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An innovative 5-Step Patient Interview approach for integrating mental healthcare into primary care centre services: a validation study

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ABSTRACT

Background Mental health problems are prevalent among patients seeking primary healthcare. However, traditional patient interviews often fail to identify and manage these problems. Therefore, an improved patient interview process is needed to assess and treat mental health problems in primary care settings.

Aims To assess the validity, reliability, sensitivity and specificity of a 5-Step Patient Interview approach for the screening, diagnosis and treatment of mental health problems.

Design and setting This study compared a 5-Step Patient Interview approach (AlKhathami approach) with expert psychiatric interviews based on the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, fifth edition, the Patient Health Questionnaire-9 (PHQ-9) and the Generalised Anxiety Disorder-7 (GAD-7) questionnaire from 1 January 2020 to 30 April 2020 in family practice or primary healthcare centres.

Methods A total of 760 participants from five Saudi Arabian regions were selected using a multiclustered random sample of every third patient aged ≥18 years, drawn from the clinics' patient list.

Results A total of 732 patients agreed to participate, with a response rate of 96.3%; 396 (54.1%) were women; the mean (Standard Deviation) age was 41.28 (14.30) years (ranging from 18 to 84 years). Mental health problems were suspected in 40% of the participants. The 5-Step Patient Interview approach was shown to be comparable to an expert interview by a psychiatrist. Moreover, it was more accurate than the PHQ-9 and GAD-7 self-administered questionnaires in screening for stress and classifying it as mild, moderate to severe or severe. Additionally, the 5-Step Patient Interview approach improved physician-patient communication by encouraging the exploration of patients' perspectives.

Conclusions The 5-Step Patient Interview approach is a valid, reliable tool that can aid the integration of mental healthcare into primary healthcare and family practice. Future studies should evaluate the implementation outcomes of the 5-Step Patient Interview approach.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Mental health problems are often inadequately diagnosed and managed in routine primary healthcare services.

WHAT THIS STUDY ADDS

⇒ This study adds a new 5-Step Patient Interview approach (AlKhathami approach) comparable to psychiatric interviews and more accurate than current screening tools for identifying patients' degree of psychological stress.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This 5-Step Patient Interview could assist in integrating the screening and management of psychological stress and common mental health problems for patients seeking primary healthcare services.

⇒ In addition, it offers an opportunity for collaboration between primary care physicians and mental health specialists.

INTRODUCTION

Integrating mental healthcare into primary healthcare services is an effective strategy for identifying, treating and controlling mental illnesses, including those induced by organic disease.[1] Unresolved mental health issues result in worsening physical symptoms, poor treatment adherence, lowered quality of life and increased risk of functional impairment, morbidity, mortality and higher medical costs.[2] Despite these adverse implications, mental health problems are inadequately managed in routine practice.[3]

Comparing the mental healthcare provided to patients experiencing depression or anxiety disorders in hospitals with the mental healthcare provided in primary care centres showed similar clinical and social outcomes.[4] However, patients in primary care settings were treated more rapidly, received more continuity of care, were more satisfied with the service and had reduced healthcare costs.[4] But unfortunately, expertise in mental health was often lacking in the clinic settings.

Decreasing patients' psychological distress and addressing their needs for psychiatric

assessment and management requires a holistic and integrated care approach that empowers primary healthcare physicians to serve patients with mental health needs in busy clinics.[4] Based on >20 years of clinical experience, the author developed an innovative, concise 5-Step Patient Interview in 2017.[5] This interview can assist in decreasing the gap in mental health support services provided in primary healthcare settings.

Thus, this study aimed to assess the validity, reliability, sensitivity and specificity of the 5-Step Patient Interview for screening, diagnosis and treatment of mental health problems in a multisite sample of family practice and primary healthcare patients. The research questions are as follows: (1) Is the 5-Step Patient Interview a promising clinical screening tool for identifying mental health issues, including psychological stress, in primary healthcare patients? (2) Is the 5-Step Patient Interview as accurate, effective and reliable as evaluation by expert psychiatrists, the Patient Health Questionnaire-9 (PHQ-9) and the Generalised Anxiety Disorder-7 (GAD-7) in detecting, diagnosing and managing the mental health needs of primary healthcare patients?

