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Improving Depression Screening in Primary Care

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Executive Summary

Introduction of the Problem

Depression is a mental disorder that has become increasingly prevalent in the United States. Approximately 21 million adults aged 18 or older experience at least one major depressive episode (NIMH, 2022). This has led to the universal depression screening recommendation from the US Preventive Services Task Force (USPSTF) to implement routine depression screening during primary care visits for adults aged 18 or older (USPSTF, 2023). The *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) criterion for depression is a person experiencing depressed mood or loss of interest in daily activities accompanied by five or more specified symptoms such as altered weight, sleep, energy, self-worth/guilt, concentration, psychomotor agitation or retardation, and suicidal ideation for at least two weeks causing significant distress or impairment in life (American Psychiatric Association [APA], 2013). Primary care practices are at the forefront of patient interactions and are ideal settings for integrating routine depression screening (Bickley et al., 2020; Jha et al., 2019; Sundeen et al., 2020).

One suburban primary care practice in Midwest Illinois was identified to have no routine depression screening protocol in place despite feedback revealing that patients with depressive concerns were frequently encountered which led to the development of this evidence-based quality improvement project (QIP). The scope of this QIP was to implement a routine depression screening protocol to improve screening rates in adults 18 years and older of this practice.

Literature Review

Despite the USPSTF recommendation, an estimate of only 50% of primary care providers reported using a depression screening tool in practice (Owens-Gary et al., 2019; Siniscalchi et

al., 2020). Patient Health Questionnaires (PHQ) such as the PHQ-2 and PHQ-9 are based on the DSM-5 criteria and are commonly used in primary care settings to screen for depression with diagnostic accuracy (APA, 2020; Siniscalchi et al., 2020). According to Jha et al. (2019), the implementation of routine depression screening resulted in 17.3% of 25,000 adult patients screening positive for depression using the PHQ-2, with 56.1% diagnosed and treated for major depressive disorder after further evaluation using the PHQ-9. Some barriers to implementing depression screening in primary care included limited visit time and lack of using evidence-based screening tools (Blackstone et al., 2022). Outcomes of successful implementation of depression screening tools may increase early identification, enhance management of depressive symptoms, and improve patient outcomes (Jha et al., 2019; Owens-Gary et al., 2019).

Project Methods

A pre-post intervention design with the Model for Improvement *PDSA* cycles was used to implement a routine depression screening protocol to improve screening rates in adult patients. The setting was a suburban primary care practice in Midwest Illinois. The Southern Illinois University Edwardsville Institutional Review Board (IRB) determined this project IRB exempt due to the project classification as Non-Human Subjects Research with minimal to no risk for patients.

The DNP students of this project collaborated with the stakeholder of this practice to integrate the PHQ-2 and PHQ-9 into the EMR. Before implementation, a pre-intervention staff questionnaire was completed anonymously by the personnel of the practice and the DNP students held a PowerPoint educational session with handouts on information on scoring criteria and how to use the screening tools. The PHQ-2 was carried out by the personnel who roomed the patient and a score of >2 indicated the need for further screening using the PHQ-9. Scores were

inputted into the medical record and positive scores were reported to the provider for further evaluation and management. Following implementation, a final post-intervention staff questionnaire and staff satisfaction survey were administered. The DNP students frequently visited the practice to collect depression screening data and address any barriers warranting the reevaluation of this QIP.

Evaluation

Outcomes of this DNP project were evaluated based on the number of depression screenings completed compared to patients seen in practice, positive screenings versus total completed screenings, pre- versus post-intervention staff questionnaires, and a post-implementation staff satisfaction survey. A pre-and post-staff questionnaire was created using a five-question Likert scale to compare personnel utilization of standardized depression screening tools, frequency of encountering depressive concerns in practice, personnel comfort in asking patients depression-related questions, benefits of utilizing depression screening tools, and knowledge interpreting PHQ-2/PHQ-9 scores. A final staff satisfaction survey was developed using a three-question open-ended survey to gather the participant's feedback regarding value, concerns, and recommended changes to improve the implementation process of depression in primary care settings.

Discussion

This project was implemented from November 15 through December 13, 2023, a total of 435 patients were seen in practice; 2 patients were excluded from depression screening for not meeting the inclusion criteria of 18 years and older. In this analysis of 433 patients, ages ranged from 18 to 88 years (mean = 55.085 years) with 51.73% being male and 48.27% female [Table 1]. Of the patients seen in practice, 43.18% (n = 187) were screened using the PHQ-2 with 10%

(n = 19) scoring positive. All patients who scored positive on the PHQ-2 were further screened using the PHQ-9 and were reported to the provider for further evaluation, diagnosis, and management. These results displayed an improvement in depression screening from 0% to 43% and depressive concerns were identified in 10% of patients screened which warrants the importance of conducting routine depression screening in primary care.

TABLE 1. Depression Screening Results

			Gender	
	Total (n = 433)	**Positive Score**	**Male (n = 224)**	**Female (n = 209)**
PHQ-2	187 (43.18%)	19 (10.16%)	100 (53.47%)	87 (46.52%)
PHQ-9	19 (4.39%)	8 (42.10%)	11 (57.89%)	8 (42.10%)

The pre-and post-intervention questionnaire results showed an improvement in depression screening tool use, comfort in asking depression-related questions, and knowledge in interpreting PHQ-2 and PHQ-9 results. Personnel responses showed no fluctuations on the pre- and post-questionnaire regarding encountering patients with depressive concerns (“frequently”) and the perceived benefits of utilizing depression screening tools to improve the early identification of depression (“strongly agree”). Personnel feedback on the post-intervention staff satisfaction survey was unified on all questions: (1) depression identification in patients even if depressive concerns were not the reason for the visit was a valuable aspect of the depression screening tools, (2) time constraints related to personnel shortage was a common concern, and (3) no changes were recommended for the process of this QIP.

Limitations

Limitations of this project included a shortage of personnel resulting in time constraints and a lack of consistent patient screening. There was also an inconsistent recording of screening

scores among practice personnel for the PHQ-2 (i.e. charting “Psychiatric: appropriate” versus “PHQ-2: 0”). A debrief meeting was conducted to provide clarification on documentation verbiage; personnel explained that “appropriate” meant a “PHQ-2 score of 0”. To create a cohesive screening process, personnel were requested to input a numerical score (i.e. PHQ-2: 0) for future documentation.

Impact on Practice

This DNP project showed overall improvement in depression screening in adult patients of this practice. Before implementation, this practice reported frequently encountering patients with depressive concerns despite a lack of routine use of depression screening tools. The integration of the PHQ-2 and PHQ-9 into the EMR stimulated standardized use of the screening tools. This user-friendly inclusion led to the identification of depressive concerns in 10% of screened patients making the impact of this QIP clinically relevant. Depression identification was considered valuable and beneficial for the ongoing improvement of patient outcomes. A suggested change regarding ongoing implementation is to have patients complete PHQ-2 screening in the waiting room to alleviate time constraints related to the shortage of personnel.

Conclusions

The implementation of this DNP project addressed the lack of routine depression screening for the patients in this primary care practice. The literature supports the recommendation of using standardized depression screening tools to identify depressive concerns in primary care settings. Results showed depression screening improved from 0% to 43% with 10% scoring positive. There was an overall improvement in personnel comfort, knowledge, and frequency of screening. Routine depression screening was shown to be valuable, and the screening tools’ ease of use made them practical in primary care settings. A recommendation to

resume routine depression screening for adult patients was conferred with this practice's personnel.

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