



Published in final edited form as:

Int J Geriatr Psychiatry. 2010 November ; 25(11): 1101–1111. doi:10.1002/gps.2444.

Shared Decision-Making in the Primary Care Treatment of Late-Life Major Depression: A Needed New Intervention?

Patrick J. Raue, Ph.D.¹, Herbert C. Schulberg, Ph.D.¹, Roberto Lewis-Fernandez, M.D.², Carla Boutin-Foster, M.D.¹, Amy S. Hoffman, M.D.³, and Martha L. Bruce, Ph.D., M.P.H.¹

¹ Weill Cornell Medical College

² Columbia University

³ Lincoln Medical and Mental Health Center

Abstract

Objective—We suggest that clinicians consider models of shared decision-making for their potential ability to improve the treatment of major depression in the primary care setting and overcome limitations of collaborative care and other interventions.

Methods—We explore the characteristics and techniques of patient-clinician shared decision-making, with particular emphasis on this model's relevance to the unique treatment concerns of depressed older adults.

Results—We describe a shared decision-making intervention to engage older adults in depression treatment in the primary care sector.

Conclusions—It is timely to examine shared decision-making models for elderly depressed primary care patients given their potential ability to improve treatment adherence and clinical outcomes.

Keywords

decision-making; depression; primary care; geriatrics

Introduction

Major depression affects 5%-10% of older persons encountered in primary care settings, where the majority of such persons are treated (Lyness et al., 1999; Schulberg et al., 1998). Depression is often chronic or recurrent, is associated with substantial declines in health and functioning (Bruce et al., 1994; Bruce, 2001; Charney et al., 2003; Katz, 1996; Murray et al., 1997), and generates frequent use of medical services and higher annual health care costs (Abrams et al., 2002; Druss et al., 1999; Lubner et al., 2001; Sheline, 1990; Unutzer et al., 1997).

The majority of elderly patients experiencing major depression remain inadequately treated due to a complex combination of patient, clinician, and systems-driven barriers. In recent years, primary care-based collaborative care interventions including depression screening and evidence-based treatments have improved depression outcomes as compared to usual care (Gilbody et al., 2006; Bruce et al., 2004; Dietrich et al., 2004; Hunkeler et al., 2006; Unutzer

Corresponding Author: Patrick J. Raue, Ph.D., Department of Psychiatry, Westchester Division, Weill Medical College of Cornell University, 21 Bloomingdale Road, White Plains, NY 10605, 914-997-8684 (voice mail), 914-682-6979 (fax), praue@med.cornell.edu.

Disclosures: The authors have no interests to disclose.

et al., 2002). Despite their benefits, these treatments have limitations regarding patient adherence, remission rates, and real-world applicability.

Given these realities, clinicians should consider models of shared decision-making (SDM) for their potential ability to improve the treatment of major depression in primary care settings. Developed from the patient-centered view of health care delivery (Levenstein et al., 1986), SDM may directly alleviate such key depressive symptoms as helplessness and hopelessness, and indirectly improve clinical outcomes by increasing patient adherence. More specifically, increased patient involvement in the clinical decision-making process can enhance autonomy, empowerment, and self-efficacy.

While some collaborative care programs such as IMPACT (Unutzer et al., 2002) do offer the patient a treatment choice, this treatment element per se only minimally enhances the patient's sense of autonomy and responsibility. When patients express treatment choices in typical collaborative care, they likely reflect *a priori* preferences. We suggest, therefore, that explicitly articulating a shared-decision making approach, in which the patient's role is elevated to that of an active, co-equal participant in choosing the treatment, can critically influence clinical outcomes. Decision aid materials can also clarify personal values and lead to more informed treatment preferences.

Despite beneficial applications of SDM in caring for physical illnesses (O'Connor et al., 2003), researchers have only recently begun investigating SDM's impact on depression treatment and outcomes. Moreover, few such studies have been conducted with depressed older adults despite the high prevalence of medical illness in these persons, the functional sequelae of such illness, and underutilization of mental health services. We argue, therefore, that SDM is a needed intervention for engaging depressed older primary care patients. Pending more definitive empirical support, SDM may be used as a stand-alone intervention to help older patients formulate and successfully implement treatment decisions. Alternatively, SDM may be blended into standard care management approaches so as to maximize their impact.

This paper explores SDM models derived from the medical field and their benefits. We then describe characteristics and techniques of SDM for depressed individuals, particularly emphasizing its relevance to the unique treatment concerns of older adults and ethnically-diverse patients. Finally, we describe our development of an SDM intervention to engage depressed older primary care patients, and present a case example to illustrate this process.

Shared Decision-Making Models for Medical Illnesses

SDM approaches emerged from the patient-centered view of health care (Levenstein et al., 1986), and as a reaction to medicine's traditional "paternalism" wherein physicians exercise the dominant role in treatment decision-making (Charles et al, 1999). SDM emphasizes a collaborative process whereby clinicians present patients with information regarding their medical condition and its treatment options, and patients inform clinicians about their values, goals, experiences, and treatment preferences. The SDM process includes: mutual recognition of the need for a treatment decision and that clinician and patient share an equal role in its formulation; exchange of information on the pros and cons of different treatment options; exploration of patient expectations and preferences; formulation of a mutually agreed-upon treatment decision; and follow-up to evaluate outcomes (Charles et al., 1999).

While SDM evolved from the patient-centered consumer movement and empirical effectiveness data, SDM still requires a well-articulated and commonly endorsed conceptual model. We thus suggest that one model to be tested incorporates key aspects of both Interdependence Theory and the Health Belief Model. Interdependence Theory posits that health behavior change occurs most effectively in relationships characterized by trust, respect,

and shared power and decision-making (Kelley and Thibaut, 1978; Lewis et al., 2002; Rusbult and Van Lange, 1996). The Health Belief Model posits that: health behavior is influenced by beliefs regarding illness severity; action can reduce its severity; anticipated benefits outweigh anticipated barriers; and individuals have a sense of self-efficacy regarding a selected treatment (Becker, 1974; Hochbaum, 1958; Rosenstock, 1960; Rosenstock, 1974).

By integrating key concepts derived from these models, we speculate that treatment initiation and adherence stem from: (1) the reciprocal influences and interactions of individuals and health care professionals; (2) the degree to which participants agree about treatment goals, and methods for achieving them; (3) communication styles that actively engage both partners in decision-making dialogue; (4) the individual's belief that treatment is beneficial despite required effort, or even possible negative consequences; and (5) the individual's confidence in his/her ability to initiate, pursue, and follow through with the treatment regimen. This integrated model of SDM highlights the importance of identifying and reevaluating discrepant patient-clinician values, and of providing patients with the skills, information, and motivation to participate equally and fully in the medical decision-making encounter. Future SDM research should assess the degree to which the above mechanisms indeed influence SDM outcomes.

