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Primary care practice characteristics associated with the quality of care received by patients with depression and comorbid chronic conditions☆

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ABSTRACT

Objective: This study aimed to identify primary care practice characteristics associated with the quality of depression care in patients with comorbid chronic medical and/or psychiatric conditions.
Method: Using data from cross-sectional organizational and patient surveys conducted within 61 primary care clinics in Quebec, Canada, the relationships between primary care practice characteristics, comorbidity profile, and the recognition and minimally adequate treatment of depression were assessed using multilevel logistic regression analysis with 824 adults with past-year depression and comorbid chronic conditions.
Results: Likelihood of depression recognition was higher in clinics where accessibility of mental health professionals was not viewed to be a major barrier to depression care [odds ratio (OR)=1.61; 95% confidence interval (CI) 1.13–2.30]. Four practice characteristics were associated with minimal treatment adequacy: greater use of treatment algorithms for depression (OR=1.77; 95% CI=1.18–2.65), high value given to teamwork (OR=2.48; 95% CI=1.40–4.38), having at least one general practitioner at the clinic devote significant time in practice to mental health (OR=1.54; 95% CI=1.07–2.21) and low perceived barriers to depression care due to inadequate payment models (OR=2.12; 95% CI=1.30–3.46).
Conclusions: Several primary care practice characteristics significantly influence the quality of care provided to patients with depression and comorbid chronic conditions and should be targeted in quality improvement efforts.

1. Introduction

Depression is a common and chronic mental disorder that is recognized and treated primarily in primary care settings [1,2]. The disorder affects approximately 5% to 10% of patients in primary care [3], though it frequently presents with a wide range of other chronic medical or psychiatric conditions [3,4]. Indeed, depression is known to be an independent risk factor for the development of other chronic conditions and can also develop in consequence to patients' preexisting chronic illnesses [5]. When depression co-occurs with other chronic conditions, it results in greater disability and reduction in health than when depression or other chronic conditions occur alone [3,6].

Numerous studies show that the quality of depression care is suboptimal in primary care [7], and recently, efforts have been made to understand what influence comorbid chronic conditions may have on the recognition and treatment of depression. A widely held view is that comorbid chronic conditions impede these depression care processes in various ways. For instance, comorbid conditions can complicate the presentation of depression and lead to lengthy differential diagnosis processes [8,9]. Patients' other chronic conditions may compete for time and attention during medical visits and limit opportunities to address patients' depression [10,11]. Furthermore, physicians may be wary of prescribing antidepressant medication to patients already taking multiple medications for other chronic conditions or may avoid treating depression if they regard it as a normal consequence of having a chronic disease [12]. In contrast, some authors have argued that greater comorbidity should lead to depression being recognized and treated more frequently given that patients will be more frequent users of health services, thus offering providers more occasions to address their depression [13]. Still others have provided evidence supporting a more nuanced relationship in which the likelihood of recognition and treatment varies depending on the particular combination of comorbid medical or psychiatric conditions investigated [14–16].

☆ Organizational factors and depression care quality.

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While the precise relationship between chronic conditions and depression care quality remains to be clarified, primary care providers frequently experience major challenges managing patients with comorbid conditions relative to those suffering from depression alone [17–19]. As such, it is critical to identify factors associated with high-quality depression care in patients with chronic conditions as an important step towards more targeted quality improvement efforts. Recently, the role that organizational factors play in care provided for depression [20–24] and other chronic conditions [23–26] has received growing attention. In Canada, as in other jurisdictions, primary mental health care services are delivered in an increasingly wide variety of organizational settings given recent primary care reforms and the introduction of new group-based models of care delivery [27]. Yet, little is known about the specific features of care settings that may support high-quality care for depressed patients with different comorbid conditions. The objective of the present study was thus to examine which characteristics of primary care practices were associated with the recognition and minimally adequate treatment of depression in patients with different profiles of comorbid chronic conditions.

2. Methods

2.1. Study design

Our study used data from two interrelated surveys from the project "Dialogue" conducted in 15 Health and Social Service Centre territories in Quebec, Canada [28]. A first organizational survey aimed to describe the characteristics of primary care clinics in each of the study territories. Surveys were mailed to 285 clinics between 11/2007 and 06/2008, with 76 clinics completing the cross-sectional survey. Within 64 of these clinics, a second survey was conducted on the care experiences of a cohort of primary care patients with depressive and anxiety disorders. Between 03/2008 and 08/2008, patients were screened in the clinics' waiting room by trained research assistants and eligible respondents were invited to complete three telephone/Web-based interviews conducted at 6-month intervals. Data for the current study were drawn from the organizational survey, the waiting room screening questionnaire and the first telephone/Web-based interview. The Ethics Committee for Health Research at the University of Montreal, as well as the ethics committees of all local and regional authorities involved in the Dialogue project [29], approved all study procedures.

