Women’s Psychosocial Outcomes after Receiving Cardiotocography (CTG) or ST-Analysis (STan) Fetal Monitoring During Labour: An Australian Pilot Randomised Control Trial

This thesis is submitted in partial fulfilment of the Honours Degree of Bachelor of Psychological Science

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# Table of Contents

List of Tables and figures .......................................................... 5
List of Abbreviations ..................................................................... 6
Abstract ......................................................................................... 7
Presentations Based on this Thesis .............................................. 8
Declaration ...................................................................................... 9
Acknowledgments ......................................................................... 10

Chapter 1- Introduction .............................................................. Error! Bookmark not defined.
  1.1 Background: Maternity Care and Fetal Monitoring ... Error! Bookmark not defined.
  1.2 Defining the Biopsychosocial Model................................. Error! Bookmark not defined.
    1.2.1 Biopsychosocial model in maternity health............ Error! Bookmark not defined.
  1.3 Defining Fetal Monitoring ................................................. Error! Bookmark not defined.
    1.3.1 Defining Cardiotocography (CTG) ......................... Error! Bookmark not defined.
    1.3.2 Defining ST-analysis (STan) ................................. Error! Bookmark not defined.
  1.4 Caesarean Sections in Australia ...................................... Error! Bookmark not defined.
  1.5 The Interrelated Physical and Psychological Impact of Caesareans.............. Error! Bookmark not defined.
    1.5.1 Caesarean section and postnatal depression (PND). Error! Bookmark not defined.
    1.5.2 Caesareans and infant feeding ............................. Error! Bookmark not defined.
  1.6 Other Psychosocial Implications of EFM .......................... Error! Bookmark not defined.
    1.6.1 Satisfaction with fetal monitoring ......................... Error! Bookmark not defined.
        1.6.2 Women’s views of the scalp clip ....................... Error! Bookmark not defined.
        1.6.3 Satisfaction with STan ................................. Error! Bookmark not defined.
  1.7 Women’s Maternity Care Preferences: Risk, Choice and Control . Error! Bookmark not defined.
    1.7.1 Choice and control ........................................... Error! Bookmark not defined.
    1.7.2 Women’s perceptions of risk and trade-offs .......... Error! Bookmark not defined.
  1.8 The current study ............................................................... Error! Bookmark not defined.
    Aims and Hypotheses ........................................................... Error! Bookmark not defined.

Chapter 2-Method......................................................................... Error! Bookmark not defined.
  2.1 Participants ........................................................................ Error! Bookmark not defined.
    2.1.1 Demographic characteristics ................................. Error! Bookmark not defined.
  2.2 Procedure .......................................................................... Error! Bookmark not defined.
  2.3 Measures .............................................................................. Error! Bookmark not defined.
2.3.1 Demographic variables ...................................... Error! Bookmark not defined.
2.3.2 Satisfaction with care................................................. Error! Bookmark not defined.
2.3.3 Physical and mental health ........................................ Error! Bookmark not defined.
2.3.4 Infant feeding practices ......................................... Error! Bookmark not defined.

2.4 Data Analysis .......................................................... Error! Bookmark not defined.
2.4.1 Data screening ....................................................... Error! Bookmark not defined.
2.4.2 Power Analysis ....................................................... Error! Bookmark not defined.
2.4.3 Preliminary Analysis ............................................... Error! Bookmark not defined.
2.4.4 Bootstrapped confidence intervals ......................... Error! Bookmark not defined.
2.4.5 Thematic analysis ................................................ Error! Bookmark not defined.

Chapter 3 - Results ......................................................... Error! Bookmark not defined.

3.1 Clinical characteristics ................................................. Error! Bookmark not defined.

3.2 Aim 1: STan and CTG compared on satisfaction with overall care and experience during labour .......................................................... Error! Bookmark not defined.
3.2.1 STan and CTG compared on satisfaction with overall early labour experiences (ELE), staff care, distress and wellbeing ............... Error! Bookmark not defined.
3.2.2 STan and CTG compared on satisfaction with care during the intrapartum period .......................................................... Error! Bookmark not defined.

3.3 Aim 2: Women’s experiences and satisfaction with the EFM they received...... Error! Bookmark not defined.
3.3.1 Aim 2.1: The positives and negatives of EFM ........ Error! Bookmark not defined.
3.3.2 Aim 2.2: STan and CTG compared on satisfaction with EFM ..... Error! Bookmark not defined.
3.3.3 Aim 2.3: The association between satisfaction with EFM, intrapartum care and experiences during labour .......................................................... Error! Bookmark not defined.
3.3.4 Aim 2.4: Exploring Women’s trade-off’s in relation to EFM Error! Bookmark not defined.

3.5.1 Aim 3: STan and CTG compared on physical and psychosocial outcomes... Error! Bookmark not defined.
3.5.2 STan and CTG compared on Infant feeding............. Error! Bookmark not defined.

Chapter 4- Discussion ........................................................ Error! Bookmark not defined.

4.1 Overview .............................................................. Error! Bookmark not defined.
4.2 Aim 1: STan and CTG compared on satisfaction with overall care and experience during labour .......................................................... Error! Bookmark not defined.
4.3 Aim 2: Women’s experiences and satisfaction with the EFM they received........... Error! Bookmark not defined.
4.3.1 Aim 2.1: The positives and negatives of EFM ........ Error! Bookmark not defined.
4.3.2 Aim 2.2: STan and CTG compared on satisfaction with EFM ...

