



Published in final edited form as:

J Nerv Ment Dis. 2008 April ; 196(4): 289–296. doi:10.1097/NMD.0b013e31816a496e.

The Development of Valid Subtypes for Depression in Primary Care Settings:

A Preliminary Study Using an Explanatory Model Approach

Alison Karasz, PhD

Department of Family and Social Medicine, Albert Einstein College of Medicine, Bronx, New York.

Abstract

A persistent theme in the debate on the classification of depressive disorders is the distinction between biological and environmental depressions. Despite decades of research, there remains little consensus on how to distinguish between depressive subtypes. This preliminary study describes a method that could be useful, if implemented on a larger scale, in the development of valid subtypes of depression in primary care settings, using explanatory models of depressive illness. Seventeen depressed Hispanic patients at an inner city general practice participated in explanatory model interviews. Participants generated illness narratives, which included details about symptoms, cause, course, impact, health seeking, and anticipated outcome. Two distinct subtypes emerged from the analysis. The internal model subtype was characterized by internal attributions, specifically the notion of an “injured self.” The external model subtype conceptualized depression as a reaction to life situations. Each subtype was associated with a distinct constellation of clinical features and health seeking experiences. Future directions for research using explanatory models to establish depressive subtypes are explored.

Keywords

Depression; explanatory model; subtypes; classification; conceptual models; illness representation

A useful diagnostic system should indicate the etiology of an illness, guide treatment, predict outcomes, and, above all, reflect the structure of observed reality. It is a widely held view that the current classification system for depressive disorders falls short in each of these respects. Over the past few decades there have been serious attempts to rationalize the DSMs and increase their heuristic and pragmatic value. A persistent theme in this debate has been the question of how to distinguish biological depressions from depressions that are social in origin.

The current classification system posits a “unitary” model of depression, distinguishing between different forms of the illness largely by severity (Parker, 2000). This model has reigned since the distinction between “reactive” and “endogenous” subtypes in the classification of depression fell out of favor in the late 1980s. After the disappointing failure of large-scale studies to validate the subtypes (Katschnig et al., 1986), they were subsequently omitted from DSM-III. Although a new category, “adjustment disorder,” was added at this time, it has not proved useful. A “rule out” diagnosis that can be made only when the patient does not meet full criteria for depression, adjustment disorder is conflated with symptom severity, and is thus

of little use to researchers attempting to distinguish depressive subtypes on the basis of core features (Casey et al., 2001, 2006).

To date, there remains little consensus on how to define and distinguish “true” biological depressions from reactions to environmental stress. Several models have been proposed: “atypical” depression (Levitan and Parikh, 2003), “melancholia,” which has been variously defined (Malhi et al., 2005; Parker et al., 1990; Sobin and Sackeim, 1997; Sobin et al., 1998), and anhedonia (Willner et al., 1992). Claims for internal validity have relied on various types of evidence, including quasi-historical arguments (Parker, 2000; Parker and Brotchie, 1992) animal models (Willner et al., 1992) and the use of psychometric techniques.

Evidence for the external validity of these subtypes must ultimately rest in demonstrated differences in etiology. In the absence of neuroanatomical evidence definitively establishing a biological subtype, many researchers attempt to show differential associations between depression subtypes and social precipitants such as stressful life events or childhood adversity. The results reported in the literature in this area are inconsistent (Katschnig et al., 1986; Leventhal and Rehm, 2005). Although Parker et al. (1997) found that nonmelancholic depression was more closely linked to childhood adversity than melancholia, other studies have found no such relationship (Harkness and Monroe, 2002; Joyce et al., 2002). The results are similarly mixed with respect to the relationship between endogenous and melancholic depression, and current life events (Leventhal and Rehm, 2005).

A more pressing problem, however, is the issue of the internal consistency of the biological depression construct. Historical arguments for the persistence of core symptoms are undermined by widespread evidence of differences in depressive symptomology across cultures (Cheng, 1989; Jadhav, 1996; Kleinman and Good, 1985) and historical eras (Jackson, 1981). The use of animal models of depression has been criticized as lacking face validity given the subjective nature of depression in humans (Anisman and Matheson, 2005). Finally, reliance on psychometric analyses to establish depression subtypes may be criticized on several grounds: results from such analyses are highly influenced by the composition of the sample in ways that are poorly understood, and can say very little about the actual relevance or salience of particular symptoms in the course of depressive illness.

In fact, both the “core symptoms” of depressive illness, as well as its cause, are features of explanatory models of illness (Kleinman et al., 1978). The patient’s report of social precipitants such as stressful life events or childhood experiences, or of biological precipitants such as genetics or “chemical imbalance,” is filtered through his conceptual understanding of his illness. The clinical presentation itself—the chief complaint, explanation of symptoms, illness behavior, and requests for treatment—reflects the patient’s perceptions of those dimensions of his suffering which are most dangerous, debilitating, treatable, or interesting to the clinician or researcher. Evidence suggests that beliefs about depression vary systematically by ethnic group (Karasz, 2005), social class (Jorm et al., 2000), and generational cohort (Givens et al., 2006).

