DUBAI MENTAL HEALTH SCREENING GUIDELINES

Version 1.0

Issue date: 22/05/2024

Effective date: 22/08/2024

Public Health Protection Department

Dubai Health Authority (2024)

INTRODUCTION

This document was designed after developing and approving the Dubai Mental Health Services Strategy 2023-2027. Mental health screening services are considered part of an initiative within the Mental Health Services Strategy under the pillar "Promotion, Prevention, and Early Intervention" tied to the strategic objective "Promote mental well-being and prevent mental illnesses across the life journey". This initiative is labeled "2.4: Implement community-based screening and early intervention".

The Dubai Mental Health Screening Guidelines for Depressive, Generalized Anxiety, and Eating Disorders in a Primary Health Care Setting also aims to fulfil Dubai Health Sector Strategy 2026.

ACKNOWLEDGMENT

Dubai Health Authority would like to acknowledge our strategic partners and stakeholders for their support in developing this guideline.

Public Health Protection Department

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Table of Contents

DEFINITIONS

Depressive Disorders: Also known as clinical depression, is a mental disorder characterized by at least two weeks of pervasive low mood, low self-esteem, and loss of interest or pleasure in normally enjoyable activities.

Eating Disorders: Mental health conditions characterized by a persistent disturbance of eating or eating-related behavior that results in the altered consumption or absorption of food that significantly impairs physical health or psychosocial functioning. Anyone can get an eating disorder, but teenagers between 13 and 17 are mostly affected.

Generalized Anxiety Disorder: A mental health disorder characterized by excessive worry and apprehensive expectations, occurring more days than not for at least 6 months, about a number of events or activities, such as work or school performance.

Psychometric Properties: Quantifiable definitions of the statistical strength or weakness of a test.

Sensitivity: The ability of a test to correctly identify patients with the disease

Specificity: The ability of a test to correctly identify patients without the disease

The PHQ: The Patient Health Questionnaire is a self-administered tool for screening, diagnosing, monitoring and measuring the severity of depression in primary care patients.

The SCOFF: five-item questionnaire for screening eating disorders, designed to be a simple, easy-to-remember screening tool.

ABBREVIATIONS

DHA : Dubai Health Authority

FM : Family Medicine Doctors

GAD : Generalized Anxiety Disorder

MDD : Major Depression Disorder

PCP : Primary Care Provider

PHC : Primary Health Center

PHQ : Patient Health Questionnaire

UAE : United Arab Emirates.

1. BACKGROUND

This document introduces the first edition of Mental Health Screening Tools in the Primary Health Care (PHC) Setting for Adolescents and Adults (age 12+). These screening guidelines are targeted at primary health care workers within the public -private sector to be trained in mental health screening for depressive disorders, generalized anxiety disorder, and eating disorders. This is designed and to be implemented by the Dubai Health Authority as a part of the Dubai Mental Health Services Strategy 2023-2027, as well as the Dubai 2030 Plan's mental health initiatives.

2. SCOPE

Mental health screenings for Depressive, Generalized Anxiety, and Eating Disorders for adolescents and adults (12+) conducted in Primary Healthcare Settings in Dubai. This mental health screening guideline is targeted towards training general practitioners and family medicines, nurses, and social workers to enhance screening capabilities for all patients in a primary healthcare setting. This is based on benchmarked global best practices (England, Australia, Canada, Singapore, Norway) per the Dubai Mental Health Services Strategy 2023-2027. To provide optimal outcomes, some of the screening will be distributed to patients via both a universal approach (i.e., apply the screening to the whole patient population) and a targeted approach (i.e., target the screening towards specific patient groups within the population). The universal approach will enable a more accurate determination of the burden of those mental illnesses across the Dubai population and provide benefits to the entire population. The targeted approach, on the other hand, has several benefits: it is more efficient and less time-consuming for providers and allows the screening process to be targeted toward vulnerable populations. This document will target three mental illnesses that were prioritized and determined based on three criteria: feasibility/appropriateness of screening in primary health care settings, estimated burden of mental illness in the UAE, and estimated prevalence of mental illness in the UAE.

3. PURPOSE

The purpose of this guideline is to ensure that there is a standardized protocol for the primary care providers (PCPs) to adequately screen patients who are visiting the primary health clinic (PHC) for common mental health disorders.

4. APPLICABILITY

This document is applicable to:

4.1. Nurses or allied health professionals, such as social workers, that will score and refer the assessment results to the family physicians or GPs.

4.2. Family medicine physicians and GPs are responsible for evaluating the results of the screening assessment and for conducting the appropriate management based on the evaluation score.

5. RECOMMENDATION ONE: DEPRESSIVE DISORDERS

5.1. Overview of Screening Tools

There are a number of case-finding instruments for detecting depression in primary care. The most commonly used screening instrument in clinical practice is the Patient Health Questionnaire (PHQ)-2 coupled with either PHQ-9 for adults or PHQ-A for adolescents.

5.1.1. The PHQ-2 is a 2-item preliminary depression screening tool administered prior to the PHQ-9 and PHQ-A that inquiries about the

patient's frequency of depressed mood and anhedonia over the past two weeks.

5.1.2. The PHQ-9 is the 9-item depression module from the full PHQ, incorporating DSM-V criteria listed under criterion A for major depressive disorders into a brief self-report instrument that is commonly used in clinical practices.

5.1.3. The PHQ-A is an adapted version of the PHQ-9 used only for children and adolescents

5.1.4. It is worth noting that:

a. The PHQ-A and PHQ-9 are not meant to replace clinical interviews/assessments/judgments to establish a diagnosis for depressive disorders.

b. As a severity measure, the PHQ-9 score can range from 0-27 since each of the 9 items can be scored from 0 (not at all) to 3 (nearly every day).

c. Just as primary care providers routinely check glucose levels to better inform their treatment plan for patients' diabetes, routinely administering rating scales to monitor improvement or a change in mental health symptoms is considered best practice in providing optimal care.

5.1.5. The PHQ-2 screens for depression in a first-step approach, determining if a patient requires further evaluation. If a patient responds yes to one or both questions on the PHQ-2, either a PHQ-A or a PHQ-9 (Depending on the patient's age) should be administered to further inform the treatment plan.

5.1.6. The PHQ-A and PHQ-9 are both depression screening instruments that grade depressive symptom severity, allowing the provision of measurement-based care in terms of mental health.

