LESSONS LEARNED AT THE INTERFACE OF MEDICINE AND PSYCHIATRY

The Psychiatric Consultation Service at Massachusetts General Hospital sees medical and surgical inpatients with comorbid psychiatric symptoms and conditions. Such consultations require the integration of medical and psychiatric knowledge. During their twice-weekly rounds, Dr Stern and other members of the Psychiatric Consultation Service discuss the diagnosis and management of conditions confronted. These discussions have given rise to rounds reports that will prove useful for clinicians practicing at the interface of medicine and psychiatry.

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Denial of Cardiac Illness: Consequences and Management

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Have you ever wondered why a patient fails to seek medical attention for chest pain that may herald a myocardial infarction (MI)? Have you ever been puzzled by which interventions will effectively overcome a patient's denial? If you have, then this case presentation of a man who denied the significance of acute and intense chest pain, along with a discussion of the meaning of denial to a patient and a description of the methods by which denial can be assessed and managed should prove useful.

CASE VIGNETTE

Mr A, a 50-year-old previously healthy man, suddenly developed substernal chest pain that radiated to his jaw and left arm while driving home from a ski trip. When profuse diaphoresis and dizziness developed, Mr A's wife took control of the vehicle and drove to the emergency department (ED). On arrival at the ED, Mr A's initial electrocardiogram revealed ST elevations across his precordium consistent with a large anterior wall MI. However, Mr A maintained that he was fit and could not be having a heart attack. He refused to remove his street clothing and don a hospital gown in preparation for a trip to the cardiac catheterization suite for angioplasty.

WHAT IS DENIAL AND WHAT FUNCTIONS DOES IT SERVE?

Clinicians are well aware that patients deny a variety of clinical realities; however, the reasons why they use denial as a psychological defense are less clear.[1–3] According to *Webster's Ninth New Collegiate Dictionary*,[4] the word *denial* originated in 1528. Today, *denial* is defined as "a refusal to satisfy a request or desire; a refusal to admit the truth or reality (as of a statement or charge); an assertion that an allegation is false; a refusal to acknowledge a person or thing; a disavowal, eg, the opposing by the defendant of an allegation of the opposite part in a lawsuit; and a negation in logic."[5(p339)] The above definitions imply that denial may be deliberate and defiant (eg, refusal to satisfy a request or desire, contradict, negate, refuse, withhold, doubt, reject, oppose, protest) or an unconscious process.[5]

HOW CAN DENIAL JEOPARDIZE MEDICAL CARE?

Denial that delays receipt of care can jeopardize health. For example, patients with acute coronary syndrome and high denial scores (measured by questionnaires) have had longer (> 130 minutes) prehospital delays (ie, the time from the onset of chest pain to arrival at an ED).[6] In addition, patients who manifest denial surrounding their first MI delayed their receipt of care and were less willing to participate in a post-MI cardiac rehabilitation program.[7] Moreover, denial may increase the health risks of persons prone to MI and may interfere with effective cardiac rehabilitation. When deniers delay or refuse to seek medical care, they lose out on the benefits (including lower mortality rates) afforded by recent advances in treatment.[8]

CLINICAL POINTS

- Denial of cardiac illness is a multidimensional process that can jeopardize health (eg, by refusing medical care and losing out on benefits afforded by recent advances in treatment).
- Rapid evaluation of the most pressing problems, explicit psychodynamic formulation of the dominant conflicts, creation of a practical program of management, and active participation by a psychiatrist can ensure that the patient receives the best possible clinical care.
- Failure to understand the underpinnings of denial and the presence of a neurologic disorder (eg, a right hemispheric lesion or a subcortical thalamic lesion) associated with denial may interfere with psychological and cognitive strategies that can limit denial.

Unaddressed and unmodulated denial can be problematic for first-time sufferers of cardiac disease as well as for those with chronic conditions. Although optimal benefit is derived from care received during the first hour after symptom onset, many individuals receive care significantly later in the course of illness.[8] Subsequent denial can prove equally, or more, dangerous. For example, a patient who has survived prior bouts of acute coronary syndrome may believe that he/she is immune to adverse effects of cardiac disease and forego health-promoting care. In contrast, patients who are more capable of identifying inner emotions and/or bodily sensations seek treatment significantly earlier than those with low emotional or somatic awareness; such perceptions play an important role in treatment seeking and in treatment outcome. Attention to denial as a health care strategy may allow for alternative approaches to patient care and for education of family members that may facilitate more rapid responses after symptom onset.[9]

HOW IS DENIAL CONCEPTUALIZED?

