Mental Health Screening in an Adult Primary Care Practice: A Quality Improvement Project

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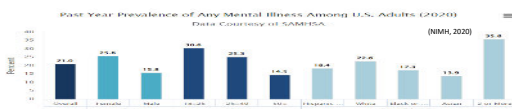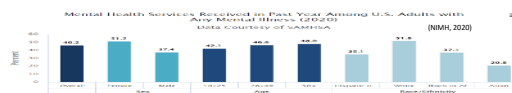School of Nursing | Camden

Abstract

Mental health is as important as physical health, yet screenings for mental health are not routinely offered in primary care. Although depression has had increased awareness in recent years, anxiety, Attention Deficit-Hyperactivity Disorder (ADHD), and other co-morbidities are often under-screened in primary care. Comorbid mental illnesses may be undetected due to similarities in symptoms. Mental health resources are limited and often underutilized. A protocol for mental health screening in primary care is a streamlined process to address the lack of screening, referral, and treatment for anxiety, depression, and ADHD. A quick response (QR) code linked to a web-based screening questionnaire and mental health repository of resources provides a cost-efficient, and easy approach to screening adult patients in a primary care setting. A pre-and post-implementation retrospective chart review provided data for analysis to evaluate the effectiveness of this evidence-based screening protocol. Descriptive statistics and the Fischer's Exact Probability Test were used to show differences in pre-and post-implementation. Kendall's Tau B Test was used to show correlation between mental illnesses. The utilization of a mental health protocol provided support for primary care providers and can improve outcomes for the patients they serve.

Introduction

Mental illness affects over 50 million people (21%) in the U.S.

Past Year Prevalence of Any Mental Illness Among U.S. Adults (2020)
Data Courtesy of SAMHSA (NIMH, 2020)

Approximately 24 million people (46%) received mental health services in 2020

Mental Health Services Received in Past Year Among U.S. Adults with Any Mental Illness (2020)
Data Courtesy of SAMHSA (NIMH, 2020)

Background and Significance

Multiple mental health disorders in the U.S
- Most prevalent
  - anxiety (19%)
  - depression (8%),
  - post-traumatic stress disorder (4%)
  - two or more mental illnesses (4%)

(NAMI, 2022)
- Similar presentations
  - Often misdiagnosed, or are not diagnosed at all

Review of Literature

Author	Findings
Coombs, et al.,(2021); Sapra, et al., (2020)	• Approachability, affordability, availability • Limited funds and available services • Time constraints/multiple patient demands
Anker, et al., (2018); Bron, et al., (2016); Coombs, et al., (2021); D'Agati, et al., (2019); Katzman et al., (2017); Tate, (2020); Nelson and Liebel, (2018)	• Similarities between disorders • Complexity making evaluation/treatment difficult • Frequent misdiagnosis • Higher rates of psychiatric comorbidities in adults with ADHD than in the general population
AAFP, (n.d.); Brown, et al., (2021); Cherry et al., (2018); Coombs, et al., (2021); Anker, et al., (2018); AAFP,(n.d.); Katzman, et al., (2017)	• PCP can provide mental health services • 1st point of contact • Increase early recognition/treatment • Improve patient outcomes

Clinical Question

In an adult, primary care practice, does the implementation of a mental health screening protocol for adults ages 18-99, over a 3-month period, improve diagnosis, treatment, and referrals to behavioral health in comparison to not having a screening protocol?

Mental Health Screening Protocol

Key: CC=Chief Complaint; MH=Mental Health; QR=Quick Response; Mh=Medical Annual; ASRS= ADHD Self Report Scale; PCP=Primary Care Provider
(Lockard, P.F. & Lockard, S. (1995)
Bocchicchio, U. (2021)

MH Survey   **MH Repository**

Results

DASS-21 Screening / ADHD Screening

Table 11. Correlation between Depression, Anxiety, Stress, and ADHD

	Depression	Anxiety	Stress	ADHD
Depression		*<.001	*<.001	0.657
Anxiety	*<.001		*<.001	-0.097
Stress	*<.001	*<.001		0.036
ADHD	0.059	-0.097	0.036	

*Kendall's Tau B Test, Statistically Significant at P<.001

Table 1. Encounter Screen Exam for other Mental Health and Behavioral Disorder (Z13.39)

	Screened	Not Screened
Pre-implementation	0	49
Post-implementation	10	23
Fisher's exact test		p<0.05

Table 2. Diagnoses for Depression Unspecified (F32.A)

	Diagnosed, Depression Unspecified	Not Diagnosed
Pre-implementation	11	38
Post-implementation	14	19
Fisher's exact test		p<0.05

Table 12. Sensitivity and Specificity for Depression Using Mental Health Screening Instrument

Depression	F32.A	No	Total	Sensitivity*	Specificity**
Severe/Extreme	14	0	14	100%	100%
Moderate or Lower	0	19	19		
	14	19	33		

*Correctly identifies 100% of patients who had a complaint of depression with depression
**Correctly discriminates 100% of patients who did not have a complaint of depression

Table 13. Sensitivity and Specificity for Anxiety Using Mental Health Screening Instrument

Anxiety	F41.9	No	Total	Sensitivity*	Specificity**
Severe/Extreme	13	0	13	61.90%	100%
Moderate or Lower	8	12	20		
	21	12	33		

*Correctly identifies approximately 62% of patients who had a complaint of anxiety with anxiety
**Correctly discriminates 100% of patients who did not have a complaint of anxiety

Discussion

- Evidence supports an increase in mental health screening and Depression diagnosis
- Evidence supports an improvement in Anxiety, Depression, and Psych referral
- 100% completed ASRS screen (approx. 64% screened positive)
- 3 BH/Psych referrals showing that there were missed opportunities
- Evidence shows similarities between Depression and Anxiety, Depression and Stress, Anxiety and Stress
- Evidence confirm that the instruments used were highly sensitive/specific

Limitations

- Staffing Shortage
- Small Sample Size
- Time constraints due multiple issues being addressed in an office visit
- Only 30% were billed for a mental health screening

Conclusions

- Mental Illness prevalent in U.S.
- Lack of MH services
- Mental illnesses have similar symptoms
- PCP uniquely positioned to provide MH services
- Streamlined Mental Health Protocol in primary care
  - ❖Increased screening/depression diagnosis
  - ❖Correlation between depression/anxiety/stress
  - ❖Missed opportunities for screening/referrals

Directions for Future Research

- Future Research
  - ❖Expansion to other primary care office
  - ❖Application to other chronic diseases such as chronic pain
  - ❖Application to other age groups such as adolescents
  - ❖Further analysis of the frequency of using the repository

Acknowledgements

References

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