



# Validity and Reliability of the Korean Version of the Spiritual Dryness Scale

Yeonjoo Son<sup>1</sup>, Suk-Sun Kim<sup>1</sup>, Daeun Kim<sup>1</sup>, Minji Gil<sup>2</sup>, Yookyung Choi<sup>3</sup>

<sup>1</sup> College of Nursing, Ewha Womans University, South Korea

<sup>2</sup> College of Nursing, Gangneung-Wonju National University, South Korea

<sup>3</sup> Ewha Womans University Mokdong Hospital, South Korea

sonyj69@ewha.ac.kr

## Purpose

- Although spiritual dryness is increasingly recognized as a meaningful spiritual struggle, validated measures remain limited in non-Western contexts.
- This study aimed to translate and culturally adapt the Spiritual Dryness Scale into Korean and to evaluate the reliability and validity of the Korean version of the Spiritual Dryness Scale among Korean Christians.

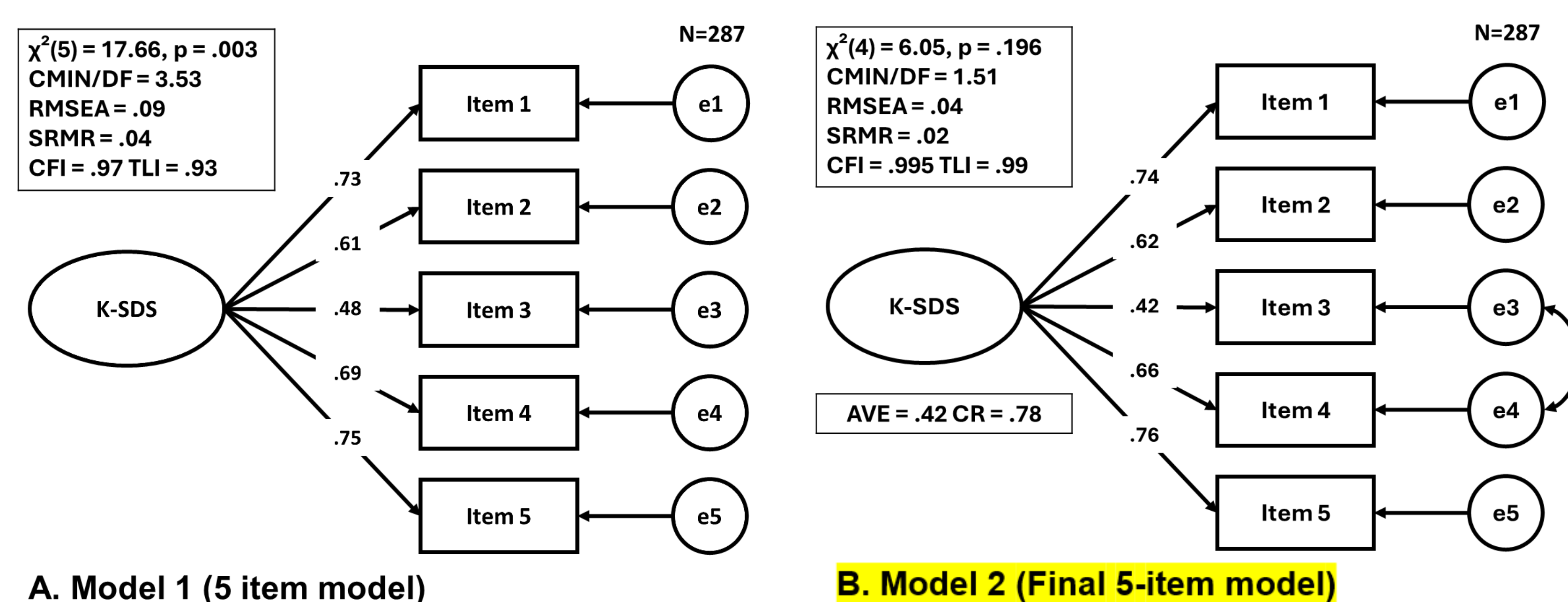
## Methods

- Study Design:** A methodological study involving translation, cultural adaptation, psychometric validation of the SDS (Büssing et al., 2013), and determination of an optimal cutoff score.
- Sample:** A convenience sample of 287 Korean adults aged 19 years or older with a Christian faith background was recruited through online platforms, including churches, graduate schools, and Christian organizations.
- Translation & Content Validity:** Following WHO guidelines, the SDS was translated, culturally adapted, and pretested. Content validity was excellent (I-CVI = 1.00; S-CVI/Ave = 1.00).
- Measures:** Validation measures included K-SDS, K-DUREL, K-DSES, K-PIL, K-K6, and K-CESD.
- Data Analysis:** CFA, AVE/CR, Pearson correlations, ROC analysis, Cronbach's  $\alpha$ , and McDonald's  $\omega$  were used to evaluate validity, determine the K-K6-based cutoff, and assess reliability.

