Anxiety/Stress and the Effects on Disclosure between Nurses and Patients

Margie N. Johnson, R.N., Ph.D.
Associate Professor
Psychiatric Mental Health Nursing
Texas Woman's University
Dallas Center
Dallas, Texas

INDIVIDUALS who encounter the health care system today are largely dissatisfied with the care they receive. This observation is quite perplexing, particularly since methods designed to deal with consumer dissatisfaction have been an increasing concern of nurses, practitioners, educators and researchers for well over two decades. Literature addressing the unrest among patients as well as discontent among those responsible for providing quality care is abundant. Explanations for this state of affairs are varied, and any attempt to isolate a single reason would be futile. Most appropriately, questions about methods used to cope with the problem of patient dissatisfaction might be raised.

Dissatisfaction related to various stresses perceived by the hospitalized individual is the focus of this investigation. What might nurses do to assist clients/patients in coping with stresses? How might nurses deal with their own stress and dissatisfac-

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tion with their current functions in relation to patient care?

Recently a study was done to determine if a relationship could be found between self-disclosure and anxiety (stress response) in selected nurses and patients in a clinical setting. The study stemmed from a basic belief that investigation of how nurses and patients cope with stressful events in a clinical setting can play a large part in building a useful knowledge base for improving nursing practice.

CONCEPTUAL FRAMEWORK

The conceptual framework for the study was based on literature and research which suggested that self-disclosing individuals tend to be healthier, mentally and physically, than individuals who do not self-disclose.[1-3] Self-disclosure is defined as a voluntary process of revealing one's personal data, such as beliefs, values, feelings and perceptions, to another person; it involves being known to another in a specific way that one wants to be known.[1] The literature further speculates that anxiety adversely affects one's level of self-disclosure; that is, persons experiencing significant levels of anxiety will not disclose information about themselves.[4] The study addressed the question of whether or not a relationship between these two phenomena (anxiety and self-disclosure) in selected groups of nurses and hospitalized patients can be established.

According to Volicer, hospitalization is an event which increases anxiety in nearly all individuals who are hospitalized.[5] Increased anxiety is often precipitated by stresses such as separation from family and familiar surroundings, fear of the unknown and inability to fully understand the complex nature and consequences of illness. In addition, certain cultural and/or ethnic beliefs may have an effect on patients' attitudes toward their illness and hospitalization. Furthermore, and perhaps most importantly, there is the factor of communication between patients and health care professionals, especially nurses, which may contribute in varying degrees to patients' anxiety levels. Tagliacozzo interviewed samples of patients in a large urban hospital and found that 68% of them reported they had refrained from expressing their feelings, desires, fears, or criticisms to either nurses or physicians. Also, some of the patients cited instances in which being a "good patient," self-controlled and minimally dependent, was reinforced by positive reactions from the personnel.[6] Skipper observed 86 patients between the ages of 40 and 60 years, and found that they refrained from communicating with the nurses due to a fear of negative reactions from them, a fear of receiving unsatisfactory answers to their questions and a perception that nurses were always too busy and overworked.[7]

Wooldridge et al. discussed the importance of communication and psychological support of the patient by the nurse. They contend that a basic sociopsychological principle is that individuals' definition of their current situation is strongly affected by their reaction to the "significant others" in the immediate social environment.[8] This implies that what nurses communicate or do not communicate when they are with patients will have

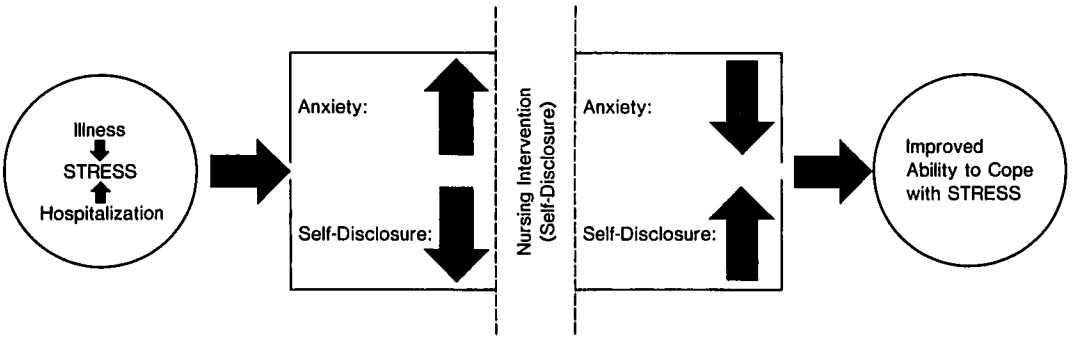
important implications for patients and their perception of their hospitalization and illness. It follows that all interactions between nurses and patients have real and/or symbolic meaning for the patients. Therapeutic communication theory that deals with factors contributing to increase or decrease in quality communication between persons could serve as a useful adjunct to this framework.

