

**ORIGINAL PAPER****An Evaluative Study of the WOW Program on Patients' Satisfaction in Acute Psychiatric Units**

**Xie Huiting, PhD, RN, RMN**  
Institute of Mental Health, Singapore

**Li Ziqiang, PhD, RN, RMN**  
Institute of Mental Health, Singapore

**Correspondence:** Dr Huiting Xie, Institute of Mental Health Singapore, 10 Buangkok View, Singapore 539747 e-mail: hui\_ting\_xie@imh.com.sg

**Abstract**

**Background:** Patient satisfaction is one of the key evidence of the quality of health-care delivery in nursing. Nursing is a patient-centered activity; although nurse-patient interaction is one of the key tenets of mental health nursing, a structured program to enhance this interaction is lacking. To address the gap, the WOW program was developed in a psychiatric hospital but its effectiveness had not been evaluated.

**Objective:** This study aims to compare satisfaction levels between patients who have undertaken the WOW program and those who have not.

**Methodology:** A comparative survey design was employed for this study. A purposive sample of 91 adults was obtained from two inpatient psychiatric units: one where the WOW program had been implemented and the other, a matched control unit. After patients had been admitted to one of the two inpatient psychiatric units for a week, a questionnaire, modified from the Newcastle Satisfaction with Nursing Scale (NSNS), was administered to participants to assess their level of satisfaction with nursing care.

**Results and Conclusion:** When the satisfaction scores of participants in the WOW group and the control group were compared, it was revealed that the WOW group was more satisfied with nursing care than the control group. Though the difference was not statistically significant, the potential of a structured nurse-patient interaction program to enhance patients' satisfaction is encouraging. The results of this study offer valuable information that may direct the future enhancement and development of programs to improve patient satisfaction.

**Keywords:** quality, nursing care, patient satisfaction, nurse-patient relationship.

## Introduction

The concept of nurse-patient relationships has been of great importance in the existing literature in the field of psychiatric care (Johansson & Eklund 2003; Shattell 2004; Williams & Irurita 2004; Rask & Brunt 2006). It has been observed that hospitalized patients longed for deeper connection with nurses (Shattell 2004) and nurses likewise wished to feel connected with their patients (Shattell 2005).

## Background

The core of nursing lies in being able to understand the health needs of patients and their responses to illnesses. In so doing, nurses themselves become a therapeutic tool to the establishment and maintenance of nurse-patient relationships. Nurse-patient interaction is an important element in the formation of nurse-patient relationships. Such relationships are established after every nurse-patient interaction, even if the duration of interaction may be short (Shattell 2004).

Despite the importance of nurse-patient interaction, a study by Rask and Brunt (2006) on 79 patients reported that the frequency of patients' interaction with nurses was too short. The amount of time nurses spend with patients plays an important role in patient satisfaction (Johansson, Oléni & Fridlund 2002; Johansson & Eklund 2003). However, patients in the studies by Shattell (2005) and Andes and Shattell (2006) expressed that nurses did not have sufficient time to care for and understand them. Patients often perceive nurses as being too swift in their encounters (Johansson & Eklund 2003). Moreover, staff shortages often result in nursing care being organized around a model of task allocation, which limits opportunities for the development of nurse-patient relationships (Dowling 2006). In addition, more emphasis has been placed on the demonstration of direct outcomes rather than the formation of relationships, which is more abstract and difficult to measure (Williams & Irurita 2004).

Even though the importance of developing nurse-patient relationships has been extensively emphasized in health-care settings in recent years, structured programs to assist nurses to develop such relationships with their patients are lacking. In the study by Van Os et al (2004), it

was found that structured programs help to create more positive interactions between nurses and patients.

Nurse-patient relationships can exert a significant influence on patients' experience of care as a whole. A qualitative study by Johansson and Eklund (2003) involving both outpatient and inpatient groups that consisted mainly of patients with schizophrenia found that the patients' level of satisfaction with the hospital experience stemmed from their relationships with their health-care providers. Patients who were satisfied experienced warmth, empathy, understanding and a feeling of being provided for from the nurses that cared for them, while patients who were dissatisfied felt that they were not being understood. Similarly, a literature study conducted by Johansson, Oléni and Fridlund (2002) reported that the development of a therapeutic relationship between nurses and patients led to greater satisfaction among patients with regard to nursing care, the core of which lay in providing adequate communication and information to patients. On the contrary, findings from a study with 16 patients and 21 nurses reported no change in satisfaction among patients even when the nurses made a consistent effort to enhance communication with their patients (McGilton et al 2006). A cross-sectional study done by Coyle and Williams (2001) found that although many patients expressed positive sentiments regarding the care they received, concerns were highlighted around the involvement in care, and the approachability and availability of nursing staff.