Whether a person is in denial, why a person uses denial, and to what degree a person is denying are all important questions to answer for provision of clinical care. Descriptive measures of denial often classify the scope and severity of denial; such measurements may be useful at the bedside. In *Psychodynamic Studies on Aging: Creativity, Reminiscing and Dying*, Weisman and Hackett[10] gave one of the first descriptions of a type of denial called *ontological denial*. In a fashion consistent with their interactional thesis of denial, the authors noted that ontological denial is an extreme and potentially damaging form "which invokes egregious self-deception … because the denial of a common reality goes beyond the repudiation of the reality and becomes a more drastic act of repudiating another person."[10(pp94–95)]

More than 40 years ago, Hackett and colleagues[11] from Massachusetts General Hospital described denial in the cardiac care unit. They used 3 terms (*major denial*, *partial denial*, and *minimal denial*) to quantify denial. Major denial was applied to those who stated emphatically that they felt no fear at any time during their hospital stay. Partial denial was used to describe those who initially denied feeling frightened but who eventually admitted to being apprehensive. Lastly, minimal denial was applied to those who complained of anxiety or who readily admitted to being frightened ("… what little attempt they made to deny was transparent and ineffective.").[11(p1368)]

Beisser[3] argued that denial might reflect an affirmation of health as opposed to denial of illness. Another qualitative measure of denial was offered by McKendry and Logan[12] in 1982. They proposed that denial existed on a spectrum of independent denial, healthy denial, and dependent denial. Independent denial was characterized by overt denial of illness with corresponding "authoritarian" or "aggressive" behaviors, specifically noncompliance. The dependent denier is more passive and uses denial to preserve the sick role.[12] The healthier denier may initially deny his/her illness but during recovery acknowledge emotions and thoughts linked to the illness (involving flexibility not apparent in the other 2 kinds of deniers).

Breznitz[13] described 7 types of denial (denial of information, denial of threatening information, denial of personal relevance, denial of urgency, denial of vulnerability/responsibility, denial of affect, and denial of affect relevance) related to the quality of denial that surrounds illness. This strategy may be useful in clinical work when probing the intricacies of a patient's denial.

HOW CAN DENIAL BE MEASURED?

Various research instruments (initially developed for use in the general population) have been adopted to quantify denial in the medically ill. Unfortunately, tools created for one medically ill population may not be transportable to others.

Early research measures of denial in the medically ill were created by Hackett and Cassem,[14] by Watson and colleagues,[15] and by Levine and associates.[16] The Hackett-Cassem Denial Scale was derived from open-ended

interviews in medically ill inpatients (primarily cardiac patients).[14] The initial scale was a 31-item questionnaire about behaviors related to the present illness and to past behaviors. The scale has been criticized for having items not limited to the present illness and for not providing reports of internal consistency. Nonetheless, the Hackett-Cassem Denial Scale has been the research measure most often used to study denial in the medically ill.

Watson and colleagues[15] studied denial in patients with breast cancer and asked 4 basic questions to rate denial ("Is it clear to you why you had your operation and what was wrong with you?"; "Have you asked any of the hospital staff for information about your operation and treatment and was the information clear?"; "Have you talked about your operation with your husband/partner/family/friends?" and if so, "To what extent have you discussed it?"; and "How do you see the future?"). Answers to these questions were audiotaped, and ratings of denial were made independently.[15] Other simple and specific questions have been used to measure denial, such as rating the severity of one's illness[17] and quantifying the length of delay in seeking medical care.[18]

The Levine Denial of Illness Scale[16] is a semistructured interview with 24 categories, each rated on a 7-point scale. Ten of these categories were patterned after the Hackett-Cassem Denial Scale, with a focus placed on the patients' responses to their present illnesses. Unfortunately, this scale has been predominantly used by Levine and associates.

Since these early efforts, several scales to measure denial have been developed and used in the medically ill. McGrath and O'Malley[19] described the use of the Minnesota Multiphasic Personality Inventory (MMPI) in patients with psychiatric and medical problems (eg, chronic pain) and determined that elevations on the K scale, the hypochondriasis scale, and the hysteria scale are linked with denial of psychological features in psychophysiologic disorders. To date, no one has compared MMPI results on these scales with Hackett-Cassem Denial Scale scores to see if a correlation exists.

Yanagida et al[20] and Streltzer et al[21] used the Marlowe-Crowne Social Desirability Scale as a measure of denial in renal patients. The scale comprises 18 socially acceptable, although unlikely, statements and 15 socially undesirable, but likely, statements. The scale has been used to assess denial as "the tendency to deny undesirable characteristics."[20(p272)] This scale was also used by Shaw and coworkers[22] in patients undergoing cardiac rehabilitation.

In a study by Thomas and associates of patients in a cardiac care unit,[23] interviews were analyzed by the Gottschalk-Glesser Content Analysis Scale to assess for denial. This scale was also used in another study of breast cancer patients.[24] Suls and Fletcher[25] conducted a meta-analysis of studies that measured cognitive avoidance strategies (and denial) and identified correlates of denial (eg, somatic concerns, a lack of vigilance, low private self-consciousness, high defensiveness, distractibility, hardiness). Finally, a measure of self-deception on the Eysenck Personality Inventory, a 57-item, true-false questionnaire, has been used to define denial in medical patients.[26]

ARE THERE MEDICAL/NEUROLOGIC ETIOLOGIES FOR DENIAL?

