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VA/DoD Depression Clinical Practice Guideline Adherence

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DISCLAIMER: Due to the impact of the COVID19 Pandemic, 2020 graduates of the Daniel K. Inouye Graduate School of Nursing were deemed critical to the mission of caring for the health of the nation and had an accelerated graduation. All phases of the DNP Project were complete, and met the standards and rigors of a quality DNP Project with an abbreviated dissemination timeframe.

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Abstract

Phase II Site: Travis AFB, California; United States Air Force Academy, Colorado

DNP Project Title: Evaluation of Primary Care Provider Adherence to the VA/DoD 2016

Clinical Practice Guideline (CPG) for Major Depressive Disorder (MDD) and Patient Outcomes

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Background/Problem Issue: Depression, a leading cause of disability, is associated with increased health care costs and negative patient outcomes. Although Major Depressive Disorder (MDD) is prevalent in both civilian and military populations, military rates are approximately four times greater. Literature shows that provider adherence to evidence-based clinical practice guidelines (CPGs) promotes effective diagnoses, treatments, and reduces treatment variations, all of which lead to improved clinical outcomes. The current project focuses on assessing provider adherence to the VA/DoD Depression CPG and its links with depression severity outcomes.

Clinical Question: In active duty military members with MDD in Primary Care Clinics at Travis, AFB, and the United States Air Force Academy, how does provider adherence to the 2016 VA/DoD CPG compared to non-adherence impact depressive symptoms severity measured by PHQ-9 six months after treatment initiation?

Project Design: We used the RE-AIM model to guide our assessment of provider CPG adherence. We developed a chart audit tool based on the VA/DoD Depression CPG to conduct retrospective chart reviews for active duty service members diagnosed with depression for a period of six months

Analysis of the Results: Preliminary analysis of 90 charts at both clinics identified that 8% of charts showed sustained adherence (above 90%). The most common areas for low adherence rates were: provider PHQ-9 completion, past suicide attempts assessment, rule-out of secondary

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causes of MDD, as well as monitoring after treatment initiation, and changes. The association between provider adherence and PhQ-9 scores after 6 months of treatment was not significant, largely relating to high percentage of missing depression follow up assessments

Organizational Impact/Implications for Practice: The current process evaluation identified adherence gaps, patterns, site, and provider-specific adaptations along with recommendations for further sustainment of the CPG. These improvements can contribute to better patient outcomes and improved readiness in service members.

Introduction

Depression is a leading cause of disability (Chong, Aslani, & Chen, 2011). The United States Preventive Services Task Force recommends routine depression screenings to assist in the identification, diagnosis, and treatment of depression (U.S. Preventive Services Task Force, 2016). Treatment follow-up is also imperative to increase patient quality of life, reduce morbidity, and decrease economic burden (U.S. Preventive Services Task Force, 2016). The military population is a high-risk population due to frequent exposure to combat and a multitude of occupational stressors. Some military-specific occupational stressors are combat, dangerous conditions, sudden environment changes, intense training demands, lack of autonomy, long duty hours, and extended periods of separation from family.

Approximately 16 million American adults had a major depressive episode within the last year (United States Department of Veterans Affairs [USDVA], 2016). Service members receiving a new diagnosis of major depressive disorder (MDD) are at a prevalence of 4.8%, while the general population remains at less than 1% (Gaderman et al., 2012). Depression is often initially diagnosed and treated in the primary care clinic, so as the population of active duty service members diagnosed with this disorder rises, effective care and treatment can be a struggle for primary care providers (Psychological Health Center of Excellence, 2017).

The Military Health System (MHS) is now seeing not only a loss in revenue but also increased costs due to sending a large number of patients into the civilian network. Due to the overwhelming demand for behavioral health services in the military, many facilities outsource clients to civilian networks for treatment. Keeping healthcare within the MTF is beneficial for both the active duty member and provider as it allows readiness to be tracked and maintains provider clinical skills (McCaffery, 2019). This loss of revenue is creating a significant impact

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on Military Treatment Facilities (MTF) by affecting staffing, clinical operations, medical equipment, and putting a strain on the overall operating budget (Patient Centered Primary Care Collaborative, 2017). The increasing population of active duty service members diagnosed with a depressive disorder has contributed to the fragmentation of patient care delivered throughout the military health system (Psychological Health Center of Excellence, 2017). Further increasing the scope of negative impact that depression creates, is the decrease in readiness and deployable capabilities of service members due to both the disorder and the treatments (Delbridge, 2017; U.S. Department of the Air Force, 2015).

Depression and suicide are relevant to the MHS and the Department of Defense because they affect the overall mission readiness (Delbridge, 2017). Effective depression management not only reduces health care costs but also improves the quality of life and deployable capability of service members, as maintaining mental health is critical to readiness (AFMS, 2017). People suffering from depressive disorders can experience slowed physical reactions, impaired judgment, and indecision, all of which can risk the mission (AFMS, 2017). Early treatment and treatment with evidence-based modalities can improve symptoms, minimizing suicide risk, decreasing comorbidities, and increasing functionality (AFMS, 2017).

