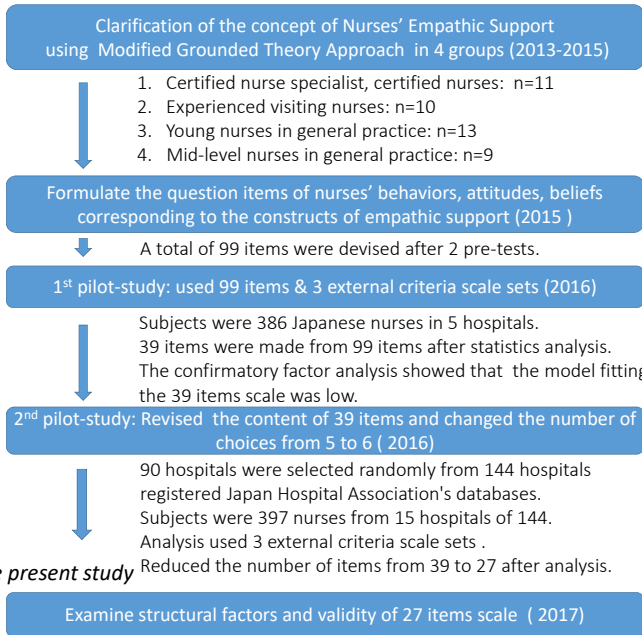


# The Development of the Scale to Measure Nurses' Empathic Support Skills

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- **Purpose:** The purpose of this research was to develop Empathic Support Behavior Scale (ESB) for measuring nurses' ability of empathic support based on our previous studies.
- **Methods:** Exploratory qualitative and quantitative research

## Procedure of the development the scale



**Participants:** Participants were randomly selected from 38 hospitals among 150 hospitals in which many patients were receiving palliative care. 1,458 nurses were distributed questionnaires.

**External criteria scale:** Multidimensional Empathy Scale and Professional Autonomy in Nursing Scale

**Statistical analysis:** item analysis, exploratory factor analysis, structural equation modeling, correlation with external criteria scale, and Cronbach's alpha

## Results:

### Participants' characteristic :

N=627 (43.0%), Number of females = 593(94.6%), Age, M=36.9 ±9.8 years, Nursing experience, M=14.2 ±9.6

### Item analysis:

Number of items of factor analysis after the item analysis was 24 .

### Exploratory factor analysis:

The scores of 24 ESB items were analyzed by exploratory factor analysis , resulting in 16 items and 3 factor structures.

Table 1: Factor Analysis Pattern Matrix of Nurses' Empathic Support Behavior Scale (ESB )Japanese Version

Item	Content	Factor Loading		
		1	2	3
Factor 1: Empathy ( Cronbach's alpha = .88 )				
Q13	I provide patients with a sense of peace by talking to them.	.842	.023	-.106
Q2	I can reassure patients by staying by them	.771	.011	-.105
Q10	I have enough communication skills to draw out the feelings of patients	.766	-.038	.075
Q9	Patients can talk about their hard feeling because I am the one who listens to them	.692	-.007	.124
Q12	I can read what patients think without directly touching on their disease	.682	-.038	.108
Q14	I use communication techniques for making patients talk pleasantly	.642	.036	.080
Q1	I can share hard feelings patients have with them	.494	.062	.052
Factor 2: Psychological Approaching ( Cronbach's alpha = .85 )				
Q6	I talk to patients casually for letting their hearts open	.006	.908	-.076
Q5	I talk to patients when conducting daily care for letting them speak their honest feelings	.052	.734	-.015
Q8	I talk to patients about things unrelated to treatment and make small talk to help them relax	.025	.688	-.039
Q25	I talk to patients causally to let them have a sense of closeness.	-.060	.567	.230
Q23	I change how to deal with patients in accordance with their mood	-.109	.550	.092
Q7	I let patients listen to what I say to and my advice when we can understand each other	.279	.522	-.058
Factor 3: Holistic Understanding ( Cronbach's alpha = .78 )				
Q27	I can recognize what patients try to achieve in their lives	.136	-.041	.713
Q24	I figure out a patient's life story	-.016	.025	.708
Q26	I try to know patients inner thoughts which they themselves do not notice	-.010	.059	.695

Note. Extraction of factors by method of maximum likelihood with promax rotation. N=627. Total Cronbach's alpha = .91. % of Cumulative contribution ratio was 61.36%. Factor correlation coefficients were .44 to .64.

## Confirmatory factor analysis:

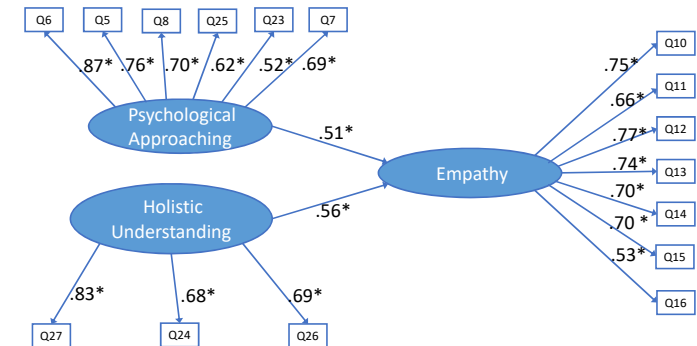


Figure 1. Confirmatory factor analysis of Empathic Support Behavior Scale Japanese Version df =102; Goodness of Fit Index = .907; Adjusted Goodness of Fit Index = .877; Root Mean Square Error of Approximation=.083, \*p < .001

## Criteria related validity, Re-test:

There was positive correlation between scores of empathic support and the scores of four Subscales ( cognitive ability, practical ability, concrete judgment ability, and abstract judgment ability) on Professional Autonomy in Nursing (r=.54-.65).

We explained to 7nurses about empathic support and measured their ESB-16 and Multidimensional Empathy Scale immediately after intervention and a month after for checking the change of its scores. The Spearman's correction coefficient of three subscales of ESB-16 ; empathy, psychological approaching and holistic understanding were .60 (p=.08) , -.21 (.33) and .87 (.01).

## Conclusion:

Criterion-related validity, construct validity and reliability of ESB-16 were confirmed. Items of ESB-16 include sentences that show nurses' concrete behavior, thinking, and attitudes, so that it helps nurses to reflect on themselves by focusing on their own tasks of empathic support for patients (e.g., whether I can perceive empathic phenomena concretely, how I can approach patients, or how I can understand patients holistically). We need to continue to recheck the utility of ESB-16 as scales of educational evaluation by examining whether educational intervention for improving empathic support skills brings about the changes of the scores of three subscales in ESB-16 that are consistent with theoretical expectations.

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