

The Know-Do Gap in Quality of Health Care for Childhood Diarrhea and Pneumonia in Rural India ONLINE FIRST

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ABSTRACT

Importance In rural India, as in many developing countries, childhood mortality remains high and the quality of health care available is low. Improving care in such settings, where most health care practitioners do not have formal training, requires an assessment of the practitioners' knowledge of appropriate care and the actual care delivered (the know-do gap).

Objective To assess the knowledge of local health care practitioners and the quality of care provided by them for childhood diarrhea and pneumonia in rural Bihar, India.

Design, Setting, and Participants We conducted an observational, cross-sectional study of the knowledge and practice of 340 health care practitioners concerning the diagnosis and treatment of childhood diarrhea and pneumonia in Bihar, India, from June 29 through September 8, 2012. We used data from vignette interviews and unannounced standardized patients (SPs).

Main Outcomes and Measures For SPs and vignettes, practitioner performance was measured using the numbers of key diagnostic questions asked and examinations conducted. The know-do gap was calculated by comparing fractions of practitioners asking key diagnostic questions on each method. Multivariable regressions examined the relation among diagnostic performance, prescription of potentially harmful treatments, and the practitioners' characteristics. We also examined correct treatment recommended by practitioners with both methods.

Results Practitioners asked a mean of 2.9 diagnostic questions and suggested a mean of 0.3 examinations in the diarrhea vignette; mean numbers were 1.4 and 0.8, respectively, for the pneumonia vignette. Although oral rehydration salts, the correct treatment for diarrhea, are commonly available, only 3.5% of practitioners offered them in the diarrhea vignette. With SPs, no practitioner offered the correct treatment for diarrhea, and 13.0% of practitioners offered the correct treatment for pneumonia. Diarrhea treatment has a large know-do gap; practitioners asked diagnostic questions more frequently in vignettes than for SPs. Although only 20.9% of practitioners prescribed treatments that were potentially harmful in the diarrhea vignettes, 71.9% offered them to SPs ($P < .001$). Unqualified practitioners were more likely to prescribe potentially harmful treatments for diarrhea (adjusted odds ratio, 5.11 [95% CI, 1.24-21.13]). Higher knowledge scores were associated with better performance for treating diarrhea but not pneumonia.

Conclusions and Relevance Practitioners performed poorly with vignettes and SPs, with large know-do gaps, especially for childhood diarrhea. Efforts to improve health care for major causes of childhood mortality should emphasize strategies that encourage pediatric health care practitioners to diagnose and manage these conditions correctly through better monitoring and incentives in addition to practitioner training initiatives.