According to the VA/DoD Depression CPG, evidence-based care of MDD in the primary care clinic can be as effective as specialty mental health care (USDVA, 2016). Active duty patients typically present to primary care first for the treatment of depression. Focusing on how primary care manages depression within primary care, the project aimed to assess CPG adherence trends and link them with changes in patient depression symptoms. Our ultimate goal was to optimize and enhance current clinical practice.

Provider adherence to well-constructed and evidence-based clinical practice guidelines (CPG) assists providers in clinical decision making, guides assessment, identification, and treatment of each stage of a disorder (Ament et al., 2015). A CPG is essential in promoting evidence-based treatments, alternative interventions, and enhancing health outcomes (Ament et al., 2015). The 2016 VA/DoD Depression CPG assists primary care providers in evaluating, treating, and managing those suffering from MDD who receive care within the VA/DoD health care system (USDVA, 2016). The goals of the CPG are to optimize therapy, minimize complications, prevent recurrence or relapse, and provide patient-centered care (USDVA, 2016).

Significance of the Problem

Untreated or undertreated depression severely impacts the productivity and mission readiness of our military service members (Delbridge, 2017). One of the most predominant symptoms of depression is the complaint of reduced energy and decreased work productivity (Saddock, Saddock, & Ruiz, 2015). A reduction in work productivity directly affects the Air Force mission both domestically and in the deployed settings, potentially causing security risks and mortality of the service members (Delbridge, 2017). Also, those newly diagnosed with depression are often non-deployable for a period of time, which also decreases mission readiness (U.S. Department of the Air Force, 2015).

Depression is also costly to the Military Health System. In 2010, depression costs in veterans, active duty, guard, and reserves reached 210.5 billion dollars (USDVA, 2016). This included both actual costs of treatment as well as lost revenue costs associated with sending patients into the civilian network. Inadequately treated depression can be associated with negative consequences such as suicide. In 2018, approximately 325 active duty service members committed suicide and the numbers are unfortunately rising each year (DoD, 2019).

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This project aimed to assess whether service members with active duty orders diagnosed with their first depressive episode were receiving care per the 2016 VA/DoD Depression CPG at Travis and the United States Air Force Academy. Adherence to the CPG is crucial to the MHS as it can reduce suicide, cost, and comorbid health conditions while creating an increase in productivity, military readiness, and quality of life (USDVA, 2016). Through a chart review, we assessed CPG adherence, identified gaps in care, and provided recommendations for improvement.

Overall, there is a great deal to gain through the implementation of this evidence-based practice project. Identifying gaps in treatment can lead to improvements in follow-up care for patients with depression. Appropriate follow-up care creates better patient outcomes, decreased healthcare utilization, decreases costs, and improves the readiness of the military member (AFMS, 2017). Individual patients, the Military Health System, and even the Department of Defense all see benefits from the improvement of follow-up care.

Clinical Question

In military members on active orders with newly diagnosed with Major Depressive Disorder in the Primary Care Clinic at Travis, AFB, and United States Air Force Academy, how does provider adherence to the 2016 VA/DoD CPG compared to non-adherence impact depressive symptoms as indicated on the PHQ-9 six months after treatment initiation?

Focus Areas

This project consisted of three focus areas to address the CPG adherence issues in primary care. The first focus area was to assess provider adherence to the VA/DoD Depression CPG using a project-developed CPG-based checklist. The second focus area was to examine the relationship between provider CPG adherence and patient depression outcomes, measured using

PHQ-9 scores six months after treatment initiation. The final focus area was to use the data and results gathered to create specific recommendations to the executive leadership for increasing and sustaining provider CPG adherence.

Relevance to Military Nursing

Untreated depression adversely impacts the productivity and readiness of military service members (Delbridge, 2017). Per Air Force regulations, patients who have not been stable on pharmacotherapy for more than 90 days are non-deployable and require a waiver (USAF, 2018; Woodson, 2013). The economic burden on the health system concerning depression requires billions of dollars to manage and treat (USDVA, 2016). Indirect costs associated with co-occurring conditions are more costly to treat than the MDD itself (USDVA, 2016). The depression rate of previously deployed military members is double those who have never deployed (Gaderman et al., 2012). Improper depression management puts patients at an increased risk for suicide, which is already an ongoing problem within the MHS. In 2017, the Research and Development (RAND) Corporation completed a study on how depression was being managed within MHS primary care and highlighted the growing problem of major depressive disorder within the military (Hepner et al., 2017). This RAND study revealed a need for improvement in initial care, better use of evidence-based psychotherapies, consistency in treatment practices, and appropriate follow-up for suicide risk (Hepner et al., 2017). The VA/DoD created this CPG by which we evaluated provider adherence to help with the issues listed above, and proper implementation of this guideline can help to address the problems described above (VA/DoD, 2016).

