Ms Emma Kwegyir-Afful
Ghana

Lifting and pregnancy outcomes: feasibility of a randomized controlled trial in Ghana
Lifting and pregnancy outcomes: feasibility of a randomized controlled trial in Ghana

Authors:

Emma Kwegyir-Afful, Dr. Jos Verbeek,
Dr. Lydia Aziato, Professor J. D. Seffah,
Professor Katri Velviläinen-Julkunen,
Professor Kimmo Räsänen
Background

60% of preterm birth

96% of low birthweight
In 40-50% of spontaneous preterm birth and low birthweight cases, the causes are unknown.
Effects of maternal occupation on pregnancy outcome

- Some epidemiological studies suggest an association between maternal physically demanding activities and adverse pregnancy outcomes.

- Maternal exposure to extreme physical exertion is a common phenomenon in low and lower-middle-income countries including sub-Saharan Africa and Southern Asia.

- Within these settings adverse pregnancy outcomes are more prevalent.
Daily activities of some Ghanaian pregnant women

34 weeks pregnant carrying 51kg load on the head
25 weeks pregnant woman being helped to carry 125 pieces of oranges (39kg)
The 3-component intervention

- We propose a multicomponent lift-less intervention
• Lifting heavy loads that are more than 10kg, either at home or at work
• Lifting/lowering objects below the knee

STOP

• Divide objects into smaller portions before lifting
• Seek help from close relatives when there is the need to lift an object that is more than 10kg.

HOW

• Immediately report to the clinic when you have severe contractions, vaginal bleeding or leaking of clear fluid from the vagina.

SEEK

REMINDER CARD

Shopping

£10 GIFT VOUCHER
Aim of the study and hypothesis

To examine how the intervention will reduce lifting behaviour among Ghanaian pregnant women.

Hypothesis

We hypothesize that the intervention can reduce maternal heavy lifting. Implementation during the last two trimesters of pregnancy will lead to a reduction of preterm birth and low birthweight.
Methods and materials

- Six midwives received one day project specific training on how to recruit participants and administer the intervention.
- Twenty pregnant women were screened and 13 met inclusion criteria.
- A total of four intervention sessions were held at weekly intervals between August and September, 2016.
- During the first session, participants gave their written informed consent.
Intervention sessions

- Each component of the intervention was administered at each session and boosters at the last session.

- Ten participants attended the first session but seven completed all the sessions.

- The seven midwives attended all the sessions.

- Participants received refreshment and transportation reimbursement at all sessions.
Exposure Assessment

- Participants recorded their daily activities (lifting and carrying) on a pre-designed form for 14 days.

- For those who could not do the entries, a midwife or a support person entered the daily activities.
Results

- In the first seven days, participants' self-reported average frequency of lifting 3.5 (SD 1.7) times and a total average weight of 41.1 kg (SD=13.3 kg) per lift.

- In the last seven days, the frequency of lifting reduced to 2.3 (SD=1.0) times and the weight to 13.4 kg (SD=10.9) per lift.

- Six midwives evaluated the intervention and suggested it to be implemented in all ante-natal clinics.
Strengths and limitations

**Strengths**
- Prospective data collection.
- Assessment of exposure for 14 days.
- The intervention reduced heavy lifting in real life situation.

**Limitations**
- Small sample size.
- Potential recall bias.
Conclusions

- Most pregnant women are exposed to extreme physical workload in Ghana.
- The lift-less intervention is feasible with some modifications.
References