Primary Care Clinicians' Recognition and Management of Depression: A Model of Depression Care in Real-World Primary Care Practice

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BACKGROUND: Depression is prevalent in primary care (PC) practices and poses a considerable public health burden in the United States. Despite nearly four decades of efforts to improve depression care quality in PC practices, a gap remains between desired treatment outcomes and the reality of how depression care is delivered.

OBJECTIVE: This article presents a real-world PC practice model of depression care, elucidating the processes and their influencing conditions.

DESIGN: Grounded theory methodology was used for the data collection and analysis to develop a depression care model. Data were collected from 70 individual interviews (60 to 70 min each), three focus group interviews (n=24, 2 h each), two surveys per clinician, and investigators' field notes on practice environments. Interviews were audiotaped and transcribed for analysis. Surveys and field notes complemented interview data.

PARTICIPANTS: Seventy primary care clinicians from 52 PC offices in the Midwest: 28 general internists, 28 family physicians, and 14 nurse practitioners.

KEY RESULTS: A depression care model was developed that illustrates how real-world conditions infuse complexity into each step of the depression care process. Depression care in PC settings is mediated through clinicians' interactions with patients, practice, and the local community. A clinician's interactional familiarity ("familiarity capital") was a powerful facilitator for depression care. For the recognition of depression, three previously reported processes and three conditions were confirmed. For the management of depression, 13 processes and 11 conditions were identified. Empowering the patient was a parallel process to the management of depression.

CONCLUSIONS: The clinician's ability to develop and utilize interactional relationships and resources needed to recognize and treat a person with depression is key to depression care in primary care settings. The interactional context of depression care makes empowering the patient central to depression care delivery.

Electronic supplementary material *The online version of this article (doi:10.1007/s11606-013-2468-3) contains supplementary material, which is available to authorized users.*

Received May 13, 2012
Revised January 03, 2013
Accepted April 11, 2013
Published online May 7, 2013

KEY WORDS: depression; primary care; health services research; model; theory; qualitative research; interaction.
J Gen Intern Med 28(11):1430–9
DOI: 10.1007/s11606-013-2468-3

Depression is a prevalent, disabling, and costly health condition in the U.S.[1,2] More than half of the people with mental health issues seek mental health care from primary care clinicians (PCCs).[3] Approximately 75 % of PCCs practice in small, local group practices (ten or fewer clinicians per office).[4] Research has revealed that depression care by PCCs is not optimal; PCCs fail to recognize depression in up to half of patients, and even when they do, they fail to provide adequate treatment for the majority of diagnosed patients.[5,6] Over nearly four decades, considerable efforts to understand depression care and improve its quality have identified three types of factors (system-related, clinician-related, and patient-related) that are assumed to influence PCCs' ability to recognize and manage depression.[7–13]

From early work in the 1990s to the recent Patient-Centered Medical Home (PCMH) movement, numerous depression care quality interventions have been conducted. Conceptually, these interventions have either directly targeted PCC's ability and practice or attempted to change systems indirectly influencing them. Some interventions directly focus on increasing clinicians' awareness of the prevalence of depression, educating them about symptoms, giving feedback on performance, and encouraging use of screening and case finding instruments and clinical guidelines.[14–18] Other interventions—mostly adding a collaborative care model with a chronic disease management focus[19–23]—emphasize multidimensional system changes to connect mental health care and primary care (whether co-located, collaborated, or integrated[24]), such as developing collaborative relationships with mental health specialists (MHSs) or using additional non-physician practitioners (e.g., nurse care managers) or via means other than face-to-face encounters (e.g., telehealth).[25–40] Research aligned with still-developing PCMH concepts attempt to address patients as whole persons and make changes in systems that support the capacity of clinicians to provide care more consistent with PC core concepts.[41–48] Results of interventions to date suggest that more comprehensive interventions are more effective, but they tend to be costly and conducted mostly in large health care systems.[49–51]In addition, although Veterans Affairs systems have begun to see early positive results,[33,40] even more comprehensive interventions have yielded limited enduring effects in real-world practices.[50–54] A gap remains between desired outcomes and the reality of how care is delivered. To understand this gap, we present a real-world primary care practice model of depression care. This model was developed in a larger NIH-funded DEED (Describing the Enigma of Evaluating Depression) project that investigated depression care processes and conditions influencing PCCs' recognition and management of depression.

METHODS

Grounded theory,[55–57] an interpretative research methodology designed to generate theory from data grounded in the perspectives of participants, was used to generate a model about how PCCs recognize and manage depression in everyday practice. To capture the evolving nature of theory development, while delving into theoretical gaps identified from ongoing analysis, the nature and sequence of interview questions evolved throughout the study. For example, after the first 24 cases, several salient conditions for depression care became evident, but it was not clear whether conditions were for recognition, management, or both. We also noted the clinicians' tendency to focus more on describing depression recognition than treatment. So in subsequent interviews, we asked clinicians to provide examples specific to those salient conditions, delving into details that helped clarify and refine analyses. We wondered whether the sequence of interview questions (from recognition to management) could explain the findings, so we restructured the sequence from management to recognition. This helped us to conclude that clinicians' tendency to describe issues related to processes between depression recognition and initial treatment reflects the reality of how depression care is practiced.

