WARD ENVIRONMENT: ASSESSMENT
AND IMPLIED FUNCTION

THESIS

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By

Nancy L. England, B. A.
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Ward environment as assessed by the Ward Atmosphere Scale was the focus of this exploratory study. The Ward Atmosphere scores of 110 patients hospitalized on two units for acute psychiatric care in a state hospital were analyzed for determining differences along the dimensions of population factors, sex and program change. Significant differences in attitude were obtained on certain of the ten scales for each of the three comparisons. The premise of ward atmosphere being a global entity as implied in the literature was not upheld in this population. Sex differences were noted and introduction of an individualized patient management program evoked significant changes in opinions concerning ward atmosphere. A number of interpretations for these results were offered and implication for future research was suggested.
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WARD ENVIRONMENT: ASSESSMENT
AND IMPLIED FUNCTION

During the past two decades, considerable evidence has accumulated supporting the contention that hospitalized psychiatric patients are extremely responsive to their milieu. Lewis (1967) has described milieu as ranging from the routines, rituals, behavioral regulations and the staff's value systems to the social structure of the hospital. He also added that we know neither how those specific factors work, nor how to measure their individual impact. As a result of growing awareness of the importance of milieu, an increasing number of mental hospitals have abandoned the custodial approach to patient care and model their psychiatric wards on the concept of "the therapeutic community" (Turner & Spivak, 1971, p. 499). Following this change came discussion and research concerning both the impact of specific aspects of the ward milieu on patient behavior and the role of nonprofessional personnel in mental health programs on the ward.

Reid (1968) described milieu therapy as a scientific manipulation of the environment aimed at producing change in the patient's personality. He said that it is based on the principle that people can be changed through their relationships with other people and by environmental factors.
Cumming and Cumming (1962) postulated that if the patient's milieu were to foster ego restitution, it must offer him a clear, organized and unambiguous social structure, problems to solve in a protected situation, and a variety of different ways to solve the problems. Overall goals for a therapeutic community as listed by Jones (1962) were: "(1) Active treatment (2) democracy, (3) permissiveness, and (4) less specialized staff roles" (p. 243).

A schema that reflects most sensitively the multiple functions of any patient's involvement in the hospital milieu can be derived from five points of view of psychoanalytic metapsychology as presented by Schlesinger and Holzman (1970):

1. Structural: (a) to correct ego attitudes; (b) to exercise and strengthen ego functions; (c) to make superego demands more realistic and sanctions more appropriate; (d) to allow appropriate id expression.

2. Economic: (a) to provide opportunities for drive discharge in the inhibited or sublimated forms or to channel off or redirect surplus energies; (b) to intensify interests as expressions of higher order motives.

3. Dynamic: (a) to offer "corrective emotional experiences," permitting a person to alter unconscious images of significant figures;
(b) to allow time-limited regressive experiences, permitting regression in the service of growth to occur and allowing greater exercise and freedom for preconscious ego functioning.

4. Adaptive: (a) to enhance reality attunement through stressing the real aspects of life in the hospital, encouraging patients to do productive work and to begin activities and modes of relating themselves to others that can be continued after they leave the hospital.

5. Genetic: (a) for those patients who have suffered developmental arrest, to provide an opportunity to resume growth in cognitive, affective and motor areas; (b) to provide activities that are planned to be congruent with the patient's own pattern of psychosexual and psychosocial development and take into account his particular areas of success and failure in early development. (p. 10)

Leonard (1973) investigated through patient and doctor ratings what treatment modalities and aspects of psychiatric hospitalization were considered most beneficial. Interestingly enough, those facets most closely related to the
general ideas of ward milieu were seen as the most helpful by doctors and patients alike. In order of suggested importance they were: being in a new environment a while, interaction with nursing staff, medication, individual psychotherapy, and interaction with other patients. Rated as the least helpful were rehabilitational therapies, group therapy and psychodrama. The relational aspects of hospitalization therefore tended to be seen as more beneficial than those activities more directly concerned with the active assumption of responsibility outside the hospital.

There have been numerous attempts to modify therapeutic environments in such a way as to have more of an impact on patients' outcome. Letemendia, Harris and Willems (1967) conducted a 5 year follow-up study on long-stay schizophrenic patients after the introduction of a new open ward therapeutic community policy in a medium-sized mental hospital. The program involved intensive therapeutic milieu consisting of frequent meetings and conferences with patients and integration of the sexes in mixed wards. There were no striking changes in mental state accompanying the introduction of the new policy. The ratings used focused on basic psychopathology rather than behavior and the authors stated that the failure to respond could very possibly be due to the chronic nature of these subjects' illnesses. They concluded that the adoption of therapeutic community measures for long stay schizophrenic patients must rest on
general humanitarian grounds rather than on the therapeutic benefit to be derived.

