Systematic Review of Fatigue Management among Parturients

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The learner will be able to…

- know about the methods of fatigue management among parturients, which was systemically reviewed between 1998 to 2014
- discuss methods of fatigue management that have been applied in their countries
Expanded content outline

- Background
- Objective of this study
- Systematic Review Process (JBI)
- Methodology of this study
- Instrument used for selection
- Data analysis
- Results of the study
- Recommendations
3 factors of Pugh & Milligan’s framework (1993)

- Physical
  - Uterine contraction patterns
  - Length of labor
  - Pain response

- Psychological
  - Mental state
  - Reaction to childbearing

- Situational
  - Environmental characteristics
  - Personal characteristics
Fatigue management during parturition found:

- Various interventions implemented
  - compared methods of pushing

- SR and Meta-analysis of fatigue management were not found.
  (Cochrane & JBI database/Protocol)
The objective of this study…

• To present a scoping review of the literature related to fatigue management during the entire process of labor
Systematic Review Process (JBI)
### Population and Sample

Published and unpublished qualitative research in English and Thai between 1998 and 2013 (RCTs/quasi-experimental research)

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Description</th>
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<tbody>
<tr>
<td>P - participant</td>
<td>Parturients</td>
</tr>
<tr>
<td>I - intervention</td>
<td>Fatigue management</td>
</tr>
<tr>
<td>C - comparison/comparator</td>
<td>Control group</td>
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<tr>
<td>O - outcome</td>
<td>Fatigue</td>
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Searching strategies used

Computerized searching in available and relevant medical and nursing database

- CINAHL, PubMed, Science Direct, Wiley online library, MIDIRS, Academic Search Elite, ProQuest Medical library, Springer Link, Blackwell synergy, Cochrane systematic reviews database, SIGLE, Google Scholar, etc.

Hand searching

Direct-contact with primary researchers/ experts

References/bibliography
Searching keywords used

- **Population**---parturient, intrapartum women, etc.
- **Intervention**---fatigue management, pushing, bearing down, etc.
- **Outcome**---intrapartum fatigue, early postpartum fatigue, maternal fatigue, etc.
Methods of the review used

- Inclusion Criteria Form
- Critical Appraisal Form
  Randomized control/ Pseudo-randomized trial
- Data Extraction Form
Data analysis

JBI Levels of Evidence (JBI, 2014)

Descriptive statistics

Narrative summary
Description of the study

119 studies met keywords searching

14 studies included

11 studies included into appraised and extracted data

105 studies excluded
- 66 no hit (design)
- 37 no hit (outcome)
- 2 no hit (participant)

3 studies excluded
- 1 unavailable full-text
- 2 not in Thai or English

11 studies included into systematic review
Methodological quality

- 72.7% were RCTs.
- 90.9% papers were published in journals.
- 72.7% were studied outside Thailand.
- 45.5% published in 2010 – 2013.
- 81.8% had a large sample size. (n ≥ 30)
- Half of participants were primigavida. (54.5%)
- Most of fatigue management was pushing. (81.8%)
Summary reviewed

3 methods of fatigue management: proven to reduce intrapartum fatigue

Pushing methods

Fatigue management program
(nursing support + positioning + pushing)

Music therapy
1) Pushing techniques

Delayed pushing
- Start pushing when cervix was fully dilated and fetal head descended into perineal stage (Long, 2006)
- Feel fully urge to push uncontrollably (Roberts & Woolley, 1996)
- Similar to delayed pushing (choose preferably pushing position)
  - 3 papers 1 sig vs. 2 not sig

Spontaneous pushing
- Prevent Valsalva maneuver (avoid excessive pushing)
  - 6 papers 4 sig vs. 2 not sig
2 techniques of pushing

- **Shorten length of labor** contributing to decrease **FATIGUE**
- Avoid compression of inferior vena cava
- Prevent fatigue and reduced rate of instrumental deliveries
  (Roberts & Hanson, 2007)
2) Fatigue Management Program

• nursing support → to reduce causes and symptoms of fatigue

• Positioning

• Pushing
Music therapy (Fulton, 2005)

Relaxed--distraction from pain during 1st stage of labor

- Reduced the level of perceived labor pain
- Reduced physiological fatigue
- Pain decreased & fatigue prevented

NOTE: Resulted from 1 study (RCT with small sample size)

Can be rest at 1st stage (save energy)

- Reduced psychological fatigue
Implications for practice

These were proven to reduce fatigue in terms of physiological factors

- Delayed and spontaneous pushing techniques

- Fatigue management program

Music therapy was proven to reduce fatigue in terms of physiological and psychological factors
Implications for research

Solid information gained from SR Meta-analysis needed

- To conduct **experimental research (esp. RCTs, Quasi-)** with **large sample size** using standardized fatigue assessment tool in the same time of measurement

- To **replicate research conducting music therapy** needed during the entire process of labor
Thank you for your kind attention.