Finally, Robinson proposed that an individual admitted to a hospital brings not only an illness but a definitive mental set. This mental set will influence the manner in which the individual assumes the patient's role during the course of hospitalization. The manner in which ill persons respond to hospitalization will be influenced by their fantasies about the institution and the professional people in it. The protective mechanisms patients use to buffer against anxiety will assist in fending off the uncomfortable feelings that beset them as they face confinement.[9] Use of various protective behaviors by the patient may produce the reverse effect. Rather than bringing about a comforting response, there may be an increase in discomfort, fear and withdrawal.

Figure 1 demonstrates the framework synthesized from the literature. From the patients' viewpoint, stress is brought on by the complexities of illness and hospitalization. The onset of stress leads to an increase in anxiety responses and a decrease in the amount of meaningful self-disclosures. Nursing intervention which includes self-disclosure brings about an increase in patients' self-disclosure and an accompanying decrease in patients' levels of anxiety. As a result, patients are more able to cope with stress factors encountered during hospitalization.

Presumably, nurses also experience anxiety as a result of stress experienced in the work situation which may be influential in deterring meaningful interactions with patients. Aasterud observed that nurses exhibit anxiety in the work setting and use a variety of maladaptive defenses to cope with these experiences. She stated that

FIGURE 1. INFLUENCE OF STRESS ON LEVELS OF ANXIETY AND SELF-DISCLOSURE WITH PROPOSED CHANGES FOLLOWING EFFECTIVE NURSING INTERVENTION



many hospital procedures and nursing care practices are viewed as intrusive and victimizing to the patient. Nurses are often unaware of their anxiety about such practices, since historically they have perceived themselves as being supportive, caring and helpful to patients. Aasterud further observed that nurses tend to establish a social defense system which includes the performance of ritualistic tasks in order to avoid change, thus restricting meaningful contact with patients.[10] Finally, Skipper hypothesized that when nurses limit communication with their patients, they avoid the anxiety-producing situation of having patients question or evaluate nurses' knowledge, performance or authority.[7]

There seems to be sufficient support for the contention that both nurses and patients resist the urge to express their real feelings and problems. Patients may conceal information about themselves because nurses and other health care personnel do not share information about themselves with patients. Proposed in the present investigation is that the interpersonal patterns of communication, specifically that of self-disclosure, that exist between nurses and patients are related to stress and anxiety.

REVIEW OF THE LITERATURE

Construct of Self-Disclosure

The true nature of humans is to be open and free in their interactions with others. Revealing personal thoughts to others represents a critical process in the development and functioning of thought. Disclosure of one's ideas is largely responsible for the reduction of egocentric thought and the augmentation of socialized thought that is observed concomitantly with development. Piaget maintains that children have little "verbal continence" as they learn to speak, and seem unaware of what it means to keep thoughts and feelings to themselves. This period of free self-disclosure ends when the child is negatively reinforced by adults as a result of disclosures. In other words, the early relationship developed between children and significant others is influential in later development of adult propensities to self-disclose.[11]

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Within the life span of the average individual, more factors function to inhibit rather than encourage their natural disclosing tendency. Authentic self-disclosure as viewed by Jourard is rare among today's people. Thus, if people are to recapture the free spirit of childhood, they must engage in experiences that are facilitative to the disclosing process.

One central hypothesis advanced by Jourard is that "man can attain health and fullest personal development only insofar as he gains courage to be himself with others and when he finds goals that have meaning for him."[1(pix)] People attain full development by shedding the masks

which alienate them from themselves and from significant others. The courage to know oneself and to be known by others implies the existence of an interpersonal relationship, that begins with self-disclosure on the part of one individual to another. Such disclosure is risky and may necessitate a recall of those forces described earlier by Piaget which operated during childhood to prevent disclosure. The opportunity for establishing a climate for free and open exchange must be a goal of nursing activities.

Cozby summarized a group of studies related to self-disclosure and mental health. He observed that the self-disclosure/mental health relationship is curvilinear, suggesting that individuals who seldom disclose anything about themselves may be unable to establish close relationships with others. In contrast, individuals who freely disclose a great deal about themselves may be perceived by others as being maladjusted. The medium level self-disclosers may impart considerable information about themselves to someone who is very close and hence maintain a moderately close relationship—not too close to be offensive, but close enough to establish meaningful social bonds.[12]

ANTECEDENT CHARACTERISTICS

Personality, age, sex, race, ethnic group and social class, culture and religion are some of the antecedent factors influencing self-disclosure.

