COMPARISON OF ANXIETY ASSESSMENT BETWEEN PATIENTS AND THEIR CLINICIANS IN ACUTE MYOCARDIAL INFARCTION PATIENTS HOSPITALIZED IN THE CARDIAC CRITICAL CARE UNIT

A Thesis

Presented in Partial Fulfillment of the Requirements for

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By

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ABSTRACT

Anxiety is a common outcome after acute myocardial infarction (AMI) and one that can have a negative impact on physical recovery. However, anxiety is not a component of the routine clinical assessment of AMI patients. Furthermore, there is evidence from other patient populations that patients and clinicians differ significantly in their assessments of a patient’s anxiety level.

The objectives of this study were: 1) To determine the extent to which anxiety in AMI patients hospitalized in the cardiac critical care unit is assessed by clinicians; 2) To compare patients’ self-ratings of their anxiety with that of their clinicians’ assessment.

In this prospective, descriptive study of 101 patients, the investigators assessed patient anxiety during the first 48 hours after admission for AMI using the Spielberger State Anxiety Index (SAI). Scores on the SAI were compared to nurses’ and physicians’ assessments of the patients’ anxiety as documented in the medical record.

Only 45 (44.6%) patients had documented anxiety assessments in the medical record. Of these 45 patients, 26 (58%) were described as anxious without an additional modifier to describe the level of anxiety. Eleven (24%) of these 45 patients had documentation of behaviors of anxiety, again without modifiers to indicate level of
anxiety. All patients were divided into four groups based on their self-reported SAI score: 1=no anxiety to 4=high anxiety. Among the patient anxiety quartiles, there were no significant differences in the proportion of patients in whom clinicians recorded an anxiety assessment and those in whom they did not record such an assessment. When patients' self-assessments were compared to their clinicians' assessments, there was no association between the two ($\lambda = .03; p > .05$).

Anxiety was not routinely assessed in these patients despite the fact that close to half reported moderate or extreme anxiety when asked. When anxiety was assessed by a nurse or a physician, patients' self-rating of anxiety poorly matched that of the professional. The lack of attention to the appropriate assessment of anxiety suggests that a simple, easy to use instrument that discriminates levels of anxiety is needed.
Dedicated to my loving husband and parents
ACKNOWLEDGMENTS

I would like to express sincere appreciation to my advisor, Dr. Debra Moser. Dr. Moser has provided me with consistent encouragement, guidance, and support throughout my nursing education. She has also given me a wealth of opportunities in presenting at regional and national conferences. I could never have asked for a better mentor than the one I found in Dr. Moser.

I also appreciate the hard work of Dr. Susan Frazier who was on my committee. I wish to thank Susan Frazier for her statistical analysis expertise as well as creative insights for the project.

I want to acknowledge my family who have had tremendous faith in me. They have given me unending support and encouragement throughout my nursing education: my husband, Aaron O'Brien; my parents, Ralph and Emma Baisden; and my brother, Ralph E. Baisden.
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Major Field: Nursing
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CHAPTER 1
INTRODUCTION

Some anxiety is predictable following hospitalization for acute myocardial infarction (AMI) (Malan, 1992; Moser & Dracup, 1996; Webb & Riggin, 1994). Although anxiety is a natural response to the threats associated with the event, up to 26% of patients experience intense anxiety after AMI (Crowe, Runions, Ebbesen, Oldridge, & Streiner, 1996; Moser & Dracup, 1996). Intense anxiety and other negative emotional states, such as depression, can have detrimental physiologic effects secondary to activation of the sympathetic nervous system (Kamarack & Jennings, 1991; Lown, DeSilva & Lenson, 1978; Webb & Riggin, 1994). These physiologic effects can have important clinical implications for AMI patients. For example, in one study, patients with higher levels of anxiety in the 48 hours after AMI onset had 4.9 times higher risk for developing in-hospital complications such as recurrent ischemia, reinfarction, and malignant ventricular arrhythmias compared to patients with lower levels of anxiety (Moser & Dracup, 1996). In another study (Frasure-Smith, Lesperance, & Talajic, 1995), anxiety measured during hospitalization for AMI was an independent predictor of subsequent cardiac events (i.e. unstable angina, recurrent AMI, and arrhythmic events) during a 12-month follow-up period.
Symptoms of anxiety include a feeling of apprehension, worry, uneasiness, or dread, the source of which is often nonspecific (Thomas, 1997). Given the significant clinical influence of anxiety, it is clear that accurate assessment and appropriate treatment of anxiety are vital. Despite the importance of anxiety for AMI patients, nurses and other health care professionals rarely perform and document anxiety assessments. Moreover, there is evidence that when clinicians do assess patients' anxiety, their assessment often differs from patients' assessment of their own anxiety (Faller, Lang, & Shilling, 1995; Holmes, & Ebum, 1989, Jennings, & Muhlenkamp, 1981).