Organizing Framework

This project used the RE-AIM model as the organizing framework. The model includes the following dimensions: Reach, Effectiveness, Adoption, Implementation, and Maintenance. RE-AIM brings focus to both the individual and the institution. The first steps in the model, Reach and Effectiveness, are impactful at the individual level. At the same time, Adoption and Implementation are impactful at the institutional level and the Maintenance dimension is applied and essential to both areas (Gaglio & Glasgow, 2012; Glasgow, Vogt, & Boles, 1999; Klesges, Estabrooks, Dzewaltowski, Bull, & Glasgow, 2005). When applying the framework to our project, Reach is how we determined our target population. We developed inclusion and exclusion criteria to identify the charts of the patients who are recently diagnosed with MDD. For Reach, we also calculated the percentage of charts we reviewed for patients with newly diagnosed depression out of the total number of patients with newly diagnosed depression for the same time period. Effectiveness describes the changes-in key outcomes from this project, which in our case were the changes in PHQ-9 scores from treatment initiation to 6 months into treatment in adherent versus non-adherence charts. Adoption refers to how well did providers “take up” the intervention, which in this project represents the rate of CPG adherent charts to the total number of charts reviewed. Implementation refers to the consistency of intervention delivery, which in our case constitutes the trends and patterns of provider adherence and non-adherence to the CPG. We aggregated and will report these trends to the local stakeholders and used this information to guide our sustainment recommendations. The last dimension of the RE-AIM model is Maintenance, which is determining the long-term delivery of the intervention at both the individual and institutional level. Maintenance, as it pertains to our project, was sustained by disseminating our findings to leadership and providing recommendations for

sustainment based on identified trends and gaps in care. Individual maintenance will be carried out through periodic chart review and feedback, as well as appointing a CPG champion. The role of the CPG champion is to support patient care, a resource for leadership, and have clinical expertise as it pertains to the CPG (U. S. Army Medical Command, 2014).

Project Design

General Approach

This endeavor was a process improvement project that employed a retrospective records review to evaluate provider adherence to the VA/DoD 2016 Depression CPG concerning change in patient depression symptoms six months after treatment initiation. We aimed to evaluate how major depressive disorder was being treated within the primary care clinics and to help foster adherence to the CPG. Once the record review was completed, we determined CPG adherence and evaluated how adherence affected patient care outcomes. The outcome used for this measure was the Patient Health Questionnaire-9 (PHQ-9) score which was recorded at treatment initiation and six months. The PHQ-9 was developed by Spitzer, Kroenke, and Williams (1999) as a self-administered nine question tool to assist providers in the detecting, monitoring, and evaluating patient symptoms of depression.

Setting and Population

The project took place in the Primary Care Clinics at Travis Air Force Base, California, and the United States Air Force Academy, Colorado. The primary care clinic at Travis AFB served a total of 7,393 active duty enrollees, while USAFA served a total of 5,981 enrollees. (Official United States Air Force Website [OUSAFW], 2019a; OUSAFW, 2019b). The population included military members on active orders who were newly diagnosed with major depressive disorder and were enrolled in and receiving care for major depressive disorder in the

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primary care clinic at Travis Air Force Base, CA and at the United States Air Force Academy, CO during the period of April 2016 to September 2019. There were ten exclusion criteria for this project: does not meet DSM criteria for MDD, does not see primary care for mental health treatment, recurrent episodes of MDD, present or past MDD with psychosis or psychotic symptoms, dependent or retiree, age 17 or below, history of other mood disorders, not enrolled at Travis or USAFA for at least six months, a 30-day gap in care due to TDY or PCS, and seen for a current episode before April 2016. Hence, EHRs excluded from this chart review were patients who were not being actively seen in the primary care clinic, had comorbid psychiatric conditions, past or present psychosis, and who had a gap in care due to recent travel or deployment. In reviewing the EHR, we examined the degree to which healthcare providers adhered to Va/DoD 2016 Depression CPG. Health care providers included in the review were physicians, physician assistants, and nurse practitioners.

Procedural Steps

The first step in this project consisted of preparing a checklist based on the VA/DoD 2016 Depression CPG, which guided our chart review to determine CPG adherence (USDVA, 2016). We designed the checklist to consist of yes or no questions for the chart reviewer to track the extent to which care provided was CPG-adherent. The questions were designed such that "yes" answers were positive and adherent to the CPG, while "no" answers were negative and suggested non-adherence. Once reviewed, we calculated a total adherence score for each chart by dividing the total number of positive answers by the total number of applicable questions. The checklist also captured the patient's PHQ-9 score at treatment initiation and after six months. To enhance inter-rater consistency among reviewers conducting the chart audits, the checklist tracked inclusion/exclusion criteria to help remind the reviewers of which charts are to

be considered for review and to track reasons for exclusion. Once our team finalized the checklist, we met regularly with the Uniformed Services Faculty and Site Directors for review and feedback, and addressed any concerns and made modifications based on their feedback.

The second step in this project included identifying which ICD-10 codes we would use to create the data pull that identified which charts would be eligible for review. Given that we planned only to review active duty service members with a recent diagnosis of major depressive disorder, we only included patient charts with the following ICD-10 codes: F32-F32.2, F32.4, F32.5, and F32.9 pulled from April 2016, the publication date of CPG, to September 2019. These ICD-10 codes only include diagnoses of single-episode depression, various severities, without psychosis, and unspecified. We included for review, all records located using the above criteria between the two sites. Also, we communicated with the statistician and quality data manager to ensure our inclusion criteria and coding list yielded the complete number of patient charts for use in this project.

The third step included conducting chart reviews using the checklist described above. For inter-rater reliability at Travis, all chart reviews were performed concurrently with reviewers asking real-time questions and discussing issues when identified. At USAFA, another team member reviewed 21% of the charts to ensure inter-rater reliability. We worked with the local clinics to identify a private space for team members to review charts.