Patient Perspectives on SDM for Medical Illnesses

Most patients welcome information about their medical condition and pertinent treatments (Beisecker and Beisecker, 1990; Degner et al., 1997), and they wish to choose their treating clinician (Rosen et al., 2001). While many patients also wish to actively participate in treatment decision-making, some prefer that their physician alone select the appropriate intervention. Thus older, less educated, and physically sicker patients typically prefer less active roles in decision-making (Rosen et al., 2001; Benbassat et al., 1998; Degner et al., 1992) so as to minimize anxiety associated with decision-making (Parson, 1964). Such persons may have more extensive experiences with authoritarian medical systems (Rosen et al., 2001; Degner et al., 1992). Studies of individuals experiencing severe mental illness have found that: most desire greater participation in treatment decisions (Adams et al., 2007); greater personal experience living with the illness is associated with greater desire for such involvement (O'Neal et al., 2008); and most participate in shared decision-making interventions when offered the opportunity (Deegan et al., 2008).

Consequences of Shared Decision-Making

Given these findings about the desire to engage in SDM, which aspects of the process produce positive outcomes? Patients have shown reduced psychological distress and improved functioning (Kiesler and Auerbach, 2003; Mead and Bower, 2000; Ruben, 1993; Stewart and Brown, 2001) when describing their clinician as warm and empathic, as asking more questions, and encouraging patients to ask more questions and share in decision-making. Patients have also achieved better health outcomes when perceiving themselves as more involved in decision-making (Stewart and Brown, 2001; Greenfield et al., 1988). Some studies have investigated possible negative consequences of offering patients multiple choices, e.g., a sense of lost opportunities (Kahneman and Tversky, 1979), dissatisfaction with clinical realities (Auerbach et al., 2004), or discomfort with assuming unsought responsibility (Degner et al., 1997).

Various factors affect patients' judgments of treatment effectiveness and risk, e.g., individual differences in comprehension of numbers and mathematics (Peters et al., 2006), amount of information presented (Peters et al., 2007), and framing (Gigerenzer and Edwards, 2003; Moxey et al., 2003; Ubel, 2002). For example, stating that 3 of 10 patients experience side effects versus having a 30% chance of experiencing side effects may lead to different patient

conclusions, as may stating that a treatment has 75% chance of working versus 25% chance of not working (Gigernezer, 2003).

Targeted SDM interventions have been successfully used for medical conditions offering treatment options, e.g., breast cancer and prostate cancer. In these clinical circumstances, SDM interventions focus on improving communication between patients and clinicians, and/or employing decision aids to clarify patient values and treatment preferences. Decision aids and related probability tradeoff methods (Stiggelbout and de Haes, 2001) serve an educational function resembling the high quality clinical care provided by competent clinicians. In contrast to usual care, decision aids ranging in sophistication from paper leaflets to videotapes to interactive web-based programs systematize the presentation and weighting of treatment alternatives. A review of 34 studies concluded that decision aids, in comparison to standard counseling, produce greater patient knowledge about treatment options, more realistic expectations about treatment, and increased likelihood of receiving treatment consistent with personal values (O'Connor et al., 2003). Nevertheless, evidence regarding SDM's impact on health outcomes remains mixed.

Targeted SDM Interventions for Depressed Patients

SDM may be particularly relevant for depressed individuals since it seeks to enhance their sense of autonomy and empowerment, thus overcoming the helplessness and hopelessness intrinsic to major depression. SDM seeks to improve both treatment adherence and clinical outcomes. Its potential significance stems from evidence suggesting that: (1) depression care management provided elderly primary care patients is effective with regard to response rates, but not remission rates which remain suboptimal (Bruce et al, 2004; Dietrich et al, 2004; Hunkeler et al., 2006; Unutzer et al., 2002); and (2) the patient treatment preference component of SDM in isolation positively influences treatment initiation and adherence (Raue et al., 2009) but not clinical outcomes (Bedi et al., 2000; Chilvers et al., 2001; Gum et al., 2006; Raue et al., 2009).

Many mental health interventions have long incorporated principles and elements of SDM. Full-scale SDM interventions, however, are only now being developed for depressed individuals (Adams and Drake, 2006; Hamann et al., 2003; Patel et al., 2008; Schauer et al, 2007; Simon et al, 2006; Wills and Holmes-Rovner, 2006). Such persons seek information about their illness and its treatment (Simon et al., 2006) and desire active participation in decision-making (Wills and Rovner, 2003). SDM interventions involve use of decision aid materials that educate patients about treatment options, clarify personal values, and generate mutually agreed-upon decisions. Wills et al. (2007) found that among diabetic patients experiencing depression, a decision-support intervention regarding depression management led to increased patient knowledge about depression and decreased symptoms. Loh et al. (2007) examined a physician-based SDM intervention as compared to usual care in mixed-age depressed primary care patients. While intervention patients displayed significantly greater participation in decision-making and greater treatment satisfaction, no differences were observed with regard to treatment adherence or reduced depression severity. These negative findings suggest that future research should: monitor clinician fidelity to the intervention; increase the strength of SDM interventions; and select suitable outcome measures sensitive to the effects of SDM interventions. Alternatively, SDM interventions alone may be insufficiently potent to improve patient outcomes absent ongoing care management. Further empirical work is needed to clarify these issues.

Considerations for Shared Decision-Making with Elderly Depressed Patients

Building on earlier studies investigating mixed-age samples, we espouse an SDM approach pertinent to older adults experiencing comorbid medical illness and other age-related limitations. As no research has yet investigated the benefits/limitations of engaging elderly depressed primary care patients in SDM, we describe several relevant considerations for this group:

1. The elderly, while desiring information about medical decisions, may be *more likely to accept the physician's traditional dominant role in the medical model of treatment*, and defer to them as authorities. The elderly are less likely than younger adults to desire an active role in decisions about medical treatment (Benbassat et al., 1998), and they report less confidence in discussing treatment options with physicians (Col et al., 1990). These beliefs may stem in part from older adults' more complex medical histories and multiple, extensive interactions with the health care system.
2. The *greater medical burden and cognitive impairment* experienced by the elderly may influence their involvement in decision-making regarding depression treatment. Patients experiencing more severe or chronic medical conditions (Rosen et al., 2001; Benbassat et al., 1998; Degner et al., 1992), and more severe depression (Schneider et al., 2006), are less likely to prefer an active role in decision-making. When anergia is a prominent feature of the older person's depression, he/she will be particularly unlikely to exhibit the active behaviors intrinsic to SDM. Cognitive impairment co-existing with depression can interfere with an individual's capacity to make fully autonomous decisions (Appelbaum et al., 1999; Appelbaum and Redlich, 2006; Pescosolido et al., 1998), and thereby diminish his/her ability to engage in treatment-related decision-making.
3. Older adults have a *greater likelihood of family involvement* in medical decision-making. Sayers et al. (2006) found that approximately 50% of primary care patients had a family member involved in their medical care (e.g., participating in medical decisions, reminding the patient to take medication), a role which older adults of varying health statuses perceived favorably. Such family involvement can positively influence patient adherence to depression treatment, e.g., adults perceiving their social network as supporting mental health care had longer lengths of stay in mental health clinics (Compton and Esterberg, 2005). Optimal procedures for active family involvement in the depressed patient's decision-making are unclear, however.
4. *Tangible barriers* can limit opportunities for SDM since they affect the accessibility, availability, and affordability of patient care. Specific physical barriers may become more formidable with the depressed patient's advancing age. For example, greater travel distances are inversely related to frequency of service utilization (McCarthy and Blow, 2004; Zubritsky et al., 2004).
5. *Stigmatic concerns and negative beliefs about depression and its treatment* can influence the older person's participation in SDM (Corrigan et al., 2004; Leaf et al., 1986; Roeloffs et al., 2003). Stigma experienced by depressed older adults may lead them to use natural but non-therapeutic herbal remedies rather than evidence-based treatments (Riedel-Heller et al., 2005). Many older adults also misconstrue depressive symptoms as a natural consequence of aging or medical illness, thereby minimizing the need for treatment (Halter, 2004; Aikens et al., 2005; Meltzer et al., 2003).