Using a purposeful sampling to reflect the diversity in PCCs, three types of PCCs (general internists, family physicians, and nurse practitioners) whose practice allowed longitudinal continuity with adult patients were eligible for the study. Physician assistants were not eligible because their licenses do not permit independent practice. Considering the study's complexity, feasibility, and our experiences conducting qualitative studies, we sought 70 PCCs. We began with a cohort of 30 PCCs, with roughly ten of each type. The first cohort enabled us to identify differences among the three groups of PCCs in depression care processes and conditions so we could recruit more or fewer PCCs from a certain PCC type (or clinician characteristics) to refine and fill emerging theoretical gaps. No group differences were identified in the first cohort. The study included 70 PCCs from 52 offices in the Midwest: 28 general internists, 28 family physicians, and 14 nurse practitioners; 24 men, 46 women; 37 Whites (52.9 %), 23 African-Americans (32.9 %), nine Asians (12.9 %), and one Hispanic (1.4 %). Participants were recruited from diverse PC practices, ranging from seven private solo practices to small group practices to four federally-qualified community health centers. The clinicians' years of practice ranged from 1 to 30: 16 PCCs had more than 20 years, while 40 had more than 10 years. Eighteen of the 52 offices served primarily African-American patients. Each case included an in-person interview (typically 60–70 min); two surveys per clinician, one on current practices regarding treatment and referral decision making and one on attitudes about psychosocial aspects of care (see online appendix); and investigators' field notes on the practice environment. Twenty-four of the 70 PCCs also participated in one of three focus groups (2 h each) held toward the end of the study to confirm, disconfirm, and further discuss preliminary findings.

All individual and focus group interviews were audiotaped and transcribed. Data drawn from surveys and field notes were used to complement (vs. supplement) interview data. Open, axial, and selective coding[55,56] were used for analyzing interviews. Open coding (line by line or word by word) helped identify categories (concepts) that seem to comprise depression care practice reality related to recognition and management; categories at this stage were provisional, raising further questions and hypothetical answers. Axial coding (intense analysis around the "axis" of one category at a time) guided our identification of salient categories and enabled us to delve into dimensions/subdimensions while beginning to identify and describe roles and relationships (e.g., processes, conditions, consequences, purposes) in the emerging depression care model. Selective coding (coding systematically and concertedly related to core codes) later in the analysis delineated the scope and depth of categories by describing roles and interrelationships in detail to fit the model. Each research team member analyzed interview data; then the analysis was pooled to identify agreements and disagreements in interpretation. Interpretational disagreements were resolved in weekly team meetings by revisiting the source context and openly examining individual preconceptions brought into one's analysis. The team also discussed subsequent theoretical sampling decisions and interview questions based on ongoing analysis. The research team determined that 70 interviews were sufficient to achieve theoretical saturation (no new information regarding processes and conditions would be obtained with additional interviews). More details regarding interview questions and study methods can be found elsewhere.[58]

RESULTS

Through analysis of qualitative interview data and complementing surveys and field notes, we identified processes and multiple conditions involved in PCCs' recognition and management of depression, and developed a model to depict how certain conditions influence processes followed by PCCs in recognizing and managing depression. Identified conditions can be conceptually categorized as provider/clinician-related, patient-related, clinical- or system-related, and community- or society-related. For conceptual clarity, the terms *recognition* and *management* were defined broadly to capture clinicians' perspectives on depression care in a real-world practice. For example, recognition included not only the clinician's cognitive process (e.g., "I wonder if this patient is depressed"), but also the clinician's decision to convey that recognition to patients. Similarly, management included various approaches used with patients. To describe the comprehensive model succinctly, processes and conditions are grouped into four depression care stages identified in the data: recognition (Fig. 1), between recognition and initial treatment (Fig. 2), initial treatment (Fig. 3), and subsequent treatment (Fig. 4). Figures 2, 3, and 4 depict management of depression. Finally, *empowering the patient* is presented as a parallel process used by some PCCs in depression management.

The Recognition of Depression: Figure 1

This study confirmed previously identified three processes (*ruling out, opening the door,* and *recognizing the person*) and three conditions (*time, experience,* and *familiarity with the patient*)[59] and dimensions of *clinical experience* that result in *provider comfort,* a potential mediating variable, in depression care.[60] Two other previously identified conditions (*lack of objective evidence* and *stigma*) were refined as clinical-related or system-related and society-related conditions, respectively.