The idea that an important relationship exists between the kind of social atmosphere on a psychiatric ward and results of the treatment of patients is an old idea in psychiatry. Bleuler (1950) suggested the importance of certain aspects of ward atmosphere on schizophrenic patients. Kellam, Goldberg and Schooler (1967) delineated several large dimensions of ward atmosphere. The dimensions were

(I). Disturbed behavior
   (A) Aggressive
   (B) Bizarre

(II). Adult Status

(III). Social contact
   (A) Aloneness
   (B) Cluster-size
   (C) Staff-patient contact

(IV). Ward census

(V). Number of patients/staff members. (p. 145)

These authors hypothesized that if more socializing occurred on a ward, a patient newly admitted to the atmosphere would withdraw less and be better supported to maintain a higher degree of integration. They discovered through the systematic observation of the aforementioned dimensions that not only was less aloneness on a ward associated with greater
improvement of study patients, but greater improvement was strongly related to a larger number of people gathering together during social occasions. The effects of ward atmosphere on short-term symptom reduction depended by and large on the symptom in question. The greatest effects were found on paranoid symptoms, and the least number of effects were seen on symptom of withdrawal.

Linn (1970) examined the relationship between hospital rates of patient discharge and a number of characteristics of state hospital environments. He found that short-term hospitalization was significantly correlated with small hospital size, high attendant-patient ratios, frequent and comprehensive staff-patient involvement in hospital activities, and percentage of patients receiving visitors from outside the hospital. Oddly enough, physical aesthetics, rules which govern patient's behavior, and patient's age, mental status or level of physical disability were not significantly correlated with the length of hospitalization. Linn went so far as to speculate regarding the importance of attractive physical surroundings by saying, "If state hospitals become too free, comfortable or pleasant, perhaps too many patients will make normal adjustments to that environment with little motivation to leave it" (p. 351). Holahan and Saegert (1973) on the other hand supported the need for emphasis on physical milieu by stating, "the designs of new psychiatric settings which are able to both encourage
adaptive behavior and facilitate the generalization of such behavior to extrahospital environments are imperative" (p. 461).

While many investigators have explored the more global aspects of ward milieu, other researchers have sought to determine what, if any specific effects the various staff members bring to bear upon the patient's on-ward behavior as well as subsequent recovery. Becker (1969) produced rather impressive results showing that staff-patient interaction is much more significant in reducing the length of hospitalization than high staff-patient ratios. Tucker and Maxmen (1973) suggested that an effective inpatient treatment center required that the therapeutic skills of each staff member become maximized. With this possibility in mind Raskin (1971) cautioned "one problem is that every staff member feels capable of treating the patient in all respects" (p. 492). When this overblurring occurs the expertise and background of each discipline gets lost and the upper echelons of the hospital (heads of social work, nursing, etc.) become very wary of losing their power bases. Raskin also noted that some blurring of roles is desirable but emotional and economic factors cloud the issue. Randolph (1974) proposed a "sociotherapeutic orientation" to milieu as a means of combating intrastaff conflict and providing better patient care. He suggested that this orientation was too complex to be effectively
executed by one person or profession. It was designed to develop the therapeutic potential of the staff which should in turn reduce conflict among staff. Randolph stated that the development of the therapeutic potential of some staff members was retarded because of the psychoanalytic base of the hospital where the figure of the psychiatrist performed the truly curative operations. He proposed that all professions, especially nurses and aides need to be active participants in providing what he termed "hospital therapy"—daily 20-30 minute individual sessions where the patient can discuss the treatment situation and attendant problems. Baak, Clower, Kalman, Mittel, and Stern (1966) proposed a similar approach to improving milieu with the principal means of communication with staff being through informal individual sessions on wards.