A neurologic disorder may lead to denial of illness or anosognosia, as described by Babinski.[27] A literature review conducted by Shalev[28] determined that the most common neuropathological cause of anosognosia was a right hemispheric lesion, especially in the inferior parietal lobe near the angular and supramarginal gyri. Other sites of injury that result in denial of illness are subcortical lesions in the thalamus and the white matter and thalamocortical tracts. Shalev[28] also postulated that denial arises from an interruption in the corticolimbic-reticular formation loop that is thought to be integral to attention and arousal. Anton's syndrome, the denial of blindness, involves bilateral occipital lesions and blindness.[29] A literature review concluded that denial of illness, potentially of delusional proportions, is associated with frontal lobe dysfunction.[29]

WHAT ELSE MIGHT LOOK LIKE DENIAL?

Misinterpretation may be erroneously conceived as denial, especially in the physician-patient relationship.[1,2] Noncompliance, often a behavioral manifestation of denial, can occur in situations wherein a patient provides (without hesitation) the complex details of his/her illness but nonetheless chooses to refuse treatment. Such a noncomplying patient who does not disavow a diagnosis may not be denying.

Other defenses (eg, repression [a process by which an unwanted idea or feeling is held outside of consciousness], projection [unacceptable impulses and feelings are perceived and reacted to as though outside the self], and isolation [separation of a cognitive process from its accompanying affect])[30] are beyond the scope of this discussion.

HOW CAN DENIAL BE MANAGED?

Hackett and Weisman's classic articles from 1960[31,32] about the psychiatric management of operative syndromes remain relevant today with regard to the management of denial in medical illness. The authors described therapeutic strategies and management tactics based on psychodynamic principles. The 4 major parts of their evaluation include rapid evaluation

of the most pressing psychiatric problems, explicit psychodynamic formulation of the dominant conflicts, creation of a practical program of management, and active participation by the psychiatrist.[31]

The first aspect of management is directed at ensuring that the patient receives the best possible clinical care and includes avoiding the risk of self-harm. In the risk-benefit analysis of a patient's management, if a person's denial is so great that it puts him or her at high risk for serious complications, then seemingly drastic measures may be needed. For example, if a patient with an acute MI suddenly bolts from the intensive care unit screaming, "I didn't have a heart attack, I didn't," restraints and sedatives may need to be applied to prevent a fatal arrhythmia or infarct extension and an assessment of decisional capacity should be conducted.[33]

Since treatment is predicated on the diagnosis, the management of denial is also based on a formulation of what may contribute to denial.[34] Treatment may involve use of dynamic principles and cognitive elements. Following a formulation, communication should be as unambiguous as possible.

Interventions should be applied to a patient (eg, one who attempts to do push-ups in the cardiac care unit to demonstrate to others that he/she is physically fit and has not suffered a cardiac event) whose denial needs management. These tactics may involve use of noninterpretive interventions, manipulation of the doctor-patient relationship (based on interchange, not interrogation and on discussion, not unilateral narrative), restoration of equilibrium, reality-testing, and clarification.

Brief psychotherapy and the use of replacement fantasies[35] have also been helpful in patients with denial.[34,36] Denial in medical illness can seriously affect a person's treatment, prognosis, and quality of life. Timely identification and assessment of denial (its qualities and multidimensional manifestations) can improve care. In the short-term, denial may minimize anxiety and catecholamine secretion but down the road may lead to avoidance of exercise and health-promoting behaviors.

CASE DISCUSSION

Had it not been for our patient's wife, Mr A may never have acknowledged the possibility that he was having an acute cardiac event. This denial could well have led to an out-of-hospital cardiac death (from arrhythmia or from pump failure). Her rapid action brought Mr A to the hospital where life-saving interventions could be applied. Despite the profound extent of his denial (as manifest by his refusal to wear hospital attire), he permitted angiography and angioplasty (although conducted while wearing his street clothing!). After 3 days in the cardiac care unit, Mr A's denial lessened and his anxiety grew; he could speak about his cardiac symptomatology and his apprehension about the possibility of becoming disabled from cardiac disease. Information about acute coronary syndrome, cardiac rehabilitation, and health-promoting activities in conjunction with brief psychotherapy increased his willingness to improve his health and long-term prognosis.

CONCLUSION

Denial of medical illness is a multidimensional process that has clinical ramifications. Understanding the meaning of denial to a patient can guide the clinician toward provision of information as well as clarification, reassurance, and reality-testing. These tactics should facilitate patient adherence to interventions that may be associated with the development and conduct of healthier lifestyles and choices.

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