Between Recognition and Initial Treatment of Depression: Figure 2

Contrary to the assumption that once a diagnosis is made, clinicians proceed with treatment options, our analyses found that even when PCCs recognized depression they had to spend considerable time to convey (or "sell") their impression or diagnosis in ways that patients could understand and agree with. This necessitated lengthy negotiations that burdened the care system and clinicians in both time and emotion. Some clinicians acknowledged their hesitancy in "opening a can of worms" to deal with subsequent processes in depression care. Three conditions for conveying the depression diagnosis to patients were identified: the clinician's perceived role and competency (which resulted in the clinician's comfort) in depression care, time available in the visit, and the clinician's certainty about the diagnosis.

One exception to these three conditions was the case of *transferring the patient out,* which entailed same-day transfers of patients to an emergency department for psychiatric evaluation and treatment. Only one condition dictated the clinician's decision to transfer: perceived severity of the patient's depressive symptoms. If the symptoms were perceived as "really severe"—that is, the patient was homicidal or suicidal—clinicians pursued transfer, and did so regardless of depression care stage and other conditions such as the patient's acceptance, access to mental health care, or the clinician's time. Clinicians noted that they rarely had to transfer patients. Due to availability (or lack) of resources, PCCs felt more control when transferring patients to an emergency department than to a MHS.

Clinicians acknowledged difficulties in accurately assessing the severity of depressive symptoms as manifested in a particular patient. They agreed that interpreting severity could be more difficult with an unfamiliar patient or one who has multiple comorbid conditions or bipolar depression. How exactly clinicians interpret severity of depressive symptoms in a particular patient was not clear. However, they were consistent in assessing severity based on the extent to which depressive symptoms interfere with the patient's life in terms of daily functioning, social relationships, and job performance. In addition, the clinician's familiarity with the patient—knowing a particular patient's "usual self"—enabled clinicians to more quickly and accurately notice changes in the patient (leading to the clinician's recognition) and interpret the degree to which symptoms interfere with the patient's life.

Except in cases of "really severe" depressive symptoms, once the diagnosis is conveyed to patients, PCCs proceeded differently based on three conditions: the patient's acceptance of the depression diagnosis or treatment, the clinician's perceived severity of the patient's symptoms, and available time in the visit. The patient's acceptance (or nonacceptance) was the most salient condition determining the processes chosen thereafter. For patients who did not accept the diagnosis (or who did not reach a mutual understanding), depending on available time, two processes followed: *convincing the patient* and *letting it go.* If clinicians could not convince patients within available time, they attempted *planting a seed* in hopes the patient would eventually accept the diagnosis.

Accepting the diagnosis was not sufficient for initiating treatment. For those who accepted the diagnosis but not the treatment, depending on the clinician's perceived severity of depression symptoms, one of two processes was followed: *waiting to see* or *letting it go*.

The clinician's familiarity with the patient was an underlying factor that facilitated patient acceptance. When clinicians know the patient, they can tailor the diagnosis to be more acceptable, and patients are more likely to trust the clinician and, hence, are more likely to accept diagnosis and treatment options.

Initial Treatment of Depression: Figure 3

Only when patients accepted the idea of both diagnosis and treatment could clinicians proceed with recommending treatment options. In considering initial treatment options,