It has been suggested that nurses more often than other professionals have the abilities required to be good inpatient therapists (Smith & English, 1975). Other researchers have reported positive impact on patient behavior resulting from interpersonal contact between patients and nonprofessional staff (Collarelli & Siegel, 1966; Elsworth, 1968; Kaldeck, 1951). Practical nurses and attendants were encouraged to interact with patients on a psychiatric ward in a study by Turner and Spivak (1971). They found that this intervention had a positive effect on patient ward behavior. Ellsworth and Ellsworth (1970)
acknowledged that the psychiatric aide can "make or break" a treatment program. They stated that the aide has learned "almost all the skills of psychiatric nursing, as well as many of the skills of the social worker and the clinical psychologist" (p. 8). They further explained that as far as skill in working therapeutically with people is concerned, "Many aides function more effectively without academic training than some professionally trained staff" (p. 9). Finally, Reding and Goldsmith (1967) proposed the use of nonprofessional hospital volunteers who, through the very experience of living, have accumulated a capacity for human understanding which enables them to offer psychological support. Rapoport (1960) summarized these multidisciplinary approaches by saying, "(1) everything is therapy; (2) all therapy is rehabilitation; (3) all patients get the same therapy" (p. 170).

Parsons and Parker (1968) addressed the increasingly frequent practice of using trained lay therapists in the treatment of psychiatric patients suggesting that laymen may achieve considerable, therapeutic success even with schizophrenic patients. Regarding the training of such therapists Lewis (1967) said, "I cannot be sure whether the success can be attributed to our teaching, or whether it results from the intuitive therapeutic potential of the aide, nurse, or resident psychiatrist involved. As yet we know far too little about such potential, although many of
us have observed the striking therapeutic impact that a new and untrained staff person occasionally has on patients" (p. 368). Making a similar point Torrey (1969) suggested the use of indigenous counselors as they already have the ability to empathize with patients indigenous to their setting. Perhaps the strongest appeal for the use of untrained therapists comes from Carkhuff, Kratochvil and Friel (1968) who reported that professional training in clinical psychology often decreases rather than enhances some of the qualities found necessary in working effectively with people. Specifically, students frequently lose some of the warmth, openness and genuineness which characterized their earlier relationship with people.

After reviewing the many contributing factors of a therapeutic milieu, the perplexing question of measurement must be considered. How does one quantify the various aspects of the environmental atmosphere? Furthermore, how does one determine what influence ward atmosphere has on subsequent behavior and therapeutic outcome? One of the earliest attempts focusing on these questions was a study by Cohen and Struening (1964). They administered their Opinions about Mental Illness (p. 294) questionnaire to hospital employees of 12 Veterans Administration neuropsychiatric hospitals. They found that patients exposed to "authoritarian restrictive" atmospheres in the hospital were apt to spend fewer days in the community in the year following admission.
Moos and Daniels (1968) have shown that in general ward settings have differential effects on patients and staff, that is, "particular ward settings have a tendency to elicit a particular hierarchy of reactions regardless of the individuals involved in them" (p. 81). They also discovered that the interaction between individuals and ward settings generally accounts for approximately 20% of the total response variance in both patient and staff groups. Moos and Houts (1968) showed that large significant differences between average patient perceptions of different wards exist and they are not correlated with age, sex or length of stay on ward. Psychiatric patients were asked to describe their reactions to eight ward settings, e.g., individual therapy, group therapy, community meetings, alone, with another patient, with nurse, industrial therapy and lunch in a study by Moos (1968). He discovered that there were no predictable responses to a certain ward setting, rather each patient reacted singularly to the various settings. Moos (1970) further emphasized the limits of generality regarding patient behavior on psychiatric wards as he concluded that consistency in behavior is seriously disrupted when situations change. For example, patients' behaviors vary radically from observations during individual therapy to observations during free time.

Therapeutic climates in a neuropsychiatric hospital were evaluated on four staff characteristics: congruence,
level of regard, empathy and unconditional regard in a study by Gross (1970). He found that climate as a composite was judged favorable by staff and patients, although staff

Ellsworth and Maroney (1972, p. 442) used their patient Perception of Ward scales in an attempt to prove relationships between perceptions of treatment experiences and subsequent community adjustment outcome. They failed to show that such a relationship existed. Moos and Schwartz (1972) on the other hand reported that wards which differed on dropout rates, release rates, adn community tenure rates also differed on some of the Ward Atmosphere Scale scores. For example, wards that kept patients in the community longest were high on Support, Practical Orientation, and low on Staff Control.