Due to the importance of appropriate assessment of anxiety in critically ill patients, we conducted a study to examine anxiety assessment practices in clinicians caring for AMI patients. The purposes of this study were to: 1) determine the extent to which anxiety in AMI patients hospitalized in the cardiac critical care unit is assessed by clinicians, and 2) compare patients' self rating of their anxiety with that of their clinicians' assessment.
CHAPTER 2
REVIEW OF LITERATURE

Patients admitted to a coronary care unit (CCU) with a confirmed or suspected AMI are confronted with a life-threatening experience. They are preoccupied with death, fearful of the unknown, and either experiencing pain or fearful of experiencing pain (Thompson, Webster & Cordle, 1987; Ziemann & Dracup, 1990). It is little wonder then, that AMI patients commonly experience anxiety and often it is intense. A study by Cassem and Hackett, (1971) identified anxiety as the most frequent cause for psychiatric counseling among CCU patients. Cassem and associates found patients were preoccupied with the prospect of sudden death or symptoms they interpreted to be indicative of impending death (e.g. chest pain, cardiac complications, and shortness of breath).

Despite the pervasive nature of anxiety and its importance after AMI, anxiety assessment is not an important part of routine AMI care. Furthermore, there is a large gap in the literature related to assessing AMI patients’ anxiety level in the CCU setting.

Although there have been no studies in which AMI patients’ self-ratings of their own anxiety were compared with that of their clinicians’, evidence from studies in cancer patients suggests that there are marked discrepancies in these ratings. Newell, Sanson-Fisher, Girgis, and Benaventura, (1998) used the Hospital Anxiety and Depression Scale (HADS), to determine patients’ anxiety and depression levels. The instrument classified
the patient as having low, borderline, or clinical depression and anxiety. Patients’ anxiety scores were compared to the medical oncologists’ assessment of the patients’ anxiety. These oncologists assessed patients as having low, borderline, or clinical levels of anxiety. Only 17% of patients classified as clinically anxious on the HADS were perceived as anxious by their oncologists. In contrast, Lampic, Essen, Peterson, Larsson, & Sjoden, (1996) found that staff, in comparison to patient self-ratings, systematically overestimated patient anxiety and showed limited ability to assess patient anxiety in terms of rank. Patients and staff agreed about individual patients’ level of anxiety only to a limited degree. Patients and staff comparison regarding patient anxiety was better for patients reporting high levels of anxiety than for remaining patients. Staff estimation of patient anxiety was significantly related to their assessment of their own hypothetical anxiety as if they were in the patient’s situation.

Assessing anxiety in AMI patients is very important yet there is little literature available on this topic. In the process of gathering research, the authors realized that in clinical practice anxiety assessment is not routinely performed. Therefore we investigated this area and performed a study to determine if anxiety was assessed in the CCU unit. We also examined whether clinician’s assessment of the patient anxiety was accurate as compared to the patient’s ratings of their own anxiety.
CHAPTER 3
METHODS

Design

In this descriptive study we compared patients' assessment of their own anxiety as measured by the Spielberger State Anxiety Index (SAI) to clinical assessments of patients' anxiety conducted during routine care by nurses and physicians. Because we were interested in whether and how clinicians routinely assess patient anxiety in AMI patients, we did not specifically ask clinicians to assess their patients' anxiety. Rather, we reviewed the medical record of patients we enrolled in this study to determine clinicians' usual practices.

