

Meriën AE, van de Ven J, Mol BW, Houterman S, Oei SG. Multidisciplinary team training in a simulation setting for acute obstetric emergencies: a systematic review. Obstet Gynecol. 2010;115:1021-31.

Abstract

OBJECTIVE:

To perform a systematic review of the literature on the effectiveness of multidisciplinary teamwork training in a simulation setting for the reduction of medical adverse outcomes in obstetric emergency situations.

DATA SOURCES:

We searched Medline, Embase, and the Cochrane Library from inception to June 2009. The search strategy contained medical subject heading terms ("patient care team" and "patient simulation" and "obstetrics" or "gynecology" and "education" or "teaching") and additional text words ("teamwork," "simulation," "training").

METHODS OF STUDY SELECTION:

Studies describing and evaluating teamwork training programs with simulation models for labor ward staff in acute obstetric emergencies were selected. The search revealed 97 articles.

TABULATION, INTEGRATION, AND RESULTS:

All studies were assessed independently by two reviewers for methodological quality using the quality assessment of diagnostic accuracy studies (QUADAS) criteria. Only eight articles assessed the effect of teamwork training in a simulation setting. Four of them were randomized controlled trials and four were cohort studies. The only study that reported on perinatal outcome showed an improvement in terms of 5-minute Apgar score and hypoxic-ischemic encephalopathy. The seven other studies showed that teamwork training in a simulation setting resulted in improvement of knowledge, practical skills, communication, and team performance in acute obstetric situations. Training in a simulation center did not further improve outcome compared with training in a local hospital.

CONCLUSION:

Introduction of multidisciplinary teamwork training with integrated acute obstetric training interventions in a simulation setting is potentially effective in the prevention of errors, thus improving patient safety in acute obstetric emergencies. Studies on its effectiveness and cost-effectiveness are needed before team training can be implemented on broad scale.