Relationships between ward treatment environment and styles of patient and staff helping behavior gave some indication of possible mediating variables between treatment environment and treatment outcome in a study by Sidman and Moos (1973). Practical Orientation showed a significant positive correlation to patient friendship and enhancement of self-esteem type helping and with staff friendship and directive teaching-type helping. The authors suggested a very salient point, namely, "treatment programs that are different on paper and that appear to have different
treatment philosophies may or may not actually create different psychological climates, utilize different types of helping styles, and thus have differential effects on treatment outcome" (p. 78).

Palmer and McGuire (1973) noted that wards tending to have a more "sociable" climate were more likely to attract their former patients. Their rather bleak conclusion purported that "for many patients the process and outcome of psychiatric rehabilitation may be relatively independent of hospital procedures, psychological methods of treatment, or the behavior of professional staff" (p. 436). Contrary to the aforementioned study, Moos, Shelton, and Petty (1973) found perceived ward climate to be much more highly and consistently related to treatment outcome than were either ward size, staffing, or patient background characteristics. Patients in this study saw wards with high dropout rates as low in involvement, support, order and organization, and program clarity. Wards with high release rates were seen as placing emphasis on practical orientation but not on the open, spontaneous expression of feelings. The wards most successful in keeping patients out of the hospital emphasized autonomy and independence, a practical orientation, order and organization, and a reasonable degree of staff control. In addition they emphasized a personal problem orientation and the free and open expression of anger. These authors stated, "although it is usually quite difficult to
change ward characteristics such as size and staffing, it has been shown that systematic feedback to staff about the perceived characteristics of their treatment program may be helpful in facilitating beneficial changes in treatment programs" (p. 297).

Throughout the studies reviewed, a basic underlying assumption was implied, remains unstated, and was virtually unexplored or challenged. It is the premise that a given ward provides an environment which has a consistent and global effect regardless of the population. Although Moos and Daniels (1968) alluded to such a predictable effect, they never directly addressed the question—Do treatment environments affect patients' attitudes about ward atmosphere similarly in a reliable fashion? If this should be determined not to be the case, the generalizability of the present body of research utilizing the Ward Atmosphere Scales and other assessments of Ward Atmosphere would be considerably reduced.

Previous research aimed at showing causative factors without first demonstrating similarity of environmental effects across populations. This is not coincidence as many restrictions and limitations are introduced with even the simplest design. For instance, it is difficult to demonstrate that a ward's atmosphere is independent of the population living there at any one time. Adequately controlling for each patient's behavior and their contribution to the
overall environment compounds the problem. The same consideration is applicable to staff. These variables are difficult to isolate. Even if these variables are randomly distributed, generalizability beyond the original population might be diminished.

It is the purpose of the present study to explore the following questions regarding ward atmosphere and its presumed function as a global entity. When two different patient populations are exposed to essentially the same ward environment, will they respond with similar attitudes regarding the ward's atmosphere? Is sex significantly related to attitudes about ward atmosphere? For example, would males respond to a ward's environment with much the same attitudes as females exposed to a comparable ward? Finally, would there be significant differences in patient's attitudes regarding their ward's atmosphere when the variable of a program emphasizing individualized patient management is introduced?

**Method**

**Subjects**

Subjects were 38 male and 72 female patients residing in two acute psychiatric units of a state hospital. Their ages ranged from 19-64.

**Assessment Instrument**

The criterion measure was the 100-item (True-False) Ward Atmosphere Scale (Moos, 1974). The ward milieu as a
whole was the central object of study and the scale reflects
the ward characteristics along particular dimensions. Those
dimensions are: "Involvement, Support, Spontaneity, Autonomy,
Practical Orientation, Personal Problem Orientation, Anger
and Aggression, Order and Organization, Program Clarity, and
Staff Control" (Moos, 1974, p. 4). Each scale is scored for
a maximum of 10 points.

Procedure

The scale was administered in small group settings to
38 men and 39 of the women patients. The two units where
they resided were comparable with respect to number and posi-
tion of staff members, programming, food, physical
surroundings, privileges and census. Two weeks after testing
an individualized patient management program was initiated
on the males' unit. The program consisted of each patient
being seen individually by either a registered nurse, li-
censed vocational nurse, social worker, master's level
psychologist or psychiatric aide for approximately 15 minutes
per day, Monday through Friday to discuss patients' progress
and offer support and assistance with problems. Patients
were randomly assigned from the beginning of the program to
see one of the above staff members. The females received no
change in their usual structured ward milieu.

