

Arabic translation and validation of the dementia knowledge assessment scale (DKAS-A) and public knowledge assessment in the United Arab Emirates

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Background

- **Dementia** is a progressive neurocognitive disorder affecting millions worldwide. Prevalence is projected to **triple** by 2050.
- Assessing knowledge about dementia is crucial for its prevention, diagnosis, and treatment.
- We developed the Arabic version of the Dementia Knowledge Assessment Scale (**DKAS-A**) to facilitate this evaluation

Methods

- We conducted a **cross-sectional study** by distributing an online questionnaire among the adult population of the United Arab Emirates (UAE) between December 2023 and January 2024.
- We collected participants' socio-demographic data, their exposure to dementia, and their sources of information on the disease.
- Dementia knowledge was assessed using the DKAS, which was **translated** into Arabic using the Translation, Review, Adjudication, Pretest, and Documentation (**TRAPD**) method.
- We verified the translation's face and construct validity, evaluated its internal consistency, and conducted test-retest reliability analysis.

Knowledge Results

- **912** participants
 - 52.1% female
 - 28.6% between 21 and 30 years old.
- **35.1%** of participants reported exposure to a dementia patient
- **Only 22.8%** demonstrated **moderate** knowledge of dementia
 - Median score = **19/50** (IQR = 15, 24).
 - Highest scores were on the DKAS subscales "care considerations" and "causes and characteristics."
- **Increased** dementia knowledge was significantly **associated** with:
 - Being **female**
 - Working or studying in a **medical** field
 - Having previous or current **exposure** to dementia patients
 - Reporting a moderate to high **subjective** level of knowledge.
- **48%** of participants **incorrectly** believed that dementia is a natural part of aging.
- **64%** of participants identified **media** (TV, radio, Internet) as their primary source of dementia knowledge, this source was not correlated with their actual level of knowledge.

Translation Results

The DKAS-A demonstrated:

- Acceptable **internal consistency** (Cronbach's $\alpha = 0.7$, and a McDonald's omega of 0.77)
- Very strong **equivalence** to the original English tool (Pearson's correlation coefficients > 0.8).
- Moderate **test-retest reliability** (intraclass correlation coefficient = 0.67).
- **Confirmatory Factor Analysis (CFA)** supported a revised 21-item version for the DKAS-A.