The above considerations for older adults have corresponding intervention implications. Decision aids must be tailored to minimize cognitive impairment; family members must be accommodated in keeping with patient wishes; and practical assistance with transportation and appointment scheduling may be needed. Lastly, not all older adults desire true equality in

treatment decision-making. Clinicians must assess this possibility and adapt accordingly. Indeed, SDM may not be appropriate for such patients.

Socio-cultural Factors Related to SDM

The extent to which patients participate in SDM may be influenced by socio-demographic and cultural factors such as race/ethnicity, family dynamics, and belief systems. SDM encourages a dialogue between patient and clinician to clarify these overt and covert factors so as to reach treatment decisions which the patient will likely implement. While we do not espouse unique interventions for each older depressed patient consistent with his/her characteristics, the patient's culture must be understood when seeking to engage him/her in shared decision-making. Failure to do so may partially explain why racial or ethnic minority patients are less likely than whites to access mental health services and receive appropriate care (US Department of Health and Human Services, 2001; Institute of Medicine, 2002; Vega et al., 2001; Neighbors et al., 2008).

Vega et al. (2007) propose that treatment options offered older primary care patients incorporate culturally compatible perceptions and attitudes. They emphasize the value of communicating with depressed patients in their own language, utilizing a participatory decision-making style intrinsic to the patient's culture, and attending to culture-bound expressions of depression. Studies of depressed Hispanics and African-Americans have found that they often attribute depression to difficult life circumstances or stressors, deemphasizing medical etiology (Cabassa et al., 2008; Cabassa et al., 2007; Karasz, 2008; Alverson et al., 2007). International studies of depressed individuals have also found etiologic attributions to vary across cultural groups (Angermeyer et al., 2005; Hickie et al., 2007; Nakane et al., 2005; Shankar et al., 2006). These explanatory models may assign milder illness attributions to depression and influence help-seeking choices and reactions to proposed treatments (Guarnaccia et al., 1992; Guarnaccia et al., 2003; Lewis-Fernandez et al., 2005). SDM interventions therefore should help patients articulate their beliefs about depression's etiology and severity, and factors influencing their treatment preferences. In addition, psychoeducation about the biopsychosocial nature of depression and the importance of active treatment from health care professionals should be provided.

Since religion can influence the older patient's attitudes regarding depression, help-seeking and service utilization differs among religious groups (Reiling, 2002; Schiller and Levin, 1988). Religious beliefs may delay help-seeking and create discomfort in discussing emotional problems with mental health professionals (Conrad and Pacquiao, 2005). Hispanics and African-Americans frequently identify faith in God and religious practices as crucial in recovering from depression (Cooper-Patrick et al., 1997; Cabassa et al., 2007; Chatters et al., 2008). SDM interventions consequently should support complementary and faith-based approaches as treatment adjuncts when appropriate.

While true for all seniors, family dynamics may be particularly powerful among some ethnic groups. For example, Hispanic families tend to value cohesiveness and interdependence more than majority Whites (Cabassa et al., 2007; Rogler et al., 1991; Vega et al., 1998). Hispanic family members, thus, are likely to actively help their depressed older relative interpret affective symptoms, assist in promoting self-reliance, and help access professional, spiritual, and folk services (Guarnaccia et al., 1992; Jenkins, 1988; Ortega and Alegria, 2002; Guarnaccia et al., 2002). Family values among African-Americans related to togetherness, coherence, and unresolved conflicts may similarly influence the older depressed African-American's role in the treatment process. Understanding the family context within which care is delivered to the older depressed patient will facilitate his/her decision-making (Chesla et al., 2004) and whether/how to include relatives in it (Kirmayer et al., 2003).

Given the complex influence of socio-cultural factors on patients' decision-making, mutually agreed-upon decisions may not always be achieved. Even when depressed patients do not wish to be actively treated by health care professionals, engaging them in the SDM process nevertheless promotes a positive relationship and may set the stage for future negotiated treatment decisions.

Patient Treatment Preferences and Involvement in Decision-Making Regarding Depression

Depressed primary care patients enter the clinical encounter with various preconceived treatment preferences. Many initially prefer psychotherapy rather than antidepressant medication (Unutzer et al., 2002; Cooper-Patrick et al., 1998; Churchill et al., 2000; Dwight-Johnson et al., 2000; Raue et al., 2009). Raue et al. (2009) found strength of treatment preference associated with treatment initiation and 3-month adherence among both mid-life and elderly depressed primary care patients. However, meeting a patient's treatment preference did not affect symptom reduction or depression remission, as Bedi et al. (2000); Chilvers et al. (2001); and Gum et al. (2006) had reported previously. We therefore suggest that simply meeting patients' *a priori* treatment preferences be conceptualized as a "pre-shared decision-making" strategy. A fully-developed shared decision-making intervention would determine the patient's preferences and also engage him/her in a dialogue about these preferences, review decision aid materials, and conclude with a formulation satisfactory to both patient and clinician.

Early research on the value of eliciting psychiatric outpatients' treatment preferences via "negotiated treatment plans" resembling SDM found this more comprehensive approach to produce greater levels of patient satisfaction, feelings of being helped, and greater adherence to treatment (Lazare et al., 1975; Eisenthal et al., 1979). Related studies of mid-life primary care patients have similarly found that patients playing an active rather than passive role in formulating treatment plans report greater satisfaction and higher rates of treatment initiation (Brody et al., 1989; Cooper-Patrick et al., 1997; Dwight-Johnson et al., 2001; Simon et al., 2007; Swanson et al., 2007).

Having emphasized SDM's ability to achieve the above benefits, we also acknowledge ambiguities regarding the scientific knowledge utilized by depressed patients and the extent to which they consider practical issues in formulating treatment choices. Goldney et al. (2001) concluded that most depressed patients have limited understanding of the availability and efficacy of psychiatric treatments. For example, primary care patients' lack of insight about depression delays treatment initiation (Dwight-Johnson et al., 2001). Such limitations may be particularly true for older depressed adults (Mickus et al., 2000; Robb et al., 2003). Moreover, patients initially preferring a particular treatment may change their minds upon learning more about its regimen, required time commitment, speed of onset, and cost.