The fourth step involved aggregating and analyzing the data to examine provider adherence and non-adherence trends as well as identifying gaps and areas of improvement in practice. We used the data to answer our identified clinical question that focuses on whether provider adherence links to changes in depression symptom severity (i.e., changes in PHQ-9

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scores). We examined the degree of CPG adherence and formulated a report to present findings to the stakeholders at each Primary Care Clinic.

The fifth step in this project involved preparing a report of our findings that includes sustainment recommendations to the stakeholders at Travis and USAFA. Project findings and recommendations can assist key stakeholders, such as leadership and providers, to prioritize the CPG compliance discrepancies and develop corrective interventions.

HIPAA Concerns

The purpose of this project was to improve provider adherence rates to VA/DoD CPGs for the treatment of MDD. We conducted retrospective chart reviews for patients recently diagnosed with MDD at the Primary Care Clinics located at Travis and USAFA to evaluate provider adherence to the CPGs. According to the Department of Health and Human Services Protection of Human Subjects (2009), this project did not meet the criteria for research, as it did not generate new knowledge, nor did it contribute to generalizable knowledge. Therefore, this project did not require an institutional review board but underwent an expedited review.

According to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule, the EHR contains personally identifiable health information and must be protected (Public law 104-19, 1996). Accessing EHRs can pose risks and vulnerabilities for breaches of privacy (U.S. Department of Health and Human Services, 2002). Therefore, a privacy review is necessary to ensure adequate safeguards of electronically protected health information. In compliance with the HIPAA Security Rule, during our data collection process, EHRs were only accessed one time, using common access card enabled and encrypted computers located in a secure office within the MTF (U.S. Department of Health and Human Services, 2003). Also, the patient information accumulated was de-identified and recorded on a checklist using a numbered

tracking system. All data used for this project was stored electronically and password protected. We only used the data sets and findings for this project for the intended purpose of evaluating provider adherence rates for the treatment of MDD. At the conclusion of this project, we properly disposed of all information per HIPAA regulations (Public law 104-19, 1996).

Project Results

We used the RE-AIM model to guide our project implementation and we will report our results based on its five domains: Reach, Effectiveness, Adoption, Implementation, and Maintenance (Gaglio & Glasgow, 2012; Glasgow, Vogt, & Boles, 1999; Klesges, Estabrooks, Dziewaltowski, Bull, & Glasgow, 2005).

Reach

We initially set out to review charts from three months in 2018; however, this yielded less than ten charts. After modifying the search parameters, a second search was conducted from April 2016, which is the publication date of the CPG, to September 2019, allowing for six months of treatment to have occurred. This modified search produced a sufficient sample size. Together, both locations totaled 206 initially eligible charts based on initial identification through ICD codes (159 charts from Travis and 47 from USAFA). After reviewing charts' eligibility based on our inclusion/exclusion criteria, this resulted in a total 90 charts that were included in the review for this project (62 from Travis and 28 from USAFA). There were five primary reasons for exclusion: not treated in primary care (72), seen before April 2016 (17), not enrolled for six months (16), recurrent episodes (15), and does not meet criteria for MDD (15), with the other five exclusion criteria totaling 24. Thirty-three charts were eliminated for meeting multiple exclusion criteria. Charts grouped by provider types were as follows: Doctors of Medicine constituted 66.7%, nurse practitioners (14.4%), physician assistants (12.2%),

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Doctors of Osteopathy (5.6%), and General Medical Officers (1.1%).

Effectiveness

Both clinics had 79% of charts missing initial or six-month PHQ-9 scores. This created significant limitations in aggregating the data. The association between provider adherence and depression severity after 6 months of treatment was not significant, $r(88) = 0.018$, $p > 0.05$. It is possible that the large percentage of missing data affected our results and thus a correlation between the PHQ-9 scores and adherence was difficult to determine. Another finding of interest that could relate to the inability to show effectiveness could be the large rates of provider changes within short periods of time (6 months). A change in the provider from the initial encounter to a six-month follow-up occurred in an average of 45% of audited charts, occurring in 63% and 21% of charts at Travis and USAFA respectively.

Adoption

Using our project-developed CPG, we determined adherence rates for each chart by dividing the number of adherent tasks accomplished per provider by the total number of tasks required per the CPG. We then calculated the mean adherence rates for each clinic. The mean provider adherence rates were 73% at Travis and 63% at USAFA. Both rates were considered low when compared to the standard adherence rate of 90% based on comparable process evaluations from previous studies (Ament et al., 2015). Of the total charts reviewed, Travis had six 90%- adherent charts, while USAFA had one 90%-adherent chart. On average, charts varied in the number of CPG-applicable questions for the particular patient in consideration. On average, 15 of a total of 38 questions were applicable across charts. Out of these 15 applicable questions, on average 10 were deemed adherent. The difference in questions answered can be attributed to variation in practice and perceived level of importance to the guidelines (Ament et

al., 2015). If items were not applicable, they were marked accordingly.