The scale was re-administered 2 months after the new
program was implemented on the male unit. Ten of the orig-
inal male group participated in the second testing. On the
female unit, 33 patients who had not been admitted to the hospital by the first administration were tested. As average stay on the acute units is 6-8 weeks, the number of males exposed to both testings was significantly reduced. The female sample in the second testing was composed of entirely new subjects.

**Results**

A t-test for independent means was calculated for each of the 10 subscales (subscale scores ranged from 0-10) of the Ward Atmosphere Scales for the first and second female groups (see Table 1). Significant differences were obtained for two of the subscales—Autonomy ($t = 2.26$, $df = 70$, $p < .027$) and Order and Organization ($t = 1.99$, $df = 70$, $p < .05$).

A t-test for independent means was calculated for each of the 10 subscales on the first male and female groups' scores (see Table 2). Significant differences were obtained on Personal Problem Orientation ($t = 3.18$, $df = 75$, $p < .002$) and Anger and Aggression Scales ($t = 2.65$, $df = 75$, $p < .01$).

For each of the 10 subscales of the pre and post male group, a t-test for same subjects was calculated (see Table 3). Significant differences were obtained on Spontaneity ($t = 2.51$, $df = 9$, $p < .03$) and Anger and Aggression ($t = 2.4$, $df = 9$, $p < .04$).

**Discussion**

Since the first and second female groups differed significantly on two variables (Autonomy and Order and
Table 1

Means, Standard Deviations and t Values for the Two Female Groups on Ward Atmosphere Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>M1</th>
<th>M2</th>
<th>SD 1</th>
<th>SD 2</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>5.7</td>
<td>5.2</td>
<td>2.26</td>
<td>2.42</td>
<td>.91</td>
</tr>
<tr>
<td>Support</td>
<td>4.9</td>
<td>5.0</td>
<td>2.14</td>
<td>2.17</td>
<td>.20</td>
</tr>
<tr>
<td>Spontaneity</td>
<td>4.5</td>
<td>4.0</td>
<td>1.86</td>
<td>1.53</td>
<td>1.23</td>
</tr>
<tr>
<td>Autonomy</td>
<td>4.4</td>
<td>3.6</td>
<td>1.53</td>
<td>1.45</td>
<td>2.26*</td>
</tr>
<tr>
<td>Practical Orientation</td>
<td>5.1</td>
<td>6.0</td>
<td>2.27</td>
<td>1.67</td>
<td>1.88</td>
</tr>
<tr>
<td>Personal Problem Orientation</td>
<td>4.5</td>
<td>4.2</td>
<td>2.31</td>
<td>2.12</td>
<td>.57</td>
</tr>
<tr>
<td>Anger and Aggression</td>
<td>4.6</td>
<td>4.8</td>
<td>2.07</td>
<td>1.92</td>
<td>.42</td>
</tr>
<tr>
<td>Order and Organization</td>
<td>6.7</td>
<td>5.7</td>
<td>2.12</td>
<td>2.12</td>
<td>1.99*</td>
</tr>
<tr>
<td>Program Clarity</td>
<td>4.4</td>
<td>5.1</td>
<td>2.09</td>
<td>2.12</td>
<td>1.41</td>
</tr>
<tr>
<td>Staff Control</td>
<td>6.2</td>
<td>6.2</td>
<td>1.79</td>
<td>1.70</td>
<td>0</td>
</tr>
</tbody>
</table>

* p < .05

Organization) the premise that ward atmosphere is a global entity is challenged within this population. Many environmental factors were held constant with the exception of ward members. One could make the tentative hypothesis that the particular group of patients living on a ward at any given time significantly affects the individual's perception of the emphasis on autonomy and order and organization. These particular scales purportedly tap opinions about how self-sufficient and independent patients are (Autonomy) and how well-kept the ward is (Order and Organization).
Table 2
Means, Standard Deviations and $t$ Values for First Male and Female Groups on Ward Atmosphere Scale