In contemporary psychiatry, the patient’s clinical presentation is viewed, not as a form of communication, but as a manifestation of disease. Patients’ explanatory models, therefore, are regarded as epiphenomenal. By contrast, a flourishing research program in cultural psychiatry has focused for decades on the systematic exploration of explanatory models for the purpose of establishing taxonomies of emotional disorders.

The classic approach to taxonomic development in cross-cultural settings begins with systematic inquiry among individuals within a cultural milieu regarding cultural and individual concepts of illness and treatment. Conceptual representations of illness among community dwellers, patients, families, and care providers are systematically elicited. Once categories are

established, they can be further refined and explored by asking detailed questions about symptoms, cause, course, impact or significance, and appropriate treatments (Manson, 1995). Another similar research design, generally known as “cultural epidemiology,” examines the relationship between western psychiatric categories and local concepts of mental disorders (Guarnaccia et al., 2003; Jadhav, 1996; Patel et al., 1998; Rodrigues et al., 2003; Weiss et al., 1995).

Few studies using the cultural psychiatry approach have been conducted in western clinical or community settings (Jadhav, 2001). Perhaps this is due to the perception among some researchers in cultural psychiatry that psychiatric diagnostic categories are aligned with the conceptual models of mental illness prevalent in western societies. Yet there is no equivalence between psychiatric categories generated through a complex process of professional dispute, consensus, and compromise (Schaffner, 2002), and the “popular nosologies” elicited through empirical research in cultural psychiatry.

In fact, research of a very different type, survey studies, provides evidence for a major conceptual gap between the technical psychiatric concepts of depression and views of the general public. Surveys in western societies (Jorm et al., 2000; Lauber et al., 2003) find that many people do not adhere to a disease model of depression and are dubious of medical treatments. In a study of the Swiss public, “fresh air” was rated as far more helpful as a treatment for depression than psychiatric consultation (Lauber et al., 2001). Studies of depressed patients in outpatient medical settings, where most depression is treated, suggest that the pervasive lack of “match” between patients’ conceptual models of their depressive illness and biomedical models may lead to underdiagnosis, undertreatment, and nonadherence (Givens et al., 2006; Karasz and Watkins, 2006; Lawrence et al., 2006; Switzer et al., 2006).

The view is often expressed that discoveries in genetics and neuroanatomy will soon lead to the development of a rational classification system for depressive disorders, clarifying the etiology of depression subtypes and providing an effective guide to treatment. However, although such discoveries would be highly desirable, not everyone is convinced that they are imminent (Schaffner, 2002). An interim approach to developing taxonomy for depressive disorders grounded in empirical evidence is indicated. Cultural epidemiology can provide such an approach.

In this article, we describe a small pilot study that illustrates some of the features of the cultural epidemiology method. We conducted explanatory model interviews with depressed, Hispanic primary care patients with the goal of exploring the potential heterogeneity of depressive experience in the group. The article illustrates an approach to the analysis of explanatory models that could be useful if expanded in developing a classification system for depression subtypes in primary care settings.

METHODS

Participants

The study was conducted in 2 primary care health centers in the Bronx, New York. Eighteen consecutive patients of self-reported Hispanic ethnicity were approached while waiting for their appointments. Patients judged to be cognitively impaired or confused at the time of interview were excluded. Equal numbers of Spanish and English speakers were recruited.

Measures

After participating in an informed consent process, patients were screened for depression using the PHQ-9, the depression scale from the PRIME-MD Patient Health Questionnaire, in English or Spanish (Diez-Quevedo et al., 2001; Spitzer et al., 1999). Patients meeting criteria for major

depression or “other depression” (a cardinal symptom plus at least one other depression symptom) were invited to participate in the study.

We used a model from the health psychology literature called the illness representation model (Leventhal et al., 1984) to develop the perceptions and experiences of treatment for depression interview. The interview explores multiple dimensions of participants’ conceptual models of illness. Subjects were asked to generate a representational model of their depressive symptoms using a semi-structured query that focused on each of 5 IRM dimensions, including (a) identity of the illness, (b) antecedents or causes, (c) consequences or impact, (d) timeline, and (e) treatment or management strategies which might be appropriate for these symptoms. Participants were also asked to generate a detailed narrative of their depression, which included information on past and current treatment seeking and treatment experiences. We used PHQ-9 scores to assess depression severity. In addition, we administered a demographics questionnaire.

Procedure

After participation in an informed consent process, participants were interviewed in Spanish or English by a trained qualitative interviewer, a Master’s level student in clinical psychology. The interviews lasted between 30 and 60 minutes. They were taped and transcribed. The study was approved by the Albert Einstein College of Medicine Committee on Clinical Investigations.

In keeping with the goal of the study to develop a taxonomic model that could generate meaningful hypotheses regarding variation in depression treatment and outcomes, the author and a research assistant read through transcripts looking for broad differences between participants in explanatory models of depression. The initial finding emerging from this phase of the analysis was the variable “internality.” We found that while almost all subjects referred in detail to external causes, conditions, or exacerbations of their depressive symptoms, they differed strikingly in the degree to which they attributed symptoms to internal causes (personality, inherited vulnerability, psychic injuries, mental disease) versus external causes (financial, familial, occupational, or physical health). Three types of explanatory models were defined: internal, external, and mixed. The 2 raters then independently rated all 17 transcripts, assigning each participant to a category. There were 2 disagreements (in which raters differed by 1 point). Both of these patients were classified as mixed.

