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Introduction

- Mental health problems are commonly experienced by patients receiving care in general hospital settings. Consequently, behavioral health providers (BHPs) have long been incorporated into general hospital settings to treat mental health disorders.
- However, to the authors' knowledge, there has been no literature on mental health diagnostic discrepancies between referring physicians and BHPs. In the literature, predominately international research has assessed for mental health diagnosis discrepancies between physicians and psychiatrists in general hospital settings.
- It is unclear if these findings are generalizable to BHPs practicing in general hospital settings within the United States. This is problematic because it is unclear if BHPs are receiving appropriate referrals or if mental health conditions are not being diagnosed.
- The purpose of this study was to assess for referring physician and BHP mental health diagnostic agreement in a general hospital setting.

Methods

Adult (≥ 19 years of age) patients were referred by internal medicine attending physicians to a BHP in a large Midwestern academic general hospital setting. Sixty referral records from December 2017 through May 2018 were analyzed to determine agreement between the referring physician's diagnosis and the diagnosis given by the BHP after completing a mental health assessment with the patient. The BHP used DSM-5 criteria to make diagnoses. Study protocols commenced upon approval by the University of Nebraska Medical Center Institutional Review Board.

Discussion

- Kappa statistics indicate that there was substantial agreement for all conditions except for depression, for which there was moderate agreement.
- Results of another study suggest under-diagnosis of depression by physicians may persist across settings.
- This is relevant because depression is associated with increased risk of mortality. Identifying and treating depression may mitigate risk of mortality.

Results

Comparison of Referral Diagnoses made by Internal Medicine Physicians and Diagnoses made by a BHP for Sixty Hospitalized Patients

Diagnosis	Referral Diagnosis	BHP Diagnosis	Sensitivity	Specificity	Kappa Statistic (95% CI)
Depressive disorder	13	17	58.8%	93.0%	.55 (.31, .79)
Substance abuse	16	17	82.35%	95.35%	.79 (.61, .96)
Anxiety disorder	9	12	75%	100%	.82 (.64, 1.0)
Adjustment disorder	11	11	90.9%	97.9%	.88 (.73, 1.0)
Relational conflict	5	4	100%	98.2%	.88 (.64, 1.0)
Other	16	16	81.25%	93.18%	.74 (.55, .93)

Implications

Our findings suggest that systematic depression screening or additional training for medical providers to identify depression in hospitalized patients may increase diagnostic accuracy and improve appropriateness of referrals.

References

- Rothenhausler, H.B. (2006). Mental disorders in general hospital patients. *Psychiatria Danubina*, 18(3-4): 183-92.
- Maqbul Aljarad, A., Dakhil Al Osaimi, F., Al Huthail, Y.R. (2008). Accuracy of psychiatric diagnoses in consultation liaison psychiatry. *Journal Taibah University for Science*, 3(2): 123-8.
- Berges, I. M., Amr, S., Abraham, D. S., Cannon, D. L., & Ostir, G. V. (2015). Associations between depressive symptoms and 30-day hospital readmission among older adults. *Journal of Depression and Anxiety*, 4(2).
- Canuto, A., Gkinis, G., DiGiorgio, S., Arpone, F., Herrmann, F. R., & Weber, K. (2016). Agreement between physicians and liaison psychiatrists on depression in old age patients of a general hospital: influence of symptom severity, age and personality. *Aging & Mental Health*, 20(10), 1092-1098.
- Berg, S. K., Rasmussen, T. B., Thrysoee, L., Thorup, C. B., Borregaard, B., Christensen, A. V., . . . Ekholm, O. (2018). Mental health is a risk factor for poor outcomes in cardiac patients: Findings from the national DenHeart survey. *Journal of Psychosomatic Research*, 112, 66-72.
- Martin-Subero, M., Kroenke, K., Diez-Quevedo, C., Rangil, T., de Antonio, M., Morillas, R. M., . . . & Navarro, R. (2017). Depression as measured by PHQ-9 versus clinical diagnosis as an independent predictor of long-term mortality in a prospective cohort of medical inpatients. *Psychosomatic Medicine*, 79(3), 273-282.
- Mitchell, Vaze, Rao S. Clinical diagnosis of depression in primary care: A meta-analysis. *Lancet*. 2009; 374(9690): 609-19.