<table>
<thead>
<tr>
<th>Scale</th>
<th>M1</th>
<th>M2</th>
<th>SD 1</th>
<th>SD 2</th>
<th>$t$ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement</td>
<td>5.1</td>
<td>5.7</td>
<td>2.64</td>
<td>2.26</td>
<td>1.07</td>
</tr>
<tr>
<td>Support</td>
<td>4.6</td>
<td>4.9</td>
<td>2.17</td>
<td>2.14</td>
<td>.61</td>
</tr>
<tr>
<td>Spontaneity</td>
<td>3.9</td>
<td>4.5</td>
<td>1.49</td>
<td>1.86</td>
<td>1.56</td>
</tr>
<tr>
<td>Autonomy</td>
<td>4.8</td>
<td>4.4</td>
<td>1.47</td>
<td>1.53</td>
<td>1.17</td>
</tr>
<tr>
<td>Practical Orientation</td>
<td>5.9</td>
<td>5.1</td>
<td>1.75</td>
<td>2.27</td>
<td>1.73</td>
</tr>
<tr>
<td>Personal Problem Orientation</td>
<td>3.0</td>
<td>4.5</td>
<td>1.79</td>
<td>2.31</td>
<td>3.18**</td>
</tr>
<tr>
<td>Anger and Aggression</td>
<td>5.8</td>
<td>4.6</td>
<td>1.89</td>
<td>2.07</td>
<td>2.65**</td>
</tr>
<tr>
<td>Order and Organization</td>
<td>5.9</td>
<td>6.7</td>
<td>1.99</td>
<td>2.12</td>
<td>1.71</td>
</tr>
<tr>
<td>Program Clarity</td>
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<td>4.4</td>
<td>1.81</td>
<td>2.09</td>
<td>0</td>
</tr>
<tr>
<td>Staff Control</td>
<td>5.8</td>
<td>6.2</td>
<td>1.52</td>
<td>1.79</td>
<td>1.06</td>
</tr>
</tbody>
</table>

*p < .01

Therefore, it would seem that differences of opinion reflected in these scales could be attributable to the particular population at any given time. This differs from Moos and Daniels (1968) suggestion that the atmosphere would be perceived similarly irrespective of ward members. One problem with this interpretation is that it does not account for the nature of the interaction of the staff and patients. If changes occurred in their interaction, they could affect overall patient's attitudes. The likelihood of such an impact occurring in such an orderly fashion as to cause
significantly different opinions among the two groups of patients seems questionable. If the patients were more psychotic, or overtly acting-out in the second group, this might explain their significantly lower scores on both variables. Due to their being no systematic assignment of patients to wards upon admission, this seems unlikely.

The significant differences found in subscale scores on these two dimensions (Autonomy and Order and Organization) reflect the possibility that these two patient groups found the ward's environment to be different along particular

<table>
<thead>
<tr>
<th>Scale</th>
<th>M1</th>
<th>M2</th>
<th>t value</th>
</tr>
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<tbody>
<tr>
<td>Involvement</td>
<td>5.8</td>
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<td>.89</td>
</tr>
<tr>
<td>Support</td>
<td>6.1</td>
<td>5.7</td>
<td>.43</td>
</tr>
<tr>
<td>Spontaneity</td>
<td>4.9</td>
<td>3.6</td>
<td>2.51*</td>
</tr>
<tr>
<td>Autonomy</td>
<td>5.0</td>
<td>5.9</td>
<td>1.58</td>
</tr>
<tr>
<td>Practical Orientation</td>
<td>6.7</td>
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<td>.88</td>
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<td>Personal Problem Orientation</td>
<td>3.6</td>
<td>2.9</td>
<td>.77</td>
</tr>
<tr>
<td>Anger and Aggression</td>
<td>5.3</td>
<td>3.1</td>
<td>2.40*</td>
</tr>
<tr>
<td>Order and Organization</td>
<td>6.5</td>
<td>6.7</td>
<td>.48</td>
</tr>
<tr>
<td>Program Clarity</td>
<td>5.4</td>
<td>5.7</td>
<td>.30</td>
</tr>
<tr>
<td>Staff Control</td>
<td>5.6</td>
<td>4.9</td>
<td>.79</td>
</tr>
</tbody>
</table>

*p < .05
dimensions. This brings up questions concerning the credibility of the global entity notion with respect to this population. Reid (1968) clearly stated that people can be changed through their relationships with other people, and Leonard (1973) pointed out that one of the most important factors perceived by patients as helping in their hospitalization was interaction with other patients. These studies indicate that two important ingredients are the necessity for considering a particular population and the interaction of its members when one attempts to measure ward environment. It would seem incorrect to assume that staff members, physical surroundings or programming are always the significant variables in determining the perception of ward atmosphere. Apparently, at least within these two samples, one could hypothesize that some factor of the interaction or actual composition of the groups affected perception of ward atmosphere.