5.2. Administration Criteria

5.2.1. Administration of the tools after training should be done by nurses or allied health professionals such as social workers score this form and refer the assessment results to the family physicians or GPs.

5.2.2. Family medicine physicians and GPs should be responsible for evaluating the results of the screening assessment and for conducting the appropriate management based on the evaluation score.

5.2.3. It is recommended that all patients aged 12+ are screened for depressive disorders upon first visit to a primary health care centre.

a. Adolescents (12-18 years) will take the PHQ-2, followed by the PHQ-A.

b. Adults and Elderly (18+) will take the PHQ-2 followed by the PHQ-9.

5.2.4. The target patient population for screening should include, at minimum:

a. Those within the specified age groups above.

b. Patients who have not been screened for depression before.

5.3. Screening Instructions for Clinicians:

5.3.1. Depressive disorders screening should be based on the three tools as described in 5.1

5.3.2. PHQ -2:

a. The first-step approach in screening for depression is the PHQ-2, the 2-item assessment tool conducted on the patient population attending the clinic that has not been previously screened for depression.

b. Each item on the measure is rated on a 4-point scale (0=Not at all; 1=Several days; 2=More than half the days; and 3=Nearly every day)

c. The total score can range from 0 to 6, with a recommended cut-off point score of 3 or greater.

Interpretation Table for the PHQ-2[3]

Recommended actions	Total PHQ-2 scores
None	**0-2**
Administer the full PHQ-9 alongside a clinical interview to assess for Major Depressive Disorder	**3-6**

d. The clinician is asked to review the score of each item on the measure during the clinical interview and indicate the raw score for each item in the section provided for "Clinician Use." The raw scores on the 2 items should be summed to obtain a total raw score and should be interpreted using the Interpretation Table for the PHQ-2.

e. It is recommended that all patients not currently receiving treatment for depression be screened on an annual basis using the PHQ-2.

f. Several high-risk subpopulations require more frequent or rigorous screening (e.g., pregnant and postpartum women, patients with chronic medical illnesses, patients with recent significant losses, etc.). Pregnant and postpartum women should be screened for depression in both the antenatal and the postnatal periods. For these women, screening is typically repeated in the postpartum period at 4-6 weeks and 3-4 months after birth. As for patients with chronic illnesses, a periodic screening for depression is recommended.

5.3.3. PHQ-A and PHQ-9:

a. The PHQ-9 is a self-rated 9-item measure that assesses the severity of depressive symptoms in individuals aged 18 and older. Each item asks the individual to rate the severity of their depression during the last 7 days. The same instructions apply to the PHQ-A, which

assesses the severity of depressive symptoms in children and adolescents.

b. To track changes in the severity of the individual's depression over time, the measure may be completed at regular intervals as clinically indicated, depending on the stability of the individual's symptoms and status. Clinical judgment should guide the decision. However, it is recommended to review the treatment effect every 2-4 weeks after initiation.

c. Each item on the measure is rated on a 4-point scale (0=Not at all; 1=Several days; 2=More than half the days; and 3=Nearly every day). The total score can range from 0 to 27, with higher scores indicating greater severity of depression.

Interpretation Table for the PHQ-9[1]

Levels of depressive symptoms severity	PHQ-9 scores
None	**0-4**
Mild Depression	**5-9**
Moderate Depression	**10-14**
Moderately Severe Depression	**15-19**
Severe Depression	**20-27**

d. The clinician is asked to review the score of each item on the measure during the clinical interview and indicate the raw score for each item in the section provided for "Clinician Use." The raw scores on the 9

items should be summed to obtain a total raw score and should be interpreted using the Interpretation Table for the PHQ-9

*** Note:** If 1 or 2 items are left unanswered, you are asked to calculate a prorated score. The prorated score is calculated by summing the scores of the items that were answered to get a partial raw score. Multiply the partial raw score by the total number of items on the PHQ-9 (i.e., 9) and divide the value by the number of items that were actually answered. If 3 or more items are unanswered, the total score on the measure should not be calculated.

$$\text{Prorated Score} = \frac{(\text{Raw sum} \times 9)}{\text{Number of items that were actually answered}}$$

5.4. Recommendations Based on Screening Results:

Depression Severity	Depression Screening Score	Proposed Actions
None	0-4	None
Mild	5-9	Watchful waiting; repeat PHQ-9 at follow-up
Moderate	10-14	Treatment plan, consider counselling, follow-up, and/or pharmacotherapy
Moderately Severe	15-19	Active treatment with pharmacotherapy and/or referral to a mental health specialist, psychotherapy
Severe	20-27	Immediate referral to a mental health specialist for further evaluation

6. RECOMMENDATION TWO: GENERALIZED ANXIETY DISORDER

6.1. Overview of Screening Tools

6.1.1. The GAD-2 is a shortened version of the 7-item GAD-7 scale that incorporates the first 2 items of the GAD-7. These two items represent the core anxiety symptoms.

6.1.2. The GAD-7 is a 7-item scale incorporating the DSM-V 2 core criteria listed under criterion A and B for Generalized Anxiety Disorder into a brief self-report instrument that is commonly used in clinical practices.

6.1.3. It is worth noting that:

a. The GAD-2 and GAD-7 are not meant to replace clinical interviews/assessments/judgments to establish a diagnosis for Generalized Anxiety Disorder.

b. As a severity measure, the GAD-7 score can range from 0-21 since each of the 7 items can be scored from 0 (not at all) to 3 (nearly every day).

c. Just as primary care providers routinely check glucose levels to better inform their treatment plan for patients' diabetes, routinely administering rating scales to monitor improvement or a change in mental health symptoms is considered best practice in providing optimal care.

6.1.4. The GAD-2 screens for Generalized Anxiety Disorder in a first-step approach to determining if a patient requires further evaluation. The GAD-7 is a generalized

anxiety screening disorder that grades anxiety symptoms severity, allowing the provision of measurement-based care in terms of mental health.

6.2. ADMINISTRATION CRITERIA

6.2.1. Administration of the tools after training is done by nurses or allied health professionals, scoring this form and referring the assessment results to family physicians or GPs.

6.2.2. Family medicine physicians and GPs should be responsible for evaluating the results of the screening assessment and for conducting the appropriate management based on the evaluation score.

