Stressed and Depressed: Effects of Financial Stress and Maternal Depression on Child Development

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Introduction

- Nearly 1 in 10 women in Colorado experience postpartum depression (PPD).
- Approximately 75% of new mothers go untreated for PPD which can have impacts on child development.
- Low social economic status (SES) has also been linked to poor child development, but low SES does not necessarily translate to financial stress (FS).
- The perception of being poor has more impact on child development than the actual experience of being poor.
- Theories on the impact of stress hypothesize that financial stress contributes to depression, and in turn, negative impacts on child development.
- More work is needed to understand the independent and additive effect of maternal depression and financial stress on child development.

Questions

- Does maternal depression without financial stress during early infancy relate to child development at 12-months?
- Does financial stress without depression during early infancy relate to child development at 12-months?
- Is there an additive effect of both depression and financial stress on development at 12-months?

Methods

- Patient information and screeners were abstracted from electronic medical records.
- Mothers of children 0-4 months were screened for depression and financial stress between July to December 2017. Child development was assessed at 12-months.
- Financial stress was evaluated with psychosocial screeners questions 3.
- Maternal depression was evaluated with the Edinburgh Postnatal Depression Scale (scores ≥10 indicate positive results for depressive symptoms).
- 12-month Ages and Stages Questionnaire used for infant development (delayed vs. not delayed).

Results

1. Demographics (n=897)

- 77% of families with no elevation (n=694)
- 5% of families with PPD (n=47)
- 14% of families with FS (n=122)
- 4% of families with PPD and FS (n=34)
- 81% of families with no elevation (n=390)
- 5% of families with PPD (n=24)
- 11% of families with FS (n=55)
- 3% of families with PPD and FS (n=13)

- The majority of families (77%) did not report experiencing depression or financial stress. Financial stress was endorsed by 14% of families while 5% of families reported elevated postpartum depression screenings with no financial stress.
- 54% of families in the original sample completed ASQs. Most of these families had no depression or financial stress (81%), and only 3% of the families endorsed both financial stress and maternal depression.

2. Screening Information

897 families were screened for financial stress and maternal depression

482 families completed a 12-month ASQ

- The sample was racially diverse and was largely publicly insured.
- 51% male and 49% female.
- Public insurances include CHP+ and Medicaid.
- Other includes international and self-pay.

3. Normal and Abnormal ASQs by Screening Group

4. Attrition at 12-Month Well Visit

- Given the level of attrition, post hoc analyses examined if certain groups were less likely to be screened at 12-months.
- Adjusted residuals showed that families with no risk were more likely to be screened (n=390, n=304) whereas families with FS were less likely to be screened (n=55, n=67) (X^2 = 8.786, df=3, p = 0.032, n=897) at 12-months.

Discussion

- Due to the small number of children in groups with a 12-month ASQ and elevated PPD, elevated financial stress, or both, statistical analysis could not be conducted to examine the relation between depression, financial stress, and their additive effects on development.
- Families with FS were less likely to be screened with a 12-month ASQ.
- Families with no risk factors were more likely to be screened at 12-month well visit.
- More interventions and outreach to families within the community could be beneficial to ensure on-time attendance at well child visits.

Limitations

- Appointment dates within 1 year, 30 day of child's birthday were analyzed. Some children might have been screened at a slightly older age (e.g. 13-months).
- The causes of attrition at 12-month well child checks can be due to multiple factors, not just the negatives, which were not examined.

Future Directions

- Using a larger sample to help determine group differences to better understand the relation between depression, financial stress, and child development.
- Examining reasons for attrition to better understand if certain families may benefit from interventions to help them attend their 12-month well child check.
- Engaging in additional outreach and education about the importance of well child care visits to communities.

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References