Electronic Supplement 3. Data collection using a test-booklet-design / Recruitment strategy.

Each participant was randomly assigned a test booklet containing 12- 14 items. In order to enable a common psychometric analysis of all 67 test items, the data were collected by means of a test booklet design at two measurement times (Frey, Hartig, & Rupp, 2009; Gonzalez, & Rutkowski, 2010). In the first test, the items on ECAP and GHP information were administered; in the second test, the items on Prevention of COVID-19 infections were provided. Five item blocks (A, B, C, D, E) were formed for each measurement time point, considering the compatibility of item difficulties and item contents that were as distinct as possible. Each item block included 6–7 items. Two additional items on child health were included in all test booklets of part 2. The partially overlapping test booklets were composed as follows:

Booklet	Block A	Block B	Block C	Block D	Block E
1	X	X			
2		X	X		
3			X	X	
4				X	X
5	X				X

Electronic Supplements 1 and 2 contain an example test booklet for the ECAP / GHL and COVID-19 areas, respectively. Each person was randomly assigned one test booklet (12–16 items per test). Two test booklets each have 50 % identical items. This ensures sufficient information overlap to allow for an integrated overall IRT analysis. A sample size of $n = 375$ was targeted to ensure that each test item was answered by approximately $n = 150$ subjects. To minimize any sequence effects, the item blocks are presented in reverse order (rotating test booklet design). The position of those two items that were included in all test booklets also varied (beginning, middle, end).

Recruitment strategy

The sample was recruited using a variety of recruitment approaches: a) nationwide contact with approximately 300 multipliers (e.g., healthcare professionals, daycare providers), b) cooperation with a health insurance company (48 pediatricians and 65 specialists in the field of gynecology and obstetrics), c) personal contact with (expectant) parents in public places, and d) dissemination of the study appeal via various information channels (e.g., radio, social media). An expense allowance of 30 EUR was paid for full participation in the survey. In addition, participants received an information sheet and access to a digital information session on the topic of ECAP after completion of data collection.

Literature:

Frey, A., Hartig, J., & Rupp, A. A. (2009). An NCME Instructional Module on Booklet Designs in Large-Scale Assessments of Student Achievement: Theory and Practice. *Educational Measurement: Issues and Practice, 28*(3), 39–53. doi:10.1111/j.1745-3992.2009.00154.x

Gonzalez, E., & Rutkowski, L. (2010). Principles of multiple matrix booklet designs and parameter recovery in large-scale assessments. In: M. von Davier & D. Hastedt (Eds.). *IERI Monograph Series: Issues and Methodologies in Large-Scale Assessments (Vol. 3)*, 125–156. ETS: Baltimore.