



CROSS CULTURAL CHALLENGES IN MEASURES OF MATERNAL MENTAL HEALTH AND MOTHER INFANT INTERACTION- BANGALORE CHILD HEALTH AND DEVELOPMENT STUDY (BCHADS)

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BCHADS TEAM



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- John Vijaysagar
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Bangalore Cohort



- PRospective Assessment of Maternal Mental Health Study (PRAMMS) to Bangalore Child Health And Development Study
- PRAMMS- Longitudinal follow up of pregnant women from trimester 1 to Postnatal period (8weeks)
- Women attending Antenatal clinics in the Public Health system were recruited into the study



Objectives of the cohort



- To predict early psychosocial factors that affect child mental health
- To follow children and families through infancy to early childhood and to assess developmental risks and behavioural outcomes of the same
- To build capacity of Indian researchers in longitudinal cohort as well as intervention studies
- To develop culturally sensitive measurement of the caregiving environment, by combining the clinical and research knowledge of the Indian investigators with the UK expertise



Measures- Maternal



Maternal mental health (depression & Anxiety)

- Whooley's Screening
- Edinburgh Perinatal Depression Scale- EPDS
- Patient Health Questionnaire- PHQ 9
- Generalized Anxiety Disorder- GAD 7
- Scale for Assessment of somatic symptoms (SASS)
- Psychosocial Indices- stress, violence, social support
- Anthropometric measurements



Measures- Infant



- **Infant /child behaviour (M & ACG)**
 - Infant Behaviour Q'naire - Revised, Child Behaviour Checklist, Brief Infant Toddler Social Emotional Assessment
- **The Bayley Scale for Infant & Toddler Development (BAYLEY-III) – 24m**



Measures- MI Interaction



- **M-I interaction (Video at 6m)** – assessing maternal sensitivity
- **Five-minute speech sample (all phases)** – assessing mind mindedness
- **Shared caregiving (M & ACG) – all phases**
 - Checklist developed to assess shared caregiving activities



Cultural Challenges

- Depression and Somatic symptoms
 - Gender Preference and Discrimination
 - Shared caregiving
 - Changes in residence due to cultural practices
- Specific measures with cultural challenges

EPDS

Videos

Mind-mindedness



Study findings – Incidence rates



S.N	Measure	T1	T2	T3	PP (8weeks)
1	Depression - Whooley's Screen	9.3%	7.4%	8.3%	6.8%
2	Depression – EPDS (≥ 10)	7.7%	4.5%	6.7%	4.7%



EPDS cut offs across cultures



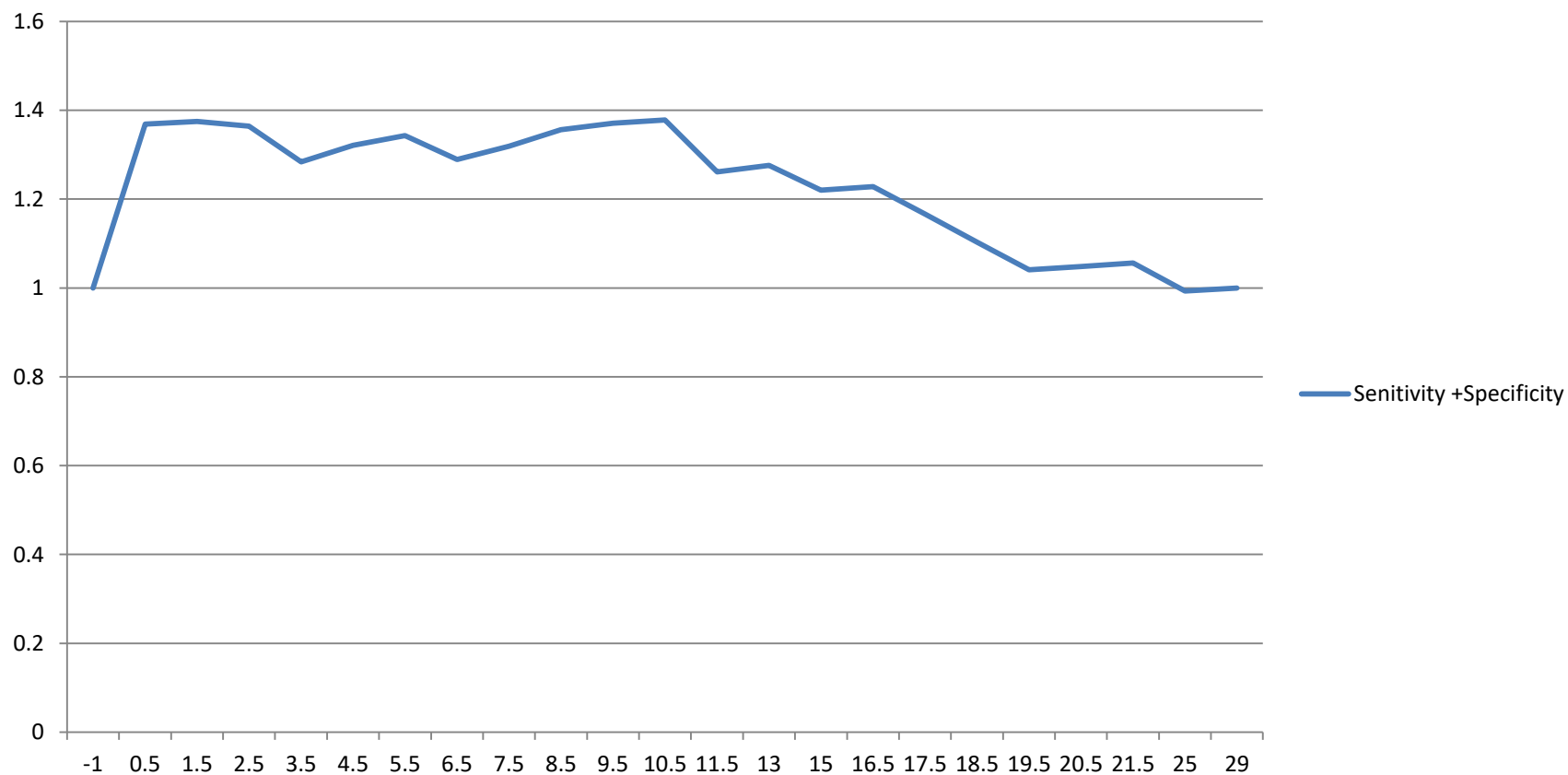
Population	Cut-off	Authors
Kannada (Rural Karnataka, India)	12/13	Fernandes et al (2010)
Konkani (India)	11/12	Patel et al (2002)
Nepalese (Nepal)	12/13	Regmi et al (2002)
Bangla (Bangladesh)	9/10	Gausia et al (2007)
Sinhalese (Sri Lanka)	8/9	Rowel et al (2008)
Urdu (Pakistan)	9/10	Rahman et al (2005)
Mongolian (Mongolia)	12/13	Pollock et al (2006)
Vietnamese (Vietnam)	3/4	Tran et al (2011)
Chichewa (Malawi)	4/5	Stewart et al (2013)
Amharic (Ethiopia)	5/6	Hanlon et al (2008)
Igbo (Eastern Nigeria)	8/9	Uwakwe (2003)
Yoruba (Western Nigeria)	9/10	Adewuya et al (2006)
Twi (Ghana)	10/11	Weobong et al (2009)