Some evidence suggests that discrete elements of SDM can improve outcomes of mixed-age patients. The evidence, however, is inconclusive given imperfect research designs, controversial comparison groups, and the questionable quality of observational data (Bedi et al., 2000; Chilvers et al., 2001; Gum et al., 2006; Clever et al., 2006). We suggest, therefore, that the next generation of studies focus on the totality of the shared-decision making process. In particular, we propose investigating whether facilitating SDM with elderly depressed primary care patients can improve not only treatment initiation but also response and remission.

SDM Interventionists in the Primary Care Setting

Various clinicians within the primary care sector may initiate SDM interventions with depressed patients. Primary care physicians are eminently qualified to do so, but they may experience time and cost constraints. Mental health specialists such as social workers might be preferable given that more clinically-sophisticated clinicians improve care management outcomes (Gilbody et al., 2006). Unfortunately, social workers do not often staff primary care practices.

Nurses within the primary care setting may be an ideal choice given real world staffing considerations. Use of nurses to engage patients in depression-related psychoeducation and the SDM process is consistent with their role as liaison between patient and physician, and their role as patient educators, e.g., discussing medication versus lifestyle changes such as diet and exercise as treatment options for hypertension. Moreover, SDM interventions for depression may be a third-party reimbursable patient education service.

SDM Intervention Development

Our Cornell group has drawn upon both Interdependence Theory and the Health Belief Model as described above in developing a shared decision-making treatment manual. This is currently being field-tested at the ambulatory clinic of an inner city New York hospital. A primary focus of this effort is to document the feasibility of primary care nurses learning and administering SDM among elderly depressed patients.

Our SDM intervention (Figure 1) consists of an in-person meeting (30 minutes) between the nurse and older depressed primary care patient, followed by 2 weekly follow-up telephone calls (10–15 minutes). Following our model of SDM, the nurse and patient acknowledge the patient's treatment experiences, values, preferences, and concerns regarding a variety of treatment approaches, and the nurse communicates in a manner that engages the patient. She then uses decision aid materials to educate the patient about each treatments' effectiveness, speed of onset, side effects, and costs. We use a one-page form that presents treatment information in easy-to-understand language, with treatment options presented in column format so patients can compare their relevant characteristics. We also provide education handouts regarding late-life depression for patients and family members to review at home. The nurse reinforces the belief that active treatment is beneficial despite possible negative consequences. The nurse-patient interaction strives for a mutually agreed-upon decision regarding the treatment, or treatments, that the patient feels confident initiating. When practical barriers to care such as assistance with transportation are identified, the nurse may address them when compatible with her routine responsibilities.

At one- and two-week telephone follow-up calls, the nurse and patient review the agreed upon treatment decisions and the patient's ability to implement and adhere to them. When patients encounter difficulty because of poor motivation, stigma, poor access, high cost, lack of service availability, etc., the nurse addresses unresolved treatment barriers and briefly re-engages patients in shared decision-making processes. This additional time and contact with the nurse allows patients to more fully analyze treatment alternatives, consult with significant others, and address difficulties encountered in implementing initially selected treatments.

Case Example

The following case example incorporates a composite of our experiences providing SDM to date, and no one patient in particular.

Mr. C is an 88 year-old African American man accompanied by his daughter to his medical appointment. Mr. C's primary care physician diagnosed him with major depression and referred him to the practice's nurse for the SDM intervention. Mr. C expressed negative attitudes when told that he was experiencing depression, stating that "being depressed is for the weak." Upon further discussion with the nurse, he was openly dysphoric and became tearful while discussing his mood, physical symptoms, and difficulties related to his medical illnesses. Initially, Mr. C firmly opposed seeing a psychotherapist "just to talk about my feelings" and expressed negative opinions about "addictive" antidepressant medications. He was more agreeable about psychotherapy, however, after opening up to the nurse ("I feel better now"), listening to information about what psychotherapy entailed, and reviewing information presented via the decision aid materials. This SDM process also led Mr. C's daughter to reconsider her personal concerns about treating her father's depression with psychotherapy. Mr. C consequently accepted the nurse's referral to a nearby mental health clinic for psychotherapy. He remained skeptical, however, about antidepressants despite information provided by the nurse about their therapeutic properties. As Mr. C felt strongly about religion and its helpfulness in getting him "back on the right path," the nurse supported his continued church involvement as a further component of the recovery process.

The nurse telephoned Mr. C one week later and learned that he had not yet followed through with the mental health clinic referral. She explored Mr. C's hesitancy to schedule an appointment, addressed his remaining concerns about the stigma of depression, and emphasized the value of following up on the referral. Learning that the patient needed assistance in getting to appointments, the nurse contacted the Red Cross for immediate transportation assistance and referred the patient to social work for assistance with an Access-a-Ride application. At the second follow-up telephone call, the nurse learned that Mr. C had successfully scheduled a clinic appointment two weeks hence.

Summary

Shared decision-making (SDM), in contrast to traditional medical decision-making, involves a collaborative process whereby clinicians and patients exchange information and experiences to arrive at a mutually-agreed upon treatment decision. SDM interventions have been successfully implemented when treating various medical conditions, and they produce greater patient engagement in the treatment process. We consider SDM a promising intervention for depressed elderly individuals, given that it enhances autonomy and empowerment in a manner directly relevant to the helplessness and hopelessness intrinsic to depression. Nevertheless, as full-scale SDM interventions have yet to be tested with elderly depressed patients, it is unclear whether SDM's basic premises pertain to this population as well. Additionally, culturally-congruent care for older patients must incorporate diverse culture-specific perceptions and attitudes regarding depression and its treatment. It is therefore timely to examine SDM's value as a needed new intervention for elderly depressed primary care patients. Pending more definitive findings, SDM may be used as a stand-alone intervention to help older patients formulate and successfully implement treatment decisions. Alternatively, SDM may be blended into standard care management approaches so as to maximize their impact.

Key points

1. Shared decision-making models have the potential to improve the treatment of major depression in the primary care setting.
2. Shared decision-making emphasizes a collaborative process whereby clinicians present patients with information regarding their medical condition and its treatment options, and patients inform clinicians about their values, goals, experiences, and treatment preferences.

3. Shared decision-making interventions have been successfully used for medical illnesses that offer treatment options, but only now are being developed for psychiatric illnesses such as depression.
4. It is unknown whether the same premises regarding shared decision-making's ability to enhance autonomy and empowerment pertain to depressed older adults, given their greater: acceptance of the physician's traditional dominant role in the medical model of treatment; medical burden and cognitive impairment; likelihood of family involvement; tangible barriers; and stigmatic concerns and negative beliefs about depression and mental health treatment.