6.2.3. All patients aged 12+ are expected to be screened for anxiety upon their first visit to a primary health care centre.

6.2.4. All individuals within the age range (12+) will be screened for anxiety through the GAD-2 followed by the GAD-7 (if the GAD-2 yields a positive result).

The target patient population for screening should include, at minimum, those within the specified age groups above, patients who have not been screened for anxiety before, and those who are at risk due to health comorbidities, life events, etc. (as listed in Appendix 2.4).

6.3. Screening Instructions for Clinicians

6.3.1. GAD-2:

The first-step approach to screening for Generalized Anxiety Disorder includes

the GAD-2, the 2-item assessment tool, which is either self-administered by the patient or conducted in primary health care settings.

a. Each item on the measure is rated on a 4-point scale (0=Not at all; 1=Several days; 2=More than half the days; and 3=Nearly every day).

b. The total score can range from 0 to 6, with a recommended cut-off point score of 3 or greater.

c. The clinician is asked to review the score of each item on the measure during the clinical interview and indicate the score for each item in the section provided for "Clinician Use." The scores on the 2 items should be summed to obtain a total score and should be interpreted using the Interpretation Table for the GAD-2.

d. Note: it is recommended that all patients not receiving treatment for Generalized Anxiety Disorder should be screened on an annual basis using the GAD-2. Furthermore, several high-risk subpopulations, such as women, patients with comorbidities, etc., require more frequent screening.

Interpretation Table for the GAD-2[3]

Recommended actions	Total GAD-2 score
None	**0-2**
Administer the full GAD-7 alongside a clinical interview to assess for Generalized Anxiety Disorder	**3-6**

6.3.2. GAD-7:

a. The GAD-7 is a self-rated 7-item measure that assesses the severity of Generalized Anxiety Disorder symptoms in individuals aged 12+. Each item asks the individual to rate the severity of his/her anxiety during the last 2 weeks

b. To track changes in the severity of the individual's anxiety over time, the measure may be completed at regular intervals as clinically indicated, depending on the stability of the individual's symptoms and treatment status. Clinical judgment should guide the decision. However, at this stage, it is recommended to follow up with a GAD-7 every 4 weeks to monitor symptoms if present.

c. Note: Consistently high scores on a particular domain may indicate significant and problematic areas for the individual that might warrant further assessment, treatment, and follow-up.

d. Each item on the measure is rated on a 4-point scale (0=Not at all; 1=Several days; 2=More than half the days; and 3=Nearly every day).

e. The total score can range from 0 to 21, with higher scores indicating greater severity of anxiety.

f. The clinician should be asked to review the score of each item on the measure during the clinical interview and indicate the raw score for each item in the section provided for "Clinician Use."

The raw scores on the 9 items should be summed to obtain a total raw score and should be interpreted using the Interpretation Table for the GAD-7.

g. Note: Clinicians should make sure that patients answered all the items on the GAD-7 screening tool before calculating the score.

Interpretation Table for the GAD-7[2]

Levels of generalized anxiety disorder severity	Total GAD-7 score
None to Minimal Anxiety	**0-4**
Mild Anxiety	**5-9**
Moderate Anxiety	**10-14**
Severe Anxiety	**15-21**

6.4. Recommendations Based on Screening Results

Anxiety Severity	Score	Proposed Actions
None	0-4	No follow-up is warranted at this stage. Consider providing self-care and lifestyle advice.
Mild	5-9	Repeat GAD-7 every 4 weeks to monitor symptoms. Follow up to determine if current symptoms warrant further assessment.
Moderate	10-14	Immediate referral to a mental health specialist for further evaluation
Severe	15-21	

Note: In severe cases, clinical judgment is vital to determine if the patient requires urgent referral to either secondary care or tertiary care.

7. RECOMMENDATION THREE: EATING DISORDERS

7.1. Administration Criteria

7.1.1. Family medicine physicians and GPs should be responsible for administering the SCOFF assessment (verbally or in written format), evaluating the results of the screening assessment, and conducting the appropriate referrals based on the evaluation score. Given that this screening will occur in a targeted approach, it is recommended that family medicine physicians and GPs be responsible for scoring this form, evaluating the results of the screening assessment, and conducting the appropriate referrals based on the evaluation score.

7.1.2. Patients aged 12+ who have the risk factors associated with eating disorders (as listed in Appendix 3.4) are expected to be screened for eating disorders upon first visit to a primary health care centre.

7.1.3. All individuals that present the risk factors within the age range (12+) will be screened for eating disorders through the use of the SCOFF screening tool.

7.1.4. It is to be noted that current evidence is insufficient for the effectiveness of SCOFF screening among children 11 years and younger.

7.2. Screening Instructions for Physicians

7.2.1. The approach to screening for eating disorders is through the SCOFF assessment, the 5-item assessment tool, which is either self-administered or administered by the primary care practitioner either orally or in a written format.

7.2.2. Each item on the measure is rated on a 1-point or binary scale (0=No; 1=Yes). The total score can range from 0 to 5, with a recommended cut-off point score of 2 or greater.

7.2.3. The clinician should be asked to review the score of each item on the measure during the clinical interview and indicate the score for each item in the section provided for "Clinician Use." The scores on the 5 items should be summed to obtain a total score and should be interpreted using the Interpretation Table for the SCOFF.

Interpretation Table for the SCOFF[3]

Recommended actions	Total SCOFF score
None	**0-1**
Refer directly to specialist services for further care	**2-5**

7.2.4. Note: clinicians should make sure that patients answered all items on the SCOFF before calculating the score. The SCOFF can only be used to determine

whether a patient is likely to have an eating disorder. If the results yielded are positive, further evaluation at the secondary or tertiary care level is required to officially diagnose an eating disorder.

7.2.5. It should also be noted that the following are risk factors that the GPs and FMs should be aware of prior to ruling out the presence of an eating disorder:

a. Patients within the screening age range (12+)
b. Patients with weight gain/loss
c. Patients with unusual body mass index (BMI)
d. Patients that face menstrual and endocrine disturbances
e. Patients that are withdrawn from social activities
f. Patients with comorbid mental illnesses
g. Patients that face issues with chronic illness management
h. Patients that have malnutrition manifestations
i. Patients that have vomit associated with abdominal pain.
j. Patients with hypoglycemia and electrolyte imbalances
k. Patients have family reports of changed eating habits.
l. Restrictive eating/dieting

7.2.6. If a patient is displaying any of these risk factors and/or a SCOFF has been administered and yielded a positive result, refer them to a specialist for further care.