In a third step, having classified all participants on the internality variable, the raters searched for patterns of similarity and dissimilarity among the 3 groups, using the method of constant comparison (Strauss and Corbin, 1990). We examined how patients’ narratives differed, focusing on differences in the dimensions of the explanatory model (e.g., “label,” “cause,” “impact,” “course/timeline,” and “concepts of treatment” (Leventhal et al., 1992). We also looked at differences in symptoms and treatment experiences among the 3 groups. As the analysis proceeded, it became clear that the internal and mixed group, at least in this small sample, shared key characteristics and should be clustered together for the purpose of the analyses. Nine were classified as internal or mixed models (IM), and 8 were classified as external models (EM).

RESULTS

The identity dimension in the IRM has 2 components: the label and the symptoms. The label dimension of the representation provided a key to understanding the “core” features of depressive illness for each participant. Labels varied systematically across the 2 groups. Although the use of the word “depression” was common, EMs tended to use it in a transitive or relational sense, focusing on depression as a natural response to a life problem. The core

experience of depression for most EMs was the sense of feeling drained, crushed, or trapped by external events and forces. “I am depressed . . . because I have a big problem.” “Decaida (drained, exhausted).” “I feel a big depression because of the pain in my knee.” “I feel hopeless. A sense of pressure.” “I feel like a prisoner . . . anyone would feel this way.”

By contrast, IMs were more likely to use the word depression as a noun or state (Dowrick, 2004). IMs often described their condition as a disease. Technical diagnostic terms were common. “I have personality disorder, bipolar disorder—you know, highs and lows—and insomnia.” “I have high anxiety and depression.” “I have generalized anxiety and depression.” “Major depression with psychotic features.” “Panic attacks, anxiety, and depression.” “They told me I have got bad depression.”

Symptoms

IMs were far more impaired than EMs. The average PHQ score for IMs was 22, whereas the average score for EMs was 11. When we asked patients to list the symptoms that were most troubling them, sadness, anxiety, and sleeping and eating problems were high on the list in both groups. However, in the IM group, psychotic symptoms, paranoia, agitation, and anger were also mentioned frequently. These symptoms were absent in the EM group.

IMs reported higher levels of functional impairment: “It has to do with my depression. I don't have any friends and I don't want to socialize. I don't want to dedicate myself to anything. I can't work. You know, I would sleep all day and even with no company, I'll watch TV and movies all day without moving.”

By contrast, EMs reported relatively high functioning, despite intense emotional distress: “When you're having pressure, how does it affect your life? My life? It does affect it. But like . . . I keep on being myself. That's one thing—I keep on being myself.”

Unsurprisingly, the 2 groups differed sharply on their interpretations of the cause. EMs focused on discreet events and situations. Three had recently lost a job; 3 had lost a partner; 2 had experienced the death of a child; and 2 had experienced severe pain and disability owing to chronic illness. At least half of these events had taken place in the distant past (more than 10 years previously). However, a discreet onset could usually be identified. “Alberto,” for example, had been depressed for 4 months. A year previously, he had been laid off from his job as a handyman. Along the lines predicted by Brown and Moran (1994), it was when the situation became both threatening—after the exhaustion of his savings—and humiliating—as a result of his inability to fulfill his role as provider of the family—that he got depressed: “The depression has come from 3 or 4 months ago, once everything was exhausted. I have 3 children—teenagers. They don't understand, they just want money. They know I don't have a job, but they are always asking, ‘Papi do you have \$20, \$40?’ They know I don't have a job, but they still ask. And for me, at least, this makes me desperate.”

Another common cause of depression in the EM group was physical illness or disability. One participant, a 53-year-old man, was quadriplegic after a shooting accident 26 years previously. His depression did not date from that time, but from a botched surgery on his spine 15 years later, which had left him incontinent. “See this is a case from many years ago. They did a surgery in my bladder and they threw off my routine. That is why I can't get out of my apartment, I am stuck, locked up here. I have uncontrolled bladder and intestinal problems. That is what gives me depression. You feel like you are up against a wall.”

IMs also emphasized external events and situations. However, these were always located in the distant past. Most IMs described a vague, uncertain onset of symptoms. Five reported

childhood trauma, including 3 cases of sexual abuse: “It comes from childhood. Things that happened in life like rejection and abandonment. I was molested by a family member.”

Several participants recalled bizarre, traumatic events from childhood: “My father decided to move to the countryside in Puerto Rico. In that countryside you sensed and saw and experienced many bad things . . . I also had a couple of visions there. I saw the house burning. My dad developed serious jealousy toward my mom. He started to sharpen a machete and would say this was for my mother's throat.”

Participants described a model that we called “the injured self,” a sort of modified germ model in which the external trauma created an imagined lesion, which continued to maintain the illness in adult life: “It is the mind that controls (dominates) the body. It is what moves the body. If the mind is not clear, dazed by so many problems, disillusioned by so many things, it will see nothing positive in life.” “If I don't take the medication, when I go without medication I get angry and anxious, you know, I may provoke someone. After so many years of being abused now I'm the abuser.”