METHODS

Study design and setting

This study compared a new, five-step structured clinical interview for screening mental health needs in primary healthcare centre patients with structured psychiatric interviews based on the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5), the PHQ-9 and the GAD-7 questionnaire. It was conducted at primary healthcare settings in Saudi Arabia from 1 January 2020 to 30 April 2020.

Sampling procedure

A multiclustered random sample was selected from 10 primary healthcare centres in 5 areas of Saudi Arabia: the north, south, east, west and central regions. Two primary healthcare centres per cluster were randomly selected. Study participants were recruited by choosing every third patient from the patient list of the enrolled clinics or the next eligible patient.

Patient interview stages and data collection

Patients enrolled in the study were interviewed in three stages (figure 1).

Stage 1: a family doctor assessed the enrolled patients using the 5-Step Patient Interview approach to guide the qualitative interviews (online supplemental box S1).

Stage 2: an expert psychiatrist interviewed the same patients using the Structured Clinical Interview for DSM Disorders, fifth edition (SCID-5) and the Mini-Mental State Examination (MMSE).[5]

Stage 3: these patients then completed a self-administered questionnaire containing three parts: socio-demographic data, the PHQ-9 for depression and the GAD-7 questionnaire.[6 7] Stress severity was classified as mild and moderate to severe based on the PHQ-9 and GAD-7 scores.

Sample size

The sample size was calculated according to the prevalence of mental disorders in primary healthcare centres

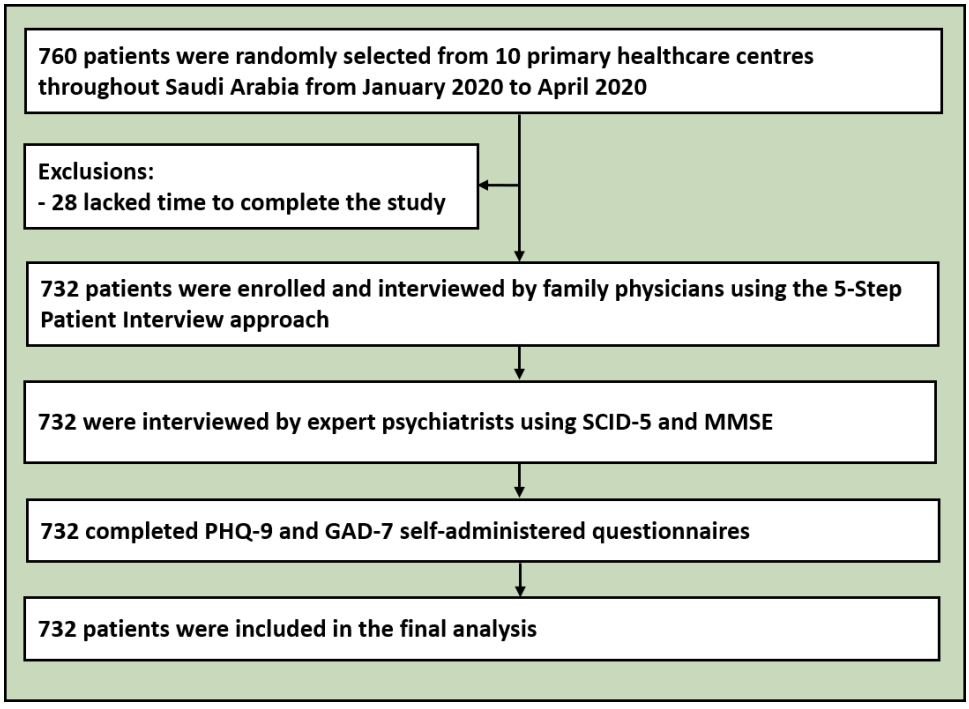

Figure 1 Flowchart of study enrolment. DSM-5, Diagnostic and Statistical Manual of Mental Disorders, fifth edition; GAD-7, Generalised Anxiety Disorder-7; MMSE, Mini-Mental State Examination; PHQ-9, Patient Health Questionnaire-9; SCID-5, Structured Clinical Interview for DSM Disorders, fifth edition.

in the World Health Organization (WHO)/the World Organization of Family Doctors (WONCA) Joint Report[8] (60%; 0.6) using the formula:

$N = [(Z_{1-\alpha/2}+Z_{\beta})^2 (p) (1-p)]/E^2$ $n = (Z^2 p x (1-p)/E^2)$
$Z_{1-\alpha/2}$= 1.96, p = 0.6, 1–p = 0.40, E = 0.05, Z_{β}= 0.84

Therefore, 760 subjects were recruited by selecting every third patient on the patient listing from each of the five primary healthcare clusters.

