Development and psychometric tests of the Chinese version of patient satisfaction with nurse practitioner scale

Chuan-Yu Hu, RN, NP, MSN[1] Hsiao,Wei-hui, RN, MSN[2] Shu-Yuan Lin , RN, PhD[3]

[1,2] *Department of Nursing, Kaohsiung Medical University Hospital, Kaohsiung Medical University, Kaohsiung, Taiwan*
[3] *College of Nursing/Department of Nursing, Kaohsiung Medical University/Kaohsiung Medical University Hospital, Kaohsiung, Taiwan*

Background & Problems Statement

◆ Patient satisfaction is a common indicator of patient care outcome. It has been included in the hospital accreditation standards by Taiwan Joint Commission since 2008.

◆ An instrument of patient satisfaction targeted to evelauate care outcomes that provide by nurse practitioners (NP) is rarely found in a review of literatue.

Purpose

The purpose of this study was to develop and test psychometric properties of the Chinese version of patient satisfaction with nurse practitioner scale (C-PSNP).

Methods

◆ There was three phase of Chinese version of patient satisfaction with nurse practitioner scale development .

◆ The first phase was literature review and expert focus group discussion,that constructs the content of the questionnaire to measure patient satisfaction with nurse practitioner .

◆ Second phase was testing the instrument's construct validity.

◆ Third phase: a cross- sectional design, the survey relied on a convenience sample was used to recruit 230 patients from 4 hospitals to complete the validated questionnaire that from February to May, 2016.

◆ The data was collected form the questionnaire which is being analyzed using item analysis, construct validity.The results of analysis were used to confirmatory factor analysis for testing validity and reliability of C-PSNP.

Results

◆ The 20-item C-PSNP was developed, with a item discrimination CR (critical ratio) of 7.46–15.41 ($p < .001$), and item-total correlation of .61–.86 ($p < .001$) (Table 1).

◆ Exploratory factor analysis had extracted four factors, and they explained a total variance of 78.19%.

◆ Four factors were named as "communication and caring", "health information", "professional knowlege and skills", and "participation in decision-making".

◆ The Cronbach's α for the C-PSNP scale was .96. The Cronbach's α coefficients of four subscales were in an range of .88- .94.

Table 1

Psychometric Properties of C-PSNP scale (N=230)

Item	factor loadings	item-total correlation	explained variation	eigenvalues	Cronbach's α
Factor1：communication and caring(5)			23.8%	4.76	0.94
My Nurse practitioner(NP) as bridges of communication between me and physician.	0.62	0.78			
My NP answered my questions very patiently.	0.81	0.79			
NP was concerned my physical and physiological well-being.	0.84	0.8			
NP respected me.	0.66	0.78			
The way NP treated me.	0.85	0.77			
Factor2：health information(5)			19.67%	3.93	0.9
NP joined the physicians' grand rounds.	0.79	0.74			
NP scheduled my appointments for medical examinations.	0.68	0.74			
NP helped me with the admission, discharge and follow-up appointments.	0.62	0.69			
NP proved me instruction and counseling.	0.52	0.75			
I understood the NP's explaination.	0.67	0.74			
Factor3：professional knowlege and skills(5)			18.56%	3.71	0.94
NP told me the results of the medical examinations spontaneously.	0.8	0.77			
NP continuously pay attention to my conditions.	0.79	0.79			
NP reported abnormal conditions immediately to physicians.	0.76	0.77			
NP is skillful in care techniques.	0.65	0.78			
NP is knowledgeable in health problems.	0.57	0.79			
Factor4：participation in decision-making(5)			16.17%	3.23	0.88
NP told me the results of the medical examinations spontaneously.	0.4	0.72			
NP continuously pay attention to my conditions.	0.85	0.62			
NP reported abnormal conditions immediately to physicians.	0.73	0.68			
NP is skillful in care techniques.	0.6	0.74			
NP is knowledgeable in health problems.	0.65	0.61			
Total Variance Explained			78.19%		

Conclusion

This study confirms the Chinese version of patient satisfaction with nurse practitioner scale is a valid and reliable tool that is recommended as an assessment tool for measuring the patient satisfaction with Taiwanese nurse practitioners.