Implementation and Maintenance

We identified strengths and opportunities for improvement at each location, with strengths being any recommendation within the CPG that the clinic achieved 90% adherence or above. Opportunities for improvement were recorded as any recommendation that the clinic was less than 50%. Travis had several strengths: assessing current suicidal ideations, offering evidence-based practice pharmacotherapy, creating individualized treatment plans, referring patients who have severe depression to mental health, and not recommending supplements such as Omega-3 or Vitamin D if the patient's blood work is within normal limits. Continuing maintenance medication past 12 months for patients who reach remission is another strength for Travis; however, this was only based on one review. USAFA findings reflect offering evidence-based practice pharmacotherapy as a major strength. Similar to Travis, USAFA reported a strength-based solely on one report, which was continuing an antidepressant for six months if a patient reaches remission.

Opportunities for improvement at Travis included: completing six month PHQ-9 scales, assessing for past suicide attempts, ruling out secondary and medical causes, monthly monitoring after an initial visit, and educating on the benefits of exercise if a patient denies pharmacotherapy or psychotherapy. An opportunity for improvement identified at Travis, but only based on one report, was educating and offering the patient St. John's Wort if they refuse pharmacotherapy or psychotherapy. Similarly, opportunities for improvement at USAFA included: completing six month PHQ-9 scales, monthly monitoring after a change in treatment, using the collaborative care model, offering EBP psychotherapy, and referring to mental health if the patient meets the criteria for severe depression.

Analysis of the Results

According to the literature, passive implementation of CPGs is not sufficient enough to create change, adherence, and long-term maintenance of clinical practice guidelines (Fischer, Lange, Klose, Griener, & Kraemer, 2016; Sinnema et al., 2013; Smolders et al., 2010). Active implementation programs with continued follow-up on guidance and on-site resources are what the literature recommends to create sustained change (Fischer et al., 2016; Sinnema et al., 2013; Smolders et al., 2010). Our results are consistent with this finding given that adherence rates were less than the recommended standard of 90% (Ament et al., 2015) at both clinics (Travis at 73% and USAFA at 63%). One of the strengths in adherence findings at Travis was the presence of individualized treatment plans. A goal of 90% adherence rates could facilitate better patient outcomes that are achieved through the use of individualized treatment plans, patient preferences, and provider clinical knowledge of CPGs (Ament et al., 2015).

Active implementation creates behavioral changes within providers, which allows for sustained modifications in provider practices (Cavero et al., 2017; Forsner et al., 2010). A study conducted by Cavero and colleagues (2017) found that active implementation can be sustained over six months. Forsner and colleagues (2010) reported sustained changes even two years after active implementation. Creating behavioral changes in terms of treating depression is paramount especially in military health clinics that are designed to be ready for and function efficiently despite frequent relocations requirements of the military environment. This is especially applicable in our case, whereby frequent changes in providers occurred in 45% of patient charts reviewed. Behavioral change within the military is also important for fostering a therapeutic relationship, increasing patient confidence despite provider turnover, and consistent practices among providers maximizes readiness (AFMS, 2017; Forsner et al., 2010). All of these

contribute to overall improvement in symptoms and higher quality of care (Forsner et al., 2010).

The primary reason we excluded patients from this chart review was for not actively being treated by primary care and a total of 60% of the patients located in our search met that exclusion criterion. According to the CPG, patients should be referred immediately to mental health if they meet criteria for severe depression. Based on that, our results indicated that 14 patients met severe criteria requiring a referral to mental health. Despite that, we found that there were high numbers of patients referred to mental health. Possible explanations for these high rates of referral to specialty mental health clinics include: self-referrals and provider referrals that are not adherent to referral criteria (improper referrals). Improper referral practices were also recorded during our chart reviews, which could indicate low providers thresholds for mental health referrals. We found that in many instances, patients were seen in primary care for one or two visits and then treated in the mental health clinic. Providers referred patients with mild and uncomplicated depression, low PHQ-9 scores, and little functional impairment and impact.

One opportunity for improvement we found common in both clinics was the follow up on PHQ-9 assessments. Both clinics had 79% of charts missing initial or six-month PHQ-9 scores. This created significant limitations in aggregating the data. Due to the large percentage of missing data, a correlation between the PHQ-9 variance and adherence was difficult to determine. In assessing the PHQ-9 scores we also identified improper usage of the PHQ-9 scale. Diagnoses were frequently made directly from the PHQ-9 scores. According to Spitzer, Kroenke, and Williams (1999), the PHQ-9 was developed as an assessment tool to aid providers in the diagnosis of major depressive disorder. Being a self-administered questionnaire, it must be validated by the provider, and a diagnosis of major depressive disorder should not be made

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solely off the scores of the questionnaire (Spitzer, Kroenke, & Williams, 1999). Poor documentation regarding diagnostic criteria not only lead to difficulty aggregating data but revealed inconsistencies in the quality of care and incongruent diagnoses. Patients frequently were given different diagnoses with changing specifiers at each visit with little to no explanation. Providers would support diagnoses with patient self-reports of having depression, one line explanations, and no evidence of assessment.

