The Rate of Depression Screening at a Federally Qualified Community Health Center

Richard M. Maimone, BS¹, and Asha Marhatta, MD, MPH²

Abstract

Purpose: The purpose of this study is to examine the rate of depression screening among patients, aged 19 and older, seen at a community health center, while referencing to US Preventive Services Task Force (USPSTF) screening recommendations.

Methods: A random sample of 500 patients, aged 19 and older, were extracted from the total number of patients seen at the community health center, between December 1, 2013, and April 30, 2014. The rate of depression screening was calculated by analyzing the completed standardized screening questionnaires (Patient Health Questionnaire 2).

Results: On analysis, it was found that 14.6% of patients were screened for depression. The rate of screening for males was 8.4% and for females it was 17.5%. The race with the highest rate of screening was Asian at 23.2%, and the lowest rate was white at 12.8%.

Conclusion: The studied community health center had a suboptimal rate of depression screening at 14.6%. The USPSTF recommends depression screening on all adults. Addressing barriers to screening including patient education, provider education, system practices, and provision of resources may help improve the rate of depression screening, leading to early treatment and better health outcomes.

Keywords

community health, community health centers, health outcomes, primary care, prevention

Introduction

It is estimated that 26.2% of Americans aged 18 and older (about 1 in 4 adults) have a diagnosable mental disorder.¹ In the aftermath of the Sandy Hook tragedy, mental health has been recognized as a priority issue in the United States, specifically depression. In a study by the Centers for Disease Control and Prevention, among a sample of 235,067 adults (in 45 states, the District of Columbia, Puerto Rico, and the US Virgin Islands), 9.1% met the criteria for current depression (significant symptoms for at least 2 weeks before the survey), including 4.1% who met the criteria for major depression.² It is estimated that 1 of 10 Americans report feeling depressed.² Depression can be described as a state of low mood and a loss of interest in daily activities. It can be accompanied by other symptoms such as guilt, low energy, the disturbance of appetite and sleep, and concentration. These feelings can lead to extreme thoughts or actions, including suicide. According to the American Foundation for Suicide Prevention, over 60% of all people who die by suicide have major depression.³

The US Preventive Services Task Force (USPSTF) recommends screening adults for depression in primary care practices that have systems in place to assure accurate diagnosis, effective treatment, and follow-up.⁴ Primary care settings are the locale where up to 70% of patients are diagnosed and treated for the most prevalent mental health conditions including anxiety, mood, and substance abuse disorders.⁵ Furthermore, medical comorbidity is the rule for this population in which the majority have at least 1 co-occurring chronic medical illness. Because many acute and chronic medical conditions (eg, chronic pain, ...
COPD, obesity) involve health behaviors or psychosocial issues with the potential to exacerbate symptoms or undermine treatment outcomes, primary care is well suited as the medical home for provision of essential behavioral health care. There is a growing amount of research, which shows that integrated behavioral care produces significant positive results, including decreases in depression levels, improvement in quality of life, decreased stress, and lower rates of psychiatric hospitalization.\(^6\) Offering treatment for depression after screening can vastly improve outcomes.\(^7\)

The rate of depression screening at primary care practices, however, remains low. Analysis of National Ambulatory Medical Care Surveys from 2003 to 2006 revealed that, despite the high prevalence of depression in primary care, screening is extremely low at 2\% to 4\%.\(^6\) Per the 2013 study by McGoey et al, the average annual frequency of documented depression screening was 1.3\%.\(^8\) For visits to primary care providers specifically, the rate of screening was 1.8\%, for internists it was 2.8\%, and for pediatricians it was 1.8\%.\(^8\)

There are many standardized depression screening tools that can be used by primary care medical providers, but the study shows that an overwhelming 65\% are using the Patient Health Questionnaire 2/9 (PHQ-2/9) screening tools.\(^9\) The PHQ-2 inquires about the frequency of a patient’s depressed mood and anhedonia (lack of interest or pleasure in doing things) over the past 2 weeks. It is not used to establish a diagnosis, but it is the first step in identifying possible depressive symptoms. A study by Arroll et al in 2010 reported that a PHQ-2 score of 2 or higher has a sensitivity of 0.86, meaning that 86\% of those with a major depression will be found to be positive on the PHQ-2 screening test.\(^9\)

Patients who test positive are further evaluated with PHQ-9 and Diagnostic and Statistical Manual of Mental Disorder criteria to determine whether they meet the criteria for a depressive disorder.\(^10\)

**Purpose**

The purpose of this study is to examine the rate of depression screening among patients, aged 19 and older, seen at a community health center while referencing to USPSTF screening recommendations.