Acknowledgments

National Institute of Mental Health, K23 MH069784, R01 MH084872

References

- Abrams RC, Lachs M, McAvay G, Keohane DJ, Bruce ML. Predictors of self-neglect in community-dwelling elders. *Am J Psychiatry* 2002;159(10):1724–1730. [PubMed: 12359679]
- Adams JR, Drake RE. Shared decision-making and evidence-based practice. *Community Ment Health J* 2006;42(1):87–105. [PubMed: 16429248]
- Adams JR, Drake RE, Wolford GL. Shared decision-making preferences of people with severe mental illness. *Psychiatr Serv* 2007;58(9):1219–1221. [PubMed: 17766569]
- Aikens JE, Nease DE Jr, Nau DP, Klinkman MS, Schwenk TL. Adherence to maintenance-phase antidepressant medication as a function of patient beliefs about medication. *Ann Fam Med* 2005;3(1):23–30. [PubMed: 15671187]
- Alverson HS, Drake RE, Carpenter-Song EA, Chu E, Ritsema M, Smith B. Ethnocultural variations in mental illness discourse: some implications for building therapeutic alliances. *Psychiatr Serv* 2007;58:1541–1546. [PubMed: 18048554]
- Angermeyer MC, Breier P, Dietrich S, Kenzine D, Matschinger H. Public attitudes toward psychiatric treatment. An international comparison *Soc Psychiatry Psychiatr Epidemiol* 2005;40(11):855–864.
- Appelbaum PS, Grisso T, Frank E, O'Donnell S, Kupfer DJ. Competence of depressed patients for consent to research. *Am J Psychiatry* 1999;156:1380–1384. [PubMed: 10484948]
- Appelbaum PS, Redlich A. Impact of decisional capacity on the use of leverage to encourage treatment adherence. *Community Mental Health Journal* 2006;42(2):121–130. [PubMed: 16432633]
- Auerbach SM, Penberthy AR, Kiesler DJ. Opportunity for control, interpersonal impacts, and adjustment to a long-term invasive health care procedure. *Journal of Personality and Social Psychology* 2004;44(6):1284–1296. [PubMed: 6875806]
- Becker, MH., editor. *Health Education Monographs. Vol. 2. 1974. The Health Belief Model and personal health behavior.* entire issue
- Bedi N, Chilvers C, Churchill R, Dewey M, Duggan C, Fielding K, Gretton V, Miller P, Harrison G, Lee A, Williams I. Assessing effectiveness of treatment of depression in primary care. *Brit J Psychiatry* 2000;177:312–318. [PubMed: 11116771]
- Beisecker AE, Beisecker TD. Patient information-seeking behaviors when communicating with doctors. *Med Care* 1990;28(1):19–28. [PubMed: 2296214]
- Benbassat J, Pilpel D, Tidhar M. Patients' preferences for participation in clinical decision making: a review of published surveys. *Behav Med* 1998;24(2):81–88. [PubMed: 9695899]
- Brody D, Miller S, Lerman C, Smith D, Caputo G. Patient perception of involvement in medical care. *J Gen Int Med* 1989;4:506–511.
- Bruce ML, Seeman TE, Merrill SS, Blazer DG. The impact of depressive symptomatology on physical disability: MacArthur Studies of Successful Aging. *Am J Public Health* 1994;84(11):1796–1799. [PubMed: 7977920]
- Bruce ML. Depression and disability in late life: directions for future research. *Am J Geriatr Psychiatry* 2001;9(2):102–112. [PubMed: 11316615]

- Bruce ML, Ten Have TR, Reynolds CF 3rd, Katz, Schulberg HC, Mulsant BH, Brown GK, McAvay GJ, Pearson JL, Alexopoulos GS. Reducing suicidal ideation and depressive symptoms in depressed older primary care patients: a randomized controlled trial. *Jama* 2004;291(9):1081–1091. [PubMed: 14996777]
- Cabassa LJ, Hansen MC, Palinkas LA, Ell K. Azúcar y nervios: Explanatory models and treatment experiences of Hispanics with diabetes and depression. *Soc Sci Med* 2008;66(12):2413–2424. [PubMed: 18339466]
- Cabassa LJ, Lester R, Zayas LH. “It’s like being in a labyrinth.” Hispanic immigrants’ perceptions of depression and attitudes toward treatments. *J Immigrant and Minority Health* 2007;9:1–16.
- Charles C, Gafni A, Whelan T. Decision-making in the physician-patient encounter: revisiting the shared treatment decision-making model. *Soc Sci Med* 1999;49(5):651–661. [PubMed: 10452420]
- Charney DS, Reynolds CF, Lewis L, Lebowitz BD, Sunderland T, Alexopoulos GS, et al. Depression and Bipolar Support Alliance consensus statement on the unmet needs in diagnosis and treatment of mood disorders in late life. *Arch Gen Psychiatry* 2003;60(7):664–672. [PubMed: 12860770]
- Chatters LM, Bullard KM, Taylor RJ, Woodward AT, Neighbors HW, Jackson JS. Religious participation and DSM-IV disorders among older African Americans: findings from the National Survey of American Life. *Am J Geriatr Psychiatry* 2008;16(12):957–65. [PubMed: 19038894]
- Chesla CA, Fisher L, Mullan JT, Skaff MM, Gardiner P, Chun K, Kanter R. Family and disease management in African-American patients with type 2 diabetes. *Diabetes Care* 2004;27:2850–2855. [PubMed: 15562196]
- Chilvers C, Dewey M, Fielding K, Gretton V, Miller P, Palmer B, Weller D, Churchill R, Williams I, Bedi N, Duggan C, Lee A, Harrison H. Antidepressant drugs and generic counseling for treatment of major depression in primary care: randomized trial with patient preference arms. *Brit Med J* 2001;322:1–5. [PubMed: 11141128]
- Churchill R, Khaira M, Gretton V, Chilvers C, Dewey M, Duggan C, Lee A. Treating depression in general practice: factors affecting patients’ treatment preferences. *Br J Gen Pract* 2000;50(460):905–906. [PubMed: 11141877]
- Clever SL, Ford DE, Rubenstein LV, Rost KM, Meredith LS, Sherbourne CD, Wang NY, Arbelaez JJ, Cooper LA. Primary care patients’ involvement in decision-making is associated with improvement in depression. *Med Care* 2006;44(5):398–405. [PubMed: 16641657]
- Col N, Fanale JE, Kronholm P. The role of medication noncompliance and adverse drug reactions in hospitalizations of the elderly. *Arch Intern Med* 1990;150:841–845. [PubMed: 2327844]
- Compton MT, Esterberg ML. Treatment delay in first-episode nonaffective psychosis: a pilot study with African American family members and the theory of planned behavior. *Compr Psychiatry* 2005;46(4):291–295. [PubMed: 16175761]
- Conrad MM, Pacquiao DF. Manifestation, attribution, and coping with depression among Asian Indians from the perspectives of health care practitioners. *J Transcult Nurs* 2005;16(1):32–40. [PubMed: 15608097]
- Cooper-Patrick L, Gonzales J, Rost K, Meredith L, Rubenstein L, Ford D. Patient preferences for treatment of depression. *Int J Psychiatry in Med* 1998;28:382–383.
- Cooper-Patrick L, Powe N, Jenckes M, Gonzales J, Levine D, Ford D. Identification of patient attitudes and preferences regarding treatment of depression. *J Gen Intern Med* 1997;12:431–438. [PubMed: 9229282]
- Corrigan PW, Swantek S, Watson AC, Kleinlein P. When do older adults seek primary care services for depression? *J Nerv Ment Dis* 2004;191(9):613–622.
- Deegan PE, Rapp C, Holter M, Rieffer M. Best practices: a program to support shared decision making in an outpatient psychiatric medication clinic. *Psychiatr Serv* 2008;59(6):603–605. [PubMed: 18511580]
- Degner LF, Sloan JA. Decision making during serious illness: what role do patients really want to play? *J Clin Epidemiol* 1992;45(9):941–950. [PubMed: 1432023]
- Degner LF, Kristjanson L, Bowman D, Sloan JA, Carriere KC, O’Neil J, Bilodeau B, Watson P, Mueller B. Information needs and decisional preferences in women with breast cancer. *Jama* 1997;277(18):1485–1492. [PubMed: 9145723]

