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Patient Treatment Satisfaction for medication among Medical Outpatient Clinic in Hospital Miri, Sarawak

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Abstract

Introduction: Treatment satisfaction have an impact on the patient's health related decision making and treatment related behaviour, which subsequently affect the treatment outcome. Patient's satisfaction for medication predicts correct medication use, continuance of medication treatment and adherence with the medication regimes. The objective of this study was to assess patients from medical clinic's satisfaction towards medications in outpatient pharmacy Hospital Miri. In addition, this study looked into patient treatment satisfaction between gender and age group.

Methods: This cross-sectional descriptive study conducted on 28 November 2017 in outpatient pharmacy, Hospital Miri. A convenience sampling method used to select patient from medical clinic throughout the study period. A validated questionnaire Treatment Satisfaction Questionnaire for Medication (TSQM version II) used to assess patient satisfaction.

Results: This study included 75 participants. 52 female and 23 male patients recruited into the study. The mean Effectiveness Score was 60.7 ± 20 , Side-Effects (92.9 ± 30.2), Convenience (65.4 ± 16.6), and Global Satisfaction (65.4 ± 16.4) respectively. Generally, the mean satisfaction score were higher in male patients compared to female patients and higher in patients aged 60 years old above.

Conclusion: In our convenience sample, we found the medical clinic patients from Hospital Miri had moderate satisfaction score towards their medications. Healthcare professional may conduct regular assessment of patients' level of TSQM to screen individuals whose current medication experiences may increase the risk of poor medication adherence

Keywords: TSQM, treatment satisfaction, outpatient pharmacy, medication

Introduction

Patient's treatment satisfaction is a vital outcome measure for evaluating the extent of a healthcare sector meets the patient's expectations and needs (1). In addition, treatment satisfaction demonstrated to have an impact on the patient's health related decision making and treatment related behaviour, which subsequently affect the treatment outcome (2, 3). Similarly, patient's satisfaction for medication predicts correct medication use, continuance of medication treatment and adherence with the medication regimes (4).

Impacts on the low treatment satisfaction on medication adherence are one of the highlighted concerns in patients with chronic diseases (5). Up to one half of the patient with chronic disease has been reported making medication related decision without seeking for medical advice, becoming 'non-adherent' to such an extent that they compromise the effectiveness of the treatment (6). Therefore, with more information about the patient treatment satisfaction could possibly assist healthcare provider to improve the quality of healthcare service. It is crucial for service quality assurance and treatment evaluation to assist development of a few treatment satisfactions for medication models (1, 7).

Treatment Satisfaction Questionnaire for Medication (TSQM Version II) was one of the questionnaire models designed to assess patient treatment satisfaction for medication. The TSQM version II is a psychometrically sound and validated questionnaire to measure the major dimension of patients' satisfaction with medication. TSQM version II uses fewer items and more consistent wording compare to TSQM version I. The 11 items of the TSQM version II cover four domains: Effectiveness, Side Effects, Convenience, and Global Satisfaction.(8) TSQM suggested by preliminary evident to be a good predictor of patient medication adherence and medication persistence over time across different type of medication and patient population.(9)

Patients' treatment satisfaction has not been well explored in Hospital Miri by using validated questionnaire. The objective of this study was to assess patients from medical clinic's satisfaction towards medications in outpatient pharmacy Hospital Miri. In addition, this descriptive study looked into patient treatment satisfaction between gender and age group.

Method

This cross-sectional study conducted on 28 November 2017 in outpatient pharmacy, Hospital Miri. Patients who met the following criteria invited to participate in this study: (1) patient age 18 years and above, (2) visited medical clinic, and (3) understand English. The estimated sample calculated using Raosoft sample size calculator with 95% confidence interval would be at least 74 patients. Convenience samples of 85 eligible patients included in the study and 75 agreed to participate. A written consent given to each participant. Consenting participant asked to complete the TSQM questionnaires in the pharmacy while waiting for the medications. The demographic data about patients' age and gender were collected. The TSQM questionnaires collected information about their satisfaction on the Effectiveness, Side Effects, Convenience of use, and Overall Satisfaction of their medications.

Statistical analysis

The general characteristics of the patients analysed using descriptive statistic. Continuous variables were expressed as means $\pm$ standard deviation (SD).

Results

The study sample consisted of 75 participants. The sample composed of 52 women (69.3%) and 23 men (30.7%). 67 (89.3%) patients were in the age group of 18-59 years old while 8 (10.7%) patients were 60 years old and above. The mean age was 39 ± 12.5 with the youngest patient being 18 years old while the oldest was 71 years.