Another important opportunity for improvement was in the area of follow-up appointments. Adherence to follow-up guidelines was less than 50% at both clinics. During data gathering, a trend was found in which clinics frequently did a phone follow-up within seven days, but then failed to follow up on the patient's depression monthly as recommended by the CPG. Given our findings that often times, the same patients were seen at the clinic for non-mental health reasons, we identified that as an opportunity to check-in with patients by recommending to have providers ask for a PhQ-9 assessment at the time, possibly prompted by the presence of psychiatric medications when the provider conducts the medication reconciliation step. One limitation for our project was that due to missing information in charts, we could only gather data regarding follow-ups from a total of ten patients between sites. The lack of follow-ups made it difficult to determine, gather data, and measure adherence related to maintenance or remission.

Organizational Impact/Implications to Practice & Policy

This process evaluation project identified adherence gaps, patterns, site, and provider-specific adaptations along with recommendations for further sustainment of the CPG. The organizational benefits of this project are that the primary care clinics at Travis AFB and

USAFA can utilize these findings to optimize their utilization of the DoD/VA 2016 CPG for the management of MDD. This can contribute to improving the quality of care delivered. The primary care providers also benefit because they obtained valuable knowledge that can enhance their practice of treating patients diagnosed with MDD (Ament et al., 2015). The recommendations provided to these two sites to improve CPG adherence rates include actively implementing the CPG, designating a CPG champion, providing initial and refresher education on the CPG along with pocket guides, and conducting periodic audits with feedback. The utilization of a CPG champion provides an organizational resource for guidance and sustainment of CPG adherence (U. S. Army Medical Command, 2014). Periodic audits with feedback allow providers to identify and correct gaps in documentation and treatment practices. The modification of the EHR systems at both sites to include reminder prompts can improve clinic adherence to the completion of PHQ scales. Implementing the recommendations above can also help these clinics achieve an average of a 5-point or 50% decrease in PHQ-9 scores, which is considered a clinically significant improvement (Kroenke, 2012; Mcmillan, Gilbody & Richards, 2010). These process enhancements can contribute to improved patient outcomes and readiness in service members and reduced treatment variation and healthcare utilization.

Conclusion

Further investigation is needed to determine best practices for organizations that have a high turnover of providers every few years and have a high prevalence of depression. Other considerations to help mitigate high provider turnover consequences are to add the CPG champion to the in-processing checklist, annual training, and flag patients with a history of depression for further evaluation at future appointments. Future steps could implement these provider education recommendations and follow-up assessments to explore how enhanced

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provider CPG education and implementation strategies could potentially affect patient outcomes.

In conclusion, our retrospective chart review evaluated current provider practices in treating depression compared to the VA/DoD 2016 Depression CPG and provided limited conclusions on how adherence versus non-adherence affected depression outcomes given the low frequencies of depression assessments found at six months.

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CITI Certificates



Completion Date 29-Sep-2019

Expiration Date 28-Sep-2020

Record ID [REDACTED]

This is to certify that:

Rebecca Briones

Has completed the following CITI Program course:

Human Research**Group 3: IRB Members and Support Staff, Regulatory Oversight of Extramural****Human Subjects Research****1 - Basic Course**

(Curriculum Group)

(Course Learner Group)

(Stage)

Under requirements set by:

U.S. Air Force Surgeon General's Office

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w3ff2a49a-ab28-4c3a-b175-4a25eeb42d93-33550162

Completion Date 15-Oct-2019

Expiration Date 14-Oct-2022

Record ID [REDACTED]

This is to certify that:

Donelle Clark

Has completed the following CITI Program course:

OUSD P&R Human Research**Institutional Review Board (IRB) Members & IRB Support Staff****1 - Basic Course**

(Curriculum Group)

(Course Learner Group)

(Stage)

Under requirements set by:

Office of the Under Secretary of Defense (Personnel and Readiness)

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w8804b1df-ca85-4e7b-b6c6-9f828290c0c6-33786473



Completion Date 28-Aug-2017
Expiration Date 27-Aug-2020
Record ID [REDACTED]

This is to certify that:

Michael Jessup

Has completed the following CITI Program course:

OUSD P&R Human Research (Curriculum Group)
Biomedical Investigators and Research Study Team (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Office of the Under Secretary of Defense (Personnel and Readiness) (Training Initiative)

Verify at www.citiprogram.org/verify/?wa0b00483-db2b-44a7-a517-3a7175527ec7-24301905



Completion Date 15-Oct-2019
Expiration Date 14-Oct-2022
Record ID [REDACTED]

This is to certify that:

Nicole Spesard Langfield

Has completed the following CITI Program course:

OUSD P&R Human Research (Curriculum Group)
Institutional Review Board (IRB) Members & IRB Support Staff (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Office of the Under Secretary of Defense (Personnel and Readiness) (Training Initiative)

Verify at www.citiprogram.org/verify/?w0494fbad-d9a4-4731-9fc1-1d4abac8dc6f-33784845

VA/DOD DEPRESSION CPG ADHERENCE

Letter of Determination**Travis**

**DEPARTMENT OF THE AIR FORCE
60TH MEDICAL GROUP (AMC)**

MEMORANDUM FOR RECORD

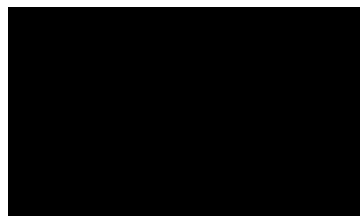
16 JAN 2020

FROM: 60 MDG
101 Bodin Circle
Fairfield, CA 94533

SUBJECT: Review of proposed research study: Provider Adherence versus Non-Adherence to VA/DoD Guidelines