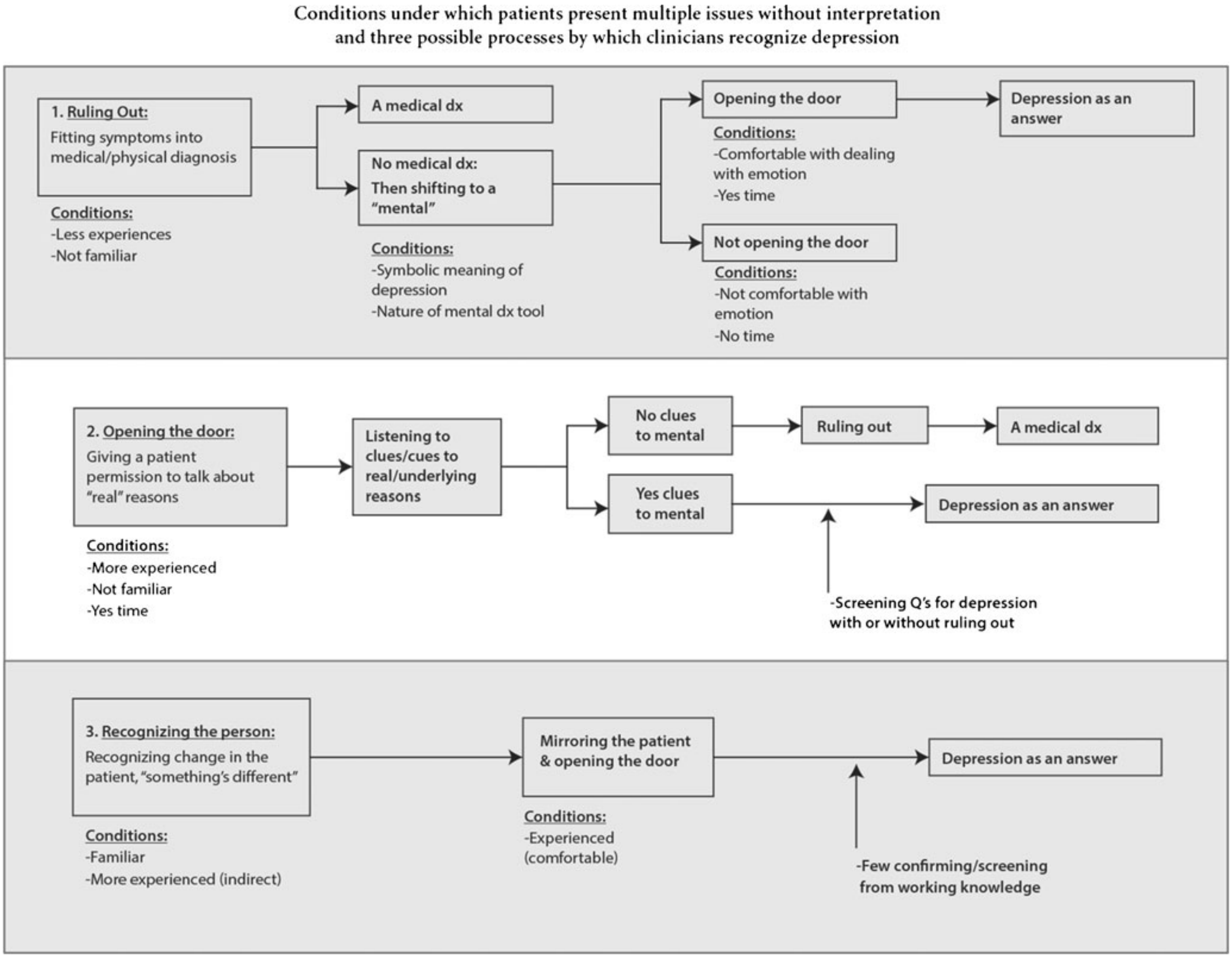

Figure 1. The recognition of depression. Reproduced with permission from *Annals of Family Medicine* 2005;3(1):31.

two processes were identified: (1) *keeping the patient in*, which entailed treating patients in the office with medication only, counseling only, or both medication and counseling (in office or by referral); and (2) *sending the patient out*, which entailed referral at the outset to a MHS.

While two conditions (clinician's comfort in depression care and access to a MHS) influenced clinicians' initial decision whether to keep in or send out patients, six conditions (in combinations) influenced which treatment option to pursue for a particular patient: (1) the clinician's perceived severity of depression symptoms; (2) the clinician's perceived causes of depression; (3) the patient's preference for (or resistance to) treatment options; (4) the clinician's perceived role and competency (resulting in their comfort) in depression treatment; (5) access to a MHS (via an individual or office network); and (6) available time in a particular visit.

Clinicians tended to treat depression with antidepressants for patients they perceived as having no situational causes and to recommend counseling for patients with situational causes. However, counseling as practiced in PC varied, ranging from brief life coaching to cognitive-behavioral therapy. Consistent with beliefs that a combination of medication and counseling is usually more effective than each alone, clinicians recommended both medication and counseling for patients perceived to be severely or severely to moderately depressed. But clinicians pointed out that patients do not always seek counseling outside, and clinicians often do not have time to provide in-office counseling. In mild and moderate depression, clinicians' approaches were inconsistent; some treated patients with medication only and others with counseling only; the patient's preference explained this apparent inconsistency. When there is no initial improvement, clinicians refer patients to MHSs. In most cases, patients were referred to psychiatrists for medications and to psychologists or social workers for counseling.

Getting stuck happened when clinicians were unable to refer patients and no improvement was seen from initial treatments in the PC office. The clinician's inability to refer patients was a multifaceted factor. The clinician cannot refer patients out when patients refuse to follow through or have no or limited access to MHSs (due to either the patient's lack of insurance or the clinician's lack of access to MHSs). Consequently, when clinicians felt stuck in depression