However, most of the research centered on the qualitative description of the therapeutic relationships. A literature review done by Shattell (2004) found only three articles that were either ethnographic or phenomenological studies, and which lacked concrete evidence in terms of quantitative outcome measurements. The assessment of patients' satisfaction forms an integral and indispensable outcome measure for evaluating quality initiatives in health-care organizations (Donabedian 2003; Thomas et al 1996).

## Objective

In view of the evidence linking nurse-patient relationships with patient satisfaction, as well as

the lack of quantitative outcome measures for the development of such relationships, this study aims to evaluate the effects of a program that enhances nurse-patient relationships on satisfaction among inpatients in the psychiatric mental health settings.

## Method

### Design

This study employed a cross-sectional comparative survey design was employed to examine the effects of a program, called the WOW program, to enhance nurse-patient relationships on two inpatient groups. The WOW group comprised patients who have undergone the WOW program and the control group comprised patients who received standard treatment. The WOW program is a new initiative developed by a local psychiatric hospital to incorporate the concept of nurse-patient relationships in nursing practice and to enhance the time that nurses devote to developing nurse-patient relationships. The WOW program was implemented in a male inpatient unit within the hospital and the effectiveness of the program has not been validated. Communication is the key to the development of relationships between nurses and patients. Effective communication skills allow nurses and patients to transmit information that promote healing and recovery (Robinson & Watters 2010). The WOW program teaches nurses to communicate effectively with their patients. Nurses are guided to delight and build rapport with their patients using scripts to help nurses explore patients' concerns, goals and needs. Under this program, nurses are trained to deliver their care with sensitivity, empathy, respect, and a non-judgmental and supportive attitude toward patients. Besides verbal communication, the program also emphasizes high customer-orientated service standards that facilitate the development of nurse-patient relationships. Patients are given personalized attention with 'delight' services, such as meet-and-greet services at the reception lobby upon arrival.

The provision of infrastructure is another unique feature of WOW program. Andes and Shattell (2006) reported that psychiatric patients were often nursed in common communal areas and thus they had little private space, as the space

they had was constantly invaded by health-care staff and other patients. Having private boundaries within the communal space of the hospital serves as an inner sanctuary where patients can speak freely without the interruption of others. Thus, the provision of a private room for patients to interact with each other and for visitors, where the nurses could offer drinks and snacks, was another intervention in the WOW program. Further details of the WOW program can be made available by contacting the authors.

### Sample

A purposive sample of male inpatients was selected from two inpatient psychiatric units, one where the WOW program was implemented (WOW group), and the other (control group), an operationally-similar inpatient unit where patients received standard care. The latter inpatient unit treated patients with similar demographic characteristics and mental health status to the former, and was managed by the same team of health professionals. The participants were aged 21 years and above, with ability to read or understand simple spoken English. The participants were included if they had stayed in the same inpatient unit for at least seven days. Patients were excluded if they refused to participate in this study or were unable to comprehend the questionnaire administered in this study.

### Instrument

A questionnaire to measure patients' satisfaction was modified from the Newcastle Satisfaction with Nursing Scale (NSNS) (Peterson, Charles, DiCenso & Sword 2005). Unlike many other instruments that assess satisfaction with nursing as a small component within a larger context of health-care delivery, the NSNS measures patients' level of satisfaction with nursing care specifically (McColl et al 1996). The original NSNS had two subscales measuring two separate constructs: experience of, and satisfaction with, nursing. No provision was made by the original developers of the instruments to combine the scoring of the two subscales to assess a single construct (McColl et al 1996). The intent of this study was to measure patient satisfaction. With the agreement of the original developers, modification was made to NSNS by changing the format that the items were presented to