## Results

- Sample Characteristics** (N = 287): Age:  $40.64 \pm 12.15$  years; women: 71.1%; married: 62.4%; bachelor's degree or higher: 80.5%; duration of religious practice:  $29.19 \pm 14.82$  years (Table 1).
- Item analysis:** After removing Item 6 for low item-total correlation ( $r = .293$ ), the final K-SDS consisted of 5 items, with factor loadings ranging from .48 to .74 (Table 2).
- Construct Validity:** The 5-item K-SDS showed good model fit (Model 2), supporting a unidimensional structure ( $\chi^2 = 6.05$ ,  $p = .196$ ; CFI = .995; TLI = .99; RMSEA = .04; SRMR = .02) (Figure 1).
- Convergent Validity:** Although AVE was slightly below .50 (AVE = .42), convergent validity was considered acceptable based on adequate CR (CR = .78) (Table 2, Figure 1).
- Criterion Validity:** Significant correlations were found between the K-SDS and K-DUREL, K-DSES, K-PIL, K-K6, and K-CESD-11 ( $r = -.47$  to .31) (Table 3).
- Cutoff:** Using K-6 as the reference, ROC analysis identified 11.5 as the optimal cutoff score, with sufficient classification accuracy (AUC = .67) (Figure 2).
- Reliability:** Internal consistency was satisfactory, with Cronbach's  $\alpha = .78$  and McDonald's  $\omega = .79$ .

Figure 1. Modified of the K-SDS with standardized factor loadings and model fit indices



## Conclusion

- The findings support the 5-item K-SDS as a reliable and valid unidimensional measure of spiritual dryness among Korean Christians.
- The scale showed evidence of construct, convergent, and criterion validity, with satisfactory internal consistency.
- As a brief assessment tool, the K-SDS may be useful for identifying spiritual dryness in research, clinical practice, and pastoral care.
- Further research is warranted to evaluate its generalizability across different Christian denominations and faith traditions in Korea.

Table 1. General characteristics of the participants

| (N = 287)                             |                      |                   |
|---------------------------------------|----------------------|-------------------|
| Characteristics                       | Categories           | n(%) / M $\pm$ SD |
| Age (year)                            |                      | 40.64 $\pm$ 12.15 |
| Sex                                   | Male                 | 83(28.9)          |
|                                       | Female               | 204(71.1)         |
| Duration of religious practice (year) |                      | 29.19 $\pm$ 14.82 |
| Marital status                        | Unmarried            | 108(37.6)         |
|                                       | Married              | 179(62.4)         |
| Educational level                     | $\leq$ High school   | 56(19.5)          |
|                                       | Bachelor's degree    | 149(51.9)         |
|                                       | $\geq$ Master degree | 82(28.6)          |