Statistical analyses

The data were analysed using IBM SPSS V.25 (IBM, Armonk, New York, USA). Cross-tabulations (2×2) were used to calculate the sensitivity and specificity of the 5-Step Patient Interview approach. A χ^2 test was applied to assess the psychometric properties (internal consistency, concurrent validity and reliability) of the 5-Step Patient Interview. The 95% confidence interval (CI) and p <0.05 were used to determine statistical significance.

Simple linear regression was used to test the correlation between stress severity and the 5-Step Patient Interview by assessing sleep disturbance: none (no sleep problems), mild (early insomnia), moderate to severe (interrupted sleep) and severe (late insomnia); and the PHQ-9 and GAD-7 classification scores were considered as no affected stress (score <5), mild (score=5–9), and moderate to severe (score ≥10). Additionally, simple linear regression was used to test the correlation between the severity of stress—from moderate to severe—as indicated by the PHQ-9 and GAD-7 scores >10 and the 5-Step Patient Interview measures screening for psychological stress, including a decreased performance of responsibilities, a marked decline in concentration, feelings of isolation, and anger easily triggered in social relationships.

The Durbin-Watson (DW) test was applied to exclude the effect of autoregression on the correlation between the new 5-Step Patient Interview and the existing (PHQ-9 and GAD-7) tool classifications. Additionally, an analysis of variance (ANOVA) test was used to determine any statistically significant differences between the new and existing tools. The coefficient results were used to assess the validity of the new approach. The standard deviation test was used to test predictability. The p <0.05 was the cut-off point for significance. Internal reliability to measure the consistency of results with the 5-Step Patient Interview was assessed using Cronbach's alpha reliability analysis with a cut-off point > 0.70; the data were all 'items' scores related to screening, diagnosis and management in the 5-Step Patient Interview, the PHQ-9, the GAD-7 and the interviews by expert psychiatrists. Then the credibility of the internal reliability was strengthened using Spearman's qualitative correlation coefficient.

The 5-Step Patient Interview approach (AlKhathami approach)

Step 1: suspect mental health problems

This step is the core of this approach. Based on a literature review and practical experience, three patient groups were selected and considered more prone to mental health problems.

A. Patients with uncontrolled physical symptoms or chronic organic illnesses

Physical symptoms are more prevalent in patients with depressive and anxiety disorders than in patients without these disorders[9]; complaints of physical symptoms are associated with a doubled risk of depression and anxiety disorders.[10] Likewise, mental health issues are common in patients with organic diseases and influence the course and outcomes of such medical conditions.[11]

B. Patients making frequent visits to the clinic

Depressed and anxious patients are likely to have unmet expectations with the treatment provided by doctors, resulting in increased dissatisfaction.[10] They will also make more repeat visits to the clinic.[8]

C. Patients with sleep disturbances

Approximately 97% of patients with depression and anxiety experience sleep disturbances.[11] Patients with insomnia are 90% more likely to have mental disorders.[12 13]

Step 2: screen for suspected stress-related mental health problems

This step comprises two parts:

A. Use the ideas, concerns, expectations technique to identify any hidden patient agendas or concerns and assess patients' thinking process

The ideas, concerns, expectations technique is an essential communication tool that helps improve doctor–patient relationships, builds trust, and reduces medication prescriptions.[14 15] It can also help explore unusual patient thoughts, such as delusions, hallucinations and flight of ideas, requiring immediate referral to a psychiatric clinic.

