

# Perception and Satisfaction of Patients Versus Staffs in Three Psychiatric Wards in Tehran in 2010 and 2011

Seyed Mohsen Zamir,<sup>1,\*</sup> Nargues Beyraghi,<sup>2</sup> Yasaman Motaghi Pour,<sup>3</sup> and Neda Farzaneh<sup>4</sup>

<sup>1</sup>Psychiatrist, Assistant Professor, Qazvin University of Medical Sciences, Qazvin, Iran

<sup>2</sup>Psychiatrist

<sup>3</sup>Psychologist

<sup>4</sup>Psychiatrist

\*Corresponding author: Seyed Mohsen Zamir, Psychiatrist, Assistant Professor Qazvin University of Medical Sciences, Qazvin, Iran. E-mail: omid.zamir@gmail.com

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## Abstract

**Objectives:** To evaluate the perception and satisfaction of patients versus staffs in three psychiatric wards in Tehran.

**Methods:** 219 participants (patients and staffs) from Imam Hossein, Taleghani and Rouzbeh hospitals were evaluated using WAS (ward atmosphere scale), WES-10 (working environment scale), Moos and VSSS (verona service satisfaction scale-32) questionnaires.

**Results:** 217 participants including 121 patients (55.2%), 58 staffs (26.4%) (nurses and assistant nurses) and 38 doctors (17.3%) (Psychiatrist and residents) were evaluated. The highest mean score in WAS for patients was in order and organization ( $0.57 \pm 0.13$ ) and for staffs was in anger and aggressive behavior ( $0.58 \pm 0.13$ ) items, moreover the lowest mean score in patients and staffs was in autonomy. The mean scores for patients regarding order and organization, staff control and clarity items were higher compared to staffs and in other items the staffs scored higher than patients. Involvement with therapy strongly correlated with Verona (+0.75). MOOS showed direct significant correlation with self-realization and indirect significant correlation with nervousness, conflict and work load in WES-10.

**Conclusions:** Staff and patients perceive the treatment environment differently, moreover staff consider ward atmosphere more suitable than patients, but staff satisfaction did not correlate with their perception from treatment environment.

**Keywords:** Ward Atmosphere Scale (WAS), VSSS (Verona Service Satisfaction Scale-32), Work Environment and Job Satisfaction (WES-10), Patient and Staff Satisfaction

## 1. Background

Patients and staffs experience different aspects of work environment in psychiatric wards, although they spend a lot of time in the same place. This difference in conception is more important because lead to several difficulties in relationship between patients and staff (1-4). Previous studies in this field have proved the importance of psychiatric hospital environment and indicated that how this environment can be manipulated to enhance therapy. These studies have designated that ward atmosphere affects patients and staff satisfaction, relationship between patients and staff, length of hospitalization and post hospital adjustments (5-7). The ward atmosphere scale (WAS) is a tool to evaluate the aspects of the ward atmosphere including: relationship dimensions (involvement, support, spontaneous behavior), personal growth dimensions (autonomy, practical orientation, personal problem orientation, anger and aggressive behavior) and system maintenance dimensions (order and organization, program clarity, staff control, staff's attitude toward expressed feelings) (8). In a 20 years follow up study, Rossberg et al. evaluated patient satisfaction and treatment environment in

acute psychiatric ward and indicated that items such as involvement in treatment, practical orientation, anger and aggressive behavior and staff control (staff's ability to control patients and manage condition of ward) significantly correlated with patient's satisfaction (9). Another study by Rossberg et al. signified higher WAS score among staffs compared to the patients regardless of order (to array the ward) and organization and staff control (10). Prior studies have provided conflicting results about the differences between patients' and staff's perceptions of the treatment environment (11, 12). The reasons for such discrepancy are not clear but it may relate to different study design and different tools for measuring the scores. In 2003, Rossberg and Friis has indicated that these studies have applied individual WAS scores, whose reliability for most subscales are unsatisfactory (13). The VSSS (Verona service satisfaction scale-32) questionnaire evaluates satisfaction of patients and their relatives about treatment progress, hospital environment and staff behavior and expertise. It was translated from English to Persian and in 2008 was adapted for Iranian population by Nejatiasafa et al., (14). Additionally, the work environment and job satisfaction (WES-10) has

been applied to evaluate the work environment by Rossberg and indicated that patient satisfaction tightly correlated with patients' WAS scores but did not significantly correlate with staff's WES-10 scores (10).