participants, and administrating to participants only the items that measured patients' satisfaction with nursing for this study. Prior to employing the modified NSNS, intensive consultation was made with hospital administrators and patient representatives. A pilot study was also conducted on 12 patients in the hospital to test the reliability of the modified questionnaire and it obtained a Cronbach's alpha coefficient of 0.88 in the pilot test which is considered reliable (Schneider et al 2003). In the modified NSNS used in this study, all items were scored on a four-point Likert scale from "not at all satisfied" to "completely satisfied". As per scoring guideline of the original NSNS, the scores for each item were subsequently summed and transformed to yield an overall experience or satisfaction score that ranged from 0 to 100, where a higher score represents greater satisfaction (McColl et al 1996). To encourage honest opinions from the participants, the questionnaire was administered by independent researchers who were not directly providing nursing care to the patients. These researchers had been trained to use the modified questionnaire prior to meeting the patients. Researchers visited patients who met the inclusion and exclusion criteria in their inpatient units and administered the questionnaires to willing participants.

## Results

### Participants' Characteristics

A total of 91 patients participated in the study, with 40 in the WOW group receiving the WOW program, and 51 in the control group receiving usual care. All patients were male. Taken as a whole, the majority of the participants were Chinese aged between 41 and 50 years old, single, unemployed and staying with parents. The highest educational qualification for most of the participants was secondary education (see Table 1).

### Satisfaction between WOW group and control group: Overall mean

Overall, the mean satisfaction score for all 91 inpatients from both the WOW group and the control group was 55.01 (SD = 21.87).

To examine if the mean scores differed between the patients in the WOW group and control

group, independent sample *t*-test was used. Assumptions for the test were assessed, and both samples were found to be homogenous. A 2-tailed test with an alpha of 0.05 was used to test the null hypothesis.

An alpha of 0.05 allows for only a 5% chance of incorrectly concluding that there is a difference when there actually is no difference. This alpha level is generally accepted for scientific studies (Schneider et al 2003).

Patients in the WOW group had a higher mean satisfaction score of 60.96 (SD = 20.90) than patients in the control group, who had a score of 54.06 (SD = 21.28). However, this difference of 6.90 was not statistically significant,  $t(89) = -1.53$ ,  $p = 0.13$ , CI [-15.84, 2.04]. The results hold true even if the participants' demographic characteristics were adjusted for.

The effect size for patients' satisfaction is small (Corty 2007), Cohen's *d* is 0.33 or  $r = 0.16$ . In view of the low *r* value of 0.16 and a small sample size of 91, this study yields a low power of 34%. To achieve a power of 80% for this study, a sample size of 274 patients, with 137 in each group, is required.

### Satisfaction between WOW group and control group: Individual items

For each item, participants' responses were broadly classified as "dissatisfied", referring to "not at all and barely satisfied", or "satisfied", referring to "very or completely satisfied".

Figure 1 shows the comparison of the proportion of patients expressing satisfaction with nursing between the WOW group and control group. Across all except one item, patients in the WOW group were more satisfied with nursing than patients in the control group; in this one item assessing if patients were satisfied with being treated as an individual by nurses, the difference of 1.4% was minimal. In all the other 18 items, patients in the WOW group consistently expressed greater satisfaction than the control group, suggesting that patients in the WOW group were more satisfied in the various aspects of nursing care, including the time nurses spent with them, nurses' capability, availability and knowledge, response time to their requests, making them feel at home, as well as nurses' provision of information. The most prominent differences between the WOW and control group

was with regard to patients' satisfaction with the time spent by nurses (62.3% in the WOW group versus 37.7% in the control group) and the amount of freedom patients felt while staying in the inpatient psychiatric unit (64% in the WOW group versus 36% in the control group). From another perspective, when the proportion of patients expressing dissatisfaction with nursing care between the WOW and the control group were examined, patients in the control group expressed dissatisfaction in all the items of the

modified NSNS, indicating that the control group was more dissatisfied with all aspects of the nursing care than the WOW group (Figure 2).

The difference was especially evident in the item assessing if nurses placed family members and relatives at ease. 73.2% of patients in the control group were dissatisfied with nurses' treatment of family members and relatives, compared with 26.8% of patients in the WOW group. The difference was 46.4%.

