Depression and doctor–patient communication in the emergency department

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ABSTRACT

Objective: Depression may adversely affect health outcomes by influencing doctor–patient communication. We aimed to determine the association between depressive symptoms and doctor–patient communication among patients presenting to the emergency department (ED) with a suspected acute coronary syndrome (ACS).
Method: We enrolled a consecutive sample of 500 patients evaluated for ACS symptoms from the ED of an urban medical center. Depressive symptoms (8-item Patient Health Questionnaire, PHQ-8) and doctor–patient communication in the ED (Interpersonal Processes of Care) were assessed during hospitalization. Logistic regression was used to determine the association between depressive symptoms and doctor–patient communication, adjusting for age, sex, race, ethnicity, education, language, health insurance status and comorbidities.
Results: Compared to nondepressed patients, depressed patients (PHQ-8≥10) were more likely ($P<.05$) to report suboptimal communication on five of seven communication domains: clarity, elicitation of concerns, explanations, patient-centered decision making and discrimination. A greater proportion of depressed versus nondepressed patients reported suboptimal overall communication (39.8% versus 22.9%, $P<.001$). In adjusted analyses, depressed patients remained more likely to report suboptimal doctor–patient communication (adjusted odds ratio 2.42, 95% confidence interval 1.52–3.87; $P<.001$).
Conclusions: Depressed patients with ACS symptoms reported less optimal doctor–patient communication in the ED than nondepressed patients. Research is needed to determine whether subjectively rated differences in communication are accompanied by observable differences.

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1. Introduction

Depression is associated with adverse health outcomes in patients with chronic medical conditions [1]. In the case of cardiovascular disease (CVD), CVD patients with comorbid depression are at twice the risk of cardiac morbidity and mortality compared to CVD patients without depression [2,3]. Previous studies have described possible mechanisms linking depression with poor prognosis in CVD patients. Plausible mechanisms include behavioral factors such as medication nonadherence or physical inactivity [4–6] and biological factors such as increased inflammation or autonomic nervous system dysfunction in patients with depression [7]. Another potential mechanism is that depressed patients with CVD may have more negative experiences with doctors.

An important part of patients' health care is communication between patients and their doctors. High-quality doctor–patient communication includes clear verbal communication, involvement of patients in the decision-making process and respectful, compassionate interpersonal style [8]. Good doctor–patient communication has been associated with higher patient satisfaction, better medication adherence and improved outcomes in chronic diseases [9–11].

There are several ways by which depression could influence communication between doctors and patients. Doctors might find depressed patients more challenging or frustrating to work with [12]. Depressed patients may be less likely to ask questions or advocate for themselves [13]. Depressed patients may also hold a more negative world view of doctors and the health care system in general as a result of an underlying negative cognitive bias [3]. Thus far, few studies have assessed the association between depression and doctor–patient communication, and none have examined this association in the setting of the emergency department (ED) [14,15]. At times busy and hectic, the ED clinical environment may be an especially challenging setting for communication between providers and depressed patients [16].

In this study, we examined the association between depressive symptoms and doctor–patient communication in the ED setting. The analysis

included patients presenting to the ED with an admitting diagnosis of suspected acute coronary syndrome (ACS; non-ST-segment elevation myocardial infarction and unstable angina). We hypothesized that patients with elevated depressive symptoms during presentation would report worse doctor–patient communication in the ED.

2. Materials and methods

2.1. Participants and procedures

This analysis was conducted among the first 500 patients enrolled from November 2013 to January 2015 in the REactions to Acute Care and Hospitalization (REACH) study. REACH is an ongoing observational cohort study that seeks to determine the predictors of post-traumatic stress disorder (PTSD) among patients presenting to the ED with symptoms of an ACS and whether PTSD is an independent risk factor for adverse cardiovascular prognosis among such patients. The study enrolls a consecutive sample of patients presenting to a single, urban ED (New York-Presbyterian Hospital/Columbia University Medical Center) with symptoms of a suspected ACS. Potential patients were identified when an ED physician gave them a provisional diagnosis of "probable ACS." Patients were excluded from the study if they had ST elevations on their electrocardiograms upon presentation to the ED, as these patients are immediately sent to the cardiac catheterization laboratory and are unavailable for consent in the ED. Patients were also excluded if they were non-English and non-Spanish speaking, cognitively impaired, active substance abusers, in need of immediate psychiatric intervention, terminally ill or otherwise unavailable for 1 year of follow-up as the study continues for 12 months. Patients who were later found to not have an ACS were still eligible for the study.