Studies evaluating relationship between staffs and patients in psychiatric hospital, patient's satisfaction, work environment and job satisfaction in Iran are limited. Therefore this study addresses the above-mentioned issues with a purpose of evaluating the perception and satisfaction of patients versus staffs in three psychiatric wards in Tehran

## 2. Methods

This cross sectional study was organized in 2010 and 2011 in Imam Hosein, Taleghani and Roozbeh hospitals in Tehran and 217 participants (patients and staffs) were recruited in this study. Patients who were hospitalized more than one week and staff who were working in the wards for at least one month and agreed to participate, were included. Patients with impaired consciousness and staffs who exit from ward by any reason, were excluded. Due to the presence in psychiatric wards, the necessary permits were obtained from the heads of departments and authorities. Adequate explanations were presented to all patients and staff about the actual research project.

WAS (ward atmosphere scale) and WES -10 (working environment scale) Moos and Verona questionnaire were used.

WAS is the most widely used tool to assess the psychosocial environment in wards and contains different aspects of patient-staff relationship, personal feelings in patients and staffs and system specifications. WAS includes 10 Items as follow:

1. Involvement: how active and energetic patients are in the treatment program.
2. Support: how much patients help and support each other and how supportive the staff is toward patients.
3. Spontaneous behavior: how much the program encourages the open expression of feelings by patients and staff?
4. Autonomy: how self-sufficient and independent patients are, in making their own decisions.
5. Practical orientation: the extent to which patients learn practical skills and are prepared for release from the program.
6. Personal problem orientation: the extent to which patients seek to understand their feelings and personal problems.
7. Anger and Aggressive behavior: the extent to which patients argue with other patients and staff, become openly angry, and display other aggressive behavior.

8. Order and Organization: how important order and organization are in the program.

9. Program clarity: the extent to which patients know what to expect in their day-to-day routine and the explicitness of program rules and procedures.

10. Staff control: The extent to which the staff uses measures to keep patients under necessary controls.

WAS has 100 "True" or "False" phrases that participants answer according to their opinion. Several phrases reflect one item. Each item receives a score between 0 to 1, and is evaluated independently.

WES-10 (work environment satisfaction) is a self-report questionnaire for staff to examine their perception from main components of the workplace and comprises four subscales including:

1. Self-realization: Staff how much they feel they can support and appreciate their knowledge in ward.
2. Work load: Staff how much duties have to do and how much they feel to be in several places at the same time.
3. Conflict: staff how much encounter with conflicts and issues of dishonesty and not knowing their duties.
4. Nervousness: Staff how much concerned are regarding going to work and how much stress they feel.

The staff rated each items on a 5-point scale ranging from 1, completely disagrees, to 5, completely agree. Each item is evaluated independently.

VSSS (verona service satisfaction scale-32) is a questionnaire to evaluate the effects of ward services and treatment progress on satisfaction of patients and their relatives in two forms, one for patients and one for relatives. (1 to 5 Likert scale for each question).

Moos is a questionnaire with three questions about job satisfaction. (3 to 15 score) WAS, WES -10 and Moos satisfaction questionnaires were used in backward-toward method. The reliability of translated versions was checked with five psychiatry attends. The revised Persian versions of questionnaires were presented to three patients and three staff and they were asked to read the questionnaires and indicate any unclear words or phrases. Finally another group including three patients and three staff revised the questionnaires and finally, we approved this version and presented to participants in this study.

The WAS and Verona (patient version) questionnaires were given to patients furthermore the Verona questionnaire (patient family's version) was filled by patient's family. Additionally WAS, WES and Moos questionnaires were filled by staff including psychiatrists, psychiatry residents, nurses and nurse assistants.

