The influence of intervention augmentation and maternal characteristics on involvement in a nurse home visiting program: an exploratory study

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Outline

- Background to the study
- The research problem – maternal involvement
- Theoretical Framework
- Study Design
- Results
- Implications
- Questions
Background

› Child Maltreatment
  • Consequences
  • Incidence in Australia
  • Vulnerable populations
  • Importance of early intervention (nurse home visiting)
Maternal Involvement in Child Health Services

Nurse Home Visiting

› Programs vary in:
  • Aim
  • Structure and content
  • Provider
  • Target audience/client

› Problems with implementation
  • ‘Black Box’
  • Program fidelity
  • Program drop-out
Maternal Involvement

› Complex body of literature
› Who drops out?
› Who stays enrolled, but does not receive the intended visits?
› Will they still achieve program aims?
Maternal Involvement

› Definitions
  • Quality
  • Quantity

› Two aspects of involvement for this study:
  • Duration of involvement (enrolled/not enrolled by 6-months)
  • Intensity of involvement (number of visits received)
The Research Problem

- Limited UK research (nurses)
- No Australian research (nurses)
- Limited US research exploring nurse-led programs
- Limited research exploring relationship between involvement and maternal/infant outcomes
Theoretical Framework

Ecological Theory

Maternal Involvement

Theoretical Framework

An Integrated Theory of Parental Involvement

INDIVIDUAL FACTORS
- Attitude toward service
- Cost-benefit perceptions
- Readiness to change
- Subjective norms
- Past program experience

PROVIDER FACTORS
- Cultural competence
- Service delivery style

PROGRAM FACTORS
- Auspices
- Timing of enrollment

NEIGHBORHOOD FACTORS
- Social capital
- Social disorganization

Primary influence

Secondary influence

INTENT TO ENROLL

ENROLLMENT

RETENTION

INDIVIDUAL FACTORS
- Objective program experience
- Subjective program experience

PROVIDER FACTORS
- Cultural competence
- Service delivery style
- Caseload
- Training

PROGRAM FACTORS
- Supervisory caseload
- Funding
- Staff turnover
- Participant incentives

NEIGHBORHOOD FACTORS
- Social cohesion
- Concrete resources

McCurdy & Daro, 2001
Research Questions

› **A**: Is maternal participation in an augmented nurse home visiting program related to intensity and duration of involvement?

› **B**: Are maternal antenatal characteristics, and changes in maternal wellbeing over time, associated with intensity and duration of involvement?

› **C**: Are intensity of involvement and changes in maternal wellbeing associated with the program outcomes suitability of the home environment and maternal responsivity to the infant?
Maternal Involvement

Study Design

› Participants (N = 40)
  - Women identified as at-risk during antenatal appointments
    • Intimate partner violence, history of mental illness, extenuating circumstances
  - Vulnerable population
Study Design

- Primary data collected from on-site chart audit (SE QLD)
  - Number of visits + duration of enrolment
  - EPDS and HOME scores
- Use of secondary data from a previous RCT
  - Family Care + Parents Under Pressure (Babies)
  - Demographics, EPDS, CAPI and HOME scores
Maternal Involvement

Measures

› Sociodemographics
  - Financial stress, housing stability, education, age, sole parent status, parity, smoking status

› Maternal Wellbeing
  - Edinburgh Postnatal Depression Score
  - Child Abuse Potential Inventory

› Parenting Skills
  - Home Observation for Measurement of the Environment (total)
  - HOME Responsivity Subscale (maternal-infant attachment)
Results

Actual Number of Visits Received

- 6 weeks: Actual (n = 36), Intended (n = 36)
- 12 weeks: Actual (n = 32), Intended (n = 32)
- 6 months: Actual (n = 23), Intended (n = 23)
Results

› **A:** Is maternal participation in an augmented nurse home visiting program related to intensity of involvement and program completion?
  - No differences observed between duration of enrolment and program augmentation
  - No differences observed in intensity of involvement and program augmentation
Maternal Involvement

Results

› **B**: Are maternal antenatal characteristics, and changes in maternal wellbeing over time, associated with intensity of involvement and program completion?

› Maternal antenatal characteristics and duration of enrolment
  - Higher risk related to decreased duration of enrolment
Maternal Risk – Number of Visits (12 weeks)
EPDS RCI Category - Number of Visits

- **Improved**
- **Recovered**
- **Deteriorated**

- **6 weeks**
- **12 weeks**
- **6 months**
Results

CAPI RCI Category - Number of Visits

- Improved
- Recovered
- Deteriorated

6 weeks
12 weeks
6 months
Intimate Partner Violence - Number of Visits

- IPV
- NO IPV

- 6 weeks
- 12 weeks
- 6 months
Results

C: Is intensity of involvement and maternal wellbeing associated with program outcomes?

Intensity of involvement and program outcomes:
- Higher intensity of involvement correlated with higher HOME and Responsivity scores
- Persistent relationship over time
- Early involvement related to longer term outcomes
C: Is intensity of involvement and maternal wellbeing associated with program outcomes?

Correlations between number of visits received and 6-month HOME and Responsivity scores

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<th>0 to 6 weeks</th>
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Results

› **C**: Is intensity of involvement and maternal wellbeing associated with program outcomes?

› Maternal wellbeing and program outcomes
  - Negative correlation between depression scores, and HOME and Responsivity scores
  - Over time, changed to a positive correlation
Implications

› One of the first explorations into maternal involvement in nurse home visiting in Australia

› Limited generalisability due to sample size

› Need to unpack reasons for receiving more visits:
  • Does the mother or nurse home visitor recognise and respond to a need for increased support?
  • What is the effect of the household on nurse home visits? (e.g. IPV)
  • Why is the number of visits received so much less than the intended amount?
  • Impact of ethnicity (especially ATSI)
Summary

› Program augmentation not related to duration or intensity of involvement
› More vulnerable received more nurse home visits
› More nurse home visits better program outcomes (higher level parenting skills and maternal-infant attachment)
› Deterioration in maternal wellbeing and more intense intervention resulted in higher level parenting skills and maternal-attachment
Thank you for listening!

Questions?