While in the ED, patients were interviewed to collect data regarding their sociodemographic characteristics and ACS symptoms. After they were admitted to the hospital, patients were interviewed a second time to assess depressive symptoms and perceptions of doctor–patient communication in the ED. These second interviews took place a median of 3 days after admission (interquartile range 1–6 days). Second interviews were conducted by telephone if patients were discharged before the interview could be completed in person while in hospital. Information pertaining to medical history was abstracted from the medical record. All patients provided written informed consent. The Institutional Review Board of Columbia University Medical Center approved the study.

2.2. Depressive symptoms

Depressive symptoms were assessed using the eight-item Patient Health Questionnaire (PHQ-8), which is an accurate and reliable tool for assessing depression both in the general population and in cardiac patients [17,18]. The PHQ-8 is identical to the PHQ-9 except that it omits an item inquiring about suicidal ideation. The PHQ-8 has been shown to have comparable test properties to the nine-item version, and a positive response to the ninth item inquiring about suicidal symptoms infrequently corresponds to a positive suicide plan on psychiatric interview among CVD patients [19]. This suggests that the eight-item version was more appropriate for our patient population. A PHQ-8 score ≥10 has a high sensitivity and specificity for diagnosing depression [17,19]. PHQ-8 scores of 0–4, 5–9, 10–14 and ≥15 represent minimal, mild, moderate, and moderately severe or severe levels of depressive symptoms, respectively [19].

2.3. Doctor–patient communication

Doctor–patient communication was assessed using the 18-item Interpersonal Processes of Care survey (IPC). The IPC assesses seven subdomains of doctor–patient communication: clarity, eliciting concerns, explaining results, patient-centered decision making, respectfulness, lack of discrimination and respectful staff [6]. Each of these subdomains

consists of two to four items that are scored on a 5-point Likert scale from 1 (never) to 5 (always). Summary scores can be calculated for each of the subdomains and for the overall IPC score, with higher scores reflecting better doctor–patient communication [14,15,20].

2.4. Covariates

Covariates potentially influencing doctor–patient communication and/or depression were selected a priori based upon a review of the literature. They included age, sex, race, ethnicity, primary language, education level, health insurance status, the Charlson comorbidity index and cause of presenting ACS symptoms (confirmed ACS versus non-ACS) [21–24]. The Charlson comorbidity index consists of 22 medical conditions that increase a patient's risk of mortality [25]. Covariate data were obtained through patient interviews and, in the case of the Charlson score and cause of ACS symptoms, through medical chart review. The cause of ACS symptoms was independently adjudicated by two study physicians with differences in classification resolved through consensus.

2.5. Statistical analysis

Missing data on the IPC survey were imputed using the maximum likelihood estimation of the expected value of each missing item, conditional on all answered items [25]. IPC sum scores were positively skewed, with the majority of patients giving items the best possible score, 5. Therefore, as has been done in prior studies for ease of interpretation, we categorized doctor–patient communication as "optimal" or "suboptimal" if the average item score in a subdomain or on the entire questionnaire was ≤4 [14,20]. Chi-square analysis was used to test the association between elevated depressive symptoms and suboptimal doctor–patient communication on individual IPC subdomains and on the overall IPC. As we did not have specific hypotheses regarding the associations between depressive symptoms and individual IPC subdomains, we assessed these associations with and without applying a post hoc Bonferroni correction adjusting for multiple comparisons. A P value of .05 was used to denote statistical significance without a Bonferroni correction, and a P value of .007 was used to denote statistical significance with a Bonferroni correction. Line-by-line trend test was used to test for a graded association between increasing depressive symptoms and prevalence of suboptimal doctor–patient communication. Logistic regression was used to test the association between depressive symptoms and overall doctor–patient communication. The model adjusted for age, sex, race, ethnicity, primary language, education level, health insurance status, Charlson comorbidity index, and cause of presenting ACS symptoms (confirmed ACS versus other cause).

3. Results

Of the first 820 potentially eligible patients approached in the ED, 500 (61%) consented to participate. Two patients did not complete the PHQ-8 and were excluded from all analyses. The mean age of the sample was 60 (SD 13) years, 47% were women, 35% were white, 28% were black, and 53% were Hispanic (Table 1). Thirty-four percent of enrolled patients had a confirmed ACS (60% unstable angina, 40% myocardial infarction). Other common reasons for presenting ACS symptoms included a noncardiac but "not otherwise specified" diagnosis (26%), musculoskeletal pain (13%), other cardiac diagnoses such as hypertensive urgency or atrial fibrillation (11%), gastrointestinal problems (9%), other noncardiac diagnoses such as pneumonia or pulmonary embolism (4%), and anxiety (3%).

Forty-six percent of patients reported minimal depressive symptoms (PHQ-8 score 0–4), 27% reported mild depressive symptoms (PHQ-8 score 5–9), 15% reported moderate depressive symptoms (PHQ-8 score 10–14), and 12% reported moderately severe to severe depressive symptoms (PHQ-8 score≥15). Compared to nondepressed