The collected data were analyzed using SPSS version 20. The mean of each item of WAS was measured for patients and staff separately and WES-10 for staff. The mean score of VSSS-32 indicated patients' satisfaction from ward and

Moos mean score showed staff job satisfaction. All data analyzed using t- test, ANOVA and non-parametric Kruskal-Wallis and Mann-Whitney tests when a group contains less than 10 samples. The correlation between variables obtained using Pearson correlation test.  $\alpha < 0.05$  were consider significant.

### 3. Results

217 participants including 121 patients (55%), 58 staff (26%) (nurses and assistant nurses) and 38 doctors (19%) (psychiatrist and residents) were evaluated. The Verona satisfaction scale mean score in patients was  $85.13 \pm 15.4$  and the difference between three hospitals was significant ( $P = 0.04$ ) (Table 1). The mean score of job satisfaction questionnaire (Moos) for nurses and assistants was  $10.6 \pm 2.3$  and for doctors was  $11.1 \pm 1.6$ .

Table 1. VSSS-32 Mean Score in Three Hospitals<sup>a</sup>

Hospital	Mean of Verona Score	Standard Deviation of Verona Score
Imam Hossein	88.5	14.1
Taleghani	89	4.4
Rouzbeh	81.7	17.3
Total	85.1	15.4

<sup>a</sup>ANOVA:  $P < 0.05$ .

Regarding WAS questionnaire, the highest mean score for patients was detected in order and organization ( $0.57 \pm 0.13$ ) and in staff was detected in anger and aggressive behavior ( $0.58 \pm 0.13$ ) item, moreover the lowest mean score in patients and staff was in autonomy (Table 2). The mean score in patients in order and organization, staff control and clarity subscales was higher compared to the staffs and in other items the staff score was higher than patients (Table 2).

For patients, involvement with therapy strongly correlated with Verona mean score (+ 0.75). Conversely, anger and aggressive behavior indirectly correlated with Verona mean score (- 0.78). Moreover there was a moderate correlation between Verona mean score and WAS in support (+ 0.37), spontaneous behavior (+ 0.37), personal problem orientation (+ 0.49) and autonomy items (+ 0.34) and weak correlation regarding practical orientation (+ 0.27). Additionally, program clarity and order and organization was not significantly correlated with Verona mean score (Table 3).

For staff, Moos mean score showed direct significant correlation with self-realization and indirect significant correlation with nervousness, conflict and work load.

Table 2. WAS Items Mean Score for Patients and Staff ( $P < 0.05$ )

Was Item	Mean	Standard Deviation	2-Tailed P Sig.
<b>Involvement</b>			< 0.05
Patients	0.37	0.14	
Staff	0.47	0.12	
<b>Support</b>			< 0.05
Patients	0.42	0.12	
Staff	0.48	0.11	
<b>Spontaneity</b>			< 0.05
Patients	0.47	0.12	
Staff	0.52	0.11	
<b>Autonomy</b>			< 0.05
Patients	0.15	0.08	
Staff	0.15	0.08	
<b>Practical orientation</b>			< 0.05
Patients	0.42	0.10	
Staff	0.53	0.12	
<b>Personal problems orientation</b>			< 0.05
Patients	0.50	0.13	
Staff	0.54	0.11	
<b>Anger and aggression</b>			< 0.05
Patients	0.50	0.15	
Staff	0.58	0.13	
<b>Order and organization</b>			< 0.05
Patients	0.75	0.13	
Staff	0.57	0.12	
<b>Program clarity</b>			< 0.05
Patients	0.60	0.11	
Staff	0.54	0.09	
<b>Staff control</b>			< 0.05
Patients	0.65	0.13	
Staff	0.57	0.10	

Abbreviation: Sig., significance.

Moreover Moos mean score did not correlate with any WAS items (Tables 4 and 5).