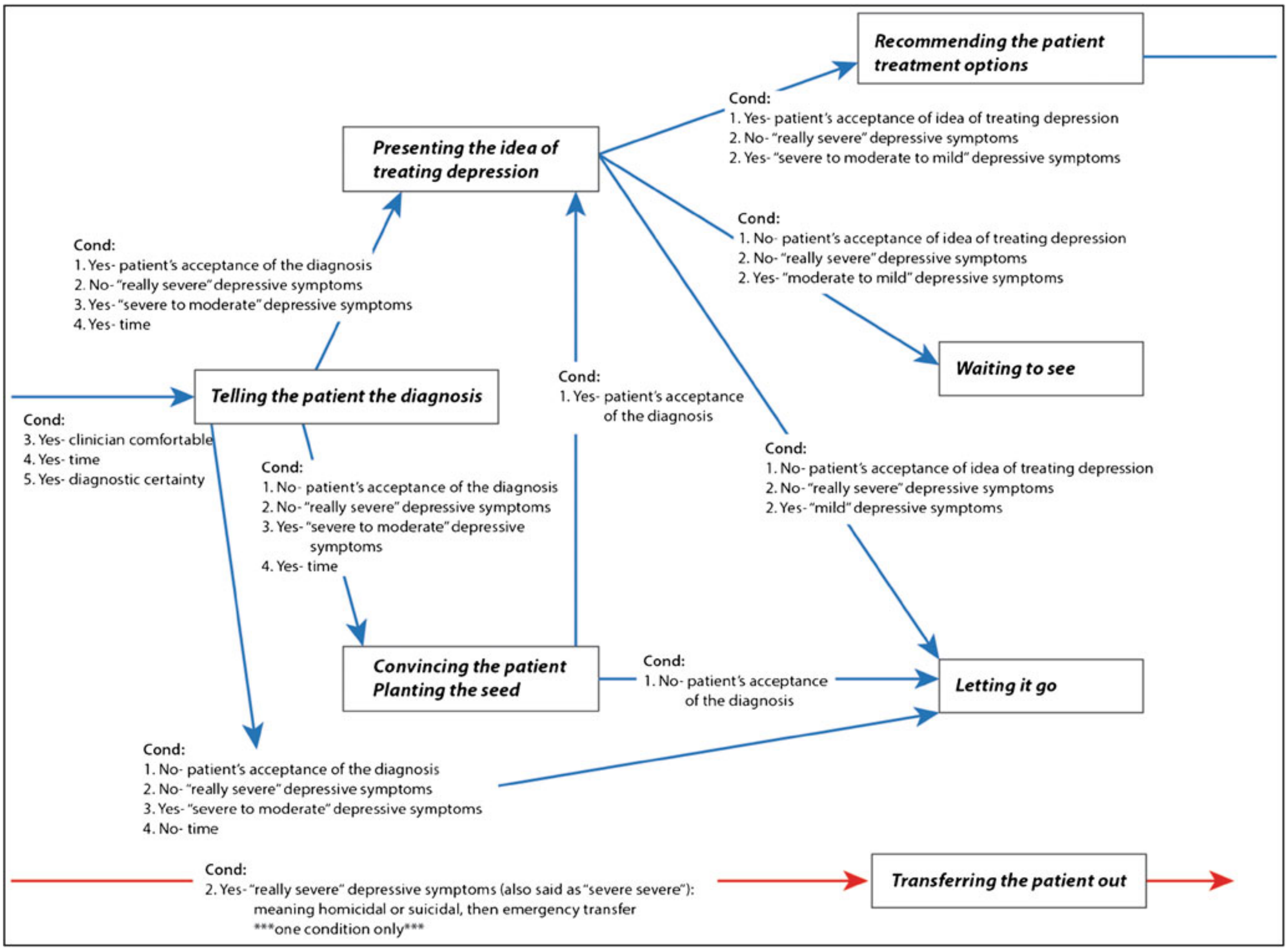

Figure 2. Processes and conditions between the recognition and the treatment of depression. 1. Patient's acceptance of depression diagnosis or idea of treating depression. 2. Clinician's perceived severity of depressive symptoms of patient. 3. Clinician's perceived role and competency (Clinician comfortable) in depression care. 4. Time availability in the visit (Time). 5. Clinician's perceived diagnostic certainty.

treatments, they performed the task of *filling in for a MHS* (meaning they keep trying different medications or providing in-office counseling), which burdened the clinician in time and emotion.

Notably, the clinician's interactional familiarity with MHSs in the local community could prevent clinicians from getting stuck. The clinician, if familiar with the patient, could even match patients' needs with MHSs. Some clinicians attempted to match the patient's and the specialist's personalities or work styles, believing this match to be an important factor in the patient's adherence to the referral. Moreover, clinicians noted that patients are more likely to follow through when they can personally refer patients to a MHS by sharing with patients that they are familiar with referred specialists.

Subsequent Treatment of Depression: Figure 4

When patients showed improvement with initial treatment, PCCs managed them by *bringing the patients back*. Two conditions influenced this process: the severity of depressive symptoms (perceived by the clinician) and medication side effects (experienced by the patient). Clinicians brought back patients more frequently when they perceived more severe depressive symptoms or lower tolerance to side effects. Even though each clinician described consistent approaches in how often he or she brings patients back and for what purposes, when analyzed collectively, there was no consistency or "golden rule."

Likewise, no consistency existed in the timing of *getting the patient off* medication or counseling (or both) when patients showed relatively consistent long-term improvement. Four conditions influenced this process: severity of depressive symptoms (perceived by the clinician), side effects of medication (experienced by the patient), the patient's preference, and the clinician's model of depression regarding how long antidepressants or counseling should be used.