**Table 1: Patients' Characteristics**

	WOW Group (n = 40)		Control Group (n = 51)		Total (N = 91)	
<b>Age, n (%)</b>						
21 to 30 years old	5	(12.5%)	13	(26.0%)	18	(20.8%)
31 to 40 years old	12	(30.0%)	9	(18.0%)	21	(23.1%)
41 to 50 years old	15	(37.5%)	22	(44.0%)	37	(40.7%)
51 to 60 years old	6	(15.0%)	4	(8.0%)	10	(11.0%)
61 years and above	2	(5.0%)	2	(4.0%)	4	(4.4%)
<b>Race, n (%)</b>						
Chinese	30	(75.0%)	34	(68.0%)	64	(71.1%)
Malay	4	(10.0%)	7	(14.0%)	11	(12.2%)
Indian	4	(10.0%)	7	(14.0%)	11	(12.2%)
Others, e.g. multi-racial persons	2	(5.0%)	2	(4.0%)	4	(4.5%)
<b>Marital Status, n (%)</b>						
Single	29	(72.5%)	43	(86.0%)	72	(80.0%)
Married	7	(17.5%)	4	(8.0%)	11	(12.2%)
Divorced	1	(2.5%)	1	(2.0%)	2	(2.3%)
Separated	1	(2.5%)	0	(0%)	1	(1.1%)
Widowed	1	(2.5%)	2	(4.0%)	3	(3.3%)
Others, e.g. cohabitating	1	(2.5%)	0	(0%)	1	(1.1%)
<b>Highest Educational Qualification, n (%)</b>						
No formal education	0	(0%)	2	(4.0%)	2	(2.2%)
Primary	6	(15.0%)	8	(16.0%)	14	(15.6%)
Secondary	16	(40.0%)	21	(42.0%)	37	(41.1%)
ITE	5	(12.5%)	9	(18.0%)	14	(15.6%)
GCE 'A' Levels	3	(7.5%)	6	(12.0%)	9	(10.0%)
Polytechnic	4	(10.0%)	3	(6.0%)	7	(7.8%)
Degree	5	(12.5%)	0	(0%)	5	(5.5%)

<b>Others, including 2 who completed certificate courses</b>	<b>1 (2.5%)</b>	<b>1 (2.0%)</b>	<b>2 (2.2%)</b>
<b>Employment Status, n (%)</b>			
<b>Unemployed</b>	<b>30 (75.0%)</b>	<b>39 (79.6%)</b>	<b>69 (77.5%)</b>
<b>Employed</b>	<b>10 (25.0%)</b>	<b>10 (20.4%)</b>	<b>20 (22.5%)</b>
<b>Living arrangement, n (%)</b>			
<b>Living alone</b>	<b>8 (20.5%)</b>	<b>9 (18.0%)</b>	<b>17 (19.1%)</b>
<b>Living with spouse +/- children</b>	<b>5 (12.8%)</b>	<b>0 (0%)</b>	<b>5 (5.6%)</b>
<b>Living with parents</b>	<b>20 (51.7%)</b>	<b>23 (46.0%)</b>	<b>43 (48.3%)</b>
<b>Others including those who were vagrants or staying with friends</b>	<b>6 (15.0%)</b>	<b>18 (36.0%)</b>	<b>24 (27.0%)</b>

## Discussion

Patient satisfaction is of central importance in evaluating nursing practice (Donabedian 2003, Thomas et al 1996). Patient satisfaction is assessed based on patients' own perception because the latter determines people's react to situations in general (Nardone & Portelli 2005).

In this study, the mean satisfaction score on the modified NSNS was 55.01 on a scale of 0 to 100. This was relatively low compared with other studies where NSNS yielded mean satisfaction scores in the range of 80s when used in the general and surgical inpatients settings (Thomas et al 1996). NSNS was utilized in another study on male surgical inpatients and a mean satisfaction score in the range of 90s was yielded (Walsh & Walsh 1999). The participants in this study were also male inpatients but the satisfaction score was much lower. This implied that patients in the psychiatric inpatient settings may not be satisfied with the nursing care provided, and more interventions aimed at improving satisfaction levels may be needed in this setting. In this study, patient satisfaction scores were not influenced by patients' characteristics such as age and educational level. Even though some studies suggest that older people have better satisfaction scores (Jackson et al 2001; Nguyen Thi et al 2002), most prior studies also found patient satisfaction to be independent of patients' characteristics (Arnetz & Arnetz 1996; Lövgren et al 1998; Wallin et al 2000). Since patients' characteristics did not affect patient satisfaction scores, the lower satisfaction score obtained in this study may be influenced by inpatient status in the psychiatric units, but more in-depth studies needed to be

done to examine this relationship. Nevertheless, the low patient satisfaction level in this study served as an important reminder to nurses in the psychiatric hospital that patients may not be that satisfied with the nursing care provided and more needed to be done to boost patient satisfaction.