B. Screen for stress and the impact of problems on sleep, performance and relationships

1. *Sleep disturbance.* Insomnia is the most common symptom of mental health disorders, particularly depression and anxiety.[16] Patients with insomnia have a twofold risk of developing depression compared with people with no sleep difficulties; this necessitates early diagnosis to reduce the risk of depression.[17 18]
2. *Performance.* An inverse association between the performance of responsibilities and psychological stress has been observed; low performance may indicate the presence of psychological stress.[19]
3. *Social relationships—isolated or easily angered.* There is a significant association between social isolation, interpersonal sensitivity (low self-esteem) and depression.[20] Moreover, irritability (easily angered) is a leading indicator of psychological distress that requires careful evaluation.[20]

Step 3: scope of best service options to address more severe mental health problems

This step defines where the patient should be served—at the primary healthcare centre or referred to a psychiatric clinic—although cooperation between family physicians and mental health specialists who extend service to a broader coverage area is recommended.[21]

Step 4: diagnose depression and anxiety

According to the WHO Mental Health Gap Action Programme (mhGAP) Guide,[22] the major symptoms of depression are depressed mood or loss of interest and pleasure for at least 2 weeks. The major symptoms of anxiety are anxious mood and fear. This step entails the use of the self-administered PHQ-2 and GAD-2.[7 23]

Step 5: manage mild mental health problems

This step applies the principles of the WHO mhGAP Guide V.2.0.[22] The mild symptoms (ie, early insomnia) identified by the 5-Step Patient Interview are equivalent to those based on the GAD-7 and PHQ-9 and do not immediately require medication.[6 24] Physicians should start the patient on non-pharmacological treatment, including improved sleep hygiene, regular exercise, stress relaxation and supportive therapy. Pharmacological treatment can be initiated if the patient's situation worsens or does not respond to the former interventions.[22 23] Antidepressants should be considered for moderate to severe cases of mental health problems, except for the following situations: (1) post-triggering events. Examples include domestic or other violence victims, grief due to losing loved ones, natural disasters, etc. Narrative therapy should be provided as the first intervention to help patients cope with their problems before considering antidepressant treatment (online supplemental box S2); (2) drug side effects affecting mood. When mood changes occur following the administration of drugs such as beta-blockers, contraceptive pills and steroids, physicians should modify the medication before initiating antidepressant therapy.

RESULTS

Main results

Of the 760 selected participants, 732 participants enrolled in the study (96.3% response rate); 396 (54.1%) were women and the mean (Standard Deviation) age was 41.28 (14.30) years (range: 18–84 years). The study results followed and were based on the five steps of the patient interview.

Step 1: suspect mental health problems—the target group of patients requiring mental healthcare. Forty percent of all participants were suspected of having mental health problems. Table 1 illustrates the prevalence of mental health problems in the group with suspected mental health problems compared with those without any suspected mental health issues. The 5-Step Patient Interview approach detected patients with mental illness as well as the expert psychiatric interview.

Step 2: screen for suspected stress-related mental health problems. The 5-Step Patient Interview identified the level of stress severity similar to that found by the PHQ-9 and GAD-7. The 5-Step Patient Interview model was highly correlated with the PHQ-9 (R=0.767 and R^2=0.59) and GAD-7 (R=0.692 and R^2=0.48) classifications of stress severity, with Sig-F change <0.001 for both compressions. In addition, the DW values (1.879 and 1.969, respectively), which indicated an autoregression effect, were close to 2, indicating no autoregression effect.

The ANOVA test results for the 5-Step Patient Interview approach compared with the PHQ-9 and GAD-7 were F=1015.56 (p<0.001) and F=655.92 (p<0.001), respectively. The coefficient results of the comparison of the 5-Step Patient Interview with the PHQ-9 were B_0 (constant)=0.260 (p<0.001) and B_1 (stress level)=0.793 (p<0.001), indicating highly significant credibility (79.3%) of the new model compared with the PHQ-9. The coefficient results of the comparison of the 5-Step Patient Interview with the GAD-7 were B_0 (constant)=0.152 (p<0.001) and B_1 (stress level)=0.646 (p<0.001), indicating high credibility (65%) compared with the GAD-7. The sleep indicator coefficients with the PHQ-9 were B_0 (constant)=0.319 (p<0.001) and B_1 (sleep grading)=0.880 (p<0.001). The coefficient results with GAD-7 were B_0

Table 1 The prevalence of suspected mental health problems in primary healthcare patients

