

Spring 5-10-2019

# Depression Screening in the Primary Care Setting

Colleen Dostal

Stephanie Boerding

Follow this and additional works at: <https://spark.siu.edu/dnp/projects>

Part of the [Nursing Commons](#)

---

## Recommended Citation

Dostal, Colleen and Boerding, Stephanie, "Depression Screening in the Primary Care Setting" (2019). *Doctor of Nursing Practice Projects*. 37.

<https://spark.siu.edu/dnp/projects/37>

This DNP Project is brought to you for free and open access by the School of Nursing at SPARK. It has been accepted for inclusion in Doctor of Nursing Practice Projects by an authorized administrator of SPARK. For more information, please contact [magrase@siue.edu](mailto:magrase@siue.edu).

## Executive Summary

### **Depression Screening in the Primary Care Setting**

**Colleen Dostal and Stephanie Boerding**

#### **Introduction of Problem**

Recent data reveals an estimated 17.3 million adults in the US population experience an episode of depression each year (NIH, 2019); making this the second leading cause of disability in the country (McGough, Bauer, Collins, Dugdale, 2016). Eighty percent of depression is diagnosed in primary care; therefore, it is important that primary care providers are evaluating and treating this condition (McGough, Bauer, Collins, and Dugdale, 2016). Unidentified and untreated depression has many consequences leading to a poor quality of life, direct and indirect healthcare cost-related increases, and an increase in medical comorbidities (Halverson, 2017). Approximately 45% of those who die by suicide were seen by their primary care provider in the month prior to the event (Raue, Ghesquiere, & Bruce, 2014). If there is a lack of standardized screening, primary care providers may overlook at least 50% of patients that have depression (Arroll, et. al., 2010). It is vital that depression is identified early and treated effectively to prevent these complications.

#### **Literature Review**

Depression cannot be diagnosed by laboratory or diagnostic testing; therefore, it is essential that a screening tool is implemented in all primary care offices (Halverson, 2017). The U.S. Preventative Services Task Force recommends that all adults be screened for depression. The PHQ-2 and PHQ-9 are the most widely accepted screening tools that have been proven to be efficient and accurate in the preliminary detection of depression (Haefner, Daly, & Russell, 2017). The PHQ-2 is used to initially screen every patient at every visit with two questions

regarding feelings of depression or loss of interest in activities they once enjoyed in the last two weeks. If the patient answers yes to either of these questions, they are then screened with a more in depth questionnaire, the PHQ-9. The PHQ-2 is highly reliable at ruling out depression with a sensitivity of 97% while the PHQ-9 is highly reliable at ruling in depression with a specificity of 94% (Maurer, 2012). The conjunctive use of both of these questionnaires can therefore provide the primary care provider with a more accurate screening of patients with depression. By administering the PHQ-2 and PHQ-9 at the same visit if the patient screens positively, earlier identification and treatment may be initiated.

### **Project Methods**

As a quality improvement project, a new protocol for depression screening was implemented at the SIUE We Care Clinic in East St. Louis, IL. This clinic's previous policy for screening depression involved two stages. First, the PHQ-2 was administered. In the event the patient scored a two or higher on this PHQ-2, they were requested to make a follow-up appointment with the clinic for administration of the PHQ-9, risking failure to follow through.

The purpose of the project was to educate health care professionals regarding depression and to implement a more timely depression screening protocol in this primary care setting. The intent of this project was to improve identification rates of people suffering from depression, leading to earlier intervention and treatment. An additional purpose of this project was to educate health care providers regarding proper coding of depression screening administration so that the clinic would receive maximum reimbursement. The population used in this study included adults aged 18-99, predominantly African American, and medically underserved. The three project goals were: complete a full depression screen at a single visit; increase the rates of administration of the PHQ-2 and PHQ-9 to better identify patients suffering from depression,

resulting in earlier intervention; appropriate coding for administration of the PHQ-2 and PHQ-9 with subsequent reimbursement.