7.3. Recommendations Based on Screening Results

Screening Result	Score	Proposed Actions
None	0-1	No follow-up is warranted at this stage. Consider providing self-care and lifestyle advice.
Potential Eating Disorder	2-5	Refer to specialists at the secondary or tertiary care level. This specialist (e.g., psychologist, psychiatrist, depending on the severity of the symptoms shown outside of the SCOFF examination) should be equipped to support and care for the individual with the eating disorder. This specialist must be trained in psychoeducation and should include weight monitoring in their treatment plans, where necessary. *

Note: it is recommended that the SCOFF is accompanied by other significant factors, as detailed above and in the appendices' high-risk groups

REFERENCES

1. AlHadi, A.N. et al. (2017) 'An Arabic translation, reliability, and validation of Patient Health Questionnaire in a Saudi sample', Annals of General Psychiatry, 16(1). doi:10.1186/s12991-017-0155-1.
2. Aoun, A. et al. (2015) 'Validation of the Arabic version of the Scoff Questionnaire for the screening of Eating disorders', Eastern Mediterranean Health Journal, 21(5), pp. 326–331. doi:10.26719/2015.21.5.326.
3. American Psychological Association (2020). Patient health questionnaire (PHQ-9 & PHQ-2). American Psychological Association. [online] Jun. Available at: https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/patient-health.
4. Bair, M.J. et al. (2003) 'Depression and pain comorbidity', Archives of Internal Medicine, 163(20), p. 2433. doi:10.1001/archinte.163.20.2433.
5. BIRMAHER, B. et al. (1999) 'Psychometric Properties of the screen for child anxiety related emotional disorders (scared): A replication study', Journal of the American Academy of Child & Adolescent Psychiatry, 38(10), pp. 1230–1236. doi:10.1097/00004583-199910000-00011.
6. Brown, F.L. et al. (2019) 'Early adolescent skills for emotions (ease) intervention for the treatment of psychological distress in adolescents: Study protocol for randomised controlled trials in Lebanon and Jordan', Trials, 20(1). doi:10.1186/s13063-019-3654-3.

7. Chamay-Weber, C. et al. (2017) 'Screening obese adolescents for binge eating disorder in primary care: The adolescent binge eating scale', The Journal of Pediatrics, 185. doi:10.1016/j.jpeds.2017.02.038.
8. Cotton, M.-A., Ball, C. and Robinson, P. (2003) 'Four simple questions can help screen for eating disorders', Journal of General Internal Medicine, 18(1), pp. 53–56. doi:10.1046/j.1525-1497.2003.20374.x.
9. Cushman, K.M. (2016) Screening for bulimia nervosa in the primary care setting: Educating healthcare providers on the use of the most valid and reliable screening tools, UVM ScholarWorks. Available at: https://scholarworks.uvm.edu/cnhsmp/8.
10. Department of Health (no date) Administering the Patient Health Questionnaires 2 and 9 (PHQ 2 and 9) in Integrated Care Settings. Available at: https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/2016-07-01_phq_2_and_9_clean.htm (Accessed: 20 December 2023).
11. Dorflinger, L.M., Ruser, C.B. and Masheb, R.M. (2017). A brief screening measure for binge eating in primary care. Eating Behaviors, 26, pp.163–166. doi:https://doi.org/10.1016/j.eatbeh.2017.03.009.
12. Graham, A.K., Trockel, M., Weisman, H., Fitzsimmons-Craft, E.E., Balantekin, K.N., Wilfley, D.E. and Taylor, C.B. (2018). A screening tool for detecting eating disorder risk and diagnostic symptoms among college-age women. Journal of American College Health, 67(4), pp.357–366. doi:https://doi.org/10.1080/07448481.2018.1483936.

13. Hassan, A.M., Al-Haidar, F., Al-Alim, F. and Al-Hag, O. (2009). A screening tool for attention deficit hyperactivity disorder in children in Saudi Arabia. Annals of Saudi Medicine, [online] 29(4), pp.294–298. doi:https://doi.org/10.4103/0256-4947.55321.
14. Diagnostic and Clinical Utility of the GAD-2 for Screening Anxiety Symptoms in Individuals With Multiple Sclerosis. (2018). Archives of Physical Medicine and Rehabilitation, [online] 99(10), pp.2045–2049. doi:https://doi.org/10.1016/j.apmr.2018.05.029.
15. Hariz, N., Bawab, S., Atwi, M., Tavitian, L., Zeinoun, P., Khani, M., Birmaher, B., Nahas, Z. and Maalouf, F.T. (2013). Reliability and validity of the Arabic Screen for Child Anxiety Related Emotional Disorders (SCARED) in a clinical sample. Psychiatry Research, 209(2), pp.222–228. doi:https://doi.org/10.1016/j.psychres.2012.12.002.
16. Johnson, H.M. (2019). Anxiety and Hypertension: Is There a Link? A Literature Review of the Comorbidity Relationship Between Anxiety and Hypertension. Current Hypertension Reports, 21(9). doi:https://doi.org/10.1007/s11906-019-0972-5.
17. Kamal, M., Mountasir Eltohami, Al-Shibli, S.I., Khan, S.A., Al-Kuwari, M., Samar Mahjoub, Saad Shahbal and Bradshaw, L. (2018). Effect and Side Effect of Stimulant/Methylphenidate on Children and Adolescents with ADHD: The Qatar Experience. Archives of pediatrics.

18. Kroenke, K., Spitzer, R.L. and Williams, J.B.W. (2003). The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener. Medical Care, 41(11), pp.1284–1292. doi:https://doi.org/10.1097/01.mlr.0000093487.78664.3c.

19. Kroenke, K., Spitzer, R.L. and Williams, J.B.W. (2001). The PHQ-9: Validity of a brief depression severity measure. Journal of General Internal Medicine, [online] 16(9), pp.606–613. doi:https://doi.org/10.1046/j.1525-1497.2001.016009606.x.