Method used to identify suspected mental health problems	Patients with suspected mental health problems N=293 (40.0 %)	Patients with no suspected mental health problems N=439 (60.0 %)	χ^2	P value	Total prevalence rate Total=732
The 5-Step Patient Interview approach	255 (87.0%)	34 (7.7%)	266.33	<0.001	(255+34)/732=39.5%
Expert psychiatrist interview	260 (88.7%)	25 (5.7%)	327.15	<0.001	(260+25)/732=38.9%
PHQ-9 and GAD-7 questionnaires	252 (86.0%)	129 (29.4%)	220.96	<0.001	(252+129)/732=52.0%

GAD-7, Generalised Anxiety Disorder-7; PHQ-9, Patient Health Questionnaire-9.

Table 2 Sensitivity and specificity of the 5-Step Patient Interview assessment of sleep disturbance compared with the PHQ-9 and GAD-7

		PHQ-9			GAD-7		
		Score ≥5	Score <5	Total	Score ≥5	Score <5	Total
5-Step Patient Interview sleep indicator	Disturbed sleep	232	40	272 (37.2%)	192	80	272 (37.2%)
	No sleep disturbance	119	341	460 (62.8%)	80	380	460 (62.8%)
	Total	351 (48.0%)	381 (52.0%)	732	272 (37.2%)	460 (62.8%)	732

PHQ-9: score ≥5, have depression; score <5, have no depression; GAD-7: score ≥5, have GAD; score <5, have no GAD.
GAD-7, Generalised Anxiety Disorder-7; PHQ-9, Patient Health Questionnaire-9.

(constant)=0.200 (p<0.001) and B_1 (sleep grading)=0.717 (p<0.001). These results indicate that the 5-Step Patient Interview has higher credibility than the PHQ-9 (88%) and GAD-7 (72%). Concerning the model's predictability, the SD was 1.0, indicating that the 5-Step Patient Interview model for stress classification predicts depression and generalised anxiety disorder well.

The sensitivity and specificity of the 5-Step Patient Interview stress indicators were compared with the PHQ-9 and GAD-7 measures. For defining stress as related to sleep disturbance, the 5-Step model had a high sensitivity (66.1% (232/351) vs 70.6% (192/272)) and a high specificity (89.5% (341/381) vs 82.6% (380/460)), with a significant correlation (χ^2=235.99 vs χ^2=203.19) (p<0.001 for both) compared with PHQ-9 and GAD-7 (table 2). In addition, a decline in performance assessed in the 5-Step Patient Interview was considered to indicate moderate to severe stress with a sensitivity (54.1% (98/181)) and a high specificity (96.9% (534/551)) (χ^2=257.23, p<0.001) compared with PHQ-9, and a sensitivity of 54.9% (73/133) and a specificity of 93.0% (557/599) (χ^2=183.19, p<0.001) compared with GAD-7 (table 3). Finally, the 5-Step Patient Interview approach found an adverse impact of mental health problems on social relationships. It indicated moderate to severe stress with a sensitivity of 24.9% (45/181)and a high specificity of 99.1% (546/551), with a significant correlation (χ^2=257.23, p<0.001) compared with PHQ-9. Moreover, it had a sensitivity of 27.8% (37/133) and a specificity of 97.8% (586/599), with a significant correlation (χ^2=183.19, p<0.001) compared with GAD-7 (table 4).

Step 3: scope best service options to address more severe mental health problems. The 5-Step Patient Interview model was highly sensitive (96.0% (24/25)) and specific (100.0% (707/707)) in determining whether a patient should be followed up at a primary healthcare centre or referred to a mental health specialist when compared with an expert psychiatrist assessment and showed a significant correlation (χ^2=697.89, p<0.001), as demonstrated in table 5. Only 24 (3.3%) patients required referral to psychiatric clinics; two-thirds of these patients (n=16) were diagnosed with schizophrenia. Thus, most patients were treated at primary healthcare centres.