Of the four conditions, the patient's preference was the most salient. Clinicians stated that, even though some

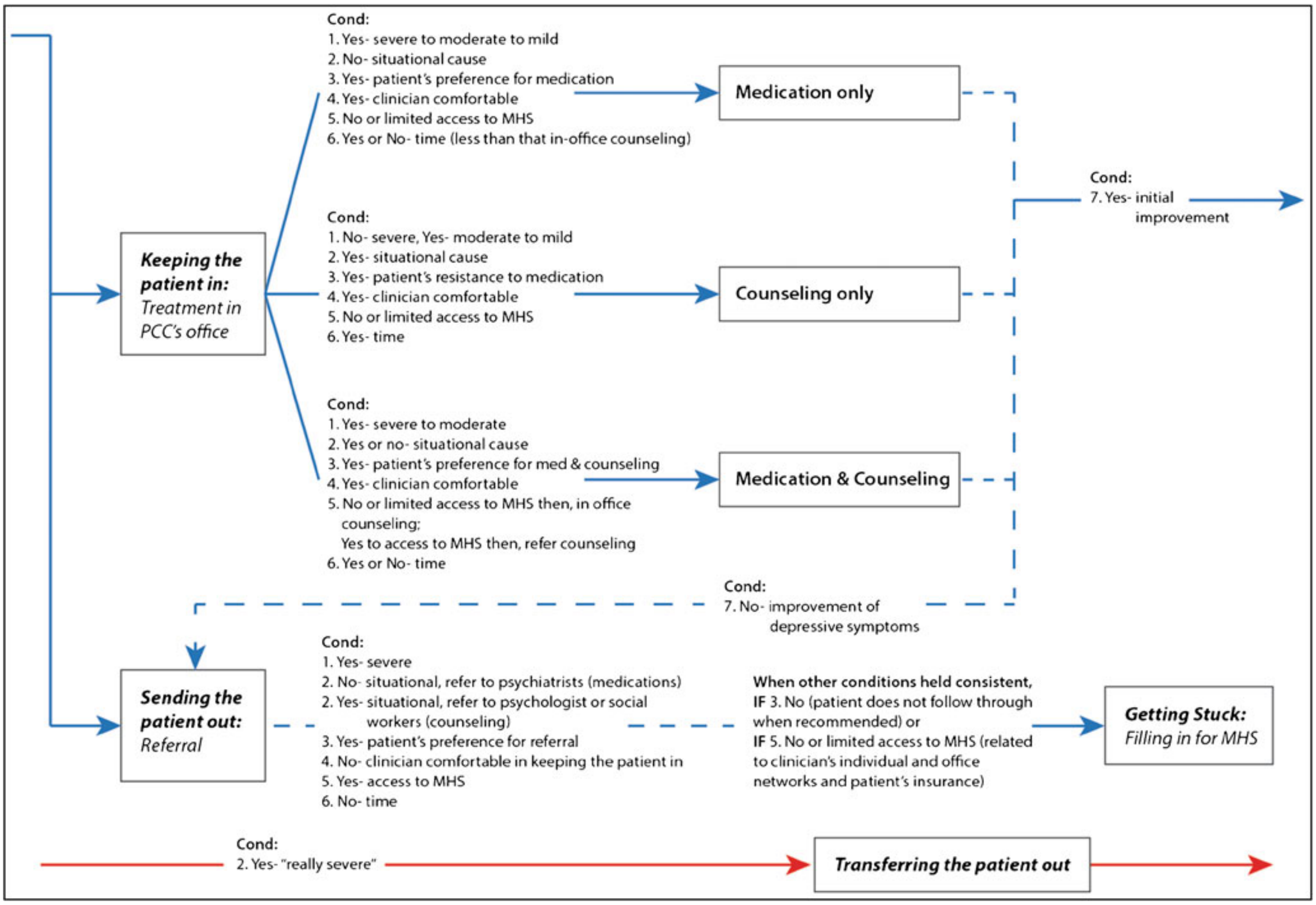

Figure 3. The processes and conditions for the initial treatment of depression. 1. Clinician's perceived severity of depressive symptoms of patient. 2. Clinician's perceived apparent causes of patient's depression. 3. Patient's preference for/resistance to other options of in-office treatment. 4. Clinician's perceived role and competency (Clinician comfortable) in depression care. 5. Access to mental health specialists (MHS) in local community. 6. Time available in the visit (Time). 7. Improvement of the depressive symptoms.

patients (especially those with recurrent depression or family history) tend to be more willing to accept that they may need to be on medication for a long time, most patients (especially those experiencing side effects) do not want to stay on antidepressants more than a few months (much shorter than recommended in most cases). When patients do not agree with the clinician, they are more likely to discontinue recommended treatments, often without informing the clinician, or do not return for a subsequent visit.

