Comanche County Memorial Hospital Family Medicine Residency

# Increasing Depression Screening in at Risk Patients who use Opioid Medications

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## INTRODUCTION

One of the most common diagnoses in primary care is depression.[1] 4.7% of all adults over 18 report feeling regular feelings of depression[2], specifically there is a rate as high as 12% of new onset depression after using opioid medications.[3] The USPSTF recommends screening for depression in the general population and implementation should include adequate systems to ensure accurate diagnosis, effective treatment and appropriate follow up.[4] Oklahoma remains in the top 10 for number of opioid prescriptions per 100 residents at 79.1 per 100 with the national average being 51.4.[5] As Osteopathic physicians we strive to not only treat the symptoms but to look at the patient as a whole and consider the mind body and spirit as well. With such a high rate of co-morbid depression and opioid use in our state, early and often screenings could lead to interventions that save lives.

## OBJECTIVES

1. Increase screening for depression in those who use opioids by 50% in the CCMH residency clinic

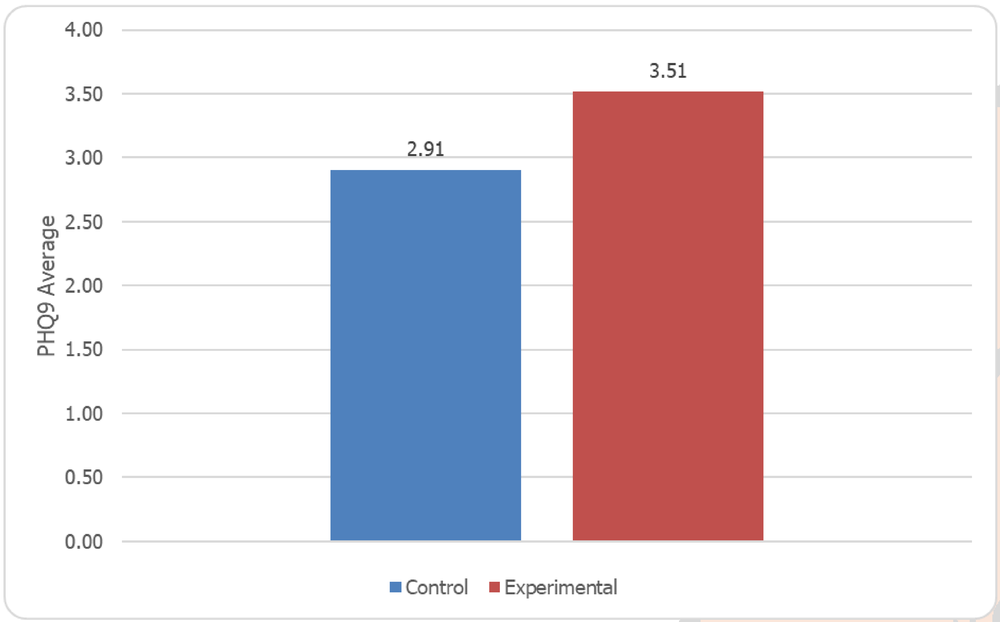
2.Standardizing depression screenings inside the CCMH residency clinic

3.Treat patients more holistically, instead of by symptom control only

## METHODS

Providers and support staff in the Lawton Residency family medicine clinic were informed on PHQ-9 screening guidelines with an email and flyers in our team room. Support staff when checking in patients were to review med list and if an opioid containing medication was listed they were to issue patient a PHQ-9 depression screening. Providers, when sitting down with these patients, were to review if this was given and score resulting screening. No further action was required but providers were encouraged to take appropriate action on screening results. The results were entered into the EMR by nursing staff. Data was retrospectively reviewed for the 3 weeks prior to change above and 3 weeks after. Data was then pulled from the EMR for evaluation.

## RESULTS




There was an increase in average PHQ-9 scores by 0.6 when standardized screenings were implemented.

| Unpaired T-test | | |
|---|---|---|
| Calculation | Opioid Control | Opioid Test |
| Mean | 2.91 | 3.51 |
| SD | 5.23 | 6.47 |
| SEM | 0.93 | 1.09 |
| N | 32 | 35 |

P value = 0.68 and is >0.05 indicating a non significant result.

## CONCLUSION

This project was intended to standardize the screening for patients who use opioids in the CCMH residency clinic for patients that use opioids and have a high risk of co-morbid depression. Prior to this patient depression screenings were intermittently being given, with a significant amount of scores being reported as 0 as a possible placeholder. With the mentioned interventions in the methods sections, it was observed an increased number of PHQ-9 scores > 0 being reported and on average a higher response through all scores. Despite this, the data when run through the Unpaired-T test was determined to be insignificant with a P value of 0.68.

Looking at the raw data there continues to be a large amount of responses with a total of 0 for the PHQ-9. Prior to implementation it was discovered many patients were receiving a score on 0 on their PHQ-9 form despite not receiving or filling out a form. Even with education and implementing new screening requirements, this trend seems to continue when looking at the data. The control arm has a total of 19/32 zero scores while the experimental arm has 19/35 zero scores. This could be rectified with having providers discuss results and further investigate patient's symptoms during the visit. With the small sample size this most likely skewed the data significantly. As mentioned in the Methods section, data was collected over a 3 week period for each arm. A large number of patients in the clinic are on 3 month refill cycles for their opioid medications. Extending each arm to 3 months would have most likely captured all patients in the clinic with more accurate before and after results. After review of the data as well, it was noted that how the data was pulled from the EMR resulted in factional PHQ-9 scores and this is not possible.

After conclusion of this Q.I. project I do believe that reevaluation of the methods and implantation of the changes mentioned above would be greatly warranted. With such a high risk population, through reinvestigation and treatment would be high beneficial.

## REFERENCES OR ACKNOWLEDGEMENTS

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