2.2. Study population

Primary care clinics were considered eligible for the organizational and patient surveys if they featured at least one general practitioner (GP) that offered general medical services to undifferentiated adults. The organizational survey targeted a range of clinic types, including local community health centers, family medicine groups, larger (≥6 GPs) and smaller (2-5 GPs) medical clinics, and solo practices. It was based on a previously validated Organizational Questionnaire [30,31] and adapted to capture information on clinics' structures, resources, philosophy and values, and practices in both general care and mental health care. The survey consisted of 53 questions, which were completed by the respondent(s) most knowledgeable about the clinic's organization and functioning, most often the head physician at the clinic.

For the patient survey, French- and English-speaking adults (≥18 years) reporting to research assistants that they were seeking care for themselves from a GP, regardless of the motive of consultation, were invited to participate in the study. Of the 22,600 eligible patients, 14,833 (67.4%) completed the self-administered screening questionnaire (time 0). Two to four weeks later, 7522 patients were invited to participate in a two-part follow-up interview by telephone or Internet (time 1). Patients were eligible if they reported: (a) that their usual care source was a clinic participating in the study, (2) elevated anxiety and/or depressive symptoms [score of ≥8 on the depression or anxiety subscales of the Hospital Anxiety and Depression Scale (HADS)] [32], (3) taking anxiety and/or depression medication, (4) a diagnosis for a depressive and/or anxiety disorder made by a healthcare professional, (5) consulting for mental health problems in the past 12 months. A total of 3382 (45.0%) patients completed part 1 of the interview, the Composite International Diagnostic Interview Simplified (CIDIS), a structured psychiatric assessment based on *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV), criteria [33]. Neither patients nor their physicians were informed of the results of the CIDIS, though patients presenting a risk of suicide had their level of risk evaluated and were informed of services in their region that could assist them. Part 2 of the interview was conducted with the 1956 patients meeting criteria for entry into the final cohort: (a) a major depressive episode (MDE), generalized anxiety disorder, agoraphobia, social phobia or panic disorder in the past 12 months according to the CIDIS or (2) high levels of anxiety or depression symptoms combined with medication, diagnosis by a healthcare professional, or DSM-IV criteria for anxiety or depression in the past 24 months. The final sample included 824 patients with past-year MDE and comorbid chronic conditions that were nested within 61 clinics. These patients provided data related to their health (symptoms, diagnoses, disabilities), service use and treatments received.

2.3. Measures

2.3.1. Dependent variables: depression recognition and minimal treatment adequacy

We defined depression recognition as patient-reported diagnosis of depression from a healthcare professional or use of an antidepressant medication, with either occurring in the previous 12 months.

We defined minimally adequate depression treatment as patient-reported use of an antidepressant medication with four or more visits with the prescribing physician in the previous year (minimally adequate pharmacotherapy), and/or receipt of guideline-recommended psychotherapy with 12 or more consultations for mental health reasons in the previous year (minimally adequate psychotherapy). For minimally adequate psychotherapy, cognitive–behavioral therapy and interpersonal therapy were considered guideline-recommended therapies and were defined for patients during interviews. Furthermore, the criterion of 12 visits is considered by guidelines to be the minimum number required for a full course of psychotherapy. Quality indicators were derived from Canadian clinical practice guidelines for depression [34,35] and previous studies [7,29]. Two alternative indicators of minimally adequate treatment were also examined for sensitivity analyses, including an indicator based on only three or more visits to follow-up on medication and another that considered psychotherapy as adequate if patients received any type of psychotherapy along with 12 or more mental health visits.

2.3.2. Independent variables: practice- and patient-level characteristics

Based on previous studies, we identified 16 primary care practice characteristics that were expected to facilitate high-quality care by promoting access to and use of knowledge around depression care [20,21,24,25,29,30,36]. We also examined the influence of three perceived barriers to depression care [20,29]. The 16 enabling characteristics were grouped into four conceptual domains, i.e., strategic, social, informational and epistemic characteristics [36]. Strategic characteristics referred to specific strategies that could be adopted by clinics to improve knowledge and quality around depression care and included adopting disease management programs for depression, allotting more time to initial visits for