Setting and Patients

This study was conducted in the cardiac critical care unit of a large community hospital in the Midwest. Patients of any age and either gender were eligible for enrollment in this study if they met the following criteria: 1) AMI confirmed by typical ECG changes and elevated cardiac enzymes; 2) pain free and hemodynamically stable at the time of interview, and 3) free of cognitive impairment that would preclude answering a short questionnaire about emotional responses. Patients were excluded if they suffered their AMI during hospitalization for cardiac intervention or another procedure. A total of 101 patients were enrolled. Their sociodemographic and clinical characteristics are presented in Table 3.1.
<table>
<thead>
<tr>
<th>Sociodemographic</th>
<th>n (%)</th>
<th>Mean ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td>60.7 ±12.8</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54 (53.5)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>47 (46.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>6 (5.9)</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>94 (93.1)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>72 (71.3)</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>2 (2)</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>11 (10.9)</td>
<td></td>
</tr>
<tr>
<td>Separated</td>
<td>2 (2)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>14 (13.9)</td>
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</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td>12.6 ± 2.7</td>
</tr>
<tr>
<td><strong>Clinical</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History hypertension</td>
<td>58 (57.4)</td>
<td></td>
</tr>
<tr>
<td>History diabetes</td>
<td>28 (27.7)</td>
<td></td>
</tr>
<tr>
<td>Previous MI</td>
<td>31 (30.7)</td>
<td></td>
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<tr>
<td>Previous angina</td>
<td>41 (40.6)</td>
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<tr>
<td>Current smoker</td>
<td>26 (25.7)</td>
<td></td>
</tr>
<tr>
<td>Previous CABG</td>
<td>11 (10.9)</td>
<td></td>
</tr>
<tr>
<td>Prior PTCA</td>
<td>22 (21.8)</td>
<td></td>
</tr>
<tr>
<td>Prior PTCA with stent</td>
<td>10 (9.9)</td>
<td></td>
</tr>
<tr>
<td>Admission Killip I</td>
<td>72 (71.3)</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>23 (22.8)</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>5 (5)</td>
<td></td>
</tr>
<tr>
<td>Peak CK-MB (ng/mL)</td>
<td></td>
<td>124 ± 164.5</td>
</tr>
<tr>
<td>Peak troponin (ng/mL)</td>
<td></td>
<td>38.4 ± 74.5</td>
</tr>
<tr>
<td>LVEF (%)</td>
<td></td>
<td>45.4 ± 10.9</td>
</tr>
<tr>
<td>Admission pulse</td>
<td></td>
<td>79.7 ± 17.2</td>
</tr>
<tr>
<td>(beats/minute)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1  Sociodemographic and Clinical Characteristics of Patient Sample, (n=101)
CABG = coronary artery bypass graft surgery; LVEF = left ventricular ejection fraction; MI = myocardial infarction; PTCA = percutaneous transluminal coronary angioplasty
Measurement

Patient Self-Rating of Anxiety

The SAI, a 20-item measure of state anxiety, was used to measure patient anxiety within forty-eight hours of admission (Spielberger, Jacobs, Russel, & Crane, 1983). Respondents rate their agreement with each item on a scale of one (not at all) to four (very much so). Half of the items are worded negatively (e.g., I feel nervous) and half are worded positively (e.g., I feel calm). Positively worded items are reverse scored. The instrument is scored by totaling all responses. Scores range from 20 to 80 and higher scores indicate higher levels of anxiety. The SAI has been used extensively in the assessment of anxiety in AMI patients (Buchanan, Cowan, Burr, Waldron, & Kogan, 1993; Crowe et al., 1996; Frasure-Smith et al., 1995; Thompson, Webster, Cordle, & Sutton, 1987; Webb & Riggin, 1994) and other cardiac populations, and has well-established reliability and validity (Spielberger et al., 1983). Reliability of the SAI in this study, assessed by Cronbach's alpha, was 0.94.

Clinician Assessment of Patient Anxiety

Nurses' and physicians' assessments of patient anxiety were evaluated by inspection of the patient's medical record. Using a form developed by the investigators, each patient's medical record was examined to determine how anxiety was assessed and documented during the 12 hours preceding and the 12 hours following the patient's completion of the SAI. In addition, the entire hospitalization record was reviewed to determine whether anxiety was ever assessed or documented at any other time during the hospitalization. The review was done to determine whether anxiety was assessed by
objective ratings such as a rating scale, visual analogue scale, anxiety instrument, or by subjective indicators that included any description of anxiety.