The WOW program was designed with the intention to improve patient satisfaction by enhancing nurse-patient relationships. Patients in the WOW group had taken part in the WOW program while patients in the control group received only standard treatment. Although the difference in satisfaction scores between patients in the WOW group and the control group was not statistically significant, the potential of such programs to enhance patient satisfaction is encouraging. As a form of structured program, the WOW program supported Van Os et al (2004)'s conclusion that having some structure improved the interaction between patients and nurses. Just as Johansson et al (2002) had reported that the development of the nurse-patient relationships with patients led to greater patient satisfaction with nursing care, patients in the WOW group undergoing the WOW program had a higher level of satisfaction than patients undergoing standard treatment.

The potential benefits of the WOW program may extend beyond the patients to include the family members. The results of this study showed that a large proportion of patients who had not taken part in the WOW program were dissatisfied with nurses' treatment of patients' family members and relatives, while the opposite is true for patients who had taken part in WOW program. Hence, WOW program may yield substantial benefits in helping patients' family and relatives feel at ease.

Figure 1

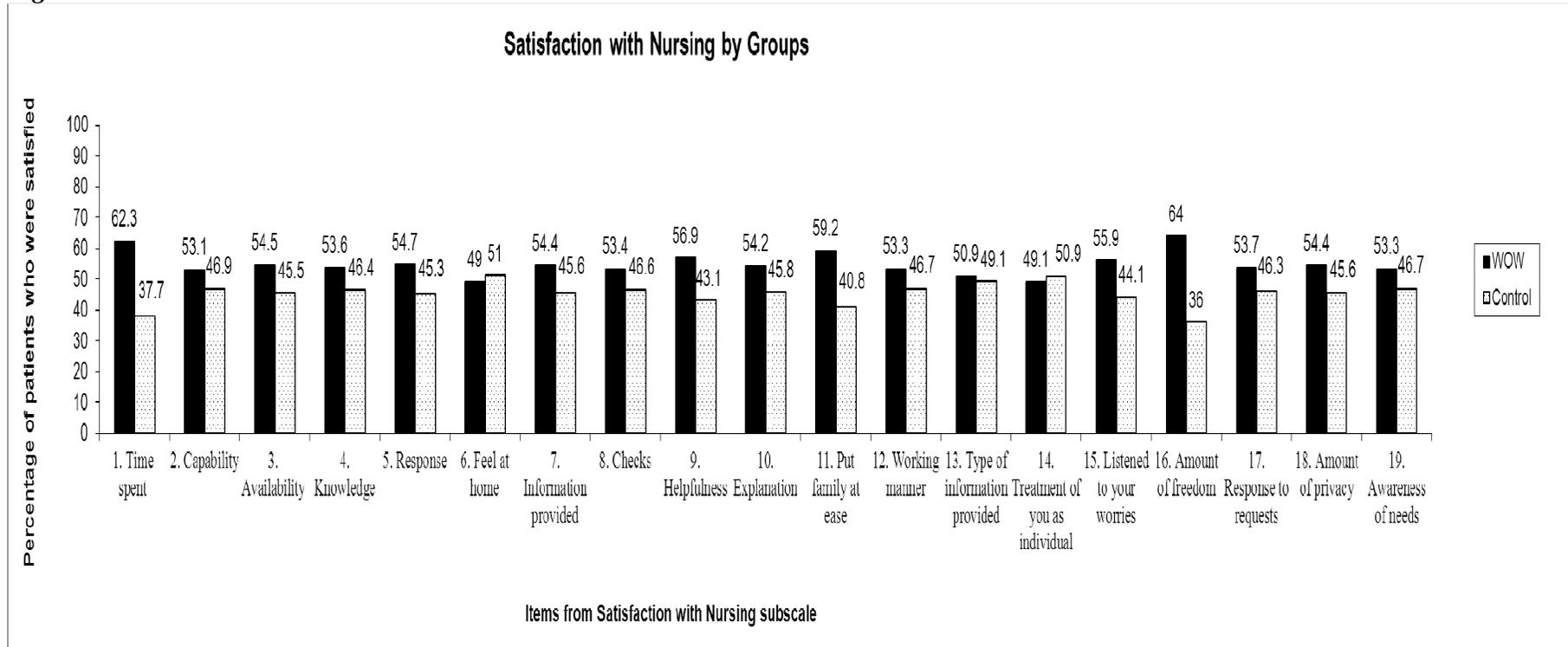
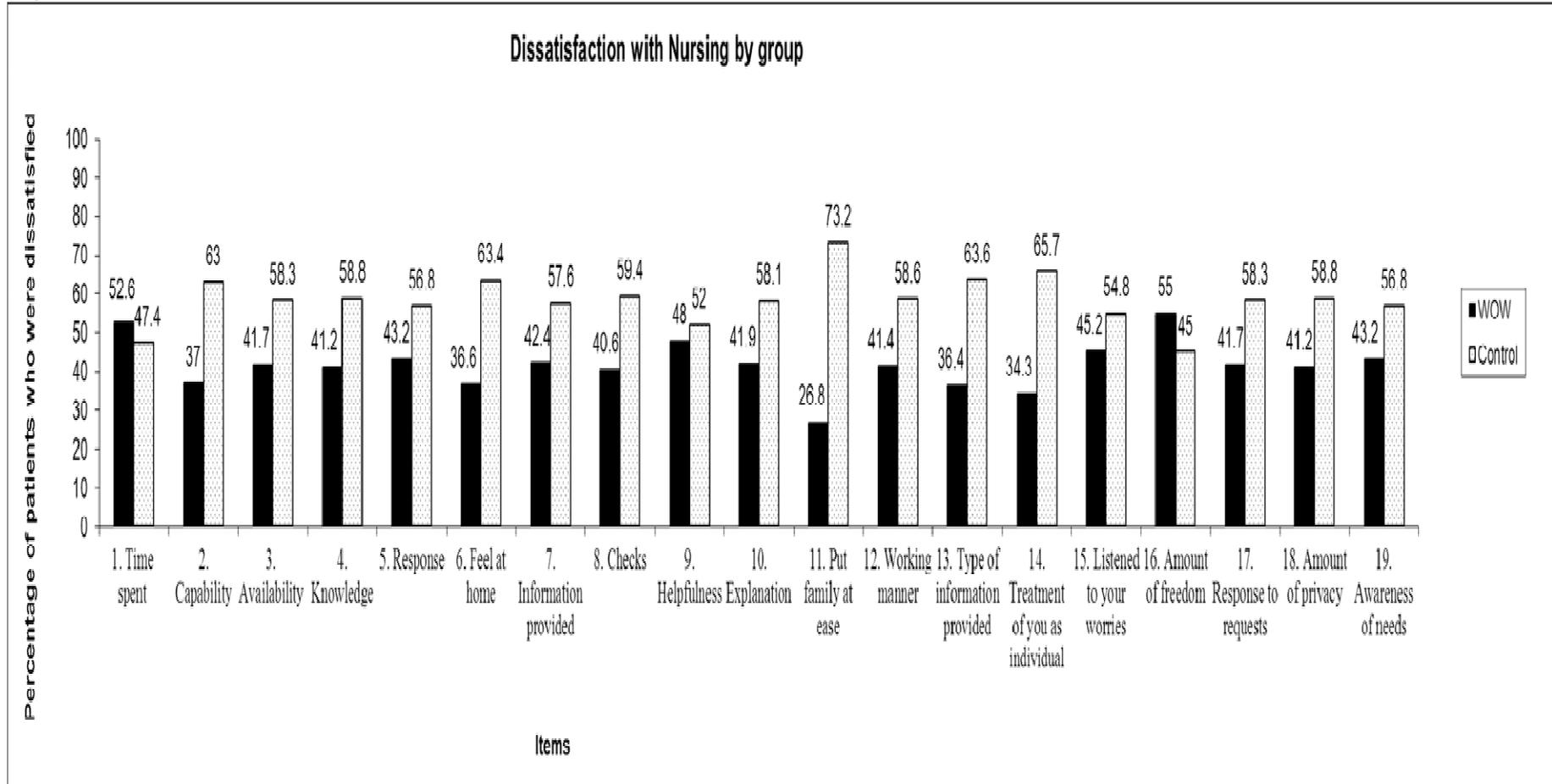