The amount of mutual disclosure in a dyad reflects personality characteristics of the two individuals. When low-disclosing subjects were paired with high disclosers, the low-disclosing subjects increased their disclosure output to match the level of the high-disclosers.[13]

As individuals age, the amount they disclose to others, especially parents and same-sex friends, gradually diminishes. However, disclosures to opposite-sex friends or spouses increase from the age of 17 up to about the mid-40s and then drop off.[14] With increased age, the communicative intimacy of relationships with others diminishes, possibly as a function of the disengagement phenomenon espoused by Henry and Cumming.[15]

Jourard and Lasakow reported that females have higher self-disclosure scores than males. The low disclosure of males was felt to be directly associated with less empathy, less insight and a shorter life span than females.[16]

When the variables of race and social class are considered, blacks disclose less than whites and Mexican-Americans disclose less than blacks.[17-19] Some data suggest that racial differences in self-disclosure may be due to social class factors. Jaffee and Polansky obtained no differences in disclosure scores between lower-class blacks and lower-class whites.[20] Mayer reported that middle-class women disclosed more about their marital difficulties than did working-class women.[21]

Cross-culturally, Lewin found that Americans disclose a great deal about themselves and make friends easily, but do not develop highly intimate relationships. In contrast, Germans do not disclose as much about themselves, but develop very close relationships with a few others.[22]

Jewish males disclose at significantly higher levels than Baptist, Methodists and

Catholics, with the latter three not differing significantly from one another.[23] Cooke obtained a significant correlation between disclosure to parents and religious behavior (e.g., frequency of church attendance) of sample subjects.[24]

SELF-DISCLOSURE AND SELECTED PARAMETERS

Certain parameters of self-disclosure that have been studied include amount of disclosure, depth of disclosure, intimacy level, duration, disclosures over time and target group selected as disclosure recipients.

In a study using eight subjects, Jourard reported that revealing too little or too much about oneself seemed to be equally unacceptable. As friendship is developing, too great or too small an acceleration in the rate and amount revealed may retard or sever a developing relationship.[25]

Intimacy and duration of disclosure appear to be partially related, with a correlation coefficient of 0.42 between the two variables.[26] There is, however, an inverse relationship between amount and intimacy of disclosure such that individuals disclose less about more intimate topics.[27,28] Individuals generally are more willing to disclose "public" (attitudes, tastes and work) information than "private" (money, personality and body) information.

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Taylor found that over periods of one, three, six, nine and 13 weeks, pairs of high-disclosers reported more mutual self-disclosures than did pairs of low-disclosers, although the rate of the increase over time was similar for both groups. There was a rapid increase in nonintimate disclosures, and a slow, gradual increase in intimate disclosures over time for both groups.[29]

Target groups selected for disclosure vary in the amount of disclosure made to them. Both college and high school students indicate more disclosures made to mothers than to fathers.[30,31] Persons and Marks reported that their subjects disclosed most to interviewers who were most similar to themselves in personality profile.[32] These findings are consistent with the assumption that self-disclosure is dependent on the closeness of the relationship between the subject and target. There were no studies found on disclosures made to nurses as a target group.

INTERPERSONAL RELATIONSHIPS

Social approval, dependency and power, liking, reciprocity and therapeutic outcome are factors that influence self-disclosure in interpersonal relationships. Colson found that subjects' disclosures were greatest in positive evaluation conditions and lowest in negative evaluation conditions.[33] Investigation of dependency and self-disclosure by Altman and Haythorn indicated that high-dependency dyads were more intimate and showed a more active pattern of social interaction than did the low-dependency dyads.[27] Thibaut and

Kelly demonstrated that the constraints of first encounters may prevent forming meaningful relationships. In the case of strangers however, when the time limit of the encounter is brief, significant disclosure may occur. The longer the interacting period between strangers is expected to be, the more constrained the relationship will be.[34]

Individuals generally resist entering into relationships in which the other person holds a great deal of power. For example, a study by Kounin et al. revealed that individuals feel more at ease and reveal more negative things about themselves with a nonpowerful counselor.[35]

Worth et al. concluded that more disclosures are made to liked individuals (on initial impressions) and individuals liked most those who disclosed most to them.[36]

A number of studies have supported the idea that reciprocity in self-disclosure between individuals is important for a stable relationship. Wiegel et al. asked their subjects how much they had actually disclosed in the past, how much they would initiate, and how much they would disclose in response to initiation by the other person. The subjects indicated they would disclose most in response to initiation of self-disclosure by the other person.[37] In a related study by Chittick and Himelstein, the authors manipulated subjects' disclosures directly by asking confederates to vary the amount they disclosed when introducing themselves to the subjects. Subsequent disclosure from the subjects varied proportionately to the confederate's disclosure.[38]

The importance of full client disclosure for therapeutic outcome has been documented. Truax and Carkhuff found significant correlations between therapist and client disclosures reporting that the level of client disclosure appeared to be a predictor of final outcome.[39] Powell found that subjects disclosed more when the interviewer responded to subjects' self-references with open self-disclosure than when approval-supportive or reflected-restatement techniques were used.[40] Further, Drag concluded that the interviewer who discloses, in addition to eliciting greater disclosure from subjects, is rated more trustworthy and more positive than the interviewer who does not self-disclose.[41]

An obvious limitation of the data on patterns and practices of self-disclosing behavior is an almost complete lack of validation of the process in a clinical setting. The present study differs from most of the work reported above in that a clinical setting is used.