**Method**

A random sample of 500 patients, aged 19 and older, were extracted from the total number of patients who have been seen at the community health center, between December 1, 2013, and April 30, 2014, using Electronic Medical Records (EMRs). Using the EMR software, the data for patients diagnosed with depression and patients screened for depression were obtained. The patients who were previously diagnosed with depression were excluded from the total screened for depression. The data was then broken down by gender, race, and ethnicity to see whether there are any significant trends that can be compared to national averages.

**Results**

Of the 500 patients in the sample, 49 of them were excluded due to being previously diagnosed with depression. The analysis of the data identified that 14.6\% of patients were screened for depression. Subsequently, data examined by gender showed the rate of screening of males was 8.4\%, and for females, it was 17.5\% (Table 1). Additionally, the race with the highest rate of screening was Asian, with 23.2\% of patients being screened, and the race screened at the lowest rate was White, at 12.8\%. Then looking at the data-based ethnicity showed that a slightly higher percentage of Hispanics were screened (15.3\%) than non-Hispanics (14.8\%), and those patients who did not report their ethnicity (8.7\%) (Tables 2 and 3).

**Discussion**

The rate of depression screening at the community health center studied was 14.6\%. Compared to available data on depression screening, for example, the study by Cherry and McGoey et al (1.8\% and 4\% respectively),\(^6,8\) the rate of screening at the community health center was significantly better. However, USPSTF recommends universal screening for all adult patients for depression. Primary care providers then either treat depression in primary care setting or use appropriate referral

---

**Table 1. Depression Screening Data by Gender.**

| Gender | Total # of Patients | Total Number Screened | Percentage Screened |
|--------|---------------------|-----------------------|---------------------|
| Men    | 143                 | 12                    | 8.4                 |
| Women  | 308                 | 54                    | 17.5                |

**Table 2. Depression Screening Data by Race.**

| Race              | Total # of Patients | Total # Screened | Percentage Screened |
|-------------------|--------------------|------------------|---------------------|
| Asian             | 56                 | 13               | 23.2                |
| African American/black | 40           | 6                | 15                  |
| White             | 304                | 39               | 12.8                |
| More than one race| 10                 | 2                | 20                  |
| Other Pacific Islander | 6           | 1                | 16.7                |
| Unreported/refused to report | 34 | 5 | 14.7 |

**Table 3. Depression Screening Data by Ethnicity.**

| Ethnicity       | Total # of Patients | Total # Screened | Percentage Screened |
|-----------------|---------------------|------------------|---------------------|
| Hispanic        | 111                 | 17               | 15.3                |
| Not Hispanic    | 317                 | 47               | 14.8                |
| Unreported/refused to report | 23  | 2  | 8.7 |
pathways to address depression, since offering treatment after depression screening improves outcomes. The goal, hence, should be screening all adults in primary care settings.

Several studies have shown that major depression is more frequent among members of minority groups than among whites. A 2005 study by Riolo et al examined racial/ethnic differences among middle-aged women and found that depressive symptoms among Hispanic and African American women were higher compared to other ethnicities. Also, a 2010 study by González et al showed that African Americans and Hispanics exhibited elevated rates of major depression relative to whites. Previous research has also shown that socioeconomic indicators, such as education, income, and marital status, are associated with depressive symptoms and, in some cases, may explain racial/ethnic differences in rates of depression.

There is also clear evidence that females are more likely to have depressive symptoms compared to males. Our study findings seem to mirror current differences in race, ethnicity, and gender. The screening rates were higher among African Americans and Asians compared to whites. Rates were also found to be higher in Hispanics compared to non-Hispanics.