Figure 2



Patients in the WOW group had a higher mean satisfaction score than patients in the control group. A greater proportion of patients in the WOW group expressed satisfaction with different aspects of nursing care, including the capability, approachability and knowledge of nurses, to name a few. In particular, patients in the WOW group were more satisfied with the amount of time nurses spent interacting with them. The amount of time nurses spend interacting with patients seems to have a huge impact on patients' perception of good psychiatric care and satisfaction level (Johansson et al 2002; Johansson & Eklund 2003).

However, the frequency of interaction by nurses was still lower than what patients expected (Rask & Brunt 2006, Shattell 2005, and Andes & Shattell 2006), possibly explaining why patients in the WOW group did not have a statistically-significant improvement in satisfaction level than the control group, as patients in both groups might not be satisfied with the time nurses spent interacting with them. In future, the WOW program could be further improved to prolong the time nurses spend with patients according to patients' expectation. Nevertheless, the confidence interval of the mean difference in satisfaction score between the WOW and the control group was relatively narrow and lay largely in the area favoring the WOW group, suggesting that the WOW program has the potential of evoking greater satisfaction level. Replicating the study with a larger sample size in future may increase the likelihood of detecting a statistically significant result.

This study is not without limitations. This study took place largely in a natural setting without manipulation of variables as in an experimental study, with the aim of enhancing the generalizability of the results. However, for practical reasons, a priori power analysis was not performed to determine the required sample size. The participants in WOW group were recruited from only one inpatient psychiatric unit where the WOW program had been implemented, and the compared with participants in another unit without the WOW program. Even if the WOW program appears to be potentially beneficial in enhancing patient satisfaction, a larger sample size may be required in future studies to yield statistically-significant results and to enhance the

generalizability of the results. Finally, this study excluded other outcomes that may be important in assessing the effectiveness of WOW program. Future studies may utilize outcome measures to assess the establishment of nurse-patient relationships and clinical outcomes, in addition to measuring patient satisfaction.

### **Conclusion**

The findings of this survey suggest that the WOW program, a structured program to enhance therapeutic nurse-patient relationships, has the potential to optimize the satisfaction level of psychiatric inpatients. The WOW program offers a platform to guide nurses in their interaction with patients by providing standardized roadmaps and verbal scripts, as well as offering customer-orientated services to patients through environmental changes and provision of infrastructure. Patients' feedback was valued and their satisfaction level was measured as an outcome indicator of the WOW program. Patients perceived a greater amount of satisfaction in multiple aspects of nursing care. Even if the difference in patient satisfaction between those who had taken part in the WOW program and those who had not was not statistically significant, the potential for the WOW program to enhance patient satisfaction is encouraging. The results of this study offer valuable information that may direct future enhancement of programs to improve satisfaction levels and other quality outcome measures. Patients were least satisfied with nurses for not putting their family members at ease. Such results offer valuable insight into aspects of nursing care with which patients were satisfied and areas of nursing care that can be improved. The findings may inform the future enhancement and development of programs to improve patient satisfaction level and other patient-centered outcomes.

### **Acknowledgement**

The authors would like to thank the NSNS team at the University of Newcastle upon Tyne for their permission to use the NSNS questionnaire in this study, and NUHS Medical Publications Support Unit, Singapore, for assistance in the preparation of this manuscript.

The authors would also like to thank the staff at the Institute of Mental Health, Singapore, especially Ms Samantha Ong, Dr Premamarani, Ms Poh Chee Lien, Ms Yang Chek Salikin, Ms Zhuang Xiaolin, Ms Paramesvari Jayaram, Ms Umi Kalthom, Ms Mie Swe Si Tun and Ms Nur Fazliyanah Bte Yusoff, for their support in this study.