IMs sometimes experienced their emotional symptoms as mysterious. They were not always able to identify the cause of the depression. “I went because I really wanted to know like what was going on with me, and like the symptoms that I was feeling, was it depression. So I went to the doctor . . . And she did say those were signs of depression and should be treated.”

Mixed internal and external causes were common in this group: “I don't know what name I would give it. I think it is your age, since the hormones change so much. I think that might be it, because once you are at the menopausal age, the hormones are all mixed up/scrambled. Plus all the problems one has. You know sometimes you have to pay the light/electricity and you don't have money. I get nervous. Totally, I despair.”

The 2 groups differed in their experiences and attitudes toward treatment. We examined different types of treatment experiences relevant to primary care patients: consultation with the primary care physician, psychotherapy or counseling, pharmacological treatment, lay consultation, and self-treatment.

The majority of participants (13 of 18) had consulted with their primary care physician about their depression (Table 1). Among those who had not consulted, a lack of interest or expertise in the physician was the most common explanations: “He was busy, very professional. He asked me questions. But I imagine if I started to tell him that my sister just left for Mexico because she got pregnant and I lost my job and just broke up with my boyfriend . . . he would say ‘and so what? What does this have to do with me?’ ” “I didn't tell her about it because she's just a doctor, like a physical doctor. She's not really a therapist or anything, like psychiatrist or anything like that, so I really didn't feel too comfortable to talk with her about you know, my stress and my situation.”

We asked those who had consulted their PCPs to describe what had been helpful about their consultation. In both groups, emotional support, advice, and companionship were the benefits most frequently described. In some instances, the physician was the patient's only confidant: “And when you see Dr. Roberts, does she also counsel you regarding these problems? Yeah, she does . . . I tell her everything. [laughs] She's like a mother to me, you know, because I don't have anyone, so I tell her everything. I talk to her about my kids, I talk to her about anything that's going on with me, if I'm feeling down, if I'm feeling depressed or I'm having a problem with a family member or I'll tell her anything. Does it help? Yes, it does.” “He's very nice, very supportive, and caring, and you know, and interested in helping me feel better, and that's why I'm going to my doctor appointments, cause once I feel they don't care, I don't care. And that's the truth.”

IMs were more likely than EMs to be in psychotherapy at the time of interview (Table 2). The majority of patients in this group (5 of 7) felt that it was helpful. When we asked participants how they thought that therapy could be helpful, IMs tended to focus on the possibility of internal change. “Has the therapy been helpful? Absolutely . . . Well, this is what I'm trying to do, that's why I do the therapy, is I'm trying to get to a place where I can take care of myself and know when I need to do something and be able to carry it through.” “If I speak to like a professional or whatever, they can probably help me find a way to like let go of certain things or help me how to go about it, or what to actually do.”

By contrast, EMs tended to focus on informal aspects of verbal healing, such as comfort or catharsis (Jackson, 1999): “First, God, and then the psychologist can help a lot. In what way do you think they can help? In this way, that at least they speak to you of positive things. At least they also, if they see that someone is depressed, the psychologist talks to you about that, and gives you hope, after God.”

The utility of practical advice was also a theme in the EM group: “Yeah, I think that talking to someone, you know, having them listen and maybe, you know, having them give me, you know, advice and stuff, that really works. Yeah, someone that I can confide in, you know.”

Several participants reported negative experiences of therapy or counseling. By far, the most common negative experiences had to do with therapists who were disrespectful, domineering, or uncaring. One participant had been required to attend a group counseling session, which she had found unhelpful. “I think my problems are big, big, big. Then the others [in the group] start to talk about their things, and there everyone in the world is crying and crying and crying. So I don't find relief (improvement), to be able to release my problems . . . to come out feeling better.”

Among EMs, attitudes toward psychotherapy were varied. Several believed that counseling would be ineffective for a depression that had its origin external events. The man who had been paralyzed for 26 years noted: “I have gone and it doesn't work. A long time ago now. I went just 2 times. Over at the hospital. No, no . . . I didn't find sense in this.”

One participant felt that people should be able to handle their own problems: “My mother had 5 children and she didn't need any of that to help raise us. We were poor, but we were educated well. Simply with her example. I don't want to try it. To this day I don't think I need it.”

A minority view was that talking about problems could be counterproductive: “I have never been to [a therapist], so I can't tell you if it helps. When I talk about my problems I think about them and I feel worse. So I don't know if it really is better to talk about them because you remember all your problems. Sometimes I feel better when I am doing other things and not talking about it to anyone.”

The 2 groups differed in their current experiences with pharmacological treatment. Seven of 9 IMs, and only 2 of 8 EMs were currently taking medication. Satisfaction was low in both groups. Among IMs, 2 themes were discerned. The first was the theme of “unmet expectations.” Three participants had believed that the medications would stop them from feeling depressed. They were disappointed when they continued to have symptoms: “I mean I'm on medication, that's what I thought it would get a lot better. And even though I'm on medication I still tend to feel this way, so I don't understand. And I have an appointment coming up with my doctor so I was going to mention that to him. I don't understand, I'm on high dosages of all this stuff.”