Step 4: diagnose depression and anxiety. The 5-Step Patient Interview approach was compared with expert psychiatric evaluation and the PHQ-9 and GAD-7 for the diagnosis of depression and anxiety. A total of 262 (35.8%), 230 (31.4%) and 383 (52.3%) patients with mental health problems were diagnosed using the 5-Step Patient Interview approach, an expert psychiatrist evaluation, and the PHQ-9 and GAD-7 questionnaires, respectively. The 5-Step Patient Interview had a sensitivity of 96.1% (221/230) and a specificity of 91.8% (461/502) compared with the expert psychiatrist diagnosis, with a significant correlation (χ^2=511.67, p<0.001). The positive predictive value of the 5-Step Patient Interview was high

Table 3 Sensitivity and specificity of the 5-Step Patient Interview assessment of performance compared with the PHQ-9 and GAD-7

		PHQ-9			GAD-7		
		Score ≥10 (moderate to severe)	Score <10	Total	Score ≥10 (moderate to severe)	Score <10	Total
5-Step Patient Interview performance indicator	Declined performance	98	17	115 (15.7%)	73	42	115 (15.7%)
	Normal performance	83	534	617 (84.3%)	60	557	617 (84.3%)
	Total	181 (24.7%)	551 (75.3%)	732	133 (18.2%)	599 (81.8%)	732

PHQ-9: score ≥10, have moderate to severe depression; score <10, have no moderate to severe depression; GAD-7: score≥10, have moderate to severe GAD; score <10, have no moderate to severe GAD.
GAD-7, Generalised Anxiety Disorder-7; PHQ-9, Patient Health Questionnaire-9.

Table 4 Sensitivity and specificity of the 5-Step Patient Interview assessment of social relationships compared with the PHQ-9 and GAD-7

		PHQ-9			GAD-7		
		Score ≥10 (moderate to severe)	Score <10	Total	Score ≥10 (moderate to severe)	Score <10	Total
5-Step Patient Interview social relationship (isolation, easy anger) indicator	Affected social relationships	45	5	50 (6.8%)	37	13	50 (6.8%)
	Normal social relationships	136	546	682 (93.2%)	96	586	682 (93.2%)
	Total	181 (24.7%)	551 (75.3%)	732	133 (18.2%)	599 (81.8%)	732

PHQ-9: score ≥10, have moderate to severe depression; score <10, have no moderate to severe depression; GAD-7: score ≥10, have moderate to severe GAD; score <10, have no moderate to severe GAD.
GAD-7, Generalised Anxiety Disorder-7; PHQ-9, Patient Health Questionnaire-9.

(84.4% (221/262)). Additionally, it had a sensitivity of 66.1% (253/383) and a specificity of 97.4% (340/349) compared with the PHQ-9 and GAD-7, along with a significant correlation (χ^2=308.03, p<0.001). The positive predictive value was high (96.6% (253/262)) (online supplemental table S1).

The prevalence of depression and anxiety were 29.9% (n=219) and 27.9% (n=204), respectively, as determined by the 5-Step Patient Interview. Compared with the expert psychiatric evaluation, the 5-Step Patient Interview had a high sensitivity of 93.2% and a high specificity of 90.1% for the diagnosis of depression, with a significant correlation (χ^2=453.13, p<0.001), and 92.5%% and 92.1% for the diagnosis of anxiety, with a significant correlation (χ^2=425.16, p<0.001), respectively (online supplemental table S2).

Step 5: manage mild mental health problems. For determining the need for psychotherapy only versus psychotherapy with antidepressant treatment, the 5-Step Patient Interview approach had a high sensitivity of 100% and a high specificity of 100% compared with expert psychiatric evaluation, with a significant correlation (χ^2=715.00, p<0.001). Additionally, it had a high sensitivity of 84.0% (152/181) and a high specificity of 97.5% (537/551), respectively, for determining the need for antidepressant treatment, with a significant correlation (χ^2=498.66, p<0.001) (online supplemental table S3).

Duration of the patient interviews

The mean duration of the 5-Step Patient Interview was 4.1 (2.0) min, with the mode of consultations requiring 3 min; only a few cases extended to a maximum of 13 min. The mean duration of the expert psychiatrist interview was 11.6 (8.7) min, while the mode of consultations was 15.0 min and the maximum time required was 38.0 min.