Table 2. Mean values and reliability analysis of K-SDS

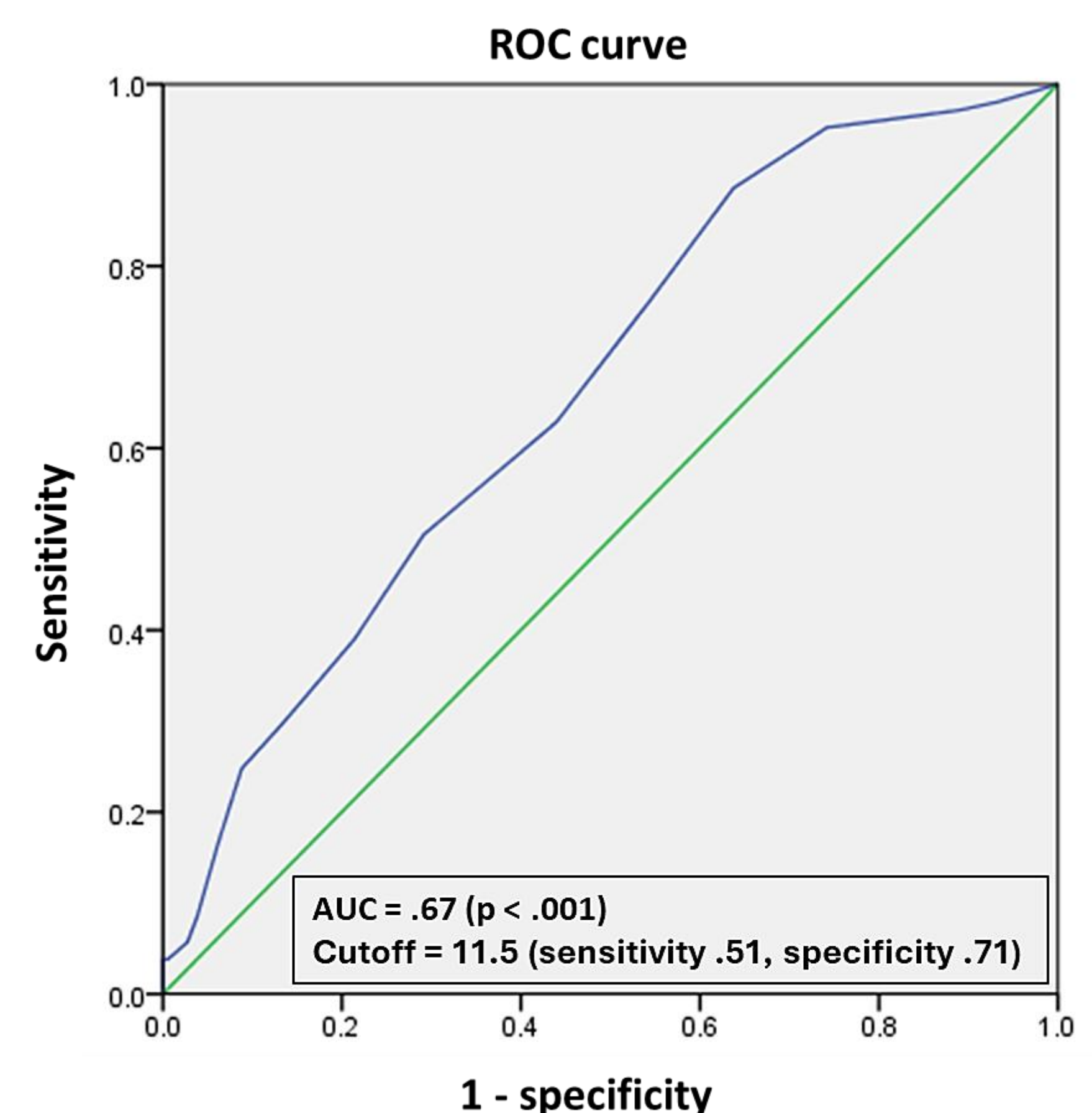
| (N = 287)                                                                                                     |                 |                               |                                  |                             |
|---------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------|----------------------------------|-----------------------------|
| Item                                                                                                          | Mean $\pm$ SD   | Item difficulty index (=0.29) | Corrected item-total correlation | Factor loading <sup>a</sup> |
| Item 1. Despite my efforts to become closer to God / the Sacred/transcendence, I feel more apart from Him/it. | 1.98 $\pm$ 0.98 | 0.25                          | .599                             | .730                        |
| Item 2. I have the feeling that I am completely abandoned by God / the Sacred / transcendence.                | 1.32 $\pm$ 0.65 | 0.08                          | .528                             | .617                        |
| Item 3. I experience times of "spiritual dryness".                                                            | 3.06 $\pm$ 1.00 | 0.52                          | .446                             | .484                        |
| Item 4. I have the feeling that I am "spiritually empty".                                                     | 2.39 $\pm$ 0.97 | 0.35                          | .582                             | .686                        |
| Item 5. I have the feeling that my prayers or other spiritual practices are not getting answered.             | 2.03 $\pm$ 0.98 | 0.26                          | .597                             | .742                        |
| Item 6. I know the feeling when I have nothing left to give.                                                  | 2.23 $\pm$ 1.01 | 0.31                          | .293                             | .316                        |

Table 3. Correlations with the K-SDS

| Variable | r (p)          |                |                |               |               |
|----------|----------------|----------------|----------------|---------------|---------------|
|          | K-DUREL-5      | K-DSES-16      | K-PIL          | K-K6          | K-CESD-11     |
| K-SDS-5  | -.286 (< .001) | -.449 (< .001) | -.471 (< .001) | .302 (< .001) | .309 (< .001) |

K-SDS = Korean version of the Spiritual Dryness Scale; K-DUREL = Korean Version of the Duke University Religion Index; K-DSES = Korean Version of the Daily Spiritual Experience Scale; K-PIL = Korean version of the Purpose in Life; K-K6 = Korean version of the Kessler Psychological Distress Scale; K-CESD = Korean version of Center for Epidemiologic Studies Depression Scale.

Figure 2. ROC curve of the K-SDS



K-SDS = Korean version of the Spiritual Dryness Scale; ROC = receiver operating characteristic.

