The Influence Of Nutrition Education On Maternal And Child Health Of Postpartum Women In A National Referral Hospital, Swaziland

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Presentation outline

- Introduction and Background
- Purpose of the quality improvement project
- Project participants & activities
- Methods
  - Site
  - Data collection
  - Findings
- Lessons learnt
- Sustainability
- Leadership journey
- Acknowledgements
Introduction and Background

• Malnutrition has adverse effects to both maternal and child health

• Developing countries are most affected – Swaziland included
Global burden of malnutrition

Swaziland

Swaziland situation

Children aged under five years
- 31% are stunted
- One percent are (1%) wasted
- 6 % are underweight

- Infant mortality rate: 67 deaths per 1,000 live births (CSO, 2011)
- Obesity: 9.0% (MICS, 2014)
- Maternal mortality rate: 320/100 000 live births (WHO, 2014)
Current Interventions to improve maternal and child health

- Scale up deliveries conducted by skilled personnel
- Increased access of women and children to health care
- Enhanced PMTCT
- There is limited data on nutritional initiatives
- Hence the motivation for this Quality Improvement Project.
To improve nutritional knowledge, attitudes and practices of postpartum women.
Stakeholders involved included:

- PP women recruited from maternity following delivery
- Sister-in-Charge maternity for access to the PP women
- Midwives working in maternity
- Sister-in-Charge Mbabane Public Health Unit for access to post-partum women during the postnatal clinics
- Midwives for nutrition education at the Public Health Unit
- Swaziland Nutrition Council for nutrition educational material
- Mbabane Municipality for training on establishing nutrition backyard gardens and waste management.
Methods cont’d

Project site: Mbabeane Government Hospital
Participants

• A cohort of 30 postpartum (PP) women staying around Mbabane

Selection of participants

• PP women in the labour ward within 24 hours following delivery
• Women residing around Mbabane
• Women who will attend PNC at Mbabane PHU
Data collection

- Baseline data on nutrition KAP was collected prior to discharge
- Post intervention data was collected after 14 weeks postpartum
Methods cont’d

Data Collection

• Data was collected through semi-structured interviews using an interview guide

• Data was collected on nutrition knowledge, attitudes and practices (KAP) of PP women.

Data Analysis

• Data was analysed using SPSS
Intervention

- Nutrition education was given prior to discharge

- Brochures on nutrition education were distributed on discharge

- Follow up nutrition education was given during the postnatal clinic visits—at six, 10 and 14 weeks.
Pamphlets on nutrition

• Stakeholder: Swaziland National Nutrition council
Baseline and Post-intervention survey

- 34 PP women participated in the baseline
- 30 participated in the post intervention

- Lost to follow-up was 4 (11%)

- Participants were aged between 16 and 39 years

- Median age: 23 years
Data Collection on knowledge

• 21 questions on knowledge with response options (true, don’t know, false)

• The items addressed knowledge on:
  – How food is used by the body
  – What a healthy meal consists of
  – What oxidants are
  – The sources of energy, proteins, vitamins and importance of water in the body
  – Their sources of information on nutrition

• 3 points were allocated to the most desirable response

• Scores for nutrition knowledge questions were computed
Findings on nutrition knowledge

- Highest maximum score for baseline: 46
- Highest score for post intervention: 50
- 16% improvement in nutrition knowledge noted
### Results (nutrition knowledge)

16% improvement in nutrition knowledge noted

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<th>Score (Total=50 points)</th>
<th>No. of subjects</th>
<th>Distribution (%)</th>
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**Table 1a: Total scores on nutrition knowledge responses at BASELINE**
Mean score: 41 ±2.54. Maximum score: 36, minimum score: 46 and range: 10

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**Table 1b: Total scores on nutrition knowledge responses POST INTERVENTION**
Mean score: 49 ±3.362. Maximum score: 50, minimum score: 47 and range: 3
Data Collection on attitudes towards nutrition

• A Likert scale (strongly agree, agree, disagree, strongly agree) was used on 11 statements

• The statements focussed on:
  – Calories required in pregnancy
  – Preparation of a balanced meal
  – Sources of a balanced meal
  – Supplements
  – Processed food versus raw foods
  – Meal size
  – Nutrition when breastfeeding

• 4 points were allocated to the most positive attitude
Findings on nutrition attitudes

- Baseline maximum score: 30
- Post-intervention maximum score: 40
- 38% improvement in nutrition attitudes
Findings on attitudes towards nutrition

### Table 2a: Total scores on attitude towards nutrition responses at baseline

Mean: 21±3.03, minimum score: 14, maximum score: 30 and range: 16.

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### Table 2b: Total scores on attitude towards nutrition responses post interventions

Mean: 39±.0699, minimum score: 38, maximum score: 40 and range: 2.

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88% improvement in nutrition attitudes
Data collection on nutrition practices

- Nutrition practices were measured by responses (always, seldom and never) to 8 statements
- Items focussed on:
  - 24 hour dietary recall
  - Composition of meals cooked
  - Considerations when buying food
  - Sources of food
  - Availability of livelihoods in the home
- Three points (3) were allocated to the most desirable practice
Findings on nutrition practices

- Maximum score for baseline: 25
- Maximum score for post-intervention: 30
- 13% improvement on nutrition practices was observed
## Findings on nutrition practices

### Table 3a: Total scores on nutrition practice responses at baseline.

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Mean: 23±1.39; minimum: 20, maximum: 25, range: 5

### Table 3b: Total scores on nutrition practice responses post intervention.

<table>
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Mean: 27±.0874; minimum: 25, maximum: 30, range: 5

13% in nutritional practices
Summary of findings

• 16 % improvement in nutrition knowledge
• 38 % improvement in nutrition attitudes
• 13% improvement in nutritional practices
Collaboration with Mbabane Municipality

• Training PP women on establishing nutrition gardens and waste management
• Five (5) women were trained as trainers
Women at the training session for nutrition gardens
PP women during one of the training sessions
Waste management

- Collaborator: Mbabane Municipality
  - Recycling
Sustainability/Way forward

The trained PP women will train others within their communities with support from the Mbabane Municipality.
Lessons learnt

• With adequate knowledge and support PP women are willing to improve their nutritional status by engaging in livelihoods.

• Involvement of corporate agencies within communities plays a key role in women empowerment in nutritional livelihoods.
Leadership Journey

▪ A bitter sweet worthwhile journey!

▪ Overcoming challenges regarding obtaining ethical approval, conflicting and busy schedules

▪ Leadership skills acquired through the mentor and faculty advisor who never ceased to model the way and encourage the heart.
Acknowledgements

• STTI and Johnson & Johnson for Sponsorship
• The STTI President, Prof. Hester Klopper for encouraging the heart
• Prof Christa van der Walt, Ms Margie Brown, Dr. Marian Jacobs
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• The Swaziland Nutrition Council and the Mbabane Municipality
• Dyads from the Republic of South Africa, Malawi and Uganda for encouraging the heart
• Our dear Esti
• Swaziland Dyad for working together effectively
Thank you...