Reliability

The 5-Step Patient Interview showed a Cronbach's alpha of 0.957, indicating significantly high reliability. Then the credibility of the internal reliability was strengthened using Spearman's qualitative correlation coefficient, clarifying that the parameters of the correlation were very strong between the variables (correlation coefficient=0.797 with p <0.001).

DISCUSSION

Main findings

This study evaluated the innovative 5-Step Patient Interview approach in primary healthcare settings. The findings revealed the validity and reliability of a structured patient interview relative to the PHQ-9 and GAD-7 questionnaires and expert psychiatric evaluation. The 5-Step Patient Interview approach demonstrated a high sensitivity and a high specificity in identifying mental health problems. Additionally, it appeared to be a feasible and appropriate approach for use in busy primary healthcare centres due to its high predictability for mental health problems. These results showed that the 5-Step Patient Interview could be instrumental in integrating mental healthcare into primary healthcare services, as recommended by various studies.[4 23] The combination of

Table 5 Sensitivity and specificity of the 5-Step Patient Interview approach identifying the need for mental health referral compared with an expert psychiatrist

		Mental health referral recommended by an expert psychiatrist		
		Yes	No	Total
Mental health referral recommended by the 5-Step Patient Interview	Yes	24	0	24 (3.3%)
	No	1	707	708 (96.7%)
	Total	25 (3.4%)	707 (96.6%)	732

medical healthcare and medical treatments can significantly improve patient conditions compared with the usual care, leading to increased patient satisfaction.[25 26]

Our findings provide a potential solution for identifying high-risk patient groups with mental health problems that often remain undiagnosed at the primary healthcare level, thus alleviating much 'doctor shopping' among dissatisfied patients and family members.[4] The 5-Step Patient Interview approach may enhance clinician efficiency in detecting frequently missed mental health issues, as the WHO/WONCA Joint Report recommends.[8] This approach considers the ideas, fears and expectations of patients. It has been proven effective in nurturing good relationships between doctors and patients, thus enhancing patient compliance to treatment plans and reducing drug prescriptions.[15]

Although screening for mental health problems at primary healthcare centres is recommended, the available screening tools are time-consuming, limiting their application in busy clinics.[15] The 5-Step Patient Interview approach addresses this by shortening the screening time for mental health problems, as recommended by Berwick *et al*, who emphasised the need for shortened screening questionnaires.[26] Dugdale *et al* stated that the interview length is unrelated to its quality.[27] Goldberg *et al* also showed that treating mental illnesses at primary healthcare centres is faster, ensures care continuity, improves patient satisfaction and reduces healthcare costs.[4]

Integration of mental healthcare into primary healthcare services triggers questions about the scope of mental health services offered at the primary healthcare level.[8] The 5-Step Patient Interview model empowers primary healthcare physicians with a clear scope of practice, as recommended by WHO[28] and emphasised by Shidhaye *et al*.[1]

Limitations

Our study had some limitations—mainly the short study period and limited resources. Nevertheless, we demonstrated the potential usefulness of the 5-Step Patient Interview approach in integrating mental healthcare services into primary care centres with a high participant response rate (96.3 %).

Implications

The 5-Step Patient Interview is a valid, reliable tool that can help integrate mental healthcare into primary healthcare services. It can be used to screen for psychological stress and defines the mental health service scope of primary healthcare physicians. The interview approach offers an opportunity to provide mental health services in primary healthcare settings despite the busy schedules of primary healthcare physicians. It also opens the door for collaboration between primary care physicians and mental health specialists. Further studies are needed with larger sample sizes to confirm the validity of this approach in patients with suspected mental health concerns. There is also a need for qualitative research to explore the acceptability of the 5-Step Patient Interview and the satisfaction of both clinicians and patients.

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Competing interests None declared.

Patient consent for publication Consent obtained directly from patient(s)

Ethics approval Ethical approval was obtained from the King Fahad Medical City-Riyadh Institutional Review Board (ID 19-029E; KFHMC, Riyadh, KSA) and informed written consent was obtained from all participants who were advised during recruitment of their ability to withdraw consent at any time.

Provenance and peer review Not commissioned; externally peer reviewed.

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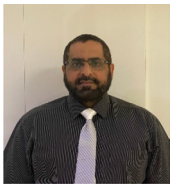

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