The second theme, identified among 4 participants, was the idea that medicine could not cure the illness, but was necessary for survival. A participant who was taking several psychotropic medications noted: “And how do you think the medicine helps you? That I don't know. Because

the doctor is the one that gives them to me, that's what she gives me. They do help me. I do notice the change in me myself. There was a period where I was very depressed, and I wanted to kill myself many times. Now I am calmer.”

For the 2 EMs taking medications, the experience had a different quality. Neither participant was experiencing benefit from the medication, but neither had felt particularly optimistic about it in the first place. One patient mentioned side effects: “How do you feel taking the medication? I don't like taking it much. Because it makes me too sedated. It makes me relaxed—too much . . . Do you think it is helping you? Sort of. I would say that the best thing for me would be to get a job. When I get a job a lot of things are going to go away.”

Lay consultation refers to the reliance on informal contacts in the person's social network as a way of treating or managing illness. We found that the 2 groups reported different patterns of lay consultation. Among EMs, it was a very significant part of help seeking: “To my mother I have nothing hidden. Because, why? She is the one that had me, why can't she know everything about me? Even though she is 90 years old, she can know everything that happens to me. After God, the child only feels true comfort from their mother.”

Several participants in the EM group reported relying on church leaders or fellow churchgoers as sources of lay referral. “After Sunday that I go to church and Monday that I go to pray meeting, I think and I feel much better . . . When we are in our prayer group, we talk about it, like we are doing here [in the interview]. Like, we pray for our needs, for our own problems, all kind of problems. And we come out of there with new hope, new faith, with a better understanding. “So when you talk to your pastor, why do you think that helps? It helps because . . . it calms my anxiety or my pressure and it gives me hope. And it gives me a sense of security or that things are going to be better when I get up talking to him.”

Help offered by the lay network was similar to the help patients received from counselors and physicians. Advice, encouragement, distraction, and other forms of nontechnical verbal help were frequently mentioned: “She gives me advice, reminds me of all the things I have accomplished by myself. That I will be able to find another job, because I have a lot of experience. Tells me I don't need a man. That I have accomplished all this on my own.” “What type of help do you think friends and family can give in general? They spend time with you, go out. Distract you, make you laugh. They remind you of all the good things about you. They encourage you to go on.”

EMs reported these interactions as effective. A woman grieving after the murder of her child described the healing effects of companionship: “Because sometimes when I am walking with someone a thought enters my mind and I burst into tears. But my companion that I am walking with will give me her hand or tells me that ”no, things are not like that, you must hope in God“ and she starts to talk to me and I start to calm down.”

Practical help from friends and family were also an important key to managing depressive symptoms: “I tell them I am depressed and they let me rest. They let me sleep, they try to make sure I don't have a lot of things [to do] . . . they clean the dishes, they clean the house. My husband helps me a lot.”

Interestingly, the IM group resorted much less than the EM group to lay help seeking, perhaps as a result of their greater social and functional impairment. When they did confer with friends or family, they often found it unhelpful. “I went to 2 of my sisters, and all they did was make it worse. They oh it's your fault, you like being like that—you know, they called me crazy, you know. So I'd rather not be with them because what kind of help is that, that's not supporting me. That's just making me feel worse.” “Yeah, like when I cry and go through my little episodes

I will call her and she's you know, it's gonna be okay. And it kinda comforts me at the moment, but then when I hang up the phone it's like still there, you know.”

EMs reported efforts at self-care. “I keep myself busy. I try to do things in the afternoon . . . I have started exercising also. I distract myself, when I am busy I don't think about my problems.” IMs, by contrast, reported few such efforts.

We questioned participants in detail about their view of the timeline and chronicity of their illness. The groups differed on this dimension. Most IM participants evinced little optimism that they would recover from their depressive illness. Not one anticipated a speedy recovery. “How long do you think this is going to last? Honestly, I don't have any idea. How I feel this very moment, I don't know if I have or don't have a possibility of recovering.”

Patients believed that changes within themselves would bring improvement, but they did not know how to bring about these changes: “One thing that would help is if I could get myself to do the house things and clean my house and organize it and I think that would make me happy. But getting to do it is the other thing.” “And I say this is going to be all my life that I'll be like this.”

A common theme in this group was the idea that they would begin to improve only when they found the right professional treatment, though none believed she had yet identified this treatment.

Among EMs, different patterns were observed. One participant, depressed because of a recent job loss, anticipated that his depression would resolve as soon as he found a job, “In a very short time, I will be normal,” he said. Another participant anticipated that she would recover the following spring, when her husband was released from jail. In 2 cases, participants recovering from major losses (death of a child, breakup with a partner), saw a ‘slow improving course’ to their depression. They believed their symptoms would diminish steadily over time. The 2 participants experiencing severe chronic pain and disability expressed the least optimism for a quick recovery. Both anticipated that they would get better if they could get medical treatment that they needed. Victor, the paraplegic, had plans to consult a gastroenterologist whom he hoped might be able to restore his bladder and bowel control.