Specific information noted during the medical record evaluation included the objective or subjective assessment of anxiety by nurses, physicians, social workers, chaplains, or mental health consultants. Whether anxiety was assessed, by whom, and the results of the assessment were noted. Documentation of anxiety assessment at any time during hospitalization was also noted. Our review of the medical record captured any description of behaviors of anxiety (e.g., agitation, tearfulness, frequent reassurance needed, shaky). Medical records were reviewed after discharge to ensure that a complete record was available for review. Every component of the medical record was meticulously reviewed to ensure no data were missed.

The medical record review method was pilot tested in 10 patients and refined. Since several research assistants collected data, inter-rater reliability was assessed by having the raters review each chart. The data were compared and disagreements resolved, and final inter-rater reliability was 100%.

Protocol

Institutional Review Board approval was obtained for the conduct of this study and each patient signed a written consent prior to participation in the study. Patients were approached in their hospital rooms and completed the SAI within 48 hours of their admission to the hospital. Patients were offered the choice of completing the SAI themselves after instruction from a research assistant or having a research assistant read the instrument to them and marking their answers to the items. For those patients
selecting the second option, laminated cards were provided with large print that indicated possible responses to the SAI. Most (99%) patients chose to have the items read to them.

The research assistants who collected the data were bachelors and masters prepared registered nurses with extensive training in cardiovascular patient interview techniques, use of all instruments, and medical record review.

**Data Analysis**

Descriptive statistics (frequencies and percentages, and means ± standard deviations) were used to characterize the sample and the level of anxiety as measured by the SAI. Patients' SAI scores were then divided into quartiles to facilitate comparison between patient and clinician assessments of anxiety. The lowest quartile (quartile 1) represented the lowest score on the SAI and indicated no anxiety (scores of 20 to 29), the next quartile (quartile 2) indicated mild anxiety (scores 30 to 37), quartile 3 indicated moderate anxiety (scores 38 to 44), and the highest quartile (quartile 4) indicated extreme anxiety (score 45 to 77). Chi-square was used to determine whether there was a difference in the proportion of patients in each quartile when anxiety was assessed by a clinician. Lambda was used to determine the degree of association between patients' self-report of anxiety and clinicians' assessment of anxiety. Alpha was set a priori at 0.05.
CHAPTER 4

RESULTS

Anxiety Assessment by Clinicians

Subjective assessments of anxiety were recorded by a clinician for 45 (44.6%) of the 101 patients enrolled in the study. Nurses recorded an assessment of anxiety in 39 (38.6%) of the patients while physicians provided an assessment for 6 (5.9%) patients. Of these 45 patients with documentation of anxiety, a second clinician reported an anxiety evaluation in nine patients. In two of these nine cases, the ratings were conflicting, with one nurse documenting that the patient was calm and cooperative while the second nurse rated the patient as anxious or moderately anxious. No clinician other than nurses and physicians recorded an assessment of anxiety.

These subjective assessments of patient anxiety were all qualitative descriptors written in the nursing or physician progress notes (see Table 4.1.).
Table 4.1: Descriptors of Anxiety Used by Clinicians to Describe Patient Anxiety

In order to facilitate data analysis, these qualitative descriptors were collapsed into five categories: 1) no rating of anxiety (n=56); 2) anxious (n=27); 3) mild anxiety (n=5); 4) moderate anxiety (n=1); 5) extreme anxiety (n=1); and 6) various behaviors that are indicators of anxiety (n=11).