A Construct of Anxiety

Anxiety is perhaps one of the most frequently appearing phenomena in psychological literature. Its theoretical and operational definitions are laden with semantic confusion. This has led to vague and interchangeable use of the term in the research literature. Also, considerable lack of agreement regarding the nature of anxiety, conditions that arouse it and specific past and/or current experiences that make an individual vulnerable to it are prevalent.

Freud regarded anxiety as "something felt," an unpleasant affective state or

condition. Freud modified his original conception concerning the origin of anxiety, initially defining anxiety as being repressed libidinal excitation. He later defined anxiety as being a signal that indicated the presence of a dangerous situation. He then differentiated between objective anxiety and neurotic anxiety largely on the basis of whether the source of the danger originated from the external world or from internal impulses.[42]

Mowrer proposed a "guilt theory" to explain anxiety, stating that anxiety comes not from acts which the individual would commit but dares not, but from acts which he has committed but wished that he had not. If an individual behaves irresponsibly, with too much self-indulgence and too little self-restraint, then anxiety is experienced.[43]

An "interpersonal theory" posited by Sullivan characterized anxiety as an intensely unpleasant state or tension arising from experiencing disapproval in interpersonal relations. Once aroused, anxiety distorts the individual's perception of reality, narrows the range of stimuli perceived and causes those aspects of the personality that are not acceptable to be dissociated.[44]

May described a "learning theory" approach to anxiety. The anxiety phenomenon is viewed as apprehension cued off by a threat to some value which the individual holds essential to existence. While the capacity to experience anxiety is innate, the particular events or stimulus conditions evoking it are largely learned. May proposes that an anxiety reaction is normal if it is proportionate to the objective danger and does not involve repression. Anxiety is abnormal if reactions are disproportionate to the objective danger, but not the subjective danger, and repression is involved.[45]

Tillich described anxiety from an existentialist point of view by defining it as a type of fear resulting from the threat of nothingness or nonbeing. He noted that a common feature of most theories of anxiety is an emphasis on unresolved conflicts between structural elements of the personality.[46]

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Lazarus and Averill described anxiety as an emotion that is based on the appraisal of a threat which entails symbolic, anticipatory, and uncertain elements that result when cognitive systems no longer enable an individual to relate meaningfully to the external world.[47]

Anxiety at low levels is useful and is associated with mastery over oneself and the environment. Anxiety serves to expand one's awareness of an existing or potential threat. Extreme anxiety, however, can be so severe as to disrupt ongoing behavior. In acute panic states the individual may flee blindly in any direction, disregarding his usual responsibilities. At this point, anxiety becomes so severe that no response is capable of lessening it.

Spielberger et al. have expanded definitions for two specific types of anxiety, state anxiety and trait anxiety:

> State anxiety is conceptualized as a transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension and heightened autonomic nervous system activity. A-state may vary in intensity and fluctuate over time.
>
> Trait anxiety refers to relatively stable individual differences in anxiety proneness, that is, to differences between people in the tendency to respond to situations perceived as threatening with elevation in A-state intensity.[48]

For the present study, the conceptualization of anxiety factors by Spielberger et al. has been selected.

The relevance of the anxiety study for nursing is couched within the framework formulated by Jourard, who proposed that there is a relationship between one's ability to self-disclose and one's level of anxiety; and that self-disclosing behavior in one person encourages the other to self-disclose, thereby reducing anxiety in both persons.[1] If nurses can be taught the skills of appropriate self-disclosure communication, patients may find it easier to cope with stresses of illness and hospitalization.

THE STUDY

Study Questions

The study addressed two major research questions. First, is there a relationship between nurses' levels of state/trait anxiety and their levels of self-disclosure to patients? Second, is there a relationship between patients' levels of state/trait anxiety and their levels of self-disclosure to nurses?

Methodology

SUBJECTS, VARIABLES AND INSTRUMENTS

Nurse and patient subjects in the study were from four types of hospital units: (1) medical, (2) surgical, (3) psychiatric and (4) critical care. The 70 nurses who took part were RNs and LVNs currently engaged in full-time practice. Patients (N = 68) were individuals between the ages of 21 and 60 years who had been hospitalized in one of the specialty units at least five and no more than eight days. The independent variables of the study for nurses were: their nursing specialties (hospital unit), age, race, education program (RN or LVN) and years of nursing experience. For patients, the independent variables were their hospital unit, age, sex, race and level of education. The dependent variables for both nurses and patients were their scores on the instruments.