- Dietrich AJ, Oxman TE, Williams JW Jr, Schulberg HC, Bruce ML, Lee PW, Barry S, Raue PJ, Lefever JJ, Heo M, Rost K, Kroenke K, Gerrity M, Nutting PA. Re-engineering systems for the treatment of depression in primary care: cluster randomised controlled trial. *BMJ* 2004;329:602–605. [PubMed: 15345600]
- Druss BG, Rohrbaugh RM, Rosenheck RA. Depressive symptoms and health costs in older medical patients. *Am J Psychiatry* 1999;156:477–479. [PubMed: 10080569]
- Dwight-Johnson M, Sherbourne C, Liao D, Wells K. Treatment preferences among depressed primary care patients. *J Gen Intern Med* 2000;15:527–534. [PubMed: 10940143]
- Dwight-Johnson M, Unutzer J, Sherbourne C, Tang L, Wells K. Can quality improvement programs for depression in primary care address patient preferences for treatment? *Med Care* 2001;39:934–944. [PubMed: 11502951]
- Eisenthal S, Emery R, Lazare A, Udin H. 'Adherence' and the negotiated approach to patienthood. *Arch Gen Psychiatry* 1979;36:393–398. [PubMed: 426605]
- Gigerenzer G. Why does framing influence judgment? *J Gen Intern Med* 2003;18(11):960–961. [PubMed: 14687283]
- Gigerenzer G, Edwards A. Simple tools for understanding risks: from innumeracy to insight. *BMJ* 2003;327(7417):741–744. [PubMed: 14512488]
- Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med* 2006;166(21):2314–2321. [PubMed: 17130383]
- Goldney RD, Fisher LJ, Wilson DH. Mental health literacy: an impediment to the optimum treatment of major depression in the community. *J Affect Disord* 2001;64(2–3):277–284. [PubMed: 11313096]
- Greenfield S, Kaplan SH, Ware JE Jr, Yano EM, Frank HJ. Patients' participation in medical care: effects on blood sugar control and quality of life in diabetes. *J Gen Intern Med* 1988;3(5):448–457. [PubMed: 3049968]
- Guarnaccia PJ, Parra P, Deschamps A, Milstein G, Argiles N. Si Dios quiere: Hispanic families' experiences of caring for a seriously mentally ill family member. *Culture, Medicine, and Psychiatry* 1992;16:187–215.
- Guarnaccia, PJ.; Martínez, I.; Acosta, H. Comprehensive In-Depth Literature Review and Analysis of Hispanic Mental Health Issues. New Jersey Mental Health Institute; Mercerville, New Jersey: 2002.
- Guarnaccia P, Lewis-Fernández R, Rivera Marano M. Toward a Puerto Rican popular nosology: *Nervios* and *ataques de nervios*. *Culture, Medicine and Psychiatry* 2003;27(3):339–366.
- Gum AM, Arean PA, Hunkeler E, Tang L, Katon W, Hitchcock P, Steffens DC, Dickens J, Unutzer J. Depression treatment preferences in older primary care patients. *Gerontologist* 2006;46(1):14–22. [PubMed: 16452280]
- Halter MJ. The stigma of seeking care and depression. *Arch Psychiatr Nurs* 2004;18(5):178–184. [PubMed: 15529283]
- Hamann J, Leucht S, Kissling W. Shared decision making in psychiatry. *Acta Psychiatr Scand* 2003;107(6):403–409. [PubMed: 12752015]
- Hickie IB, Davenport TA, Luscombe GM, Rong Y, Hickie ML, Bell MI. The assessment of depression awareness and help-seeking behaviour: experiences with the International Depression Literacy Survey. *BMC Psychiatry* 2007;7:48. [PubMed: 17850674]
- Hochbaum, GM. PHS publication no. 572. Government Printing Office; Washington, D.C: 1958. Public Participation in Medical Screening Programs: A Sociopsychological Study.
- Hunkeler EM, Katon W, Tang L, Williams JW, Kroenke K, Lin EH, Harpole LH, Arean P, Levine S, Grypma LM, Hargreaves WA, Unutzer J, Katon W. Long term outcomes from the IMPACT randomised trial for depressed elderly patients in primary care. *BMJ* 2006;332:259–263. [PubMed: 16428253]
- Institute of Medicine. Unequal treatment: confronting racial and ethnic disparities in health care. Institute of Medicine; Washington, D.C: 2002.
- Jenkins JH. Conceptions of schizophrenia as a problem of nerves: A cross-cultural comparison of Mexican-Americans and Anglo-Americans. *Soc Sci Med* 1988;26(12):1233–1243. [PubMed: 3206245]

