Development and validation of a physiological breech delivery game

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Every obstetrician and midwife has to be able to perform a vaginal breech procedure. However, vaginal breech deliveries have become rare, because in most cases a Cesarean section is performed. Although obstetricians have very little exposure to vaginal breech deliveries, they should always be prepared to perform a vaginal breech delivery, as in 10% of cases there is not enough time to do a C-section. Training is important and feasible, but can only be done at the hospital.1 Animations can depict dynamic changes over time and location, and illustrate phenomena and concepts that might otherwise be difficult to visualize.2 Therefore we have developed an interactive game for obstetric professionals. The game can be played at home on a personal computer (PC).

Methods

A serious game with 3D animations of a breech delivery was developed. The game is interactive and can be played on a PC with a controller. For simulation of the cardiotocogram (CTG) a mathematical model was used based on physiology.2 Fifty volunteers will participate in the validation process. Face validity, content validity, and construct validity will be determined in a group of novices (medical students and new residents), and a group of experts (experienced obstetricians).

Results

The validation process will be finished in May 2013.

Discussion

This is the first serious game for obstetricians and midwives. Not only the graphics of the game and animations are very realistic. It also contains a physiological based CTG model. Besides a breech delivery students can practice five other obstetric scenarios. The results of the validation process will be presented at the congress. The next step is to perform a randomised controlled trial to study the efficacy of this game to practice breech deliveries. References

References