Empowering the Patient

In this parallel process to depression management, some PCCs empowered patients from the outset of the diagnosis to engage them in (1) understanding the diagnosis, (2) accepting the diagnosis and recommended treatments, (3) staying with treatments until long-term effects are achieved, and (4) better dealing with life stressors. Three conditions influenced whether and with which patients clinicians engaged in this process: the clinician's model of depression and depression care, the clinician's familiarity with the patient, and available time in the visit. Four strategies were used: using analogies; referring to the patient's experience with past successes; normalizing having depression; and telling patients what to expect with depression treatment, such as its course, outcome, and side effects of medications.

Clinicians considered depression an illness that touches many areas of patients' lives; hence, one cannot adequately treat depression without involving—and empowering—the patient. Clinicians' familiarity with patients helped them tailor strategies, such as choosing analogies that patients might identify with, using the patient's past success to boost self-esteem, and sometimes coaching on how to deal with job stress. Some clinicians mentioned that, given competing demands, they sometimes intentionally scheduled patients at the end of the day so they could spend more time. These clinicians acknowledged that this extra time was not recognized as part of an approved plan of care and was not reimbursable; they did it at their own expense. Not surprisingly, they were less willing to spend extra time with unfamiliar patients.

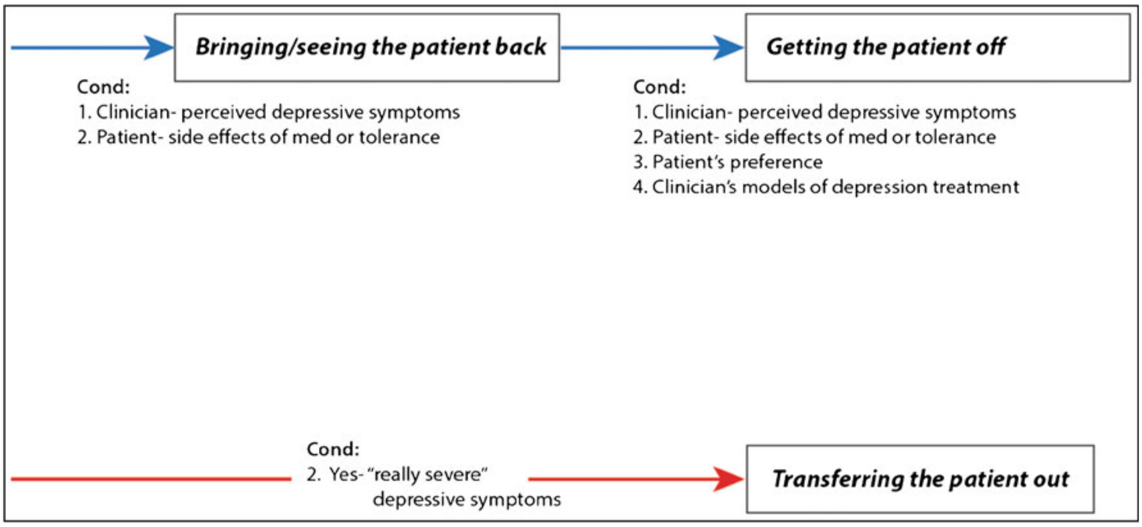

Figure 4. Processes and conditions for Subsequent treatment. 1. Clinician's perceived severity of depressive symptoms of patient. 2. Side effects of medications experienced by the patient: patient's tolerance to side effects. 3. Patient's preference. 4. Clinician's models of depression treatment.

DISCUSSION

The model sheds light on a seemingly simple question that has nevertheless remained an enigma for several decades: *when effective treatment options are available for depression, why do we not see desired outcomes?* This study reveals the complexity of this gap between desired and actual outcomes in depression care. In developing this model, grounded theory methodology was instrumental in theorizing depression care processes in the context of real-world conditions from the perspective of PCCs.

This model has several limitations. With clinicians' self-reports (via interviews and surveys) and investigators' observations, the findings might not reflect actual depression care cases. On the other hand, self-report data grounded in PCCs' perspectives enabled us to investigate the thought processes underlying clinical decisions. Our model illustrates salient conditions relevant to specific contexts of depression care processes (vs. all influencing conditions in general). Likewise, in real-world depression care encounters, these conditions occur in interactive combinations rather than as separate factors. In addition, patient-related factors were identified from the perspective of clinicians (vs. patients).

Reflecting upon depression care interventions to date and aspirations toward PCMH, the model suggests several findings relevant to practice, research, and health policy. A key to bridging the gap in depression care may lie in the understanding (or lack thereof) of depression care in real-world contexts. The model illustrates multiple processes to reach an outcome (whether negative or positive), with multiple conditions influencing each step. These conditions influence whether clinicians can proceed with processes that would lead to a desired outcome. Importantly, in the real world, these conditions operate in an interactional context and with a particular patient. While most research interventions conceptualize depression care in terms of management of "cases" or "diseases," often disregarding the person and interactional nature of people involved in those cases, PCCs in the real world cannot provide care without working with each individual with depression. In reality, a particular patient plays a role in depression care not as a separate "patient factor," but as part of an interactive "clinician–patient factor." The impact of system and other factors on outcomes of depression care is mediated through clinician–patient encounters.