- Kahneman D, Tversky A. Prospect theory: An analysis of decision under risk. *Econometrica* 1979;47(2): 263–291.
- Karasz A. The development of valid subtypes for depression in primary care settings: a preliminary study using an explanatory model approach. *J Nerv Ment Dis* 2008;196(4):289–296. [PubMed: 18414123]
- Katz IR. On the inseparability of mental and physical health in aged persons: lessons from depression and medical comorbidity. *Am J Geriatr Psychiatry* 1996;4:1–6.
- Kelley, HH.; Thibaut, JW. *Interpersonal Relations: A Theory of Interdependence*. Wiley; New York: 1978.
- Kiesler DJ, Auerbach SM. Integrating measurement of control and affiliation in studies of physician-patient interaction: the interpersonal circumplex. *Soc Sci Med* 2003;57(9):1707–1722. [PubMed: 12948579]
- Kirmayer LJ, Groleau D, Guzder J, Blake C, Jarvis E. Cultural consultation: A model of mental health service for multicultural societies. *Can J Psychiatry* 2003;48(3):145–153. [PubMed: 12728738]
- Lazare A, Eisenthal S, Wasserman L. The customer approach to patienthood: attending to patient requests in a walk-in clinic. *Arch Gen Psychiatry* 1975;32:552–558.
- Leaf PJ, Bruce ML, Tischler GL. The differential effect of attitudes on the use of mental health services. *Soc Psychiatry Psychiatr Epidemiol* 1986;21:187–192.
- Levenstein JH, McCracken EC, McWhinney IR, Stewart MA, Brown JB. The patient-centred clinical method. 1. A model for the doctor-patient interaction in family medicine. *Fam Pract* 1986;3(1):24–30. [PubMed: 3956899]
- Lewis, MA.; DeVeliis, BM.; Sleath, B. Social Influence and Interpersonal Communication in Health Behavior. In: Glanz, K.; Rimer, BK.; Lewis, FM., editors. *Health Behavior and Health Education*. Jossey-Bass; San Francisco: 2002. p. 240-264.
- Lewis-Fernández R, Das AK, Alfonso C, Weissman MM, Olfson M. Depression in US Hispanics: diagnostic and management considerations in family practice. *J Am Board Fam Pract* 2005;18(4): 282–296. [PubMed: 15994474]
- Loh A, Simon D, Wills CE, Kriston L, Niebling W, Harter M. The effects of a shared decision-making intervention in primary care of depression: a cluster-randomized controlled trial. *Patient Educ Couns* 2007;67(3):324–332. [PubMed: 17509808]
- Luber MP, Meyers BS, Williams-Russo PG, Hollenberg JP, DiDomenico TN, Charlson ME, Alexopoulos GS. Depression and service utilization in elderly primary care patients. *Am J Geriatr Psychiatry* 2001;9(2):169–176. [PubMed: 11316621]
- Lyness JM, Caine ED, King DA, Cox C, Yoediono Z. Psychiatric disorders in older primary care patients. *J Gen Intern Med* 1999;14(4):249–54. [PubMed: 10203638]
- McCarthy JF, Blow FC. Older patients with serious mental illness: sensitivity to distance barriers for outpatient care. *Med Care* 2004;42(11):1073–1080. [PubMed: 15586834]
- Mead N, Bower P. Patient-centredness: a conceptual framework and review of the empirical literature. *Soc Sci Med* 2000;51(7):1087–1110. [PubMed: 11005395]
- Meltzer H, Bebbington P, Brugha T, Farrell M, Jenkins R, Lewis G. The reluctance to seek treatment for neurotic disorders. *International Review of Psychiatry* 2003;15(1–2):123–128. [PubMed: 12745319]
- Mickus M, Colenda CC, Hogan AJ. Knowledge of mental health benefits and preferences for type of mental health providers among the general public. *Psychiatr Serv* 2000;51(2):199–202. [PubMed: 10655003]
- Moxey A, O’Connell D, McGettigan P, Henry D. Describing treatment effects to patients. *J Gen Intern Med* 2003;18(11):948–959. [PubMed: 14687282]
- Murray CJL, Lopez AD. Alternative projections of mortality and disability by cause 1990–2020: Global Burden of Disease Study. *The Lancet* 1997;349:1498–1504.
- Nakane Y, Jorm AF, Yoshioka K, Christensen H, Nakane H, Griffiths KM. Public beliefs about causes and risk factors for mental disorders: a comparison of Japan and Australia. *BMC Psychiatry* 2005;5:33. [PubMed: 16174303]
- Neighbors HW, Woodward AT, Bullard KM, Ford BC, Taylor RJ, Jackson JS. Mental health service use among older African Americans: the National Survey of American Life. *Am J Geriatr Psychiatry* 2008;16(12):948–56. [PubMed: 19038893]

- O'Connor AM, Drake ER, Wells GA, Tugwell P, Laupacis A, Elmslie T. A survey of the decision-making needs of Canadians faced with complex health decisions. *Health Expect* 2003;6(2):97–109. [PubMed: 12752738]
- O'Neal EL, Adams JR, McHugo GJ, Van Citters AD, Drake RE, Bartels SJ. Preferences of older and younger adults with serious mental illness for involvement in decision-making in medical and psychiatric settings. *Am J Geriatr Psychiatry* 2008;16(10):826–833. [PubMed: 18827229]
- Ortega A, Alegría M. Self-reliance, mental health need and use of mental healthcare among Island Puerto Ricans. *Mental Health Services Research* 2002;4:131–140. [PubMed: 12385566]
- Parson, T. *Social structure and personality*. The Free Press; New York, NY: 1964.
- Patel SR, Bakken S, Ruland C. Recent advances in shared decision making for mental health. *Curr Opin Psychiatry* 2008;21(6):606–612. [PubMed: 18852569]
- Pescosolido BA, Gardner CB, Lubell KM. How people get into mental health services: stories of choice, coercion and “muddling through” from “first-timers. *Soc Sci Med* 1998;46(2):275–286. [PubMed: 9447648]
- Peters E, Västfjäll D, Slovic P, Mertz CK, Mazzocco K, Dickert S. Numeracy and decision making. *Psychol Sci* 2006;17(5):407–413. [PubMed: 16683928]
- Peters E, Dieckmann N, Dixon A, Hibbard JH, Mertz CK. Less is more in presenting quality information to consumers. *Med Care Res Rev* 2007;64(2):169–190. [PubMed: 17406019]
- Raue PJ, Schulberg HC, Heo M, Klimstra S, Bruce ML. Patients' depression treatment preferences and initiation, adherence, and outcome: a randomized primary care study. *Psychiatr Serv* 2009;60:337–343. [PubMed: 19252046]
- Reiling DM. Boundary maintenance as a barrier to mental health help-seeking for depression among the Old Order Amish. *J Rural Health* 2002;18(3):428–436. [PubMed: 12186317]
- Riedel-Heller SG, Matschinger H, Angermeyer MC. Mental disorders--who and what might help? Help-seeking and treatment preferences of the lay public. *Soc Psychiatry Psychiatr Epidemiol* 2005;40(2):167–174. [PubMed: 15685409]
- Robb C, Haley WE, Becker MA, Polivka LA, Chwa HJ. Attitudes towards mental health care in younger and older adults: similarities and differences. *Aging Ment Health* 2003;7(2):142–152. [PubMed: 12745392]
- Roeloffs C, Sherbourne C, Unutzer J, Fink A, Tang L, Wells KB. Stigma and depression among primary care patients. *Gen Hosp Psychiatry* 2003;25(5):311–315. [PubMed: 12972221]
- Rogler LH, Cortés DE, Malgady RG. Acculturation and mental health status among Hispanics. *American Psychologist* 1991;46:585–597. [PubMed: 1952420]
- Rosen P, Anell A, Hjortsberg C. Patient views on choice and participation in primary health care. *Health Policy* 2001;55(2):121–128. [PubMed: 11163651]
- Rosenstock IM. What research in motivation suggests for public health. *Am J Public Health* 1960;50:295–301.
- Rosenstock IM. Historical origins of the Health Belief Model. *Health Education Monographs* 1974;2:328–335.
- Ruben BD. What patients remember: a content analysis of critical incidents in health care. *Health Communication* 1993;5:99–112.
- Rusbult, CE.; Van Lange, PM. Interdependence Processes. In: Higgins, ET.; Kruglanski, AW., editors. *Social Psychology: Handbook of Basic Principles*. Guilford Press; New York: 1996. p. 564-695.
- Sayers SL, White T, Zubritsky C, Oslin DW. Family involvement in the care of healthy medical outpatients. *Fam Pract* 2006;23(3):317–324. [PubMed: 16461451]
- Schauer C, Everett A, del Vecchio P, Anderson L. Promoting the value and practice of shared decision-making in mental health care. *Psychiatr Rehabil J* 2007;31(1):54–61. [PubMed: 17694716]
- Schiller PL, Levin JS. Is there a religious factor in health care utilization? *Soc Sci Med* 1988;27(12):1369–79. [PubMed: 3070763]
- Schneider A, Korner T, Mehring M, Wensing M, Elwyn G, Szecsenyi J. Impact of age, health locus of control and psychological co-morbidity on patients' preferences for shared decision making in general practice. *Patient Education and Counseling* 2006;61:292–298. [PubMed: 15896943]

