

The Childbirth Experience Questionnaire (CEQ) - validation of its use in a Danish-speaking population of new mothers stimulated with oxytocin during labour

Boie S^{1,2}, Lauridsen HH³, Glavind J⁴, Smed M,⁵ Uldbjerg N⁴, Bor P¹

1. Department of Obstetrics and Gynaecology, Randers Regional Hospital, DENMARK 2. Clinical Medicine, Aarhus University, DENMARK 3. Department of Obstetrics and Gynaecology, Aarhus University Hospital 4. Department of Sports Science and Clinical Biomechanics, Odense University, DENMARK 5. Rigshospitalet, Copenhagen, DENMARK

Background

We need standardised methods to measure and quantify patient reported outcomes.

No robust Danish tool for evaluating childbirth experience exists.

We aim to perform a transcultural adaptation of the original Swedish Childbirth Experience Questionnaire (CEQ) into a Danish context. For 19 of the items the response format is a 4-point Likert Scale whereas the last three items use a visual analogue scale (VAS).

Methods

Translation of the CEQ from Swedish to Danish in accordance with COSMIN

The Danish CEQ was tested for content validity among 10 new mothers.

In a population of women who have had their labour induced with oxytocin (April 2016 – December 2018), we assessed the electronic questionnaire for validity and reliability using factor analytical design, hypothesis testing, and internal consistency.

Based on these data, we determined criterion and construct responsiveness in addition to floor and ceiling effects.

Results and Conclusion

| Item | Statement (Danish) | Statement (English) |
|------|--|--|
| 1 | Fødslen forløb som jeg havde forestillet mig | The labour progress went as I had expected |
| 2 | Jeg følte mig stærk under fødslen. | I felt strong |
| 3 | Jeg følte mig bange under fødslen. | I felt scared |
| 4 | Jeg følte mig i stand til at gennemføre fødslen. | I felt capable |
| 5 | Jeg var træt under fødslen. | I felt tired |
| 6 | Jeg var glad under fødslen | felt happy |
| 7 | Jeg har mange positive minder fra fødslen | I have many positive memories from the labour process |
| 8 | Jeg har mange negative minder fra fødslen | I have many negative memories from the labour process |
| 9 | En del af minderne fra fødslen kan få mig til at føle mig nedtrykt | Some of my memories from the labour process make me feel depressed |
| 10 | Jeg følte, at jeg havde mulighed for at påvirke, om jeg skulle være oppe og røre mig eller ligge ned | I felt I could choose whether I should be up and moving or lie down |
| 11 | Jeg følte, at jeg havde mulighed for at påvirke fødselsstillingen | I felt I could choose the delivery position |
| 12 | Jeg følte, at jeg havde mulighed for at påvirke valg af smertelindring | I felt I could choose which pain relief method to use |
| 13 | Jordemoderen brugte tilstrækkelig tid på mig | My midwife devoted enough time to me |
| 14 | Jordemoderen brugte tilstrækkelig tid på min partner | My midwife also devoted enough time to my partner |
| 15 | Jordemoderen informerede om, hvad der skete under fødslen | My midwife kept me informed about what was happening during labour and birth |
| 16 | Jordemoderen forstod mine behov | My midwife understood my needs |
| 17 | Jeg følte, at jordemoderen behandlede mig godt | I felt very well taken care of by the midwife |
| 18 | Mit indtryk af sundhedspersonalets faglige kompetence gjorde mig tryk | My impression of the medical competence made me feel secure |
| 19 | Jeg følte, at jeg håndterede situationen godt | I felt that I handled the situation well |
| 20 | Hvor smertefuldt oplevede du generelt fødslen ¹ | Experienced level of labour pain, VAS** |
| 21 | Hvor meget kontrol følte du, at du generelt havde under fødslen? ¹ | Experienced level of control, VAS** |
| 22 | Når du tænker tilbage på fødslen, hvor tryk følte du dig generelt ¹ | Experienced level of sense of security; VAS ¹ |

The electronic questionnaire was completed by 377 of 495 women (76.2%).

The original Swedish CEQ was four-dimensional, however an exploratory factor analysis revealed a three-dimensional structure in our Danish population (Own capacity, Participation, and Professional support).

The internal consistency (Cronbach's alpha) ranged between 0.75 and 0.89 and the ICC between 0.68-0.93.

We found ceiling effects of 57.6% in the domain Professional support and of 25.5% in the domain Participation.

The Danish version of the CEQ demonstrates construct validity and reliability.

A significant ceiling effect especially in the domain Professional support, needs to be acknowledged when considering implementing the CEQ into trials and clinical practice.