An educational in-service was provided to the SIUE We Care Clinic staff which included background information on depression, the clinical relevance of a depression screening tool in the primary care setting, and implementation of the depression screening protocol. The proper use, reliability, and validity of the PHQ-2 and PHQ-9 were discussed in detail. The new protocol that the clinic adopted was to administer the PHQ-2 to all patients. If the patient screened positively on the PHQ-2, the patient would then be screened with the PHQ-9 in the same visit so early intervention could be made.

This project was deemed exempt from the Institutional Review Board at Southern Illinois University Edwardsville. Data collection was done retrospectively. There were no threats to subject welfare due to the method of data collection.

## **Evaluation**

To analyze project goals, data was collected that included the following: the compliance rates of administering the PHQ-2 and PHQ-9 prior to and after the educational in-service, the number of patients identified with depression before and after implementation of the new depression screening protocol, and the clinic's reimbursement after proper coding for these screenings.

Prior to the project implementation, data was collected from patient visits through the dates of 9/28/17 – 12/28/17 (n=209). In this analysis 72 (34%) patients screened positively for depression with the PHQ-2; 137 (66%) patients were not screened. Of the patients that received the depression screening tool, 16 (22%) patients screened positively for depression.

After project implementation, the number of patients seen from 8/27/18 – 11/27/18 numbered 145. Ninety-seven (67%) patients were screened for depression with the PHQ-2 and 48 (33%) patients were not screened. Of those screened, 22 (23%) patients screened positively on the PHQ-2. These 22 (100%) patients that screened positively on the PHQ-9 were immediately referred for further evaluation, diagnosis, and potential treatment.

When comparing the data, a 33% increase in the number of patients that were screened for depression was found. This indicates that the educational in-service led to more patients being screened for depression. In addition, 100% of patients that screened positively on the PHQ-2 were then screened in the same visit with the PHQ-9 and identified with symptoms of depression. These patients were then promptly referred for treatment to social work, counseling, and/or received medication intervention in that same visit. These findings indicate that the new protocol was effective and more patients could be promptly identified with depression when in use. Prompt identification, in turn, resulted in rapid intervention thus reducing the potential consequences of untreated depression from occurring and improving the quality of one's life. Additionally, at the time of data collection, the clinic had not received all claims but had seen reimbursements totaling \$176.00. This was an improvement as, prior to project implementation, the clinic had not been coding or receiving reimbursement for the administration of depression screening tools.

Limitations of this project include limited time and a small sample size. This was due to the clinic's lack of operation over the summer of 2018. Patient cancellations and no-shows also contributed to a small sample size. Strengths of this project include positive data results with subsequent adoption of the proposed depression screening protocol. This project can also be easily replicated.

## **Impact on Practice**

This project was clinically relevant as it led to an increase in the identification of patients with depression and prompt intervention. Prior to this project, the SIUE We Care Clinic was administering the PHQ-2 and the PHQ-9 in separate visits and was not coding for either assessment. Results of this project indicate that the educational in-service heightened awareness for the need to administer the PHQ-2 and the PHQ-9 in the same visit to identify depression and prompt intervention/treatment. Results also indicate that education regarding the proper coding of these services led to reimbursement and revenue for the clinic. The clinic currently plans to continue the new depression screening protocol in addition to billing for these services. It is expected that more patients will be identified with depression and receive prompt treatment. The clinic will continue to receive reimbursements for these screenings with the appropriate coding and billing.

## **Conclusion**

Depression screening outcomes may be improved by educating clinic staff about the administration of the PHQ-2 and the PHQ-9. The literature supports that the current protocol of administering these tools within the same visit and to all patients leads to improved identification of those suffering from depression. With the adoption of this protocol, more patients will be screened and identified with depression leading to prompt intervention and treatment.

*Colleen Dostal, FNP-DNP Student*  
[cdostal@siue.edu](mailto:cdostal@siue.edu)

*Stephanie Boerding, FNP-DNP Student*  
[sboerdi@siue.edu](mailto:sboerdi@siue.edu)