The two instruments used in this study were the Jourard Self-Disclosure Questionnaire (JSDQ) and the State-Trait Anxiety Inventory (STAI). The JSDQ, developed by Jourard in 1958,[1] was designed to measure verbalized aspects of self-disclosure defined as a voluntary act of revealing personal data about oneself including beliefs, values, feelings and perceptions to another person. The JSDQ instrument is divided into six areas: work, money, personality, body, attitudes and opinions and taste and interest. The nurses were asked to indicate to what extent they had discussed content in each of the 30 statements with patients; and the patients were asked to indicate to what extent they had disclosed the content in each of the 30 statements with a nurse. Since each ques-

10

tion could receive a score of 0 = no disclosure, 1 = some disclosure or 2 = full disclosure, the total range of disclosure scores could be from zero to 60.

The STAI was developed by Spielberger et al.[48] This instrument consists of two self-report scales for measuring the two anxiety concepts, state anxiety and trait anxiety, as previously defined. The locus of the stressful events for patients' state anxiety was their hospitalization, and for nurses' state anxiety it was their present work situation. The frame of reference of trait anxiety for patients was when they were not ill, or hospitalized, and for nurses it was when they were not in their work situation. Although originally developed as a research instrument for investigating anxiety responses in normal (nonpsychiatrically disturbed) adults, the STAI has also been found to be useful in the measurement of anxiety in normal subjects as well as neuropsychiatric, medical and surgical patients. Each subscale of the STAI, state anxiety and trait anxiety, is composed of 20 items. The range of possible scores for each scale varies from a minimum of 20 (low anxiety) to a maximum of 80 (high anxiety).

SETTING

The setting for this study was a 775-bed public general hospital that provided extensive inpatient, outpatient and emergency services to a large urban indigent population in the southwestern United States. The hospital provided all major health services and a variety of special medical and surgical therapies, as well as psychiatric services. The four specialty units were chosen due to the nature and diversity of patients' illnesses and a diversity in the type of nursing care given.

DATA COLLECTION

Nurses and patients who volunteered to participate and met the above criteria were included in the study sample. Subjects were requested to answer both questionnaires and to provide the necessary demographic data (e.g., age, sex, race, level of education or nursing experience and hospital unit). The questionnaires were enclosed in large envelopes that included instructions, a letter explaining the potential risks and benefits of subjects' participation and a form for subjects to sign indicating that participation was voluntary. Data-collection procedure for nurses went according to the established protocol. However, for patients it was necessary to use the interview schedule technique due to difficulties encountered by some patients in reading the items and in recording their responses. The average length of each interview was approximately 20 minutes. The data-collection period for nurses required two weeks and for patients about eight weeks.

ANALYSIS OF DATA

The data were analyzed descriptively and inferentially on all respondents across all variables. Means and standard deviations were computed on all data. One-way analyses of variance were used to determine if any significant differences existed among nurses, among patients and between nurses and patients on self-disclosure and anxiety. Scheffe *F*-tests were computed in those cases of significant *F* ratio in which more than two variables

were involved. The Spearman-Brown correlation coefficient was obtained to determine the relationship between the levels of self-disclosure and anxiety in both groups of subjects. A $p < 0.05$ level of statistical significance was used as the criterion for rejection of hypotheses.

BASIC ASSUMPTIONS

Before and during the course of this study three basic assumptions were made: (1) that nurses and patients would respond to the data-gathering instruments candidly; (2) that the method of selecting nurses and patients would equalize among and within all units any effects due to different diagnoses, and number of hospitalizations on patients would equalize any effects due to different areas of specialty for nurses; and (3) that the method of data collection on patients would not vary significantly from one interviewer to another since they received their training and instructions from the researcher.

LIMITATIONS

The generalizability of this study is limited by the fact that all data were collected in one hospital; therefore, any conclusions and generalizations that are reached may be applicable only to this particular population and sample.

PILOT STUDY

A pilot study was conducted using the instruments, the research design and the methodology previously described. The pilot study provided support that the design and methodology employed in the study were sound.

As a result of the pilot study, two changes were made in conducting the larger study. One of the changes was to shorten the 60-item self-disclosure instrument to a 30-item measure by using only the odd items, due to the inordinate amount of time required by subjects to complete it and the seemingly fatiguing effect on the respondents, especially patients. The other major change was the decision to use research assistants as interviewers to assist those patients who would have difficulty recording their responses due to physical limitation.

DISCUSSION OF FINDINGS RELATED TO NURSES

Measures of State/Trait Anxiety among Nurses

Tables 1 and 2 contain a compilation of data relative to the mean values of state anxiety and trait anxiety among nurses.