DISCUSSION

This study found that explanatory models of depression in a small group of Latino primary care patients screening positive for depression could be classified into 2 distinct subtypes. One subtype is “internal.” Explanatory models in this group reflect the idea of the injured self, damaged by early traumas that continue to operate in the psychic sphere. Technical treatments, operating on the injured self, are viewed as indispensable. By contrast, explanatory models in the EM group point to specific events as a cause of depression. The illness is conceptualized as a “normal” reaction. Technical treatments, especially pharmacological approaches, are viewed with caution. Professional counseling, physician consultation, and lay referral are regarded as helpful if they can provide key therapeutic benefits such as comfort, catharsis, advice, and hope.

The identification of subtypes depends on the use of a particular qualitative analytic approach that results in the development of a hypothetical taxonomy. Many studies, both qualitative and quantitative, of patient's beliefs about depression, have been reported in the literature. Many of these studies are descriptive, simply reporting “themes” in patients' accounts of their depression. Although such descriptive data maybe useful, a more sophisticated qualitative analytic approach takes the analysis a step further, examining the similarities and differences among constructs identified in the first step, and developing a theoretical typology that links

particular constructs with outcomes of interest (Karasz et al., 2003; Strauss and Corbin, 1998).

The purpose of this study was to demonstrate the potential usefulness of this analytic approach. After establishing the 2 core categories, we examined their relationship to various objective parameters, including the course of illness, the level and types of symptoms, the severity of functional impairment, and experiences of treatment. Our provisional findings indicate that patients' "beliefs" about depression may provide a key to understanding core distinctions among depression subtypes. Evidence for the internal validity of the IM/EM subtypes described in the article derives from several sources. First, and most importantly, the subtypes are based primarily on patients' views and experiences. Second, the subtypes resonate with historical evidence, strongly resembling the endogenous-reactive distinction that has persisted in psychiatric research for decades. Despite the inconclusiveness of this research and the current dominance of a unitary model of depression (Parker, 2000), both researchers and clinicians continue to be convinced that not all depression is the same.

Thus the findings, while far from conclusive, suggest the potential for explanatory model research to identify a classification system with both heuristic and pragmatic value. Next steps could involve the use of a more extensive and systematic cultural epidemiology approach (Weiss, 2001). It would be important to collect data on conceptual models of depression in community and mental health treatment settings, and across various ethnic groups. Expanding data collection to new groups or settings would have the effect of expanding and refining the preliminary taxonomy described in this article. For example, it is possible that a third depression subtype might be established in white middle class patients. At least 1 preliminary study suggests that depression in this group is characterized by biological attributions, preference for technical, professional treatments, and a focus on nonproductivity as a core symptom, as well as high rates of response to antidepressants and high rates of remission (Karasz, in press).

Early studies in transcultural psychiatry, which examined the varieties of mental disorder across cultures, viewed in mental disorder itself as epiphenomenal. A goal of many of these studies was to discover the underlying core of mental disorder. Culture, the source of variation, was viewed as pathoplastic—shaping the appearance of disorder but leaving the underlying biology intact (Kleinman et al., 1978). The cultural epidemiology approach disavows that perspective, arguing that the conceptualization and experience of psychiatric illness constitutes its essence.

Culture-bound or culture-specific disorders are often organized around concepts of cause. *Attaques de nervios*, for example, are viewed as a psychological and somatic reaction to severe shock (Guarnaccia et al., 2003). Neurasthenia is a response to a variety of environmental stresses focused on overwork and social conflict. Difficulties in mapping culture-specific illness onto DSM categories arise in part from the descriptive approach of DSM, which emphasizes symptoms rather than attributed causes. The present study suggests that, after all, the patient's concept of cause may provide a useful key to diagnosis.

Ultimately, a taxonomy based on explanatory models would require extensive validation. Once the provisional features of the various subtypes were identified, it would be important to refine and validate the subtypes using systematic, quantitative methods (Weller and Baer, 2002). External validation would depend on evidence of the relationship between subtypes, etiologies, and outcomes. Clinical and medical records might provide evidence for differences in age of onset. Longitudinal studies could examine whether patients' concepts of the future course of their depressive illness were validated. Finally, an important goal would be to establish whether the classification system could accurately guide treatment. It has been estimated that

approximately 80% of treatment response in depressive illness maybe attributed to placebo effects (Moncrieff and Kirsch, 2005). Though little is understood of the nature of these effects, the sufferer's explanatory model of his illness is likely to play a major role in his expectations of treatment benefit.

In short, the study provides an illustration of a potentially promising method for taxonomic development. Moving ahead requires the establishment of a research program premised on the notion that explanatory models are not mere epiphenomena but are key to understanding the naturally occurring forms of mental disorders in western societies.

Acknowledgments

Supported by a grant from the National Institute of Mental Health.