### 4. Discussion

In psychiatric wards the theories on how to describe a good treatment environment for both patients and staff have changed over the years. The ward atmosphere scale

**Table 3.** Correlation Between WAS Items and VSSS-32 Mean Score for Patients<sup>a</sup>

Was Items	Pearson Coefficient with Verona Score	2-Tailed Sig
Involvement	+ 0.75	< 0.05
Support	+ 0.37	< 0.05
Spontaneity	+ 0.37	< 0.05
Autonomy	+ 0.34	< 0.05
Practical orientation	+ 0.27	< 0.05
Personal problem orientation	+ 0.49	< 0.05
Anger and aggressive behavior	- 0.78	< 0.05
Order and organization	- 0.12	0.17
Program clarity	+ 0.13	0.14
Staff control	- 0.30	< 0.05

Abbreviation: Sig., significance.  
<sup>a</sup>(ANOVA < 0.05).

**Table 4.** Correlation Between WAS Items and Moos Mean Score for Staff

WAS Items	Pearson Coefficient with Moos Score	2-Tailed Sig.
Involvement	- 0.03	0.71
Support	- 0.007	0.94
Spontaneity	- 0.14	0.17
Autonomy	- 0.01	0.85
Practical orientation	- 0.07	0.48
Personal problem orientation	- 0.03	0.73
Anger and aggressive behavior	- 0.04	0.68
Order and organization	+ 0.03	0.77
Program clarity	- 0.02	0.81
Staff control	- 0.19	0.06

Abbreviation: Sig., significance.

**Table 5.** Correlation Between WES-10 Items and Moos Mean Score for Staff

WES-10 Item	Pearson Coefficient with MOOS Score	Sig.
Self-realization	+ 0.47	< 0.05
Nervousness	- 0.59	< 0.05
Conflict	- 0.57	< 0.05
Work load	- 0.61	< 0.05

Abbreviation: Sig., significance.

(WAS) is an approved questionnaire to assess how patients

and staff perceive the ward environment. In current survey, the results showed that the WAS mean score among staff was more than patients in most of items. But, in items that indicate system maintenance dimensions, include order and organization, program clarity and staff control, mean WAS score was higher among patients than staff. These finding were in line with Friis study that specified higher WAS score in respect to order and organization and staff control among patients (15). The results of our study in accordance with Friis results indicate that staff perceive the treatment environment more positively than patients (15). Regarding to the items that show personal growth, Main et al. implied that staff obtain higher score on items that showed the favorable compared to undesirable aspects of their duties (16). In agreement to this finding, we addressed that staff obtained higher score than patients with the exception of anger and aggressive behavior that is consistent with previous reports and may reflect the perception of patients and some staffs' aggressive behaviors by most of the staff. About two items of WAS, our findings are different from previous studies: The mean score of autonomy among patients and staffs in current survey was comparable but lower than prior investigations (0.15 vs. 0.47 for patients and 0.53 for staff in Rossberg and Firis study) (13). It may reflect that in these three major and different settings of psychiatric ward in Iran (close ward in Imam Hossein general hospital, open ward in Taleghani general hospital and single specialized Rouzbeh hospital), there are some rules which limit the patients autonomy and similarly perceive by staffs and patients. Moreover, program clarity score in patients was higher than staffs showing that patients adapt more with the rules in the wards but staffs find their various responsibilities less clear.

Compared with large study of Rossberg and Friis, in our study the mean score of WAS items are less except with anger and aggressive behavior and staff control in both patients and staffs and order and organization and program clarity in patients. According to the approved role of therapeutic environment and low level of aggression in patients' outcome, it is necessary to find ways to decrease violence in wards.

