## Cross-cultural equivalence of construct validity of the Death Literacy Index in Belgium, the Netherlands, and Sweden

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#### **Background and aim**

Death literacy is a construct conceptualizing experience-based competence for end-of-life care, which is operationalized as a six-factor model in the 29-item *Death Literacy Index* (DLI) (*Fig 1*). The DLI has gained interest as a potential outcome measure for public health palliative care interventions, but its construct validity (measurement invariance, *Fig 2*) across countries is yet unknown.

This study assessed the cross-cultural equivalence of the DLI across Flemish Belgium (BEL), the Netherlands (NL), and Sweden (SE) by testing levels of measurement invariance.

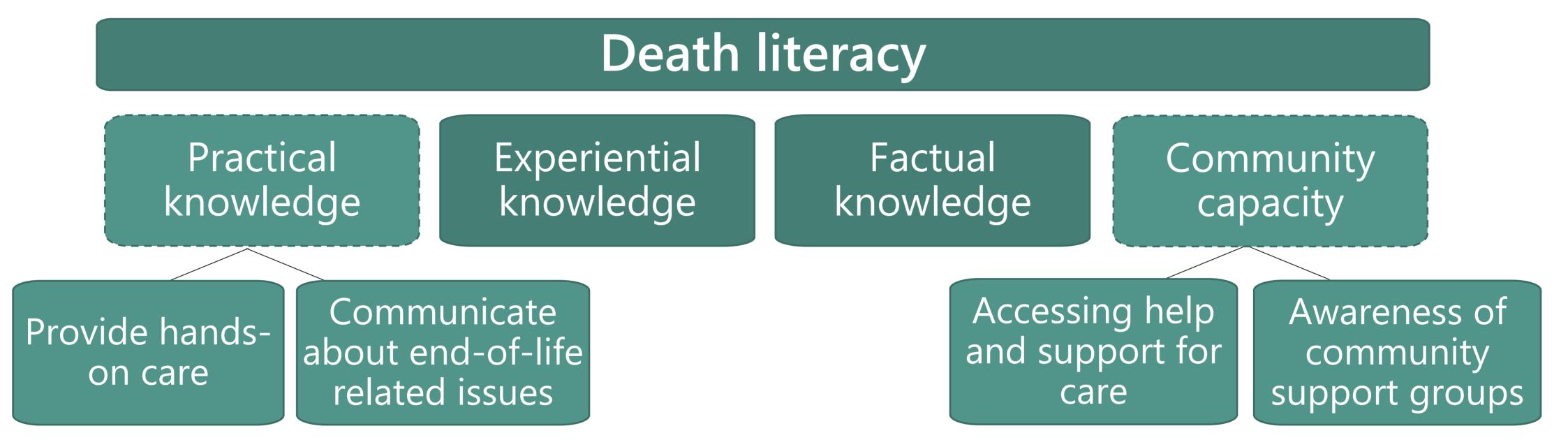


Fig 1. Overview of the dimensional scales and corresponding subscales of the Death Literacy Index.

#### Methods

Country-specific DLI versions were tested using nation-based quota samples of adults recruited via a European online panel agency. Data were analysed using multigroup confirmatory factor analysis.

### Results

In total, 1,516 participants completed the DLI (BEL=502; NL=511; SE=503). The six-factor model had good fit in each sampled country.

The DLI met conditions for **configural** (comparative fit index (CFI)=0.968, root mean square error of approximation (RMSEA)=0.067), **metric** ( $\Delta$ CFI=0.001,  $\Delta$ RMSEA=-0.002), and **scalar** ( $\Delta$ CFI=-0.001,  $\Delta$ RMSEA=-0.003), invariance. All but 1 item had strong (>0.60) factor loadings to their hypothesised scale. For 6 items, factor loadings differed by ≥0.1 between countries. Scalar invariance (similar item intercepts)

Metric invariance (similar factor loadings)

**Configural invariance** (similar factor structure)

Fig 2. Schematic of the levels of measurement invariance.

### Conclusion

We found that the DLI measured death literacy in an equivalent way without systematic bias across the national samples tested. This suggests that death literacy is a theoretically consistent and relevant cross-cultural construct for community end-of-life care competence. Our study provides initial support for using the DLI to compare death literacy across settings, which

would benefit future research evaluating impact of competence-building interventions internationally.