When the first male group was compared with the first female group on the same ten subscales, it was found that attitudes of these patients exposed to essentially the same ward milieu were markedly different whether due to sex differences or other variables. Males viewed the emphasis on openly discussing their feelings and problems (Personal Problem Orientation) as being much less than did the females. The possibility exists that males could have some tendency to be less open in discussing their problems. Also, staff on
the male wards could have placed less emphasis on encouraging patients to openly discuss feelings. Another interpretation could be that males, if actually subject to such an inclination, would tend to respond to the questionnaire in such a way as to indicate their own dislike for open expression of feeling.

The extent to which patients were encouraged to become openly angry and display other expressions of anger (Anger and Aggression) was viewed as much greater by males in this study. It can only be speculated as to what this significant difference in opinion indicates, but in general it would seem that acts of anger and aggression could possibly be tolerated much more readily on male wards due to such behavior being seen as more commonly exhibited by males. The above interpretations tend to imply that the staff viewed the patients in a culturally stereotyped way. For example, males might be expected to display more aggressive behavior. It could not be assumed that such an interaction would take place uniformly across populations as Moos and Houts (1968) found no significant sex differences comparing Ward Atmosphere scores. It is however, a plausible explanation for these groups' differences. Further research in varied populations will be necessary to more clearly delineate any reliable sex differences in response set for the Ward Atmosphere Scale.

Finally, when the program of individualized patient management was introduced, interestingly enough, a significant
decline occurred in the postmale group's perception of the extent to which their environment encouraged them to spontaneously express feelings and overtly display anger and aggression. This would lead one to hypothesize that frequent individualized attention from staff members served to lessen patient's perceived emphasis on spontaneous display of feelings, particularly anger. It is possible that the opportunity to vent pent-up anger and other emotions reduced overt aggression.

A possible explanation of the postmale group changing opinions is that they were being exposed to different ward mates who somehow altered the environment. Another factor to be considered is that these men had been hospitalized longer than the overall population and were exposed to the setting for a longer period of time by virtue of the fact that they were present for both testings. These were not necessarily more disturbed patients, as extenuating circumstances such as court commitments, placement problems, etc., could keep them hospitalized for longer periods of time.

Sidman and Moos (1973) discovered that their population was distinctly affected by increased staff involvement as shown on changed Ward Atmosphere scores (pre and post). This would lend support to the present findings. They also made a very salient point concerning the fact that programs look very different on paper than in practice. This could well be the case in this intervention as initially,
individualized patient management was designed to decrease
length of hospital stay and maximize stay in the community.
Moos, et al. (1973) found that wards where perceived emphasis
on anger and aggression was high had patients who remained
in the community longer than those where this scale was low.
Due to the fact that Anger and Aggression Scale Scores
lessened significantly with exposure to individualized
patient management in this study, it would seem that the
desired effect may not have been actualized.

Palmer and McGuire (1973) found that for many, patient
outcome was independent of hospital procedure. This would
lend support to the notion that the particular groups of
patients to which one is exposed may very well be one of the
most significant factors influencing the effect of hospital-
ization. Caution should be exercised in generalizing these
findings across populations. They do show that significant
differences can exist in the perceived ward atmosphere on
the same wards when two separate patient groups are tested.
This alone would serve to encourage future research to seek
differences before making assumptions based upon a question-
able premise. There have been more studies examining the
effects of program change in the past than exploratory
studies such as the present one. Great caution should be
used in interpreting these and future studies unless the
population's influence has been ruled out as a contaminating
factor beforehand.
It would seem that the results of this exploratory study has shed new light on the use of the Ward Atmosphere Scale and should serve to stimulate further research. Since the scores of all groups utilized in this study hovered closely about the mean, the overall sensitivity of the instrument along the specified dimensions would be questionable. Furthermore, the results of the present study cause serious doubt about the implied underlying assumptions of previous research with the Ward Atmosphere Scale. These observations make further investigation of the effects of the particular group of subjects' interactions with one another seem of tantamount importance. Since each patient undoubtedly spends more of his total hospital time interacting with fellow patients than with staff, it would appear that this is a rich, untapped resource for intervention and assessment with the Ward Atmosphere Scale. Also, more factorial design studies to determine what degree of sensitivity the Ward Atmosphere Scale has along the focal dimension should prove to be helpful. Finally, wider use of Ward Atmosphere Scale on greater numbers of patients should provide a more reliable basis for generalization of results. Since the population in this study consisted of patients residing on admission wards, results could be different on wards for chronic patients or special program wards.
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