20. Kroenke, K., Spitzer, R.L., Williams, J.B.W., Monahan, P.O. and Löwe, B. (2007). Anxiety Disorders in Primary Care: Prevalence, Impairment, Comorbidity, and Detection. Annals of Internal Medicine, 146(5), p.317. doi:https://doi.org/10.7326/0003-4819-146-5-200703060-00004.

21. Kutz, A.M., Marsh, A.G., Gunderson, C.G., Maguen, S. and Masheb, R.M. (2019). Eating Disorder Screening: a Systematic Review and Meta-analysis of Diagnostic Test Characteristics of the SCOFF. Journal of General Internal Medicine, [online] 35(3). doi:https://doi.org/10.1007/s11606-019-05478-6.

22. Manea, L., Gilbody, S., Hewitt, C., North, A., Plummer, F., Richardson, R., Thombs, B.D., Williams, B. and McMillan, D. (2016). Identifying depression with the PHQ-2: A diagnostic meta-analysis. Journal of Affective Disorders, 203, pp.382–395. doi:https://doi.org/10.1016/j.jad.2016.06.003.

23. Mossman, S.A., Luft, M.J., Schroeder, H.K., Varney, S.T., Fleck, D.E., Barzman, D.H., Gilman, R., DelBello, M.P. and Strawn, J.R. (2017). The Generalized Anxiety Disorder

7-item scale in adolescents with generalized anxiety disorder: Signal detection and validation. PubMed, 29(4), pp.227–234A.

24. Morgan, J.F. (2000). The SCOFF questionnaire: a new screening tool for eating disorders. Western Journal of Medicine, 172(3), pp.164–165. doi:https://doi.org/10.1136/ewjm.172.3.164.
25. Mulvaney-Day, N., Marshall, T., Downey Piscopo, K., Korsen, N., Lynch, S., Karnell, L.H., Moran, G.E., Daniels, A.S. and Ghose, S.S. (2017). Screening for Behavioral Health Conditions in Primary Care Settings: A Systematic Review of the Literature. Journal of General Internal Medicine, 33(3), pp.335–346. doi:https://doi.org/10.1007/s11606-017-4181-0.
26. Maguen, S., Hebenstreit, C., Li, Y., Dinh, J.V., Donalson, R., Dalton, S., Rubin, E. and Masheb, R. (2018). Screen for Disordered Eating: Improving the accuracy of eating disorder screening in primary care. General Hospital Psychiatry, [online] 50, pp.20–25. doi:https://doi.org/10.1016/j.genhosppsych.2017.09.004.
27. Nagata, J.M. and Golden, N.H. (2022). New US Preventive Services Task Force Recommendations on Screening for Eating Disorders. JAMA Internal Medicine, 182(5), pp.471–471. doi:https://doi.org/10.1001/jamainternmed.2022.0121.
28. U.S. Preventive Services Task Force Evidence Syntheses, formerly Systematic Evidence Reviews. (1998). [online] PubMed. Agency for Healthcare Research and Quality (US). Available at: https://www.ncbi.nlm.nih.gov/books/NBK43437/.

APPENDIX 1: Depressive Disorders

APPENDIX 1.1: Template of Tools and Psychometric Properties

1.1.1 PHQ 2

Psychometric Properties:

- 76% Sensitivity
- 87% Specificity

Name: _____	**Age:**	**Date:**

Instructions: Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use " ✔ " to indicate your answer)

Clinical Use						
						Item Score
		Not at all	**Several days**	**More than half the days**	**Nearly everyday**	
1.	Little interest or pleasure in doing things?	**0**	**1**	**2**	**3**	
2.	Feeling down, depressed, irritable, or hopeless?	**0**	**1**	**2**	**3**	
Total/Partial Raw Score						

1.1.2 PHQ-A

Psychometric Properties:

- 73% sensitivity
- 94% specificity

Name: _____	Age:	Date:

Instructions: Over the last 7 days, how often have you been bothered by any of the following problems? (Use "✔" to indicate your answer)

Clinical Use

						Item Score
		Not at all	Several days	More than half the days	Nearly everyday	
1.	Feeling down, depressed, irritable, or hopeless?	**0**	**1**	**2**	**3**	
2.	Little interest or pleasure in doing things?	**0**	**1**	**2**	**3**	
3.	Trouble falling or staying asleep or sleeping too much?	**0**	**1**	**2**	**3**	
4.	Poor appetite, weight loss, or overeating?	**0**	**1**	**2**	**3**	
5.	Feeling tired or having little energy?	**0**	**1**	**2**	**3**	
6.	Feeling bad about yourself – or that you are a failure or that you have let yourself or your family down?	**0**	**1**	**2**	**3**	
7.	Trouble concentrating on things like school work, reading, or watching TV?	**0**	**1**	**2**	**3**	
8.	Moving or speaking so slowly that other people may have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?	**0**	**1**	**2**	**3**	
9.	Thoughts that you would be better off	**0**	**1**	**2**	**3**	

	dead or of hurting yourself in some way?					
Total/Partial Raw Score						
Prorated Total Raw Score: (if 1-2 items left unanswered)						

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

☐ **Not difficult at all** ☐ **Somewhat difficult** ☐ **Very difficult** ☐ **Extremely difficult**

Name:_____		Age:____	Date:_____

Instructions: Over the last 7 days, how often have you been bothered by any of the following problems? (Use "✔" to indicate your answer)

						Clinical Use
						Item Score
		Not at all	Several days	More than half the days	Nearly everyday	
1.	Little interest or pleasure in doing things?	0	1	2	3	
2.	Feeling down, depressed or hopeless?	0	1	2	3	
3.	Trouble falling or staying asleep or sleeping too much?	0	1	2	3	
4.	Feeling tired or having little energy?	0	1	2	3	
5.	Poor appetite or overeating?	0	1	2	3	
6.	Feeling bad about yourself – or that you are a failure or have let yourself or your family down?	0	1	2	3	
7.	Trouble concentrating on things, such as reading the newspaper or watching television?	0	1	2	3	
8.	Moving or speaking so slowly that other people may have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?	0	1	2	3	
9.	Thoughts that you would be better off dead or of hurting yourself in some way?	0	1	2	3	
					Total/Partial Raw Score	
					Prorated Total Raw Score: (if 1-2 items left unanswered)	

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home or get along with other people?

