**Supplemental online material.** *“The cat that kills people:” community beliefs about Ebola origins and implications for disease control in Eastern Democratic Republic of the Congo*

**Latent factor analysis: Ebola related knowledge**

Five questionnaire items dealt with knowledge and misconceptions around Ebola transmission:

K1. Ebola can be prevented by avoiding contact with bodily fluids of an infected person

K2. Ebola can be prevented by avoiding contact with the corpse of someone who died of Ebola

Misconceptions

K3. Ebola is transmitted in the ambient air

K4. Ebola can be prevented by avoiding mosquito bites

K5. Ebola can be prevented by bathing in hot and salty water

We began by recoding factor levels for each of these items, so that the direction of the responses to all items was similar (highest in participants with strong biomedical understanding). Thus, for K1 and K2, coding was: “yes” = 1; “don’t know” = 0; and “no” = -1. For K3, K4, and K5, coding was: “yes” = -1; “don’t know” = 0; and “no” = 1.

We then included all five items in a latent factor analysis (*R*, function *factanal*) [1] with a single factor intended to measure the latent construct “Ebola knowledge.”

The results of the factor analysis are shown in Table 1.

**Table 1. Factor analysis for Ebola knowledge (286 participants)**

|  |  |  |
| --- | --- | --- |
| **Question** | **Uniquenesses** | **Factor loadings** |
| K1 | 0.875 | 0.354 |
| K2 | 0.978 | 0.147 |
| K3 | 0.661 | 0.582 |
| K4 | 0.512 | 0.698 |
| K5 | 0.784 | 0.464 |

The latent factor explained 24% of the overall variance.

Scores on the latent factor were generated as an index of “Ebola knowledge.” Scores correlated with education level (ρ=0.23, p<0.0001), as well as a previously published index of “comprehensive knowledge” [2] (ρ=0.74, p<0.0001). This suggests convergent validity of the latent factor.

Ebola knowledge score did not differ between those who endorsed mythical views of disease causation *versus* others (p=0.43).

**Reference**

1. R Core Team (2018). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.

2. Buli BG, Mayigane LN, Oketta JF, Soumouk A, Sandouno TE, Camara B, et al. Misconceptions about Ebola seriously affect the prevention efforts: KAP related to Ebola prevention and treatment in Kouroussa Prefecture, Guinea. Pan Afr Med J. 2015;22 Suppl 1:11. doi: 10.11694/pamj.supp.2015.22.1.6269. PubMed PMID: 26740839; PubMed Central PMCID: PMCPMC4695529.