

# Norms Of The Geriatric Complex Figure Test For Adults Aged 65 And Older In Shanxi Province: Analyses Of Reliability And Validity

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KEY TAKEAWAYS

First GCFT norms for Chinese older adults: Established representative norms for Shanxi residents aged ≥65 years.

Robust psychometrics: High reliability (Cronbach’s  $\alpha$ =0.823) and validity (CFA: CFI=0.923, RMSEA=0.047).

Demographically stable: Scores unaffected by gender, age, education, or urban/rural residence (all  $p>0.05$ ).

Practical tool: Simplified vs. ROCF—better suited for low-education and older populations.

INTRODUCTION

- Problem: ROCF (Rey-Osterrieth Complex Figure Test) is too complex for older adults, causing cognitive overload.
- Solution: GCFT (Geriatric Complex Figure Test)—a simplified version (2018) with 3 subtests: Copying (visuospatial), 3-min recall (short-term memory), 20-min recall (long-term memory).
- Gap: No Chinese norms or validation for GCFT.

METHODS

- Design: Cross-sectional study (2023).
- Sampling: Multistage stratified random cluster sampling (5 communities in Shanxi: urban/rural, north/central/south).
- Participants: N=420 (aged 65–91, mean 71.99±5.71 years).
- Measures: GCFT: 27 items (9 per subtest), total score 0–54; Criterion: MMSE (Chinese version)
- Analysis; SPSS 26.0/JASP 0.19.1.0: Norms (mean/percentile), item analysis, reliability (Cronbach’s  $\alpha$ , split-half), EFA/CFA (construct validity), Pearson/partial correlation (criterion validity)

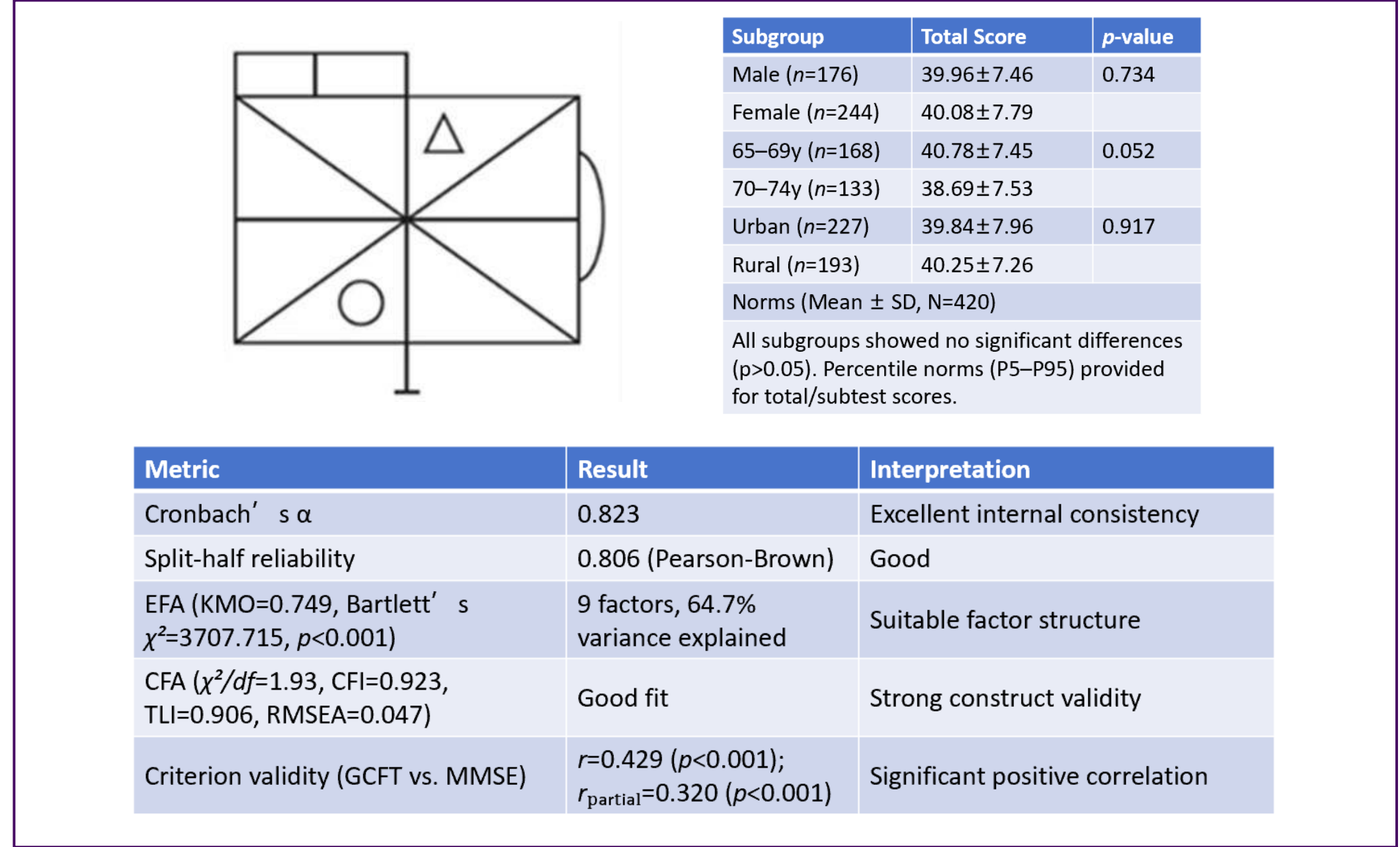
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RESULTS



CONCLUSIONS

- Representative norms: First validated GCFT norms for Chinese older adults (Shanxi ≥65 years).
- Strong psychometrics: Reliable and valid for assessing visuospatial/memory functions.
- Broad applicability: Demographically stable—suitable for diverse community-dwelling older adults.
- Future directions: Localization (Chinese cultural elements), digital assessment integration, clinical validation (MCI/dementia discrimination).