Comparison of Patient Self-Report and Clinician Assessment of Anxiety

Patient scores on the SAI ranged from 20 to 77 with a mean of 37.2 ± 12.4 and median of 37. A comparison of patients' self-assessment of their anxiety and clinicians' assessment of the patients' anxiety is presented in Table 4.2.
<table>
<thead>
<tr>
<th>Patients’ self-rating, SAI by quartiles</th>
<th>Clinicians’ Assessment of Anxiety</th>
<th>n (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Quartile</td>
<td>Anxious</td>
<td>5 (16.7%)</td>
</tr>
<tr>
<td>Lowest anxiety, SAI 20-29</td>
<td>Mild anxiety</td>
<td>2 (6.7%)</td>
</tr>
<tr>
<td></td>
<td>Behaviors of anxiety</td>
<td>2 (6.7%)</td>
</tr>
<tr>
<td></td>
<td>No rating</td>
<td>21 (70%)</td>
</tr>
<tr>
<td>Second Quartile</td>
<td>Anxious</td>
<td>5 (21.7%)</td>
</tr>
<tr>
<td>Mild anxiety, SAI 30-37</td>
<td>Mild anxiety</td>
<td>1 (4.3%)</td>
</tr>
<tr>
<td></td>
<td>Behaviors of anxiety</td>
<td>5 (21.7%)</td>
</tr>
<tr>
<td></td>
<td>No rating</td>
<td>12 (52.2%)</td>
</tr>
<tr>
<td>Third Quartile</td>
<td>Anxious</td>
<td>6 (24%)</td>
</tr>
<tr>
<td>Moderate anxiety, SAI 38-44</td>
<td>Mild anxiety</td>
<td>2 (8%)</td>
</tr>
<tr>
<td></td>
<td>Moderate anxiety</td>
<td>1 (4%)</td>
</tr>
<tr>
<td></td>
<td>Behaviors of anxiety</td>
<td>2 (8%)</td>
</tr>
<tr>
<td></td>
<td>Extreme anxiety</td>
<td>1 (4%)</td>
</tr>
<tr>
<td></td>
<td>No rating</td>
<td>13 (52%)</td>
</tr>
<tr>
<td>Highest Quartile</td>
<td>Anxious</td>
<td>10 (45.5%)</td>
</tr>
<tr>
<td>Extreme anxiety, SAI 45-77</td>
<td>Behaviors of anxiety</td>
<td>2 (9.1%)</td>
</tr>
<tr>
<td></td>
<td>No rating</td>
<td>10 (45.5%)</td>
</tr>
</tbody>
</table>

Table 4.2: Patients’ self-rating compared to clinicians’ assessment of anxiety
No rating indicates a clinician did not assess patient anxiety level. Percentages are those within each SAI quartile. SAI = Spielberger State Anxiety Index; n=100 because 1 patient did not complete the SAI.

Of the 45 patients in whom clinicians recorded an assessment of anxiety, 26 (58%) were described as anxious without an additional modifier to describe the level of anxiety. Eleven (24%) of these 45 patients had documentation of behaviors of anxiety, again without modifiers to indicate level of anxiety. Among the patient anxiety quartiles, there were no significant differences in the proportion of patients in whom clinicians recorded an anxiety assessment and those in whom they did not record such an assessment (Table 4.3; p = 0.30).
<table>
<thead>
<tr>
<th>SAI Quartile</th>
<th>No assessment recorded by clinicians</th>
<th>Assessment recorded by clinicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21 (70%)</td>
<td>9 (30%)</td>
</tr>
<tr>
<td>2</td>
<td>12 (52.2%)</td>
<td>11 (47.8%)</td>
</tr>
<tr>
<td>3</td>
<td>13 (52%)</td>
<td>12 (48%)</td>
</tr>
<tr>
<td>4</td>
<td>10 (45.5%)</td>
<td>12 (54.5%)</td>
</tr>
</tbody>
</table>

Table 4.3: Proportion of patients with and without anxiety assessment by self reported anxiety level

SAI = state anxiety index; Quartile 1 = no anxiety, Quartile 2 = mild anxiety, Quartile 3 = moderate anxiety, Quartile 4 = extreme anxiety. Percent represent proportions in each quartile.

When patients' self-assessments were compared to their clinicians' assessments, there was no association between the two (lambda = .03; p> .05).

Quartile 1

Patients in quartile I (n=30) reported little or no anxiety as determined by published norms (Spielberger et al., 1983). The majority of those 30 patients (70%) had no documentation in the medical record of an anxiety assessment by a clinician. However, five of these patients (17%) did have a documented anxiety assessment and were described as "anxious", two (7%) were described as having "mild anxiety", and two (7%) were reported to exhibit behaviors of anxiety including "restless" and "can't cooperate."

