**xcessive or inappropriate feelings of worthlessness or guilt
D	**D**ifficulty in thinking or concentrating

Algorithm and Screening of Depression

The USPSTF recommends screening for depression in the adult population, including pregnant, postpartum persons, and older adults.[14] The frequency of screening is not addressed in literature; however, a reasonable approach would be to screen patients annually.[11]

The NICE, PPA, ICSI, and MOH guidelines recommend asking two questions to screen patients suspected of depression.[6,9,10,12] The "2-question screen" or the Whooley questions are as follows: 1) During the past month, have you often been bothered by feeling down, depressed, or hopeless, or 2) During the past month, have you often been bothered by little of interest or pleasure in the past two weeks? If the patient says "Yes" to at least one of these questions, then the physician should proceed to ask about other symptoms of depression. Diagnostic meta-analysis of the Whooley questions resulted in a pooled sensitivity was 0.95 (95% CI 0.88 to 0.97) and a pooled specificity was 0.65 (95% CI 0.56 to 0.74).[15]

The CANMAT and AAFP guidelines suggest a 2-step approach wherein the PHQ-2 is used as initial screening instrument and if the patient is positive then the physician should proceed using the PHQ-9.[8,9] A systematic review and meta-analysis of this approach reveals that the combination of PHQ-2 (with cutoff ≥2) followed by PHQ-9 (with cutoff ≥10) had similar sensitivity but higher specificity compared with PHQ-9 cutoff scores of 10 or greater alone.[16]

The second step is to screen patients using the PHQ–9. The PHQ-9 has a cut-off score of ≥ 10, and this score corresponds to MDD. Studies have shown that this tool has good sensitivity (88%) and specificity (88%) for major depressive disorder.[17]

The GDS-15 (Geriatric Depression Scale - 15-item) is a 15-item screening tool for depression intended for the geriatric population, and a score ≥ 5 is generally used as a threshold to suggest depression

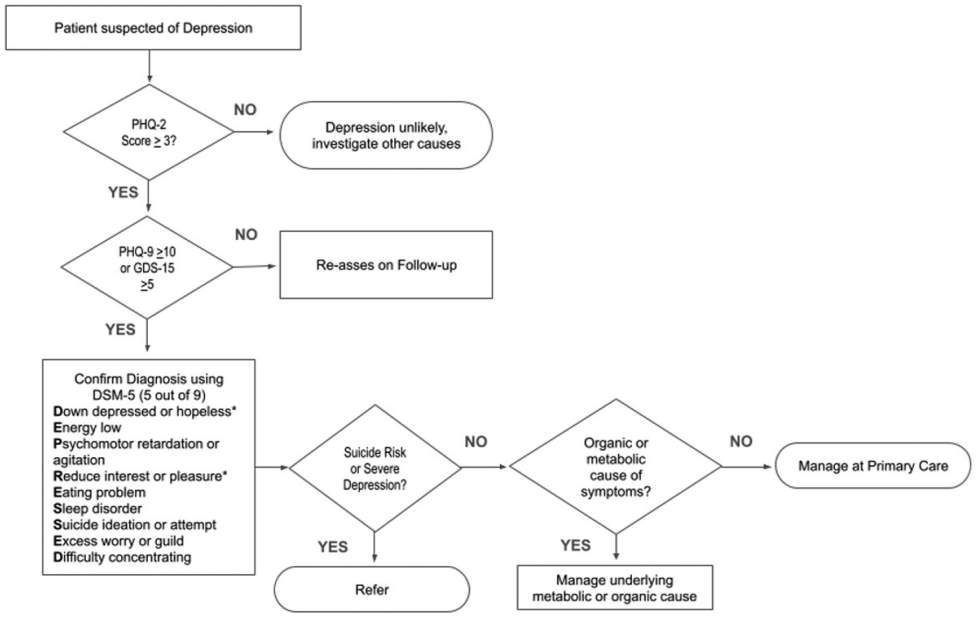

Figure 1. Algorithm to evaluation of depression.

Table 2. PHQ-2 Questionnaire for screening depression.

Over the past two weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things?	0	1	2	3
Feeling down, depressed or hopeless	0	1	2	3
Scoring: A score of 2 or more is positive				

Table 3. PHQ-9 Questionnaire for screening depression.

Over the past two weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things?	0	1	2	3
Feeling down, depressed or hopeless	0	1	2	3
Trouble falling or staying asleep or sleeping too much	0	1	2	3
Feeling tired of having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have notice; or the opposite - being fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
Scoring: 1 to 4 = minimal; 5 to 9 = mild depression; 10 to 14 = moderate depression; 15 to 19 = moderately severe depression; 20 to 27 = severe depression				

and the need for further evaluation. It has the following cut-off scores: 5–8: Mild depression, 9–11: Moderate depression, and 12–15: Severe depression.[18]

Table 4. The Geriatric Depression Scale-15 or GDS-15

Choose the best answer for how you have felt over the past week:	
Are you basically satisfied with your life?	**Yes/No**
Have you dropped many of your activities and interests?	**Yes/No**
Do you feel that your life is empty?	**Yes/No**
Do you often get bored?	**Yes/No**
Are you in good spirits most of the time?	**Yes/No**
Are you afraid that something bad is going to happen to you?	**Yes/No**
Do you feel happy most of the time?	**Yes/No**
Do you often feel helpless?	**Yes/No**
Do you prefer to stay at home rather than going out and doing new things?	**Yes/No**
Do you feel you have more problems with memory than most?	**Yes/No**
Do you think it is wonderful to be alive now?	**Yes/No**
Do you feel worthless the way you are now?	**Yes/No**
Do you feel full of energy?	**Yes/No**
Do you feel that your situation is hopeless?	**Yes/No**
Do you think that most people are better off than you are?	**Yes/No**