Community health centers aid the underserved, with a significant portion of the population belonging to the lower socioeconomic strata and minority race or ethnicities. Screening and treatment of depression in the community health centers setting deserve special focus.

However, behavioral health is not currently fully integrated into general internal medicine at primary care practices, including community health centers. Current health care policy makes it difficult for most primary care practices to integrate mental health staff because of insufficient reimbursement, mental health insurance carve outs, and difficulty in supporting collocated mental health professionals, to name a few. The particular health center, at the time of the survey, did not offer on-site behavioral health services, that is, there were no psychologists, case workers, or psychiatrists on staff. Furthermore, physicians, physician assistants, and nurse practitioners often lack the time or training to effectively address mental health needs. Primary care providers also continue to encounter barriers to referring patients to specialty mental health settings, while patient uptake to these offsite referrals remains low.

Finally, patients might be reluctant to talk about mental health problems such as depression. Per the study by Psych Central in 2011, 43% were hesitant to talk to their primary care physician about their depressive symptoms. The most common reason was they didn’t want to be put on medications, such as antidepressants. Also, 16% of patients said they didn’t think talking about emotional issues were a part of their physician’s job, while others stated that they didn’t want to be “branded” as being a psychiatric patient with a mental disorder.

Our study was designed to survey the screening rates and provide evidence of its lack. The study did not statistically look into the factors contributing to the overall rate. Therefore, future studies should be designed to look not only into the rates but also to determine the underlying factor for why almost 85% of patients were unfortunately not screened.

In summary, although mental health wellness has drawn more public attention in recent years, there continues to be barriers surrounding mental health, including depression. Improving screening and treatment for depression in primary care will require better mental health care integration. Enhanced coordinated financial support for the integration of mental health care into primary care could improve identification and treatment of depression. There is an urgent need for quality improvement initiatives that look into the current practices and potentials for innovations and integrations.

**Conclusion**

The studied community health center had the rate of depression screening at 14.6%, while the current recommendation is universal screening of depression, per the USPSTF. Since evidence shows that mental health can coexist with medical illness and integration of mental health services to primary care improves overall outcomes, there is an overarching need to improve the screening rates. Mass screening in primary care will help clinicians identify missed depression cases and initiate appropriate treatment earlier in their course of depression. Addressing barriers to screening, including patient education, provider education, system practices, and provision of screening and treatment resources could help address this important health care gap.

**Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

**References**

1. National Institute of Mental Health. 2010. From Discovery to Cure. Retrieved August 5, 2014, Web site. http://www.nimh.nih.gov/about/advisory-boards-and-groups/namhc/reports/from-discoverytocure_103739.pdf.
2. Center for Disease Control and Prevention. 2008. CDC Data & Statistics | Feature: An Estimated 1 in 10 U.S. Adults Report Depression. Retrieved August 5, 2014, Web site. http://www.cdc.gov/features/dsdepression/
3. American Foundation for Suicide Prevention. 2013. Facts About Suicide and Depression. Retrieved August 5, 2014, Web site. http://theovernight.donorweb.net/2007/03/07/2035.php?FuseAction=cms.page&Id=1034
4. U.S. Preventative Services Task Force. 2009. Screening for Depression in Adults. Retrieved August 5, 2014, Web site. http://www.uspreventiveservicestaskforce.org/uspstf/uspsaddepr.htm
5. Wang PS, Aguilar-Gaxiola S, Alonso J, et al. Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet*. 2007; 370(9590):841-850. doi:10.1016/S0140-6736(07)61414-7.
6. Cherry DK, Hing E, Woodwell DA. National Ambulatory Medical Care Survey: 2006 Summary. (August 6, 2008) Retrieved February 12, 2015, Web site. http://www.cdc.gov/nchs/data/nhsr/nhsr003.pdf.

7. Ani C, Bazargan M, Hindman D, Bell D, Rodriguez M, Baker RS. Comorbid chronic illness and the diagnosis and treatment of depression in safety net primary care settings. J Am Board Fam Med. 2009;22(2):123-135. doi:10.3122/jabfm.2009.02.080035.