REFERENCES

- Anisman H, Matheson K. Stress, depression and anhedonia: Caveats concerning animal models. *Neurosci Biobehav Rev* 2005;29:525–546. [PubMed: 15925696]
- Brown GW, Moran P. Clinical and psychosocial origins of chronic depressive episodes. I. A community survey. *Br J Psychiatry* 1994;165:447–456. [PubMed: 7804658]
- Casey P, Dowrick C, Wilkinson G. Adjustment disorders: Fault line in the psychiatric glossary. *Br J Psychiatry* 2001;179:479–481. [PubMed: 11731347]
- Casey P, Maracy M, Kelly BD, Lehtinen V, Ayuso-Mateos JL, Dalgard OS, Dowrick C. Can adjustment disorder and depressive episode be distinguished? Results from ODIN. *J Affect Disord* 2006;92:291–297. [PubMed: 16515807]
- Cheng TA. Symptomatology of minor psychiatric morbidity: A cross-cultural comparison. *Psychol Med* 1989;19:697–708. [PubMed: 2798637]
- Diez-Quevedo C, Rangil T, Sanchez-Planell L, Kroenke K, Spitzer RL. Validation and utility of the patient health questionnaire in diagnosing mental disorders in 1003 general hospital Spanish inpatients. *Psychosom Med* 2001;63:679–686. [PubMed: 11485122]
- Dowrick, C. *Beyond Depression: A New Approach to Understanding and Management*. Oxford University Press; Oxford: 2004.
- Givens JL, Datto CJ, Ruckdeschel K, Knott K, Zubritsky C, Oslin DW, Nyshadham S, Vanguri P, Barg FK. Older patients' aversion to antidepressants. A qualitative study. *J Gen Intern Med* 2006;21:146–151. [PubMed: 16336620]
- Guarnaccia PJ, Lewis-Fernandez R, Marano MR. Toward a Puerto Rican popular nosology: Nervios and ataque de nervios. *Cult Med Psychiatry* 2003;27:339–366. [PubMed: 14510098]
- Harkness KL, Monroe SM. Childhood adversity and the endogenous versus nonendogenous distinction in women with major depression. *Am J Psychiatry* 2002;159:387–393. [PubMed: 11870001]
- Jackson, S. *Care of the Psyche: A History of Psychological Healing*. Yale University Press; New Haven: 1999.
- Jackson SW. Acedia the sin and its relationship to sorrow and melancholia in medieval times. *Bull Hist Med* 1981;55:172–181. [PubMed: 7020803]
- Jadhav S. The cultural origins of western depression. *Int J Soc Psychiatry* 1996;42:269–286. [PubMed: 9023609]
- Jorm AF, Christensen H, Medway J, Korten AE, Jacomb PA, Rodgers B. Public belief systems about the helpfulness of interventions for depression: Associations with history of depression and professional help seeking. *Soc Psychiatry Psychiatr Epidemiol* 2000;35:211–219. [PubMed: 10941996]
- Joyce PR, Mulder RT, Luty SE, McKenzie JM, Sullivan PF, Abbott RM, Stevens IF. Melancholia: Definitions, risk factors, personality, neuroendocrine markers and differential antidepressant response. *Aust N Z J Psychiatry* 2002;36:376–383. [PubMed: 12060187]
- Karasz A. Cultural differences in conceptual models of depression. *Soc Sci Med* 2005;60:1625–1635. [PubMed: 15652693]