Scoring: Bold answers receive 1 point. A score more than 5 suggests depression and should be further evaluated.
Cut-off scores: 5–8: Mild depression, 9–11: Moderate depression and. 12–15: Severe depression

Suicide risk assessment should be done among patients with depression. This can be gathered during history taking by asking the following: suicidal ideation, presence of psychotic symptoms, alcohol or substance abuse, severe anxiety or panic attacks. Past suicide attempts should also be evaluated, including the manner in how it was attempted.[7] The physician should assess the concreteness of the plans for suicide as this may indicate the impending risk for suicide attempt. Details such as how, when, or where the suicide should be elicited, and in general, the more detailed the plans are, the more likely it will be carried out. There is a common misperception that asking about suicide would increase the risk of suicide, and asking about suicide seems to be a taboo. However, a meta-analysis has even demonstrated that asking about suicide risk led to significant reductions in suicidal ideation and a lower likelihood of engaging in suicidal behavior (OR=0.714, $p<0.05$).[19] Therefore, it is essential for primary care physicians to assess suicidal ideation among patients with depression.

Diagnostic Workup

Several physical conditions can mimic or cause the symptoms of depression, such as hypothyroidism, anemia, hyponatremia, and liver pathologies. The following diagnostics are therefore for primary physicians to request: thyroid-stimulating hormone (TSH), complete blood count (CBC), serum electrolytes, and liver function tests.[8] TSH can be requested to check hypothyroidism or hyperthyroidism, which may cause fatigue or psychomotor changes or weight and appetite changes. CBC should be requested to evaluate for anemia, chronic infections, or malignancy, which may manifest as fatigue, anorexia, or weight loss. Serum electrolyte imbalances such as hyponatremia may present with confusion, weakness, and behavioral changes. Liver function tests should evaluate for hepatic encephalopathy or underlying liver impairment.[8]

Malnutrition, mood changes from substance use, and medication side effects should also be ruled out. If a physical condition is discovered, it should be managed accordingly. There is no evidence supporting routine electrocardiography, electrocephalography, or neuroimaging among patients with depression. These should only be ordered based on clinical indications. Neuroimaging should be in cases of neurologic deficits and signs, new onset or persistent cognitive impairment, or sudden changes in personality, mood or behavior.[20]

History of significant loss, such as bereavement, financial ruin, losses from a natural disaster, a serious medical illness, or disability should also be inquired about among these patients. Patients who have experienced these situations may have feelings of intense sadness, rumination about the loss, insomnia, poor appetite, and weight loss.[1] Clinical judgement should be exercised, as it is an expected response in these situations; major depressive disorder should still be considered among these patients.

Bipolar disorder should be ruled out as well, since many patients with bipolar disorder may present at the clinic during their depressive phase. History should be directed at ruling out manic episodes from the patient and other sources (family members).[7] The DSM-5 Criteria describes a manic episode as a distinct period of abnormally elevated, expansive, or irritable mood with increased activity or energy that differs from the usual person's state. The symptoms should be present for at least 1 week, most of the day, with 3 or more of the symptoms enumerated in the table below.[1] The authors developed the mnemonic "MANIC EP", which can be used to help remember the symptoms of a manic episode. If the patient fulfills the criteria for manic episodes, then the diagnosis of bipolar disorder is likely, and referral to a specialist is recommended.

Table 5. "MANIC EP" Mnemonics based on DSM-5 criteria for manic episode

M	**M**ore talkative than usual or pressure to keep talking
A	**A**ctivity (goal-directed activity) is increased, or psychomotor agitation
N	**N**eed for sleep decreased (e.g, rested after only 3 hours of sleep)
I	**I**deas (flight of ideas or experience thoughts are racing)
C	**C**oncentration impaired or distractibility
E	**E**xcess involvement in activities that have high potential for painful consequences
P	**P**roud (inflated self-esteem or grandiosity)

Treatment Setting

Once these are ruled out, we can proceed to diagnose patients to have depression. The next step would be identifying the treatment setting of the patient. The majority of patients with depression are mild to moderate in severity and can be managed in the outpatient primary care setting. However, it is important to recognize patients requiring

inpatient care. The table below summarizes indications for inpatient care.

Table 6. Indications for admission or inpatient care.

Clinical Presentation	Severe depression with significant disability Psychotic symptoms Catatonic Symptoms Suicidal, putting oneself at risk Homicidal Behavior putting others at risk
Comorbidities	Refusal to eat, putting the patient at risk, or Severe malnutrition Alcohol and other substance use (i.e., stimulants, cannabis, hallucinogens, and benzodiazepines) General medical or comorbid psychiatric condition that may complicate outpatient treatment
Psychosocial indications	Lack of adequate social support Stressful home environment

Adapted from: Indian CPG and Philippine Psychiatric Association CPG

Conclusion

Family Medicine Physicians play a crucial role in the early identification and diagnosis of Major Depressive Disorder (MDD). Given the high volume of patient encounters within primary care settings, they function as a critical gateway for mental health management, establishing a vital collaborative link with psychiatric specialists. Screening for MDD among adult and geriatric populations can be efficiently performed utilizing validated questionnaires. However, a definitive diagnosis must be confirmed through adherence to the diagnostic criteria specified in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). Interdisciplinary referral and specialist collaboration are warranted when clinically indicated for comprehensive patient care.

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