- Schulberg HC, Mulsant B, Schulz R, Rollman BL, Houck PR, Reynolds CF 3rd. Characteristics and course of major depression in older primary care patients. *Int J Psychiatry Med* 1998;28(4):421–36. [PubMed: 10207741]
- Shankar BR, Saravanan B, Jacob KS. Explanatory models of common mental disorders among traditional healers and their patients in rural south India. *Int J Soc Psychiatry* 2006;52(3):221–233. [PubMed: 16875194]
- Sheline YI. High prevalence of physical illness in a geriatric psychiatric inpatient population. *Gen Hosp Psychiatry* 1990;12(6):396–400. [PubMed: 2245925]
- Simon D, Loh A, Wills CE, Härter M. Depressed patients' perceptions of depression treatment decision-making. *Health Expect* 2007;10(1):62–74. [PubMed: 17324195]
- Simon D, Schorr G, Wirtz M, Vodermaier A, Caspari C, Neuner B, et al. Development and first validation of the shared decision-making questionnaire. *Patient Education and Counseling* 2006;63:319–327. [PubMed: 16872793]
- Simon D, Loh A, Wills CE, Harter M. Depressed patients' perceptions of depression treatment decision-making. *Health Expect* 2007;10(1):62–74. [PubMed: 17324195]
- Stewart, M.; Brown, J. Patient-centredness in medicine. In: Elwyn, G.; Edwards, A., editors. Evidence-based patient choice: inevitable or impossible?. Oxford University Press; New York: 2001.
- Stiggelbout AM, de Haes JC. Patient preference for cancer therapy: an overview of measurement approaches. *J Clinical Oncology* 2001;19:220–230.
- Swanson KA, Bastani R, Rubenstein LV, Meredith LS, Ford DE. Effect of mental health care and shared decision making on patient satisfaction in a community sample of patients with depression. *Med Care Res Rev* 2007;64(4):416–430. [PubMed: 17684110]
- Ubel PA. Is information always a good thing? Helping patients make “good” decisions. *Med Care* 2002;40(9 Suppl):V39–44. [PubMed: 12226584]
- Unutzer J, Patrick DL, Simon G, Grembowski D, Walker E, Rutter C, Katon W. Depressive symptoms and the cost of health services in HMO patients aged 65 years and older. A 4-year prospective study. *Jama* 1997;277(20):1618–1623. [PubMed: 9168292]
- Unutzer J, Katon W, Callahan CM, Williams JW Jr, Hunkeler E, et al. Collaborative care management of late-life depression in the primary care setting: a randomized controlled trial. *Jama* 2002;288(22):2836–2845. [PubMed: 12472325]
- US Department of Health and Human Services. National Standards for Culturally and Linguistically Appropriate Services in Health Care. US Department of Health and Human Services; Washington, D.C: 2001.
- Vega WA, Kolody B, Aguilar-Glaxiola S, Alderete E, Catalano R, Caraveo-Anduaga J. Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. *Arch Gen Psychiatry* 1998;55(9):771–778. [PubMed: 9736002]
- Vega WA, Kolody B, Aguilar-Gaxiola S. Help seeking for mental health problems among Mexican Americans. *J Immigr Health* 2001;3(3):133–140. [PubMed: 16228778]
- Vega WA, Karno M, Alegria M, Alvidrez J, et al. Research issues for improving treatment of U.S. Hispanics with persistent mental disorders. *Psychiatr Serv* 2007;58(3):385–394. [PubMed: 17325113]
- Wills CE, Holmes-Rovner M. Integrating decision making and mental health interventions research: research directions. *Clin Psychol (New York)* 2006;13(1):9–25. [PubMed: 16724158]
- Wills CE, Rovner MH. Preliminary validation of the Satisfaction With Decision scale with depressed primary care patients. *Health Expect* 2003;6(2):149–159. [PubMed: 12752743]
- Wills, CE.; Franklin, M.; Holmes-Rovner, M. Feasibility and outcomes testing of a patient-centered decision support intervention for depression in people with diabetes. Paper presented at the 4th International Shared Decision Making Conference; Freiburg, Germany. 2007.
- Zubritsky, C.; Hongtu, C.; Gallo, JJ.; Maxwell, J.; Cheal, K., et al. Stakeholder perspectives on integrated mental health services in primary care settings. NIMH Mental Health Services Conference; Bethesda, MD. 2005.

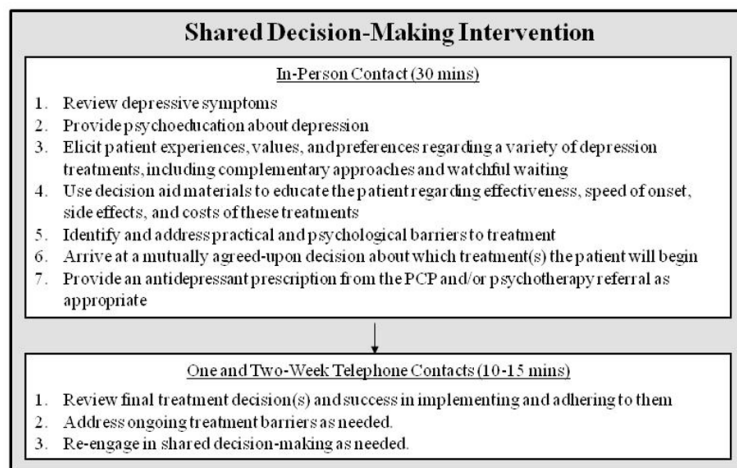


Figure 1.
Shared Decision-Making Intervention