EPDS cut off scores



Senitivity +Specificity





Challenges of measurement of Depression by EPDS

- Self administered tool but had to be administered by interviewers
- Translation – understanding of the concepts
- Using cut offs established in different populations
- Privacy
- Likert scoring
- Confidentiality



Somatic symptoms and Antenatal Depression



Correlation Coefficient EPDS total Score	SASS Severity score
T1	0.216
T2	0.403
T3	0.430
T4 (PP)	0.350



Gender Preference as Risk factor



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Articles

The relationship of gender preference to anxiety, stress and family violence among pregnant women in urban India

T.A. Supraja, Meiya Varghese, Geetha Desai & Prabha S Chandra

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Check for updates



Gender Discrimination questionnaire

Gender discrimination

1	Delivery																						
	How was the delivery? Was the delivery normal?																						
	Which medical/nursing/midwife/other staffs was present during delivery?																						
	Do you remember what any of them said when your baby was delivered?																						
	Sometimes midwives (or other) comment on the baby, along the lines of 'she is a lovely girl' or 'he looks like a strong boy', did they say anything like that?																						
	Who were present in the hospital at the time of delivery?			<table border="1"> <tr><td>Mother</td><td></td></tr> <tr><td>Father</td><td></td></tr> <tr><td>Husband</td><td></td></tr> <tr><td>Sister/s</td><td></td></tr> <tr><td>Brother/s</td><td></td></tr> <tr><td>Mother-in-law</td><td></td></tr> <tr><td>Father-in-law</td><td></td></tr> <tr><td>Sisters in law</td><td></td></tr> <tr><td>Brothers in law</td><td></td></tr> <tr><td>Any other</td><td></td></tr> </table>	Mother		Father		Husband		Sister/s		Brother/s		Mother-in-law		Father-in-law		Sisters in law		Brothers in law		Any other
Mother																							
Father																							
Husband																							
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Brother/s																							
Mother-in-law																							
Father-in-law																							
Sisters in law																							
Brothers in law																							
Any other																							
2	Post delivery																						
	How many days did you stay at the hospital?																						
	Who came to visit you while you were in the hospital?	Person	How long after the birth they visited	How long they stayed	If he/she didn't visit, why?																		
		Mother																					
		Father																					
		Husband																					
		Sister/s																					
		Brother/s																					
Mother-in-law																							



Shared Care giving



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Shared caregiving checklist

Circle Study Phase: T5 (8weeks) T6 (6M) T7 (12M) T9 (24M)

Date today:

Type of family:

1. Nuclear family 2. Joint family 3. Extended family

Number of family members living in the home:

Adults:

Infants (less than one year):

Children (preschool 1-5 years of age):

Children (school going children 6-12):

Adolescents:

Current stay of mother and infant:

1. Parent's home 2. Husband's home 3. Other

In our culture, many persons/ relative/ friends are involved in the care of the child. We want to know who are the main carers for this child. Rank them in the order of contribution to the care of this child. First three people in the order of maximum (1) to the minimum (3)

Carer	
Myself	
Husband	
Maternal Grandfather	
Maternal Grandmother	
Paternal Grandfather	
Paternal Grandmother	
Siblings of the child	



ACG interaction at Home



- Video removed



ACG interaction at NCWB



- Video removed



Challenges



- Privacy
- Interference
- Being self conscious
- Suspiciousness towards video recordings
- Poor lighting
- Noise levels



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