As described by researchers[61] and some clinicians in our study, this interactional context of depression care makes empowering the patient a necessary strategic process in providing depression care. Precisely in this context, clinicians point out a neglected distinction between provision of care (by clinicians) and receipt of care (by patients),[62] and the patient's noncompliance with or lack of adherence to recommended treatments is a plausible (albeit one-sided) explanation for the disconnect between provision and receipt of care. Researchers have found that continuity of care, allowing clinicians to establish and develop ongoing interactions that promote familiarity with their patients, is a fundamental dimension of quality care,[63,64] particularly for vulnerable patient populations.[65] Our investigation concurs with these findings; a clinician's interactional familiarity with a patient enables clinicians to deliver more effective and efficient person-focused care. Moreover, our findings suggest that the importance of ongoing interactions and developed familiarity goes beyond interactions between clinicians and patients. Clinicians who are familiar with MHSs and resources available in their local community can avoid *getting stuck* or *filling in for a MHS*.

The model illuminates the gap between the PC practice reality of competing demands and the ability to design research interventions. Most PC patients present with multiple or comorbid conditions in a visit,[66] necessitating processes of sorting to identify and prioritize what conditions can and should be managed. Negotiation becomes an inevitable process to reach a common understanding on priorities and approaches in managing those conditions. As PCCs pointed out, sorting and negotiating are essential processes for providing care in ways that patients prefers or are more willing to receive, but these are time-intensive processes. This time-intensive reality of depression care has not been fully realized in depression care research interventions. In most interventions, by conceptual and analytical necessity, a single condition is an inclusion criterion, and care choices of further decision processes are given, frequently excluding patients with comorbid conditions and attempting to control outliers. As a result, such interventions fail to replicate the PC reality, and thus are unlikely to be applicable and sustainable in real-world practices.

The PCCs in this study described a gap in current disease-oriented health care reimbursement systems. While shared decision making is regarded as a gold standard,[67] and the length and quality of time spent with one's clinician are often indicators of quality care,[68] in reality, time spent with patients with depression in shared decision-making care cannot be reimbursed. While merely extending time may not always lead to higher quality of care,[69] an investigation of PCMH found that allocating more time to PCCs for patient encounters generated a higher-quality care outcome.[46] Consistent with those findings, we discovered that time constraints hindered even experienced clinicians' ability to deliver depression care, even with familiar patients.[58,59]

Depression care quality interventions to date have tended to focus on larger practices that comprise about one-fourth of US PC practices. The other three-fourths of PC practices are individual or small group practices with scarcer resources. Recent PCMH investigations in smaller practices[45,47,48] suggest the possibility of multiple paths to achieve desired outcomes and that a ground-up approach tailored to complex local contexts and perspectives is key to the successful development and enduring transformation of practices. Assisting personal transformations of clinicians and other agents, while conceptualizing such transformation as evolving (vs. mechanistic) interactions is an important dimension for such practice transformations. These findings are conceptually consistent with our findings in that depression care is mediated through accumulated, local, context-bound interactions of the clinicians—with their patients, with their practices, and with other clinicians and practices in their communities. In particular, interactional familiarity (developed from ongoing relationships and continuity of care) is a powerful facilitator –"familiarity capital" that can expedite depression care processes and provide care in ways in which patients are more receptive to.

In conclusion, our model signifies that depression care in primary care settings is mediated through the clinician's interactional familiarity and that real-world conditions infuse complexity into each step of the depression care process. This interactional context of depression care makes empowering patients central to its delivery. Future research is needed to investigate ways to develop and improve PCCs' familiarity capital in their local communities.

Acknowledgements: Contributors: *We would like to thank all the clinicians who participated in this study for their time as well as their genuine and candid perspectives on their everyday practices and on depression care. We also thank the DEED project investigators for their participation in ongoing data analysis: Dr. Jean Anthony, Dr. Barbara Bowers, Dr. Jeffery Susman, and Dr. Bas Tidjani.*

Funder: *This study was fully funded by the National Institute of Mental Health (R34 071719).*

Prior presentations: *Portions of the manuscript content have been presented at the following national conferences:*
Integrating Service, Integrating Research for Co-Occurring Conditions: A Need for Views and Action, March 2–3, 2009. Washington, DC.
AcademyHealth Annual Research Meeting, June 28–30, 2009. Chicago, IL.
AcademyHealth Annual Research Meeting, June 27–29, 2010. Boston, MA.

Conflict of Interest: *The authors declare that they do not have any conflicts of interest.*

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