When nurse subjects were grouped according to area of nursing specialty (hospital unit), it was shown that nurses on the psychiatric unit reported significantly lower levels of state anxiety than nurses on the medical unit and the surgical unit. On measures of trait anxiety, nurses on the psychiatric unit also reported significantly

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TABLE 1
Mean Levels of State Anxiety among Nurses across All Variables

Hospital Unit	N	$\bar{X}$	S.D.	Age	N	$\bar{X}$	S.D.	Race	N	$\bar{X}$	S.D.	Educational Program	N	$\bar{X}$	S.D.	Years of Nursing Experience	N	$\bar{X}$	S.D.
Med.	18	37.83	9.62	18-34	44	35.87	10.78	White	39	35.72	10.54	LVN	23	30.87	7.11	1-5	37	35.27	10.11
Surg.	19	37.32	12.16	35-44	19	29.63	7.26	Nonwhite	31	32.32	8.99	RN	47	35.85	10.79	6-10	11	35.00	13.63
Psych.	17	28.94	5.19	45+	7	36.14	7.71									11+	22	32.05	7.41
CC	16	32.06	8.51																

TABLE 2
Mean Levels of Trait Anxiety among Nurses across All Variables

Hospital Unit	N	$\bar{X}$	S.D.	Age	N	$\bar{X}$	S.D.	Race	N	$\bar{X}$	S.D.	Educational Program	N	$\bar{X}$	S.D.	Years of Nursing Experience	N	$\bar{X}$	S.D.
Med.	18	35.83	9.48	18-34	44	36.68	8.60	White	39	35.21	8.68	LVN	23	33.61	9.23	1-5	37	37.11	9.14
Surg.	19	39.47	8.82	35-44	19	32.68	7.31	Nonwhite	31	34.87	8.13	RN	47	35.77	7.94	6-10	11	29.64	6.95
Psych.	17	30.35	5.11	45+	7	31.28	7.95									11+	22	34.32	6.41
CC	16	33.94	6.93																

lower levels than nurses on the surgical unit. These findings indicate that psychiatric-mental health nurses perceive fewer anxiety-producing events in their current work situation. They also have a lower tendency or disposition toward anxiety, which may be due to their specific training and experience in working with psychiatric patients. In addition, psychiatric-mental health nurses could be already sensitized to the psychological implications of the research instruments, and thus deliberately guard against reporting their own anxiety tendencies.

When the subjects were grouped according to type of education program they completed, it was shown that LVNs reported significantly lower levels of state anxiety than RNs; however there were no significant differences in their mean trait anxiety scores. This finding may reflect the possibility that RNs have more responsibility and are exposed to more anxiety-producing events in the job situation than LVNs.

When the nurses were grouped according to their years of nursing experience, it was shown that nurses with one to five years of nursing experience reported significantly more trait anxiety than nurses with six to ten years of experience. This finding may be indicative of the possibility that nurses with more experience have acquired relative security in their work situation and thus their disposition to respond to anxiety-producing events is lessened.

Age and race did not seem to be factors influencing differences in nurses' self-reported levels of state or trait anxiety.

Measures of Self-Disclosure of Nurses to Patients

Table 3 contains mean levels of self-disclosure of nurses to patients. The variables analyzed were hospital unit, age, race, educational program and years of nursing experience. When the subjects were grouped according to type of educational program they had completed, LVNs reported disclosing significantly more to patients than RNs. It may be that LVNs disclose more to patients than RNs because, as mentioned before, they are less anxious than RNs. Or it may be that LVNs have more opportunity to disclose to patients because they spend more time in direct contact with them. It should be noted that as a single group (LVNs and RNs combined) the disclosures made by nurses to patients were very low in number compared to disclosures made to other target groups. Mean-level disclosures shown in Table 3 are compared with the highest possible value of 60 obtainable in this category.

When the subjects were grouped according to hospital unit, age, race and years of nursing experience, there were no significant differences in the nurses' reported levels of self-disclosure to patients.

Relationship between State/Trait Anxiety and Self-Disclosure of Nurses to Patients

In studying the correlations of state/trait anxiety and self-disclosure of nurses to patients (see Table 4), significant relationships were found when the data were analyzed for nurses according to age. In

TABLE 3
Nurses' Mean Levels of Self-Disclosure to Patients across All Variables

Hospital Unit	N	$\bar{X}$	S.D.	Age	N	$\bar{X}$	S.D.	Race	N	$\bar{X}$	S.D.	Educational Program	N	$\bar{X}$	S.D.	Years of Nursing Experience	N	$\bar{X}$	S.D.
Med.	18	3.50	4.42	18-34	44	7.34	8.88	White	39	6.72	7.46	LVN	23	9.74	10.29	1-5	37	6.57	7.83
Surg.	19	8.89	10.98	35-44	19	6.32	7.17	Nonwhite	31	7.23	9.01	RN	47	5.97	6.53	6-10	11	7.55	7.87
Psych.	17	7.59	6.93	45+	7	6.14	6.15									11+	22	7.27	9.05
CC	16	7.81	8.09																

TABLE 4
Spearman-Brown Rank Order Correlations between Levels of State Anxiety/Trait Anxiety and Self-Disclosure of Nurses to Patients[a]