☐ Not difficult at all ☐ Somewhat difficult ☐ Very difficult ☐ Extremely difficult

1.1.3 PHQ-9

Psychometric properties:

- 88% sensitivity
- 88% specificity

Name: _____	**Age:**	**Date:**

Instructions: Over the last 7 days, how often have you been bothered by any of the following problems? (Use "✔" to indicate your answer)

						Clinical Use
						Item Score
		Not at all	**Several days**	**More than half the days**	**Nearly everyday**	
1.	Little interest or pleasure in doing things?	**0**	**1**	**2**	**3**	
2.	Feeling down, depressed, or hopeless?	**0**	**1**	**2**	**3**	
3.	Trouble falling or staying asleep or sleeping too much?	**0**	**1**	**2**	**3**	
4.	Feeling tired or having little energy?	**0**	**1**	**2**	**3**	
5.	Poor appetite or overeating?	**0**	**1**	**2**	**3**	
6.	Feeling bad about yourself – or that you are a failure or have let yourself or your family down?	**0**	**1**	**2**	**3**	
7.	Trouble concentrating on things, such as reading the newspaper or watching	**0**	**1**	**2**	**3**	

	television?					
8.	Moving or speaking so slowly that other people may have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual?	**0**	**1**	**2**	**3**	
9.	Thoughts that you would be better off dead or of hurting yourself in some way?	**0**	**1**	**2**	**3**	
Total/Partial Raw Score						
Prorated Total Raw Score: (if 1-2 items left unanswered)						

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

☐ **Not difficult at all** ☐ **Somewhat difficult** ☐ **Very difficult** ☐ **Extremely difficult**

APPENDIX 1.2: PHQ-9 Arabic Version Template

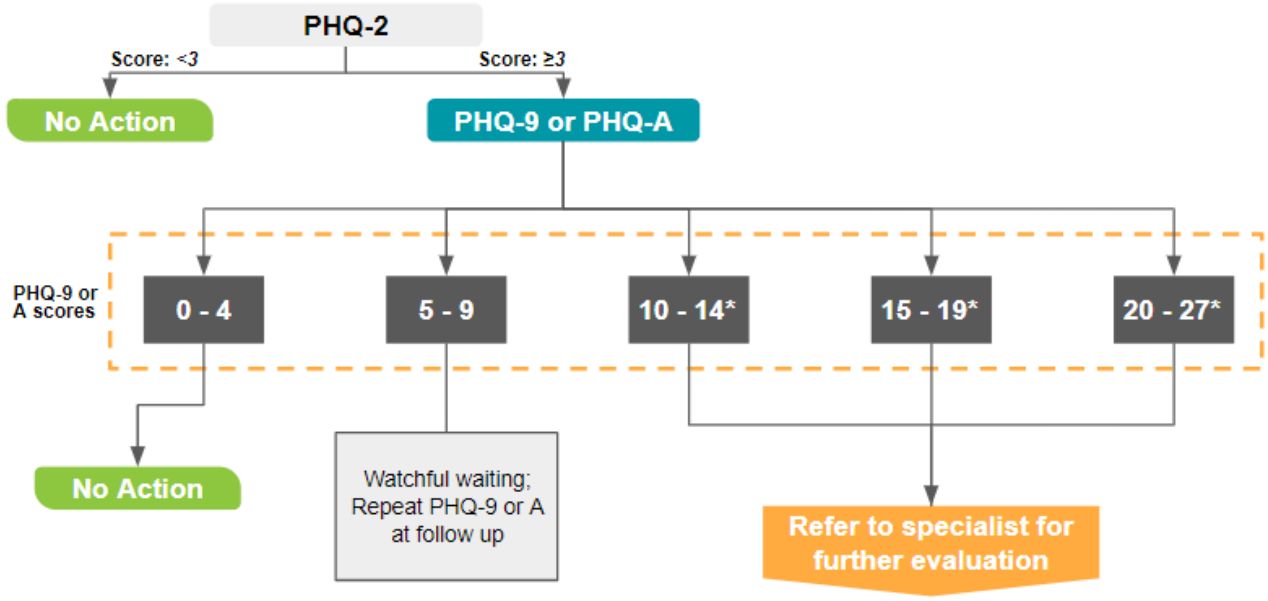
الاسم:_____ العمر:_____ الجنس: ☐ ذكر ☐ أنثى تاريخ اليوم:_____

ما مدى تكرار انزعاجك من أي مشكلة من المشكلات التالية خلال الأسبوعين الأخيرين؟	أبداً 0	عدة أيام 1	أكثر من نصف الأيام 2	كل يوم تقريبا 3
أ- قلة الاهتمام أو المتعة عند القيام بالأشياء.	☐	☐	☐	☐
ب- الشعور بالضيقة أو الاكتئاب أو اليأس.	☐	☐	☐	☐
ج- صعوبات في النوم أو في الاستمرار في النوم أو كثرة النوم.	☐	☐	☐	☐
د- الشعور بالتعب أو قلة النشاط.	☐	☐	☐	☐
هـ- قلة الشهية أو شراهة الأكل.	☐	☐	☐	☐
و- الشعور بعدم الرضا عن نفسك أو الشعور بأنك إنسان فاشل أو بأنك خذلت نفسك أو عائلتك.	☐	☐	☐	☐
ز- صعوبات في التركيز على الأشياء كقراءة الجريدة أو مشاهدة التلفاز.	☐	☐	☐	☐
ح- التحرك أو التحدث ببطء شديد لدرجة ملحوظة، أو العكس: التململ وعدم القدرة على الاستقرار لدرجة التحرك من مكان لآخر أكثر من المعتاد.	☐	☐	☐	☐
ط- التفكير بأنه من الأفضل لك الموت أو التفكير بإيذاء نفسك بطريقة ما.	☐	☐	☐	☐
المجموع = ( )				

ما مدى الصعوبة التي سببتها لك هذه المشكلة عند أدائك لعملك أو دراستك أو القيام بمسؤولياتك في منزلك أو الانسجام مع الناس؟

لا توجد أي صعوبة أبدًا	صعبة إلى حد ما	صعبة جدًا	صعبة بشكل لا يطاق
☐	☐	☐	☐

APPENDIX 1.3: Recommendations based on screening results.