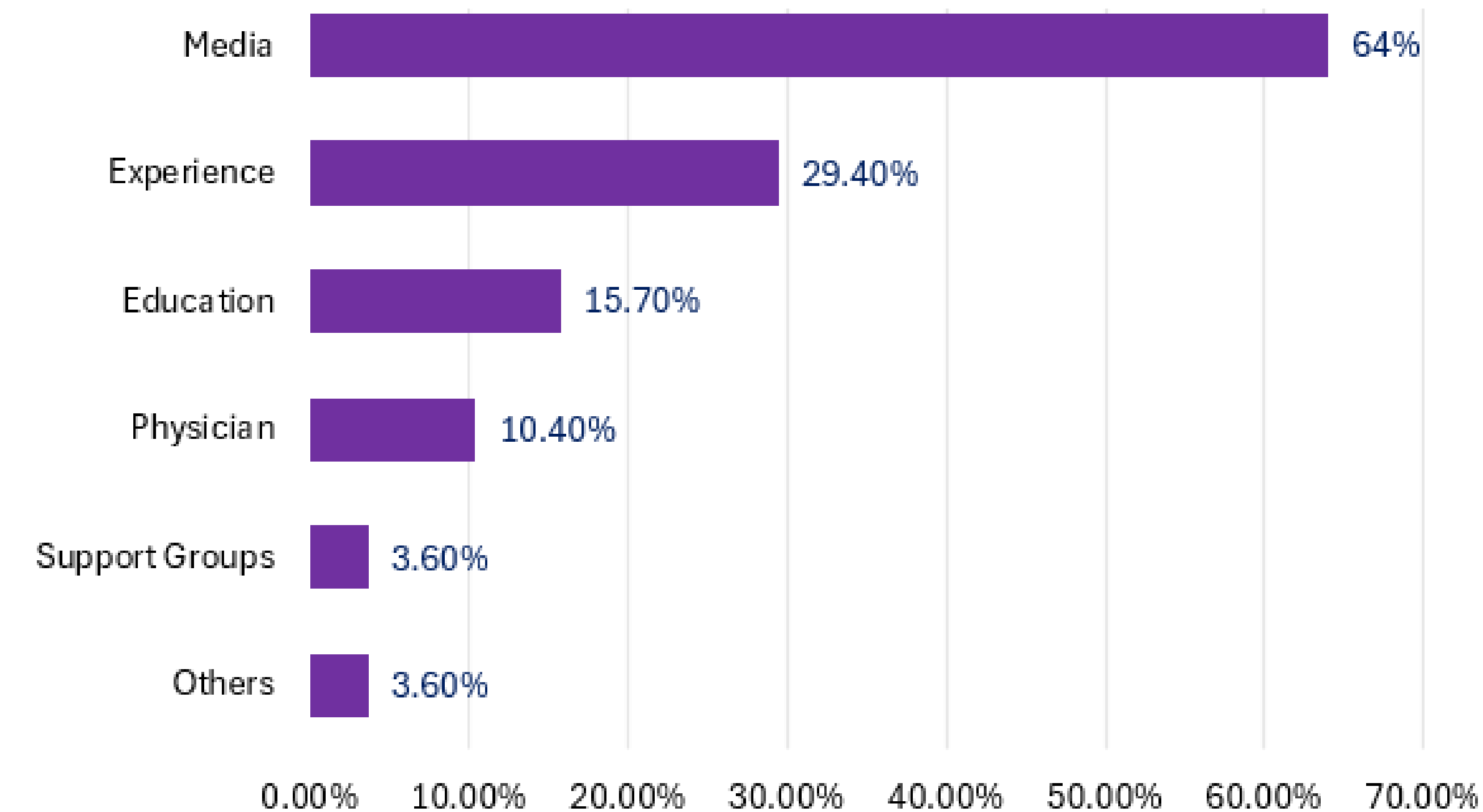


Fig. 1 Sources of Dementia Knowledge

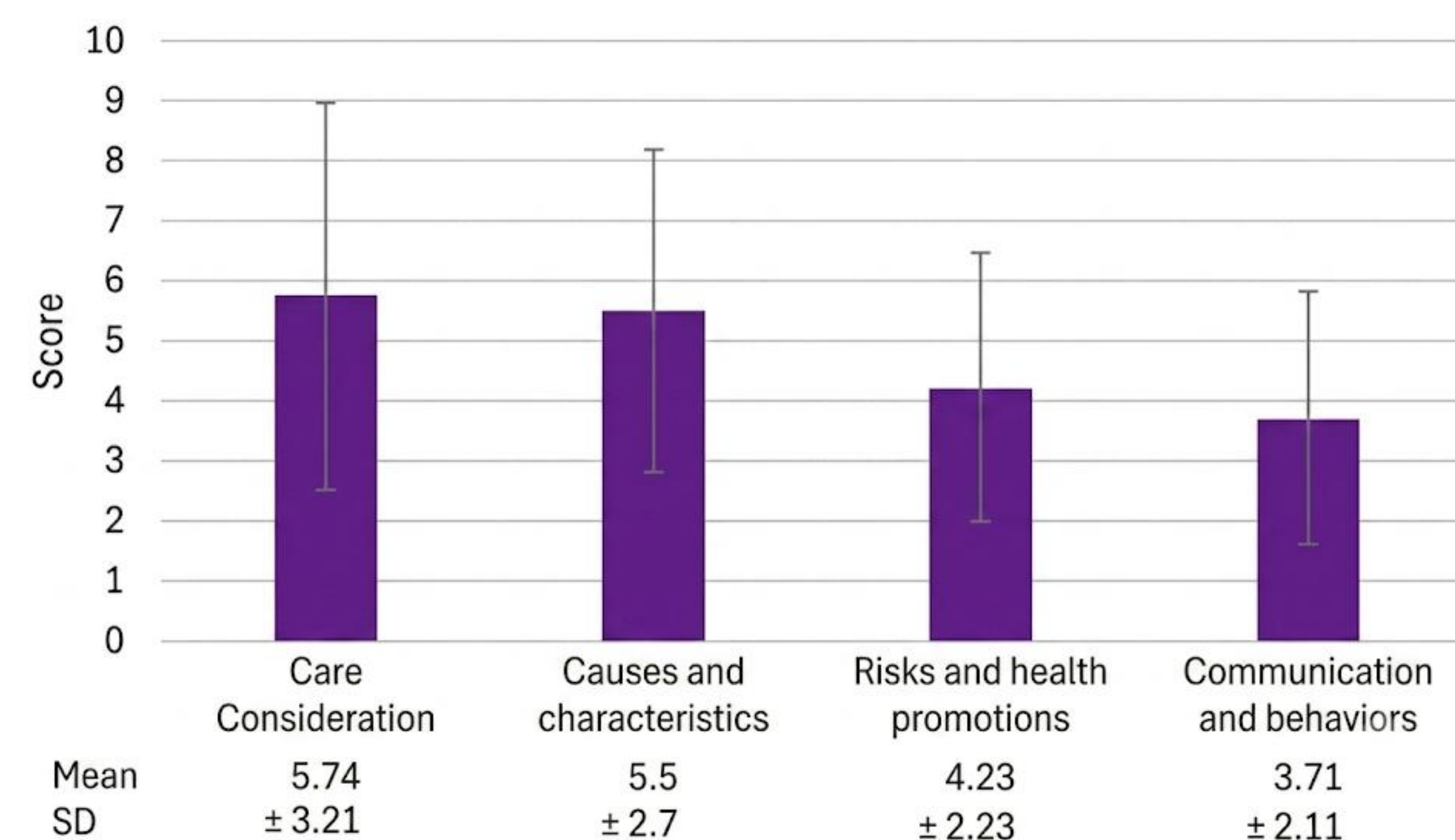


Fig. 2 Dementia knowledge assessment scale (DKAS) subscales scores.

Conclusion

- The DKAS-A was successfully developed and validated through comprehensive validation methods.
- The low overall knowledge score, indicating the inadequate level of knowledge, calls for urgent educational programs to enhance dementia awareness, especially given the projected rise in dementia cases globally.