Table 1: Mean treatment satisfaction scores

Variable	Mean ($\pm$ SD)treatment score
Effectiveness	60.7 ± 20.0
Side Effects	83.1 ± 22.1
Convenience	65.4 ± 16.6
Global Satisfaction	65.4 ± 16.4

The scores computed according to the scale scoring algorithm where the TSQM Scale scores range from 0 to 100 and no computed score should be lower or higher than these limits. The scores in all four domains computed using the equations below:

EFFECTIVENESS: $[(\text{Item 1} + \text{Item 2}) - 2] \text{ divided by } (12) \times 100$

SIDE EFFECTS: $[(\text{Sum of Item 4 to Item 6}) - 3] \text{ divided by } (12) \times 100$

If one item is missing: $[(\text{Sum of the two completed items}) - 2] \text{ divided by } (8) \times 100$

CONVENIENCE: $[(\text{Sum of Item 7 to Item 9}) - 3] \text{ divided by } (18) \times 100$

If one item is missing: $[(\text{Sum of the two completed items}) - 2] \text{ divided by } (12) \times 100$

GLOBAL SATISFACTION: $[(\text{Sum of Item 10 to Item 11}) - 2] \text{ divided by } (12) \times 100$

The values were higher in male patients compared to female patients and higher in-patients aged 60 years old above.

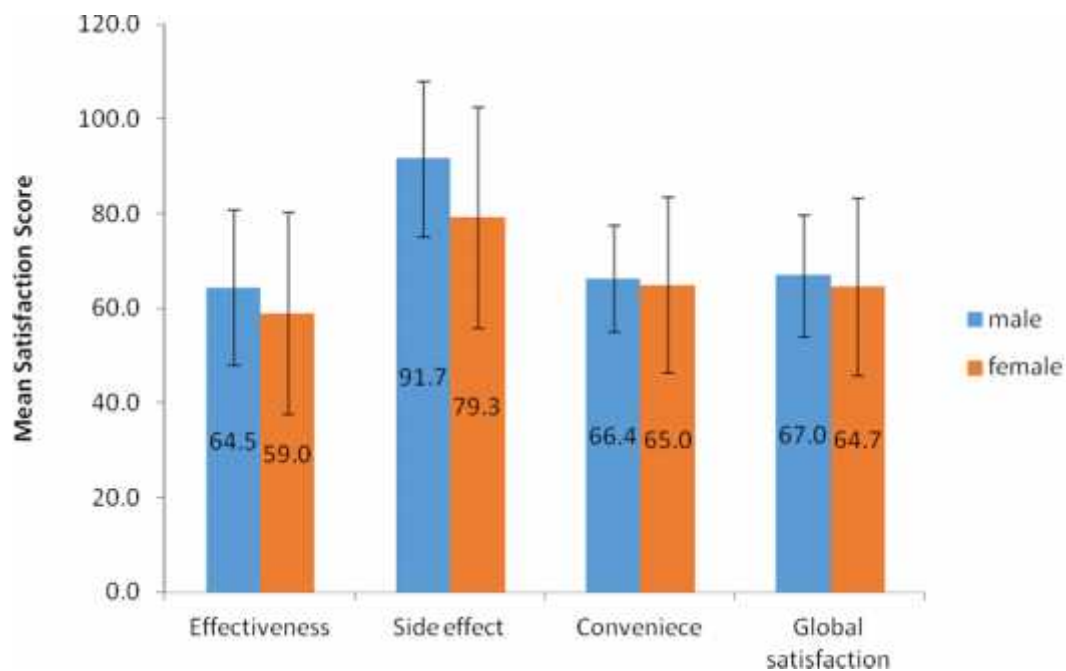


Figure 1: Mean treatment satisfaction scores differences between male and female patients in outpatient pharmacy Hospital Miri