The difference between three hospitals was significant regarding patients satisfaction assessed by Verona questionnaire. The reason for such discrepancy is not clear but may relate to different relationship between staff and patients in three hospitals. We divulged the strong direct correlation between patients satisfaction (VSSS-32 mean score) and the WAS item involvement in treatment, conversely indirect correlation with anger and aggressive behavior. Moreover, support, spontaneous behavior, autonomy and personal problem orientation items moderately

correlated with patients' satisfaction and practical orientation suggesting weak correlation. Patients' satisfaction correlates more with human and social than scientific and official aspects. In other word, patients will satisfy if they feel involved with their therapeutic process; found the ward live and active; had group activity and assumed the audience in ward a harmonious society. On the other hand, hostile behavior and conflict between patients and staff decrease the patients' satisfaction. In fact, patients can say implemented criteria of family and society in ward. One interesting finding is that although patients obtained high score in order and organization and program clarity items (even more than other countries), these did not show significant correlation with patients' satisfaction (order and organization shows negative correlation). It may reflect patients' trend to break rules.

In Rossberg study, patients satisfaction (be assessed by different satisfaction scale) strongly correlated with support and involvement with treatment.

In respect to staff, regardless of their position as doctor or non-doctor staff, affect WAS mean scores in involvement with treatment, anger and aggressive behavior and personal problem orientation and they are significantly more in non-doctor staff. It seems that because of more spending time in ward, non-doctor staff percept human and social aspects of ward much and show more interests in patients' personal issues.

Our findings about work attitude are assessed by WES-10, showing interesting difference between doctors and non-doctor staff. Doctors apply their knowledge in ward better and feel much support. Non-doctor staff percept much stress and conflict. Both obtained moderate score in workload Item. The most interesting finding of our study is that job satisfaction (Moos three questions scale mean score) showed no significant correlation with any of WAS items. On the other hand, Rossberg (10) indicated moderate correlation between staff satisfaction and the items of involvement with treatment and order and organization.

We detected strong indirect correlation between staff job satisfaction with nervousness, conflict and work load in WES-10 items and moderate direct correlation with self-realization. Consistently Rossberg (10) showed moderate direct correlation with self-realization but indirect only with conflict. It seems that psychological and/or physical ability of staff work in psychiatric wards in Iran are not proportional with the load and nature of the work.

It is clear that ward atmosphere and patients' personal issues are important for patients but not for staffs. Patients and staffs are in ward for different reasons. Consist of patients, staff can leave the ward after work shift or change their workplace if feel too much stresses and worries. For staff, work atmosphere and relation with cowork-

ers is more important.

It can be said, staff and patients live in "different worlds".

#### 4.1. Limitations

Several limitations are inherent to the present study, validity of the WAS and WES-10 questionnaires which are not assessed in Persian and we used them in translate-retranslate method, moreover we evaluated work satisfaction using a questionnaire that included three questions, despite the fact that more suitable questionnaires exist. Further studies with validated Persian version questionnaires (WAS and WES-10) are needed to confirm the results reported here.

#### 4.2. Conclusion

In agreement to the previous studies we designated that staffs and patients differently perceive the treatment environment, moreover staffs consider ward atmosphere more suitable than patients, but staffs job satisfaction does not correlate with their perception of ward and is affected by work relationship and professional issues. On the other hand, patients' satisfaction from ward correlates with their perception of ward and human and social issues of ward atmosphere are more important for them compared to the professional aspects of wards.

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### References

1. Eklund M, Hansson L. Relationships between characteristics of the ward atmosphere and treatment outcome in a psychiatric day-care unit based on occupational therapy. *Acta Psychiatr Scand.* 1997;**95**(4):329-35. [PubMed: [9150828](#)].
2. Timko C, Moos RH. Outcomes of the treatment climate in psychiatric and substance abuse programs. *J Clin Psychol.* 1998;**54**(8):1137-50. [PubMed: [9840784](#)].
3. Timko C, Moos RH. Determinants of the treatment climate in psychiatric and substance abuse programs: Implications for improving patient outcomes. *J Nerv Ment Dis.* 1998;**186**(2):96-103. doi: [10.1097/00005053-199802000-00005](#).
4. Middelboe T, Schjodt T, Byrting K, Gjerris A. Ward atmosphere in acute psychiatric in-patient care: patients' perceptions, ideals and satisfaction. *Acta Psychiatr Scand.* 2001;**103**(3):212-9. [PubMed: [11240578](#)].