Quartile 2

Patients in quartile 2 (n=23) can be considered mildly anxious as determined by published norms (Spielberger et al., 1983). Twelve (52%) patients in this quartile had no anxiety assessment by the clinician. Five (22%) patients were described as "anxious", and one (4%) was described as having "mild anxiety." Five (22%) patients were
described as exhibiting behaviors of anxiety such as "restless", "frequent reassurance needed", "agitation and cigarette craving", and "patient tearful".

Quartile 3

Patients in the third quartile of the SAI (n=25) can be considered moderately anxious as determined by published norms (Spielberger et al., 1983). Thirteen (52%) of these patients had no record of anxiety assessment by clinicians. Six (24%) were described as anxious by their clinicians, two (8%) were described as having mild anxiety, and one (4%) patient in this quartile was described as having moderate anxiety. Two (8%) patients were described as exhibiting behaviors of anxiety: "shaky" and "stressed." One patient (4%) in this quartile was described as having extreme anxiety.

Quartile 4

Patients who rated themselves in the highest quartile of the SAI (n=22) can be described as having extreme anxiety as determined by published norms (Spielberger et al., 1983). Only 12 (54%) documented assessments of anxiety were found in patients in this quartile. Ten (46%) patients were described as "anxious" and two (9%) were reported as exhibiting behaviors of anxiety: "agitated" and "restless."
CHAPTER 5
DISCUSSION

We were interested in the extent to which anxiety was assessed in AMI patients and the association between patients’ ratings and clinicians’ ratings of anxiety. Clinicians at this site used no objective measures to assess anxiety. A subjective assessment was used in less than half of the patients in this study. When anxiety was assessed, there was little association between patients’ and clinicians’ ratings of the emotion. These data suggest that despite the significant impact of anxiety on recovery (Frasure-Smith et al., 1995; Malan, 1992; Moser & Dracup, 1996) anxiety is not yet perceived as an important factor to assess in AMI patients, and that clinicians and patients often fail to agree on the assessment of this subjective factor.

There may be several reasons for the apparent inattention by clinicians to anxiety in hospitalized AMI patients. Although there is little information in the literature about anxiety assessment in critically ill patients, we can speculate about the reasons for this inattention based on research in pain assessment and from clinical experience. First, clinicians may fail to attend to anxiety because of its subjective nature and the difficulty in assessment of a subjective variable. Second, it may be that nursing and medical education lacks the appropriate emphasis on the clinical assessment of emotional responses to illness or injury. One consequence of this is that health care professionals
may fail to realize the significance of untreated anxiety. Third, the emphasis in acute
care and critical care often is more on physiological rather than emotional responses of
acutely and critically ill patients. These conjectures are discussed below.

Anxiety by its nature is subjective and clinicians often, and with good reason,
have difficulty in the assessment of subjective phenomenon. Subjective assessment may
be problematic because clinicians have difficulty interpreting the cues that patients
display and patients have a difficult time explaining their anxiety. Because anxiety is a
subjective phenomenon, clinicians have difficulty with evaluation and consistent
communication of anxiety assessment. Few clinicians use modifying descriptors of
anxiety such as mild, moderate, or severe to indicate the patient's level of anxiety. In the
current study, when clinicians assessed anxiety, they described patients in ways that
documented the phenomenon but failed to discriminate among various levels of severity.
Patients labeled as anxious by clinicians rated themselves along the full continuum of no
anxiety to extreme anxiety, but clinicians did not discriminate among these levels.
Further, the rationale for calling someone "anxious" was rarely explained. These data
suggest that patients who are severely anxious may be missed by a cursory subjective
assessment. Thus, findings from this study suggest that development or adoption of
existing objective measures of anxiety for use in routine assessments of patients
following AMI is an important goal. The potential consequences of failure to adequately
discriminate among levels of anxiety include inappropriate pharmacologic and
nonpharmacologic management.

There are several psychological tools available to measure anxiety including the
linear analogue scale (LAS) or visual analogue scale (VAS), the state trait anxiety
inventory (STAI) (Speilberger et al., 1983), the graphic anxiety scale (GAS) (Lo Biondo Wood & Haver, 1986), and the hospital anxiety and depression scale (HAD) (Zidmond & Snaith, 1983). For instance the VAS is easy to use and takes about thirty seconds. These objective measures of anxiety have been used in a variety of research studies but there is less evidence that clinicians in everyday practice use them. Although further research is needed to identify the most clinically useful tools, patient care could be improved now by adoption of protocols that define use of a specific instrument to objectively measure anxiety.