1. The Uniformed Services University of the Health Sciences DNP Phase II students, Captain Nicole Spesard Langfield and Captain Donelle Clark, Travis AFB and Major Rebecca Briones and Captain Michael Jessup, United States Air Force Academy (USAFA), will be principal investigators. The Travis AFB Family Health Clinic, in conjunction with the USAFA Family Health Clinic, has proposed a retrospective study that will review how provider adherence to the VA/DoD Depression CPG compared to non-adherence impacts depressive symptoms indicated on the PHQ-9 six months after treatment initiation in military members on active orders diagnosed with Major Depressive Disorder.
2. The study will consist of reviewing patient charts with a diagnosis of Major Depressive Disorder assigned to the Family Practice Clinic, 60 MDOS/SGOF and Family Practice Clinic 10 MDOS/SGOF.
3. The study will not interfere with Family Practice Clinic's primary mission of providing medical care. There are no costs to the 60 MDG or 10 MDG for completing this study.
4. This evidence based study has been reviewed and 60 MDG leadership is in support of submitting the study for IRB approval.

Concur X
Non-concur



KRISTEN J. BEALS, Colonel, USAF, MC
Commander, 60th Medical Group

USAFA



DEPARTMENT OF THE AIR FORCE
10TH MEDICAL GROUP
USAF ACADEMY COLORADO

11 Dec 2019

MEMORANDUM FOR RECORD

FROM: 10 MDG/CC
4102 Pinion Drive
U.S. Air Force Academy, CO 80840

SUBJECT: Review of proposed research study: Provider Adherence vs Non-Adherence to VA/DoD Guidelines

1. The Uniformed Services University of the Health Sciences DNP Phase II students, Major Rebecca Briones and Captain Michael Jessup, United States Air Force Academy (USAFA), and Captain Donelle Clark and Captain Nicole Spesard Langfield, Travis AFB, will be principal investigators. The USAFA Family Health Clinic, in conjunction with the Travis AFB Family Health Clinic, has proposed a retrospective study that will review how provider adherence to the VA/DoD Depression CPG compared to non-adherence impacts depressive symptoms indicated on the PHQ-9 six months after treatment initiation in military members on active orders diagnosed with Major Depressive Disorder.
2. The study will consist of reviewing patient charts with a diagnosis of Major Depressive Disorder assigned to the Family Practice clinic, 10 MDOS/SGOF and Family Practice Clinic, 60th MDOS/SGOF.
3. The study will not interfere with Family Practice Clinic's primary mission of providing medical care. There are no costs to the 10th MDG, 60th MDG, or to the USAFA for completing this study.
4. This research proposal has been reviewed, and 10 MDG leadership is in support of submitting the study for IRB approval.

Coordination: 10 MDG/CC

Concur Yes
Non-concur _____

[REDACTED]
RUSSELL D. CARTER, Col, USAF, NC
Commander, 10th Medical Operations Squadron

[REDACTED]
CHRIS GRUSSENDORF, Col, USAF, MC, SFS
Commander, 10th Medical Group

VA/DOD DEPRESSION CPG ADHERENCE

Data Collection Form

CPG Checklist

Exclusion Criteria		Yes	No
1	Does not meets DSM Criteria for Major Depressive Disorder		
2	Not seeing Primary Care for mental health treatment		
3	Recurrent episodes of Major Depressive Disorder (focusing only on single episodes)		
4	Present or past MDD with psychosis or psychotic symptoms		
5	Dependant or retiree		
6	Age 17 and under		
7	Past history of other mood disorders		
8	Not enrolled in Travis or Colorado Springs for 6 months		
9	30 day gap in care due to TDY or Deployment		
10	Seen for current episode before April 2016		
Inclusion Criteria		Yes	No
11	Military member on active orders		
12	Newly Diagnosed with MDD		
13	Single episode of MDD (ICD-10: F32.3, F32.4, F32.5, and F32.9)		
14	Seeing primary care for MDD		
CPG Compliance		Yes	No
15	PHQ-2 completed and positive requiring further assessment		
16	PHQ-9 completed for initial visit (put score in box)		
17	PHQ-9 completed for 6-month follow-up (put score in box)		
18	Assessed for current suicidal ideation		
19	Assessed for past suicide attempts		
20	Assessed for current homicidal ideation		
21	Rule out secondary causes of major depressive disorder		
22	After initiation patient is monitored at least once a month		
23	After change in treatment (medication/ therapy switch or augmentation) patient		
24	Monitor treatment outcomes (any of the following: PHQ-9, symptoms, side effects, adherence, functioning)		
25	Was collaborative care model used? (SEE BELOW FOR DEFINITION)		