Hospital Unit	N	SA/SD	TA/SD	Age	N	SA/SD	TA/SD	Race	N	SA/SD	TA/SD	Educational Program	N	SA/SD	TA/SD	Years of Nursing Experience	N	SA/SD	TA/SD
Med.	18	−0.24	−0.09	18-34	44	−0.15	0.01	White	39	−0.46[c]	−0.33[b]	LVN	23	−0.02	0.04	1-5	37	−0.03	0.01
Surg.	19	−0.11	0.07	35-44	19	−0.39	−0.43	Non-white	31	−0.04	0.11	RN	47	−0.28[b]	0.21	6-10	11	−0.45	−0.18
Psych.	17	−0.39	−0.04	45+	7	−0.76[c]	−0.28									11+	22	−0.30	−0.39
CC	17	−0.11	−0.36																

[a] SA = State anxiety, TA = Trait anxiety, SD = Self-disclosure
[b] = p .05.
[c] = ±p .01.

nurses who were 45 years of age and older, there was a significant negative correlation between state anxiety and their level of self-disclosure to patients.

In white nurses, there was a significant negative correlation between state anxiety and self-disclosure; and between trait anxiety and self-disclosure to patients.

When the data were analyzed according to education program, RNs reported a significant negative correlation between state anxiety and self-disclosure to patients.

From a total of 28 correlations computed across the 14 variables, 23 were negative and four of these (mentioned above) showed a significant negative correlation. This implies a strong tendency for support of the research proposition, that as anxiety levels tend to increase, levels of self-disclosure tend to decrease.

DISCUSSION OF FINDINGS RELATED TO PATIENTS

Measures of State/Trait Anxiety among Patients

Tables 5 and 6 show a compilation of data relative to the mean values of state anxiety and trait anxiety among patients. When the patients were grouped according to hospital unit, those on the psychiatric unit reported significantly higher levels of state anxiety than patients on the medical, surgical or critical care units. This finding does not seem unusual since many of the patients on the psychiatric unit in this study had anxiety reactions as a diagnosis. On measures of trait anxiety there were no significant differences among patients grouped by hospital unit. This result may indicate that when not in the hospital, psychiatric patients may be similar to other patients; but when hospitalized, they experience or report higher levels of anxiety than patients on other units. It is also possible that specific characteristics of the psychiatric unit may contribute to the reported high anxiety levels. This speculation seems credible since no significant differences were discovered between these patients on any of the other independent variables.

Measures of Self-Disclosure of Patients to Nurses

Table 7 contains mean levels of self-disclosure of patients to nurses. The variables analyzed were hospital unit, age, sex, race and level of education.

For patient subjects, none of the independent variables seem to have a significant influence on the differential levels of patients' self-disclosure to nurses. Furthermore, when compared with other target groups, patients' self-disclosures to nurses were lowest. Mean-level disclosures shown in Table 7 are compared with the highest possible value of 60. Although none of the values reported were significant, the low tendency across all variables suggested that patients disclose very little to nurses. The patients' low levels of self-disclosure to nurses possibly is a consequence of their reaction to the low levels of disclosures by nurses to patients.

Relationships between State/Trait Anxiety and Self-Disclosure of Nurses to Patients

Correlations demonstrating the relationship of state/trait anxiety and self-disclo-

TABLE 5
Mean Levels of State Anxiety among Patients across All Variables

Hospital Unit	N	$\bar{X}$	S.D.	Age	N	$\bar{X}$	S.D.	Sex	N	$\bar{X}$	S.D.	Race	N	$\bar{X}$	S.D.	Level of Education*	N	$\bar{X}$	S.D.
Med.	17	41.12	5.60	18-34	21	45.76	14.80	M	27	42.81	13.40	White	33	48.53	14.65	N/HS	32	44.22	13.65
Surg.	17	44.61	15.65	35-44	13	49.38	14.81	F	41	47.22	13.92	Nonwhite	35	42.29	12.16	S/HS	25	45.24	13.14
Psych.	17	57.18	13.36	45+	34	43.79	12.81									S/Col	9	48.89	17.38
CC	17	38.59	10.58													F/Col	2	53.00	11.31

*N/HS = No high school; S/HS = Some high school; S/Col = Some college; F/Col = Finished college

TABLE 6
Mean Levels of Trait Anxiety among Patients across All Variables

Hospital Unit	N	$\bar{X}$	S.D.	Age	N	$\bar{X}$	S.D.	Race	N	$\bar{X}$	S.D.	Sex	N	$\bar{X}$	S.D.	Level of Education*	N	$\bar{X}$	S.D.
Med.	17	45.18	10.23	18-34	21	44.24	15.68	White	33	45.97	15.70	M	27	46.59	13.03	N/HS	32	46.75	14.69
Surg.	17	40.83	10.96	35-44	13	46.69	13.41	Nonwhite	35	47.43	13.22	F	41	46.68	15.62	S/HS	25	47.16	14.69
Psych.	17	53.06	17.84	45+	34	48.12	14.47									S/Col	9	48.67	14.34
CC	17	48.12	15.83													F/Col	2	29.50	6.36

*N/HS = No high school; S/HS = Some high school; S/Col = Some college; F/Col = Finished college