5. Archer RP, Amuso KF. Comparison of staff's and patients' perceptions of ward atmosphere. *Psychol Rep.* 1980;**46**(3 Pt 1):959-65. doi: [10.2466/pr0.1980.46.3.959](https://doi.org/10.2466/pr0.1980.46.3.959). [PubMed: [7394111](https://pubmed.ncbi.nlm.nih.gov/7394111/)].
6. Caplan CA. Nursing staff and patient perceptions of the Ward Atmosphere in a maximum security forensic hospital. *Arch Psychiatr Nurs.* 1993;**7**(1):23-9. doi: [10.1016/0883-9417\(93\)90019-s](https://doi.org/10.1016/0883-9417(93)90019-s).
7. Skodol AE, Plutchik R, Karasu TB. Expectations of hospital treatment. Conflicting views of patients and staff. *J Nerv Ment Dis.* 1980;**168**(2):70-4. [PubMed: [7354309](https://pubmed.ncbi.nlm.nih.gov/7354309/)].
8. Moos RH. Evaluating treatment environments: The quality of psychiatric and substance abuse programs. New Brunswick, NJ: Transaction Publishers; 1997.
9. Rossberg JI, Melle I, Opjordsmoen S, Friis S. Patient satisfaction and treatment environment: a 20-year follow-up study from an acute psychiatric ward. *Nord J Psychiatry.* 2006;**60**(2):176-80. doi: [10.1080/08039480600583894](https://doi.org/10.1080/08039480600583894). [PubMed: [16635939](https://pubmed.ncbi.nlm.nih.gov/16635939/)].
10. Rossberg JI, Friis S. Patients' and staff's perceptions of the psychiatric ward environment. *Psychiatr Serv.* 2004;**55**(7):798-803. doi: [10.1176/appi.ps.55.7.798](https://doi.org/10.1176/appi.ps.55.7.798). [PubMed: [15232020](https://pubmed.ncbi.nlm.nih.gov/15232020/)].
11. Jansson JA, Eklund M. Stability of perceived ward atmosphere over time, diagnosis and gender for patients with psychosis. *Nord J Psychiatry.* 2002;**56**(6):407-12. doi: [10.1080/08039480260389316](https://doi.org/10.1080/08039480260389316). [PubMed: [12495534](https://pubmed.ncbi.nlm.nih.gov/12495534/)].
12. Schjodt T, Middelboe T, Mortensen EL, Gjerris A. Ward atmosphere in acute psychiatric inpatient care: differences and similarities between patient and staff perceptions. *Nord J Psychiatry.* 2003;**57**(3):215-20. doi: [10.1080/08039480310001382](https://doi.org/10.1080/08039480310001382). [PubMed: [12775297](https://pubmed.ncbi.nlm.nih.gov/12775297/)].
13. Rossberg JI, Friis S. A suggested revision of the Ward Atmosphere Scale. *Acta Psychiatr Scand.* 2003;**108**(5):374-80. [PubMed: [14531758](https://pubmed.ncbi.nlm.nih.gov/14531758/)].
14. Nejatisafa AA, Mousavinia SJ, Mottaghipour Y, Sharifi V, Amini H, Mohammadi MR, et al. Verona service satisfaction scale- 32 (vsss-32): Persian translation and cultural adaptation. *Iran J Psychiat.* 2008;**3**:25-9.
15. Friis S. Measurements of the perceived ward milieu: a reevaluation of the Ward Atmosphere Scale. *Acta Psychiatr Scand.* 1986;**73**(5):589-99. [PubMed: [3751663](https://pubmed.ncbi.nlm.nih.gov/3751663/)].
16. Main S, McBride AB, Austin JK. Patient and staff perceptions of a psychiatric ward environment. *Issues Ment Health Nurs.* 1991;**12**(2):149-57. [PubMed: [2022466](https://pubmed.ncbi.nlm.nih.gov/2022466/)].