APPENDIX 1.4: Cues and Risk Factors for Screening

- Clinicians suspicion
- Interview with patient
- Patients' self-identification and/or complain of depressed mood
- Personal or family history of depressive disorder.
- Traumatic and stressful life events (e.g., car accidents, recent loss, divorce, adverse childhood experience, job change, unemployment, domestic abuse, or violence).
- Pregnancy and postnatal period
- Comorbid psychiatric disorder
- Long-term health conditions (e.g., obesity, diabetes, cancer).

- Substance use includes smoking, alcohol, medication, or illicit substances.
- Neuroticism (i.e., experiencing negative effects including anger, irritability, emotional instability, etc.)
- Insomnia and other sleep disorders
- Low socioeconomic status.
- Low self-esteem, perfectionism, and sensitivity to loss and rejection

APPENDIX 2: Generalized Anxiety Disorder

APPENDIX 2.1: Template of Tools and Psychometric Properties

2.1.1 GAD-2:

- Sensitivity: 86%
- Specificity: 83%

Name: _____	**Age:**	**Date:**

Instructions: Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use "✔" to indicate your answer)

Clinical Use						
						Item Score
		Not at all	**Several days**	**More than half the days**	**Nearly everyday**	
1.	Feeling nervous, anxious, or on	**0**	**1**	**2**	**3**	

	edge?					
2.	Not able to sleep or control worrying	**0**	**1**	**2**	**3**	
Total Score						

2.1.2 GAD-7:

- Sensitivity: 89%
- Specificity: 92%

Name: _____	**Age:**	**Date:**
Instructions: Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use "✔" to indicate your answer)		

Clinical Use						
						Item Score
		Not at all	**Several days**	**More than half the days**	**Nearly everyday**	
1.	Feeling nervous, anxious, or on edge?	**0**	**1**	**2**	**3**	
2.	Not being able to sleep or control worrying?	**0**	**1**	**2**	**3**	
3.	Worrying too much about different things?	**0**	**1**	**2**	**3**	
4.	Trouble relaxing?	**0**	**1**	**2**	**3**	
5.	Being so restless that it is hard to sit still?	**0**	**1**	**2**	**3**	
6.	Becoming easily annoyed or irritable?	**0**	**1**	**2**	**3**	

7.	Feeling afraid, as if something awful might happen?	**0**	**1**	**2**	**3**	
Total Score						

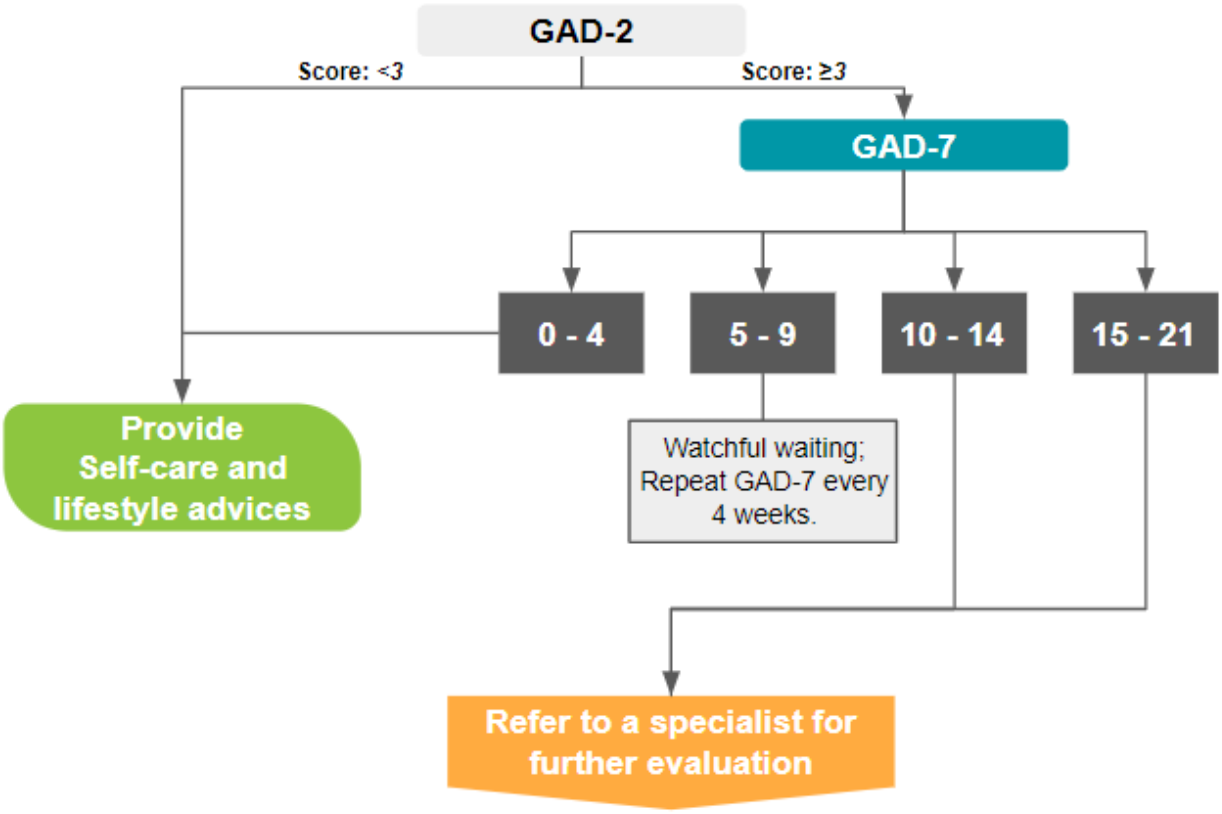
APPENDIX 2.2: GAD-7 Arabic Version Template

GAD-7

خلال الأسبوعين الماضيين، كم مرّة أقلقتك المشاكل التالية؟ *(ضع علامة "✓" للإشارة لجوابك)*	أبداً	بعض الأيام	أكثر من نصف الأيام	كل يوم تقريباً
1- الشعور بالغضب أو القلق أو الانفعال الشديد.	0	1	2	3
2- عدم القدرة على إنهاء القلق أو التحكم فيه.	0	1	2	3
3- القلق المفرط على أشياء مختلفة.	0	1	2	3
4- الصعوبة في الاسترخاء.	0	1	2	3
5- شدة الاضطراب لدرجة صعوبة البقاء في هدوء.	0	1	2	3
6- السرعة في الانزعاج أو الانفعال.	0	1	2	3
7- الشعور بالخوف كما لو أن شيئا فضيعا قد يحدث.	0	1	2	3

(_____ + _____ + _____ =*Total Score T*_____ *For office coding*)

APPENDIX 2.3: Patient pathway based on screening results.