- Karasz A. Health seeking for medically unexplained symptoms in two cultural groups: A comparative study. *Transcult Psychiatry*. In press
- Karasz A, McKee MD, Roybal K. Women's experiences of abnormal cervical cytology: Illness representations, care processes and outcomes. *Ann Fam Med* 2003;1:196–202. [PubMed: 15055408]
- Karasz A, Watkins L. Conceptual models of treatment in depressed Hispanic patients. *Ann Fam Med* 2006;4:527–533. [PubMed: 17148631]
- Katschnig, H.; Pakesch, G.; Egger-Zeidner, E. Life events and depressive subtypes: A review of present diagnostic criteria and recent research results.. In: Katschnig, H., editor. *Life Events and Psychiatric Disorders: Controversial Issues*. Cambridge University Press; Cambridge: 1986.
- Kleinman A, Eisenberg L, Good B. Culture, illness and care: Clinical lessons from anthropologic and cross-cultural research. *Ann Intern Med* 1978;88:251–258. [PubMed: 626456]
- Kleinman, A.; Good, B. *Culture and depression: Studies in the anthropology and cross-cultural psychiatry of affect and disorder*. University of California Press; Berkeley: 1985.
- Lauber C, Nordt C, Falcato L, Rossler W. Lay recommendations on how to treat mental disorders. *Soc Psychiatry Psychiatr Epidemiol* 2001;36:553–556. [PubMed: 11824850]
- Lauber C, Nordt C, Falcato L, Rossler W. Do people recognize mental illness? Factors influencing mental health literacy. *Eur Arch Psychiatry Clin Neurosci* 2003;253:248–251. [PubMed: 14504994]
- Lawrence V, Murray J, Banerjee S, Turner S, Sangha K, Byng R, Bhugra D, Huxley P, Tylee A, Macdonald A. Concepts and causation of depression: A cross-cultural study of the beliefs of older adults. *Gerontologist* 2006;46:23–32. [PubMed: 16452281]
- Leventhal AM, Rehm LP. The empirical status of melancholia: Implications for psychology. *Clin Psychol Rev* 2005;25:25–44. [PubMed: 15596079]
- Leventhal H, Diefenbach M, Leventhal EA. Illness cognition: Using common sense to understand treatment adherence and affect cognition interactions. *Cogn Ther Res* 1992;16:143–163.
- Leventhal, H.; Nerenz, D.; Steele, D. Illness representations and coping with health threats.. In: Baum, A.; Taylor, S.; Singer, J., editors. *Handbook of Psychology and Health*. Lawrence Erlbaum; Hillsdale (NJ): 1984. p. 219-250.
- Levitan RD, Parikh SV. Childhood trauma and depression. *Am J Psychiatry* 2003;160:1188–1189. [PubMed: 12777288]
- Malhi GS, Parker GB, Greenwood J. Structural and functional models of depression: From sub-types to substrates. *Acta Psychiatr Scand* 2005;111:94–105. [PubMed: 15667428]
- Manson SM. Culture and major depression. Current challenges in the diagnosis of mood disorders [review] [95 refs.]. *Psychiatr Clin North Am* 1995;18:487–501. [PubMed: 8545263]
- Moncrieff J, Kirsch I. Efficacy of antidepressants in adults. *BMJ* 2005;331:155–157. [PubMed: 16020858]
- Parker G. Classifying depression: Should paradigms lost be regained? *Am J Psychiatry* 2000;157:1195–1203. [PubMed: 10910777]
- Parker G, Brotchie H. Psychomotor change as a feature of depressive disorders: An historical overview. *Aust N Z J Psychiatry* 1992;26:146–155. [PubMed: 1642604]
- Parker G, Gladstone G, Wilhelm K, Mitchell P, Hadzi-Pavlovic D, Austin MP. Dysfunctional parenting: Over-representation in non-melancholic depression and capacity of such specificity to refine sub-typing depression measures. *Psychiatry Res* 1997;73:57–71. [PubMed: 9463839]
- Parker G, Hadzi-Pavlovic D, Boyce P, Wilhelm K, Brodaty H, Mitchell P, Hickie I, Eysers K. Classifying depression by mental state signs. *Br J Psychiatry* 1990;157:55–65. [PubMed: 2397363]
- Patel V, Pereira J, Mann AH. Somatic and psychological models of common mental disorder in primary care in India. *Psychol Med* 1998;28:135–143. [PubMed: 9483689]
- Rodrigues M, Patel V, Jaswal S, de Souza N. Listening to mothers: Qualitative studies on motherhood and depression from Goa, India. *Soc Sci Med* 2003;57:1797–1806. [PubMed: 14499506]
- Schaffner, K. Clinical and etiological diagnoses: Do causes count?. In: Sadler, J., editor. *Descriptions and Prescriptions: Values, Mental Disorders and the DSMs*. Johns Hopkins; Baltimore: 2002.
- Sobin C, Mayer L, Endicott J. The motor agitation and retardation scale: A scale for the assessment of motor abnormalities in depressed patients. *J Neuropsychiatry Clin Neurosci* 1998;10:85–92. [PubMed: 9547471]

- Sobin C, Sackeim HA. Psychomotor symptoms of depression. *Am J Psychiatry* 1997;154:4–17. [PubMed: 8988952]
- Patient Health Questionnaire Primary Care Study Group Spitzer R, Kroenke K, Williams J. Validation and utility of a self-report version of prime-MD The PHQ Primary Care Study. *JAMA* 1999;282:1737–1744. [PubMed: 10568646]
- Strauss, A.; Corbin, J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Vol. 2nd ed. Sage Publications; London: 1998.
- Switzer JF, Wittink MN, Karsch BB, Barg FK. “Pull yourself up by your bootstraps”: A response to depression in older adults. *Qual Health Res* 2006;16:1207–1216. [PubMed: 17038753]
- Weiss MG. Cultural epidemiology: An introduction and overview. *Anthropol Med* 2001;8:5–29.
- Weiss MG, Raguram R, Channabasavanna SM. Cultural dimensions of psychiatric diagnosis. A comparison of DSM-III-R and illness explanatory models in south India. *Br J Psychiatry* 1995;166:353–359. [PubMed: 7788127] [erratum appears in *Br J Psychiatry*. 1995; 167:119].
- Weller SC, Baer R. Measuring within- and between-group agreement: Identifying the proportion of shared and unique beliefs across samples. *Field Methods* 2002;14:6–25.
- Willner P, Muscat R, Papp M. Chronic mild stress-induced anhedonia: A realistic animal model of depression. *Neurosci Biobehav Rev* 1992;16:525–534. [PubMed: 1480349]

TABLE 1The Sample ($n = 17$)

	Range	Mean
Age (yr)	18–73	44
No. years of education	0–18	10.1
Income	0–\$10K–\$50–\$100K	\$0–10K
PHQ-9 Score	6–25	15
Female	77%	—
Works outside the home	37%	—
Language of interview		—
Spanish	51%	—
English	49%	—

TABLE 2

Treatment-Seeking Experiences

	Internal and Mixed (N = 9)	External (N = 8)
Spoke with physician about depression	8	5
Currently in counseling/psychotherapy	7	1
Taking antidepressants	7/9	3