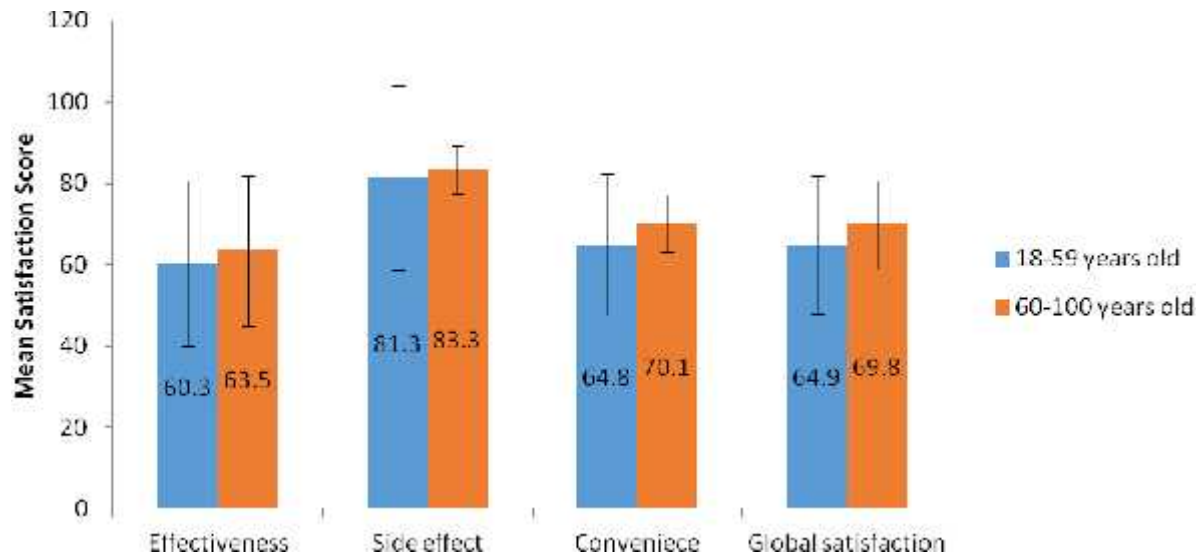


Figure 2: Mean treatment satisfaction scores differences among patients with different age groups

Analysis of mean $\pm$ SD satisfaction scores showed in Table 1. The difference between male and female patient in mean treatment score illustrated in figure 1. The mean satisfaction score of male patients were 64.5 ± 16.5 (effectiveness), 91.7 ± 16.5 (side effect), 66.4 ± 11.2 (convenience) and 67.0 ± 13.0 (global satisfaction) while the score for female patients were 59.0 ± 21.3 , 79.3 ± 23.3 , 65.0 ± 18.6 and 64.7 ± 17.8 respectively. Generally, female patients had lower satisfaction score in all four domain of the questionnaire compared to male patients.

Figure 2 showed the difference of mean treatment score between age groups. The mean satisfaction score of patients between 18-59 years old were 60.3 ± 20.3 (effectiveness), 81.3 ± 22.7 (side effect), 64.8 ± 17.3 (convenience) and 64.9 ± 16.9 (global satisfaction) while the score for patients 60 years and above were 63.5 ± 18.3 , 83.3 ± 5.9 , 70.1 ± 7.2 and 69.8 ± 10.9 respectively. In all four domain, older patients (age >60) scored higher mean satisfaction score than younger patients.

Discussion

The means of the different domains of patient satisfaction found in our study were lower than those found by Liberato and co-workers. In that study, 190 participants with coronary heart disease recruited from an outpatient cardiology clinic in South-eastern Brazil. The mean scores for the different domains were Effectiveness (67.7 ± 8.0), Side-Effects (93.5 ± 16.9), Convenience (66.3 ± 9.5) and Global Satisfaction (69.2 ± 12.6) (10).

A study conducted by Zyoud *et al.*, involving four hundred and ten hypertensive patients, the average satisfaction scores in the Effectiveness, Side Effects, Convenience, and Global Satisfaction domains were 62.1 ± 20.5 , 86.0 ± 26.5 , 67.2 ± 14.0 , and 72.1 ± 23.1 , respectively. (11) Again, our results were lower than this study in all four domains.

Another cross sectional descriptive study in Palestine studied treatment satisfaction for medication on 75 patients with epilepsy. The result showed the mean satisfaction for effectiveness, side effects, convenience, and global satisfaction were 73.6 ± 20.7 , 82.4 ± 29.8 , 69.5 ± 15.5 , and 68.4 ± 18.3 , respectively. (12) The results were higher than our study in all domains except side effect mean score (83.1 ± 22.1).

From a disease-management perspective, it is likely that assessment of TSQM will become increasingly important in the future; in part due to the increasing prevalence of chronic disease in our aging population and the necessity of continuous and persistent medication treatment. Patients who perceive their medication to be ineffective, laden with side effects, or very inconvenient to use are less likely to either fill prescriptions or take their medication as prescribed. This in turn can impact the effectiveness of treatment and may result in service inefficiencies associated with treatment failure.

Study Limitations

This study with small sample size and conducted in one centre were major limitations of the study. Second, missing sensitive data like age or gender also have some impact on the study interpretation. Third, convenient sample taken and have the risk of researcher bias. The sample might not represent the overall population. Finally, there is a risk response bias as the instrument relied on self-reported information.

Conclusion

Overall, medical clinic patients from Hospital Miri had moderate satisfaction score towards their medications. Healthcare professional may conduct regular assessment of patients' level of TSQM to screen individuals whose current medication experiences may increase the risk of poor medication adherence. If collected from many patients, such information could help stakeholders to understand the patients' experience with their medication. This, in turn, helps with planning for proper intervention to improve the clinical outcomes of their condition. Further research needed to understand the real mechanisms through which treatment satisfaction associated with adherence to medications.

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