8. McGoey ST, Huang KE, Palmes GK. Low depression screening rates in U.S. Ambulatory Care. Psychiatr Serv. 2013;64(10):1068.

9. Arroll B, Goodyear-Smith F, Crengle S, et al. Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. Ann Fam Med. 2010;8(4):348-353. doi:10.1370/afm.1139.

10. Pfizer. (1999). The Patient Health Questionnaire (PHQ-2) Overview. Accessed August 5, 2014, Web site. http://www.cqaimh.org/pdf/tool_phq2.pdf

11. Riolo SA, Nguyen TA, Greden JF, King CA. Prevalence of depression by race/ethnicity: findings from the National Health and Nutrition Examination Survey III. Am J Public Health. 2005; 95(6):998-1000. doi:10.2105/AJPH.2004.047225.

12. González HM, Tarraf W, Whitfield KE, Vega WA. The epidemiology of major depression and ethnicity in the United States. J Psychiatr Res. 2010;44(15):1043-1051. doi:10.1016/j.jpsychires.2010.03.017.

13. Jones-Webb RJ, Snowden LR. Symptoms of depression among blacks and whites. Am J Public Health. Updated 1993;83(2): 240-244. Accessed June, 29, 2015, Web site. http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1694588&tool=pmcentrez&rendertype=abstract.

14. Swenson CJ. Depressive symptoms in hispanic and non-hispanic white rural elderly the San Luis Valley health and aging study. Am J Epidemiol. 2000;152(11):1048-1055. doi:10.1093/aje/152.11.1048.

15. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (IV). Washington, D.C: American Psychiatric Association; 1994. doi:10.1002/jps.3080051129.

16. Barlow DH. Anxiety and Its Disorders: The Nature and Treatment of Anxiety and Panic, 2nd ed, Vol 159. Washington, D.C: American Journal of Psychiatry. 2002. doi:10.1176/appi.ajp.159.8.1453.

17. Nolen-Hoeksema S. Gender Differences in Depression. Int Rev Psychiatry (Abingdon, England). 2010;22(5):429-436. doi:10.3109/09540261.2010.492391.

18. Kathol RG, Butler M, McAlpine DD, Kane RL. Barriers to physical and mental condition integrated service delivery. Psychosom Med. 2010;72(6):511-518. doi:10.1097/PSY.0b013e3181e2c4a0.

19. Cunningham PJ. parity: primary care physicians’ perspectives on access to mental health care. Health Aff (Project Hope). 2009; 28(3):w490-w501. doi:10.1377/hlthaff.28.3.w490.

20. Thielke S, Vannoy S, Unützer J. Integrating mental health and primary care. Prim Care. 2007;34(3):571-592, vii. doi:10.1016/j.pop.2007.05.007.

21. Glozier N, Davenport T, Hickie IB. Identification and management of depression in Australian primary care and access to specialist mental health care. Psychiatric Serv (Washington, D.C.). 2012;63(12):1247-1251. doi:10.1176/appi.ps.201200017.

22. Psych Central. (2011). People Reluctant to Talk to Doctor About Depression, Take Antidepressants. Updated September 14, 2011. Accessed August 5, 2014, Web site. http://psychcentral.com/news/2011/09/13/people-reluctant-to-talk-to-doctor-about-depression-take-antidepressants/29403.html

**Author Biographies**

**Richard M. Maimone** received his Bachelors of Science in Health Promotion Studies in 2014 from Western Connecticut State University. In the summer of 2014 he interned with the Connecticut Institute For Communities (CIFC) working with both the School Based Health Centers and the Greater Danbury Community Health Center, with an emphasis on the epidemiological style of research. He is currently working with CIFC as a Family Advocate at Head Start of Northern Fairfield County.

**Asha Marhatta**, MD, MPH, is currently the Program Director of the Internal Medicine Residency Program at the CIFC Greater Danbury Community Health Center. She graduated from the University of Delhi Lady Hardinge Medical College in 2001. She then completed her Internal Medicine Residency and Chief Residency from Griffin Hospital in Derby, CT. Along with that, in 2010, she received her Masters of Public Health from Yale School of Public Health.