APPENDIX 2.4: Cues and Risk Factors for Screening

- Clinician's suspicion
- Interview with patient
- Patients' self-identification and/or complain of somatic or anxiety symptoms.
- Comorbid chronic illness
- Women are more prone to developing GAD (the ratio of females to males is 2:1)
- Personal or Family history of anxiety disorders
- Substance abuse includes smoking, alcohol, medication, or illicit substances.

- People with chronic diseases (i.e., long-term health conditions such as obesity, diabetes, etc.)
- Socioeconomic factors (i.e., unemployment, low level of education and living alone)
- History of depression and other anxiety disorders
- History of self-harm and or suicide attempts
- Stressful life events in susceptible people (i.e., adverse childhood experience or trauma in childhood, bereavement, loss of employment, divorce, or domestic abuse)
- Comorbid psychiatric disorder

APPENDIX 3: Eating Disorders

APPENDIX 3.1: Template of Tools and Psychometric Properties

Psychometric Properties of the SCOFF:

- In adults
  - Sensitivity: 84%
  - Specificity: 80%
- In adolescents
  - Sensitivity: 73%
  - Specificity: 78%

Name: _____	Age:	Date:
Instructions: Over the past 28 days, have the following been true? (Use " ✔ " to indicate your answer)		

				Clinical Use
				Item Score
		No	Yes	
1.	Do you make yourself sick because you feel uncomfortably full?	0	1	
2.	Do you worry you have lost control over how much you eat?	0	1	
3.	Have you recently lost more than one stone (6.35 kg) in a three-month period?	0	1	
4.	Do you believe yourself to be fat when others say you are too thin?	0	1	
5.	Would you say food dominates your life?	0	1	
Total Score				

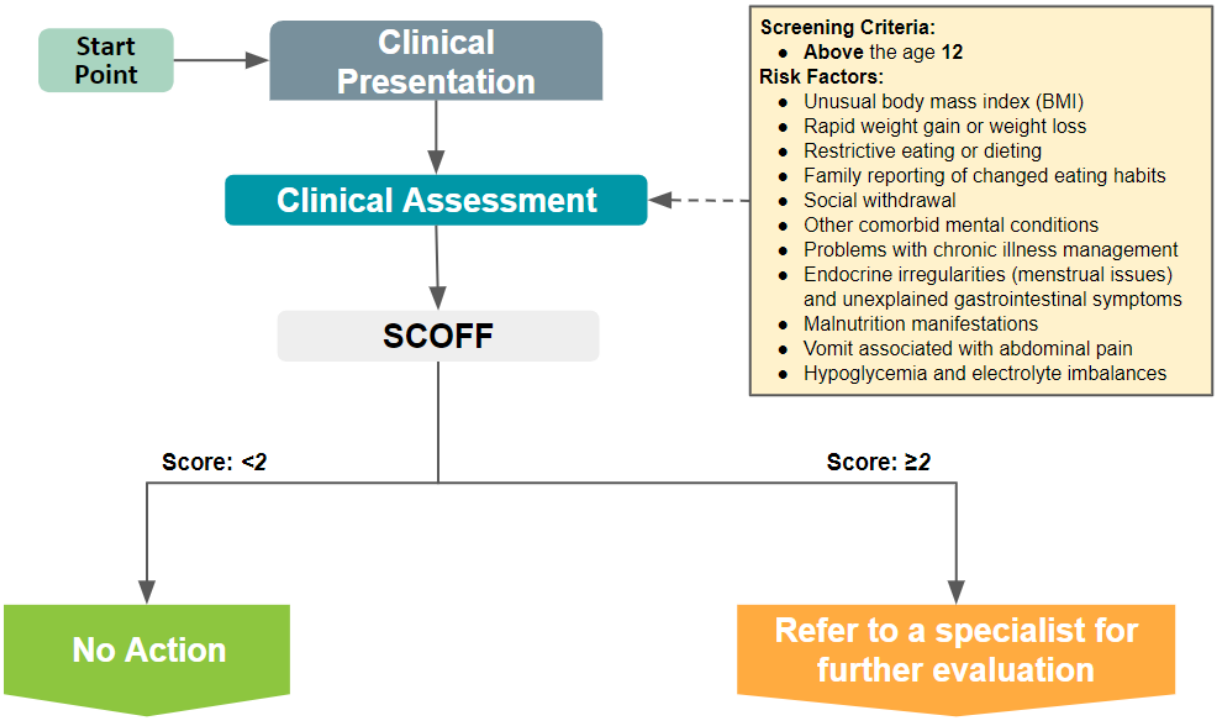
APPENDIX 3.2: SCOFF Arabic Version Template

Psychometric properties of the Arabic Version:

- Sensitivity: 80%
- Specificity: 73%

A-SCOFF item
هل تتعمّدين التقيؤ لأنّك تشعرين بتخمة مزعجة ؟
هل تقلقين من فقدان السيطرة على كمية الطعام التي تتناولينها ؟
هل فقدت مؤخّراً أكثر من 6.35 كيلوغرامات خلال فترة تمتدّ على 3 أشهر؟
هل تعتقدين أنّك سمينة بينما يقول الآخرون أنّك نحيفةٌ جداً؟
هل يمكنك القول أنّ الطعام يسيطر على حياتك ؟

APPENDIX 3.3: Patient pathway based on screening results.



APPENDIX 3.4: Cues and Risk Factors for Screening

- Clinician's suspicion
- Interview with patient
- Patients' self-identification and/or complaint of eating disorders symptoms
- Comorbid chronic illness
- Unusual body mass index (BMI) - low or high for their age
- Rapid weight gain or weight loss
- Restrictive eating or dieting that raises concerns from them or their community

- Family reporting of changed eating habits
- Social withdrawal
- Other comorbid mental conditions
- Problems with chronic illness management that influences diets (i.e., diabetes, celiac)
- Endocrine irregularities (menstrual issues) and unexplained gastrointestinal symptoms
- Malnutrition manifestations (i.e., poor circulation, palpitations, dizziness, fainting)
- Vomit associated with abdominal pain
- Hypoglycemia and electrolyte imbalances.