For Mild to Moderate MDD (PHQ-9 <20 or based on DSM criteria):		Yes	No
26	Patient offered Evidence-Based Pharmacotherapy: SSRI (except fluvoxamine), SNRI, Mirtazapine, Bupropion		
27	Patient offered Evidence-Based Psychotherapy: ACT, BT/BA, CBT, IPT, MBCT, PST		
28	Individualized treatment plan with education about condition, treatment options, and risks/benefits		
29	If complaints of relationship issues, was relationship/marital resources offered		
30	If seasonal affective disorder, were offered light therapy		
31	If partial or non-responders after 4-6 weeks, switch monotherapy or augment with second therapy		
32	If pt declines both pharmacotherapy and manual based therapies offer non-directive supportive psychotherapy or short-term psychodynamic		
33	If pregnant or breastfeeding, offer psychotherapy (ACT, BA/BT, CBT, IPT, MBCT, or PST) as first line treatment		
34	If pregnant or breastfeeding and already responding to or stable on pharmacotherapy weigh risk/benefits		
For Severe MDD (PHQ-9 score >20 or based on DSM criteria)		YES	NO
35	Refer to mental health		
36	Combination of approved pharmacotherapy and psychotherapy		
37	If treatment-resistant and already had at least two adequate pharmacotherapy trials, offer MAOIs or TCA		
38	Recommend offering ECT with or without psychotherapy for the following conditions (See ECT Indications)		
39	Offer repetitive Transcranial Magnetic Stimulation		
40	Vagus Nerve Stimulation not offered (treatment contraindicated)		
41	Deep Brain Stimulation not offered (treatment contraindicated)		
Maintenance/Remission/Relapse/Reoccurrence		Yes	No
42	If on antidepressant at time of remission continued medication for 6 months		
43	If maintenance is indicated continue medication for >12 months (SEE MAINTENANCE INDICATIONS BELOW)		
44	If high risk (>2 years of depressive symptoms during index episode) for relapse offer course of CBT, IPT, or MBCT during continuation phase		
Complementary and Alternative Therapy:		Yes	No
45	If pt is unwilling or unable to do both pharmacotherapy and psychotherapy, provider educated on benefits of exercise		
46	If pt is unwilling or unable (and NOT pregnant or breastfeeding) to do first line treatment offer standardized Saint John's Wort extract		
47	Omega-3 not recommended		
48	Vitamin D not recommended if vitamin D levels are within normal limits		
		N	D
Count total number of questions answered (DENOMINATOR) and total number of YES answers (NUMERATOR)			
Provider Type			
Change in primary care provider during treatment			

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68	Question 38: ECT Indications				If box checked go to Question 38
69	History of poor medication response	Need for rapid treatment	Patient preference	Catatonia	☐
70	Intolerable medication side effects	Pregnancy	ECT is safest alternative	Severe suicidality	☐
71	Question 43: Indications for Maintenance Therapy				If box checked go to Question 43
72	Chronic major depression (>12 months for an episode) or depressive episode with persistent depressive disorder				☐
73	A family history of bipolar disorder and more severe depression as defined by: the need for hospitalization, strong suicidal ideation or behaviors, longer				☐
74	Co-occurring SUD or anxiety disorders				☐
75	Ongoing psychosocial stressors such as inadequate financial resources, significant relationship difficulties, poor social support, and chronic/severe				☐
76	Question 25: Collaborative Care				
77	Collaborative care is defined as: Involvement of dedicated clinical support such as PCM, nurses, social workers, psychologists, and mental health specialist with prescriptive authority or structured				

DNP Project Verification Form



Appendix G: Daniel K. Inouye Graduate School of Nursing
DNP Project Completion Verification Form

DOCTOR OF NURSING PRACTICE PROJECT Completion Verification Form

The DNP Project titled: Evaluation of Primary Care Provider Adherence to the VA/DoD 2016 Clinical Practice Guideline (CPG) for Major Depressive Disorder (MDD) and Patient Outcomes was completed at Travis AFB and the United States Air Force Academy by the following student(s):

<i>(type student name)</i>	<i>(signature)</i>	<i>(date)</i>
Rebecca Briones	<i>Rebecca Briones</i>	31Mar2020
Donelle Clark	<i>Donelle Clark</i>	31Mar2020
Michael Jessup	<i>Michael Jessup</i>	31Mar2020
Nicole Spesard Langfield	<i>Nicole Spesard Langfield</i>	31Mar2020

The DNP Practice Project Team verifies that the following components of the DNP project, accomplished by the above students, is of sufficient rigor and demonstrates doctoral level scholarship to meet the requirements for USUHS GSN graduation:

- Presentation of DNP project to the leadership/stakeholders at the Phase II Site,
- Abstract/Impact Statement (*Appendix F*), and
- DNP Project written report.

Verified by:

<i>(type name)</i>	<i>(signature)</i>	<i>(date)</i>	
Jouhayna Bajjani-Gebara	<i>Jouhayna Bajjani-Gebara</i>	31Mar2020	Senior Mentor
Regina Owen	<i>Regina Owen</i>	31Mar2020	Team Mentor
Joseph Kelly	<i>Joseph Kelly</i>	31Mar2020	Phase II Site Director
Kellie Casero	<i>Kellie Casero</i>	31Mar2020	Phase II Site Director

For RNA Students only - add the following additional signature for final verification of project completion:

_____ RNA Project Director <i>(type name)</i>	_____ <i>(Signature)</i>	_____ <i>(Date)</i>
--	-----------------------------	------------------------