Clinicians may lack skills in the assessment of anxiety because emotional assessment is not emphasized or taught during their education. Furthermore, the ability to apply and interpret standardized measures of anxiety is not stressed in educational programs. The result of this oversight in education about the assessment of anxiety is that clinicians likely fail to appreciate that there are significant physical consequences from the untreated emotional response of anxiety.

The significance of anxiety for the patient recovering from an AMI is its association with the stress response and the consequent effects on the cardiovascular system. Current models of the effects of mental and physical stress on cardiac pathophysiology (Krantz, Hedges, & Gavvay, 1994; Muller, Ludmer, & Willich, 1987) suggest that behaviorally induced autonomic nervous system activation might predispose to clinical cardiovascular events. The mechanisms proposed for these cardiovascular events include: 1) promotion of atherosclerosis or coronary endothelial dysfunction; 2) promotion of intermediate pathologic and pathophysiologic processes that occur in the presence of atherosclerosis and that increase vulnerability to clinical events (e.g.
myocardial ischemia, coronary thrombosis, plaque rupture); and 3) directly triggering lethal arrhythmias through alterations of neural transmission of the heart (Kamarick & Jennings, 1991; Muller, Tofler, Stone, 1989). In the presence of atherosclerosis, elevations in blood pressure, heart rate, and catecholamine levels due to stress leads to increases in myocardial oxygen demand that can result in acute myocardial ischemia (Krantz, Kop, Santiago, & Gottdiener, 1996). Therefore, it is imperative that health care professionals assess and treat symptoms of anxiety to reduce the likelihood of complications due to the stress response. Moreover, untreated anxiety could incur severe social, financial, and clinical consequences as well as impair recovery. For the general hospital patient, untreated anxiety may prolong hospitalization and complicate or exacerbate physical symptoms (Fulop, Stram, Wita, Lyons, & Hammer, 1987). Appropriate treatment of anxiety and its sequellae has been shown to significantly reduce the average length of stay for these patients (Borus, Olendzki, & Kessler, 1985; Mumford, Schlesinger, & Glass, 1984).

A final reason anxiety may not be adequately assessed relates to failure to appreciate the importance of anxiety. The emphasis for most clinicians, particularly in critical care, is to treat physiological manifestations rather than emotional manifestations of illness. Clinicians frequently cite lack of time as the reason for their failure to attend to emotional phenomena. Although this may be a legitimate concern, clinicians’ priorities can be reordered to include assessment and management of anxiety without interference with the imperative to attend to physiologic phenomena. With training in the use of objective measures of anxiety, the assessment of anxiety can be accomplished quickly and efficiently. It is a fundamental tenet of nursing care that all aspects of the
patent are considered when delivering care. Therefore, anxiety needs to be assessed accurately to give the patient the best holistic care.

Limitations

One limitation of this study is that anxiety may have been assessed but not documented in the medical record. However, it is commonly believed that if something is not documented, it has not been done. Therefore, we believe that our medical record review methods accurately represented clinical practice. Another limitation was that only one site was used to gather the data. This hospital was a large community hospital in the Midwest, which was representative of other acute care facilities in the region. However, confirmation of these findings in other hospital settings is needed.

Future research

In addition to confirmation of these findings in other settings and in larger samples, research is needed to develop simple, standardized methods for clinicians to use to assess anxiety accurately in critically ill patients. A single item measure may be the most realistic approach to take if the resulting tool is to be used by busy clinicians.

Summary

Anxiety is common among patients who are hospitalized for life-threatening illness. High anxiety is associated with activation of the sympathetic nervous system that can adversely alter patient outcomes. The clinicians' goal is to consistently assess anxiety, document and communicate that assessment, and intervene appropriately. However, the current study demonstrates that clinicians do not routinely document an adequate evaluation of AMI patients' anxiety, and when they do assess anxiety it is
cursory and often does not match the patients' perceptions. Thus, clinicians should adopt a standardized, objective approach to the assessment and documentation of anxiety in their AMI patients.
BIBLIOGRAPHY


