OP26.08 A micro-analytic evaluation of parents watching a non-diagnostic ultrasound-based video of their fetus at mid-gestation

W Stadlmayr[1], C Boukydis[2], S Bichsel[1], S Kappeler[1], S Gürber[1], M Meyer-Wittkopf[3], D Surbek[1], B Tutschek[1]

[1]Dept. Obstetrics, University Hospital, Berne, Switzerland; [2]Dept. of Psychology, Illinois Institute of Technology Chicago, IL, USA, [3]Mathias-Spital, Rheine, Germany

Introduction

How pregnant women in difficult psycho-social circumstances experience foetal ultra-sound exams has been used for counselling[1].

Few studies have addressed the parental interaction, i.e. the **couples**' behaviour while watching their fetus during US examinations.

Methods

20 couples watched a non-diagnostic video ("Tc_sono20"[2]: Figure 1) of their fetus (12-15 min) at mid-gestation (t1). Their interaction was systematically micro-analyzed (Table 1).

At 32 weeks (t2) they were assessed with regard to three variables of their well-being: (a.) **depression**[3] (b.) **attachment** i.e. their attitude towards pregnancy and the unborn child[4] and (c.) **anxiety**[5,6]. Parental behaviour at 20wks was explored with respect to correlations with well-being at 32wks (Pearson rank correlation: SPSS 17).

Figure 1. Future parents' triadic capacity ("Tc_-sono20", screen-shot): a standardized setting to measure parental attitudes to pregnancy while watching a non-diagnostic ultrasound

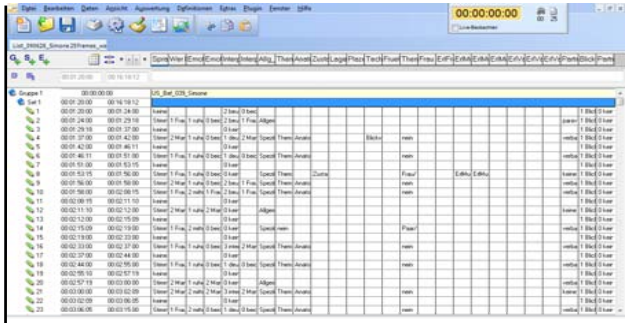

Table 1. Systematic micro-analytic video evaluation using a coding sheet based on INTERACT® (see: www.mangold-international.com)

Results

A) A **couple**'s 'degree of shared intensity of expressiveness', 'overall intensity of gesture', 'expressed overall intensity of relationship with child', and 'visual feedback behaviour' (table 2a) as well as both **maternal** and **paternal** 'ratio of talking about child vs. ultrasound' and **maternal** evaluation of 'child's overall temperament' (table 2b) at t1 are correlated with **maternal well-being at t2**.

B) **Paternal** evaluation of 'child's overall temperament' and his proportion of 'talking about child's subjective experience' as well as his evaluation of 'overall quality of the ultrasound video' (table 2c) at t1 are correlated with **paternal well-being at t2**.

Conclusion

While watching a non-diagnostic ultrasound video of their fetus at mid-gestation, couple dynamics as well as individual parental behaviour is associated with individual parental well-being in the 3rd trimester.

Further research appears worthwhile to study formally how parents act and interact while watching their fetus on ultrasound at mid-gestation. This may be helpful in predicting pregnancy-associated psycho-social risk situations in the 3rd trimester.

BIBLIOGRAPHY

(1) Boukydis CF, et al. Women's responses to ultrasound examinations during routine screens in an obstetric clinic. J Ultrasound Med. 2006 Jun;25(6):721-8.
(2) Stadlmayr W, et al. Ultrasound in pregnancy and its impact on the well-being of the parents-to-be. 2006 (unpublished research proposal; N° 009/06 KEK Bern)
(3) Murray D, Cox J. Screening for depression during pregnancy with the Edinburgh Depression Scale (EPDS). J Reprod Infant Psychol 1990;8:99-107
(4) Reading A., Cox DN, Sledmere CM, Campell S. Psychological changes over the course of pregnancy. Health Psychology 1984; 3: 211-221
(5) Laux L, Glanzmann P, Schaffner PO, Spielberger, CD 1981; State-Trait Angstinventar, Beltz-Testgesellschaft, Weinheim/ D
(6) Saisto T, et al. Psychosocial predictors of disappointment with delivery and puerperal depression. Acta Obstet Gynecol Scand 2001(80):39-45 temperament

Thank you to the participating families!

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