4.3.3 Aim 2.3: The Association between Satisfaction with EFM, Intrapartum Care and Experiences during Labour

4.3.4 Aim 2.4: Exploring Women’s trade-off’s in relation to EFM

4.4 Aim 3: STan and CTG compared on physical and psychosocial outcomes

4.5 Strengths

4.5.1 Originality and contribution to knowledge.

4.5.2 Randomized Controlled Trials (RCT).

4.5.3 The addition of qualitative methods.

4.5.4 Piloting of the questionnaire.

4.6 Limitations

4.6.1 Low response rate and sample size.

4.6.1.2 Increasing response rate.

4.6.2 External validity.

4.6.3 Priming of open-ended questions.

4.6.4 Low Cronbach’s alpha.

4.6.5 The exclusion of women with adverse outcomes.

4.6.6 Data did not reach saturation.

4.7 Conclusion

Citation list

Appendix A: Package Mailed to Participants: Invitation letter, Information Sheet, Consent Form & Questionnaire

Appendix B: Reminder Letter

Appendix C: Online Questionnaire

Appendix D: Data Analysis – Selected Outputs

Shapiro-Wilk
Correlation Analysis .............................................................. Error! Bookmark not defined.
Trade-off Responses ................................................................ Error! Bookmark not defined.
Examples of Open-ended Responses ....................................... Error! Bookmark not defined.
Appendix E: Conference Slides .............................................. Error! Bookmark not defined.
  Beacon Conference Slides ................................................... Error! Bookmark not defined.
  Australasian Conference for Undergraduate Research Slides .... Error! Bookmark not defined.
List of Tables and Figures

Table 1. Aims and Hypotheses ............................................................... 15-16
Table 2. Demographic Characteristics .................................................. 18
Table 3. STan and CTG Groups Compared on Timeframes Between Labour and Completion of the Questionnaire ...................................................... 22
Table 4. STan and CTG Groups Compared on Clinical Characteristics ....... 31
Table 5. STan and CTG Groups Compared on Labour Experience and Satisfaction ........................................................................................................ 32
Table 6. Pearson’s Product-Moment Correlation (with bootstrapped BCa levels of significance) between Satisfaction with EFM, Quality of Care and Overall Experience of Labour ........................................................................................................... 41
Table 7. Trade-off questions ................................................................. 42
Table 8. STan and CTG Groups Compared on Mental and Physical Health.. 46

Figure 1. Approximate flow of participation and response rate .............. 20
Figure 2. Thematic Map of Codes and Themes ........................................ 35
Figure 3. Percentage of Responses for Trade-off 1 - Reassurance over Movement ........................................................................................................ 43
Figure 4. Percentage of Responses for Trade-off 2- Healthy Baby over Invasiveness ........................................................................................................ 43
Figure 5. Percentage of Responses for Trade-off 3- Invasiveness over Unnecessary Caesarean ........................................................................................................ 44
Figure 6. Percentage of Responses for Trade-off 4 – Reassurance over Physical Comfort ........................................................................................................ 44
Figure 7. Percentage of Responses for Trade-off 5 – Physical Comfort over Better Outcomes ........................................................................................................ 45
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFM</td>
<td>Electronic Fetal Monitoring</td>
</tr>
<tr>
<td>STan</td>
<td>ST-Analysis</td>
</tr>
<tr>
<td>CTG</td>
<td>Cardiotocography</td>
</tr>
<tr>
<td>ELE</td>
<td>Early Labour Experience</td>
</tr>
<tr>
<td>PND</td>
<td>Postnatal Depression</td>
</tr>
<tr>
<td>WCH</td>
<td>Women’s and Children’s Hospital</td>
</tr>
<tr>
<td>WCHN HREC</td>
<td>Women’s and Children’s Health Network Human Research Ethics Committee</td>
</tr>
<tr>
<td>BCa</td>
<td>Bias-Corrected and Accelerated</td>
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<tr>
<td>ELEQ</td>
<td>Early Labour Experience Questionnaire</td>
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<tr>
<td>MDU</td>
<td>Midwifery Development Unit Labour Satisfaction Scale</td>
</tr>
<tr>
<td>GHQ</td>
<td>General Health Questionnaire</td>
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<tr>
<td>EPNS</td>
<td>Edinburgh Postnatal Depression Scale</td>
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<tr>
<td>S-EFM</td>
<td>Satisfaction with Electronic Fetal Monitoring</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
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<td>ABS</td>
<td>Australian Bureau of Statistic</td>
</tr>
</tbody>
</table>
Abstract

A common intervention to ensure the health of the fetus and mother during labour is electronic fetal monitoring (EFM). Standard practice for EFM in Australia is cardiotocography (CTG), which has a high false positive rate leading to unnecessary intervention such as caesarean delivery. The Women’s and Children’s Hospital is currently trialling a new technology, ST-Analysis (STan), which is used in conjunction with CTG. STan provides greater information to clinicians, allowing for more precise decision making thus leading to fewer unnecessary emergency caesareans. As a result, better outcomes such as lower levels of mental illness and better physical health are anticipated in the postnatal period. This pilot study aims to compare women via a randomised control trial on psychosocial outcomes after receiving either STan or CTG-only. No differences were observed between the treatment groups on satisfaction with EFM, early labour experiences and care. Based on thematic analysis on the positives and negatives of EFM, six themes were reported: perceived clinical errors, concern about EFM, experiences with staff, reassurance, comfort and more clinical information allowing for better decision making. When compared on mental and physical health outcomes, there was no variation between the two treatment groups except on subjective mental health, where the CTG-only group exhibited better mental health outcomes. Based on this pilot study, there seems to be no psychosocial advantage of including STan in the labour ward, however, more research is needed to replicate these findings.

Keywords: STan, ST-Analysis, CTG, cardiotocography, fetal monitoring, electronic fetal monitoring, maternity care, postnatal, satisfaction, psychosocial
**Presentations Based on this Thesis**


Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this thesis contains no materials previously published except where due reference is made.

I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Christianna Digenis

December, 2016
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