

# Depression Outcomes in Primary Care

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## Abstract

Depression is one of the leading causes of disability across the globe and it is associated with several adverse outcomes such as potential to self-harm, comorbid medical conditions such as diabetes, stroke, and heart diseases, among others. The purpose of the current study is to examine the effectiveness of primary care behavioral health treatment on levels of depressive symptoms in patients diagnosed with a depressive disorder at a large community clinic within Geisinger Health System. In total, 91 patients completed the Patient Health Questionnaire-9 (PHQ-9) screening tool before and after treatment. The age of this sample ranged between 21-79 years with an average age of 41 years. Results of this data analysis showed that 87% of the patients participating in this integrated behavioral health treatment experienced improvement in their depressive symptoms. Furthermore, 65% of the patients reported at least 5+ points decrease in their PHQ-9 scores at the end of the treatment. The average number of visits for this patient population is 4 with a booster session scheduled for 3 months after the completion of the treatment. Overall, the patients that were referred for the treatment of depressive symptoms by their primary care physician reported improvement in their symptoms.



Primary Care Behavioral Health

## Introduction

According to the NIH (2017), the prevalence of depression in the US is estimated to be at 17.3 million adults who had at least one major depressive episode. Prevalence is higher among adult females compared to males.

Despite a high prevalence in the general adult population, data suggests that depression remains undetected in many primary care settings with recognition of symptoms as low as 36% (Akincigil & Matthews, 2017). A significant amount of evidence supports the value and effectiveness of early intervention and continued access to depression treatment. Research also indicates that primary care behavioral health models are practical, feasible, and effective for the treatment of depression (Grazier, Smith, Song, 2014).

## Methods and Materials

This is an ongoing Quality Improvement project. The data was collected from the electronic medical record of a primary care behavioral health site. The inclusion criteria included:

1. New patients from Feb 2019 to Feb 2020 (based on LOS: 90791)
2. Presenting complaint of depression.
3. PHQ-9 score at the intake and PHQ-9 score at the last treatment session.
4. Only patients with an initial score  $\geq 10$  on PHQ-9
5. Only patients who have had more than 1 behavioral health encounter during the time period
6. Age 18 and above

The analysis consisted of identifying net change between first and last PHQ-9 scores. Further analysis was completed to identify gender difference to treatment response.

## Results

N= 91

Female= 55

Male= 36

Avg. Age= 41

Number of session= 4

Intervention = Brief Intervention

Number of Providers= 1

% of patients reported improvement= 87%

% of patients who did not report any improvement= 4%

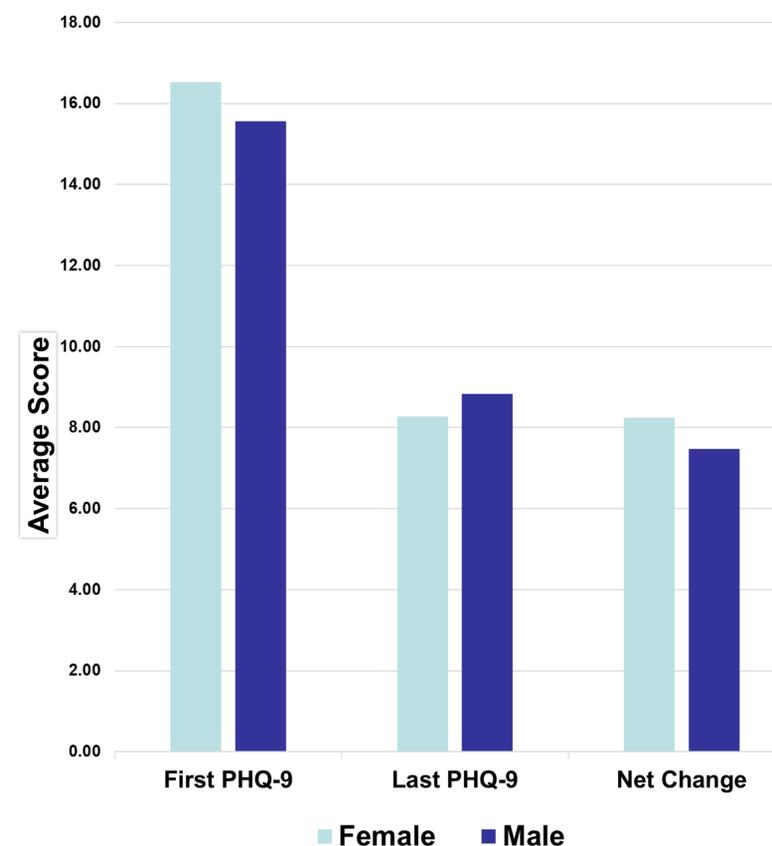
% of patients who reported increase in their symptoms= 9%

Female Avg Initial PHQ-9 score= 18

Female Avg Net Change= 8 points

Male Avg Initial PHQ-9 score= 17

Male Avg Net Change= 7 points



## Discussion

This quality improvement project is a part of an ongoing effort to improve depression screening in primary care clinics, identify patients and implement potential depression care pathways. The results of this project lays a foundation for the depression care pathway for the rest of the primary care clinics within Geisinger Health System. The fidelity to the primary care behavioral model played a vital role to implement depression screening, brief intervention, and outcome measurement. Based on the pre and post measurement of depression scores, 87% of the patients reported improvement on their PHQ-9 scores indicating the impact of brief intervention within a primary care setting. There are some limitations to this data. For example most participants are college educated and are privately insured; therefore, the outcome may look different with an underserved population. It is also important to note that 9% of the sample reported increase in their symptoms for the duration of the treatment however this data does not identify the potential reasons of this change.

## Conclusion

Consistent with previous research, this quality improvement project in primary care behavioral health setting indicates the effectiveness and efficacy of the treatment of depression using brief intervention.

## Reference

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3. Grazier KL, Smith JE, Song J, et al. (2014). Integration of depression and primary care: barriers to adoption. *Journal of Primary Care and Community Health*, 5:67-73