TABLE 7

Patients' Mean Levels of Self-Disclosure to Nurses across All Variables

Hospital Unit	N	$\bar{X}$	S.D.	Age	N	$\bar{X}$	S.D.	Race	N	$\bar{X}$	S.D.	Sex	N	$\bar{X}$	S.D.	Level of Education[a]	N	$\bar{X}$	S.D.
Med.	17	11.65	8.15	18–34	21	10.19	10.22	White	34	8.74	9.08	M	27	6.85	6.80	N/HS	32	9.28	9.79
Surg.	17	8.18	8.15	35–44	13	11.08	10.51	Nonwhite	34	10.46	10.26	F	41	10.88	10.46	S/HS	25	10.12	8.96
Psych.	17	9.12	11.85	45+	34	8.03	8.37									S/Col	9	5.44	5.61
CC	17	8.18	7.79													F/Col	2	16.00	21.21

[a]N/HS = No high school; S/HS = Some high school; S/Col = Some college; F/Col = Finished college

TABLE 8

Spearman-Brown Rank Order Correlations between Levels of State Anxiety/Trait Anxiety and Self-Disclosure of Nurses to Patients[a]

Hospital Unit	N	SA/SD	TA/SD	Age	N	SA/SD	TA/SD	Race	N	SA/SD	TA/SD	Sex	N	SA/SD	TA/SD	Level of Education[d]	N	SA/SD	TA/SD
Med.	17	0.04	−0.33	18–34	22	−0.25	−0.27	White	34	−0.29	−0.16	M	27	−0.09	−0.23	N/HS	32	0.08	−0.24
Surg.	17	−0.50[b]	−0.13	35–44	22	0.35	−0.76[c]	Non-white	34	0.08	−0.46[c]	F	41	−0.14	−0.33[b]	S/HS	25	−0.40	−0.45[c]
Psych.	17	0.15	−0.36	45+	34	−0.04	−0.08									S/Col	9	−0.50	0.03
CC	17	0.23	−0.21													F/Col	2	Insufficient Sample	

[a]SA = State anxiety; TA = Trait anxiety; SD = Self-Disclosure

[b] = p .05.

[c] = p .01.

[d]N/HS = No high school; S/HS = Some high school; S/Col = Some college; F/Col = Finished college

sure of patients to nurses are shown in Table 8.

Several significant correlations were found. Patients on the surgical unit reported a significant negative correlation between their state anxiety and self-disclosure to nurses. Patients aged 35 to 44 reported a significant negative correlation between their trait anxiety and self-disclosure to nurses.

When data were analyzed by race, nonwhite patients reported a significant negative correlation between trait anxiety and self-disclosure to nurses.

Finally, a significant negative correlation was discovered when the patients were grouped according to levels of education. Patients with some high school education reported a significant negative correlation between their trait anxiety and self-disclosure to nurses.

From a total of 28 possible correlations between state/trait anxiety and self-disclosure to nurses computed across the 14 variables, 22 were negative and five of these (mentioned above) were statistically significant. This finding, which is similar to the finding with nurse subjects, implies a strong tendency for support of the research proposition, that as anxiety levels tend to increase, levels of self-disclosure tend to decrease.

IMPLICATIONS FOR NURSING

The findings in this study indicate two important implications for nursing: (1) there is slight but preliminary evidence that anxiety responses to stress have a negative effect on individuals' (nurses and patients) levels of self-disclosure; (2) low reciprocal self-disclosure occurs between nurses and patients.

The positive and therapeutic outcomes that can be anticipated from moderate levels of self-disclosure necessitate a close examination of this communication pattern. For nurses in a clinical setting, the stress encountered in intensive care units, emergency departments and other areas where there are high mortality rates can be

The stress encountered in intensive care units can be detrimental to the effective functioning of the nurse. In effect, nurses tend to decrease their communications with each other as well as with patients.

detrimental to the effective functioning of the nurse. In effect, nurses tend to decrease their communications with each other as well as with patients. Some high-stress areas have instituted stress-release discussion groups for their staff in an effort to keep to a minimum the untoward reactions from long exposure to unrelenting stress situations.

Nurse theorists have proclaimed that nursing is a practice discipline and that the practice begins with and continuously involves clients and patients. To improve practice, research must be designed to explore those variables and relationships that influence the interaction between nurses and patients. Development of nursing theories would then be useful to the extent that they addressed and directed the practice of nursing.

The findings of this study point to

critical deficiencies in our data base about nurses and patients in regard to the phenomena (anxiety and self-disclosure) examined. Therefore, the following studies could be undertaken: (1) an investigation into the factors which facilitate or inhibit self-disclosure between nurses and patients in the clinical setting; (2) an experimental study to examine the therapeutic and/or social effects of reciprocal self-disclosure between nurses and patients to determine whether or not patients value this intervention; (3) additional research into the factors contributing to the development of stress and anxiety in nurses and hospitalized patients.

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