## References

- Andes M & Shattell MM (2006). An exploration of the meanings of space and place in acute psychiatric care. *Issues in Mental Health Nursing*, 27(6), 699-707.
- Arnetz JE & Arnetz BB (1996). The development of application of a patient satisfaction measurement system for hospital-wide quality improvement. *International Journal for Quality in Health Care*, 8(6), 555-566.
- Corty EW (2007). *Using and Interpreting Statistics: A Practical Text for the Health, Behavioural and Social Sciences*. St Louis: Mosby.
- Donabedian A (2003). *An Introduction to Quality Assurance in Health Care*. New York: Oxford University Press.
- Dowling M (2006). The sociology of intimacy in the nurse-patient relationship. *Nursing Standard*, 20(23), 48-54.
- Jackson JL, Chamberlin J & Kroenke K (2001). Predictors of patient satisfaction. *Social Science & Medicine*, 52(4), 609-620.
- Johansson H & Eklund M (2003). Patients' opinion on what constitutes good psychiatric care. *Scandinavian Journal of Caring Sciences*, 17(4), 339-346.
- Johansson P, Oléni M & Fridlund B (2002). Patient satisfaction with nursing care in the context of health care: a literature study. *Scandinavian Journal of Caring Sciences*, 16(4), 337-344.
- Peterson WE, Charles C, DiCenso A & Sword W (2005). The Newcastle Satisfaction with Nursing Scales: a valid measure of maternal satisfaction with inpatient postpartum nursing care. *Journal of Advanced Nursing*, 52(6), 672-681.
- Rask M & Brunt D (2006). Verbal and social interactions in Swedish forensic psychiatric nursing care as perceived by the patients and nurses. *International Journal of Mental Health Nursing*, 15(2), 100-110.
- Lövgren G, Sandman PO, Engström B, Norberg A & Eriksson S (1998). The view of caring among patients and personnel. *Scandinavian Journal of Caring Sciences*, 12(1), 33-41.
- McGilton K, Irwin-Robinson H, Boscart V & Spanjevic L (2006). Communication enhancement: nurse and patient satisfaction outcomes in a complex continuing care facility. *Journal of Advanced Nursing*, 54(1), 35-44.
- McCull E, Thomas L & Bond S (1996). A study to determine patient satisfaction with nursing care. *Nursing Standard*, 10(52), 34-38.
- Nardone G & Portelli C (2005). When the diagnosis invents the illness. *Kybernetes: The International Journal of Systems & Cybernetics*, 34 (3-4), 365-372.
- Robinson KL & Watters S (2010). Bridging the communication gap through implementation of a Patient Navigator program. *The Pennsylvania Nurse*, 65(2), 19-22.
- Schneider Z, Elliott D, LoBiondo-Wood G & Haber J (2003). *Nursing Research: Methods, Critical Appraisal and Utilisation*. St Louis: Mosby.
- Shattell M (2004). Nurse-patient interaction: a review of the literature. *Issues in Clinical Nursing*, 13, 714-722.
- Shattell M (2005). Nurse bait: strategies hospitalized patients use to entice nurses within the context of the interpersonal relationships. *Issues in Mental Health Nursing*, 26(2), 205-223.
- Nguyen Thi PL, Briancon S, Empeur F & Guillemin F (2002). Factors determining inpatient satisfaction with care. *Social Science & Medicine*, 54(4), 493-504.
- Thomas LH, McCull E, Priest J, Bond S & Boys RJ (1996). Newcastle satisfaction with nursing scales: an instrument for quality assessments of nursing care. *Quality in Health Care*, 5(2), 67-72.
- Van Os J, Altamura AC, Bobes J, Gerlach J, Hellewell JS, Kasper S, Naber D & Robert P (2004). Evaluation of the Two-Way Communication Checklist as a clinical intervention. *British Journal of Psychiatry*, 184, 79-83.

- Wallin E, Lundgren P-O, Ulander K & Holstein CS (2000). Does age, gender or educational background affect patient satisfaction with short stay surgery? *Ambulatory Surgery*, 8(2), 79-88.
- Walsh M & Walsh A (1999). Measuring patient satisfaction with nursing care: experience of using the Newcastle Satisfaction with Nursing Scale. *Journal of Advanced Nursing*, 29(2), 307-315.
- Williams AM & Irurita VF (2004). Therapeutic and non-therapeutic interpersonal interactions: the patient's perspective. *Journal of Clinical Nursing*, 13(7), 806-815.