Hearing the voice of the unborn baby

Professor Jane Barlow

Structure of session

Why do we need to hear the voice of the unborn baby in prebirth assessment

How does the current system fail to hear the voice of the unborn baby

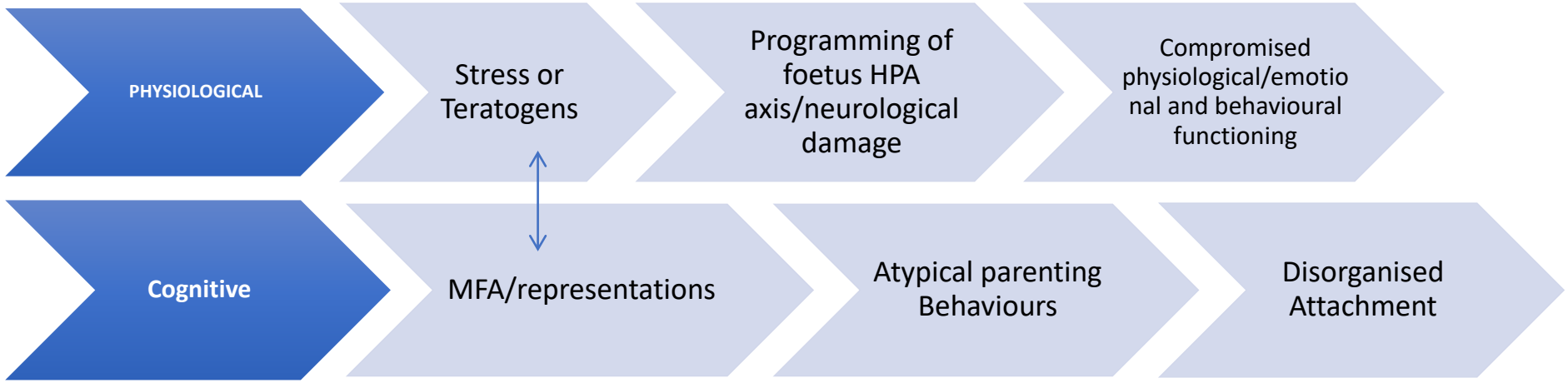
A framework for assessment

Part 1 – Why do we need to hear the voice of the unborn baby

Parenting begins in pregnancy with…

- prenatal behaviours that are designed to protect and promote the wellbeing of the foetus;
- a process of ‘bonding’ with the foetus that begins in the second trimester

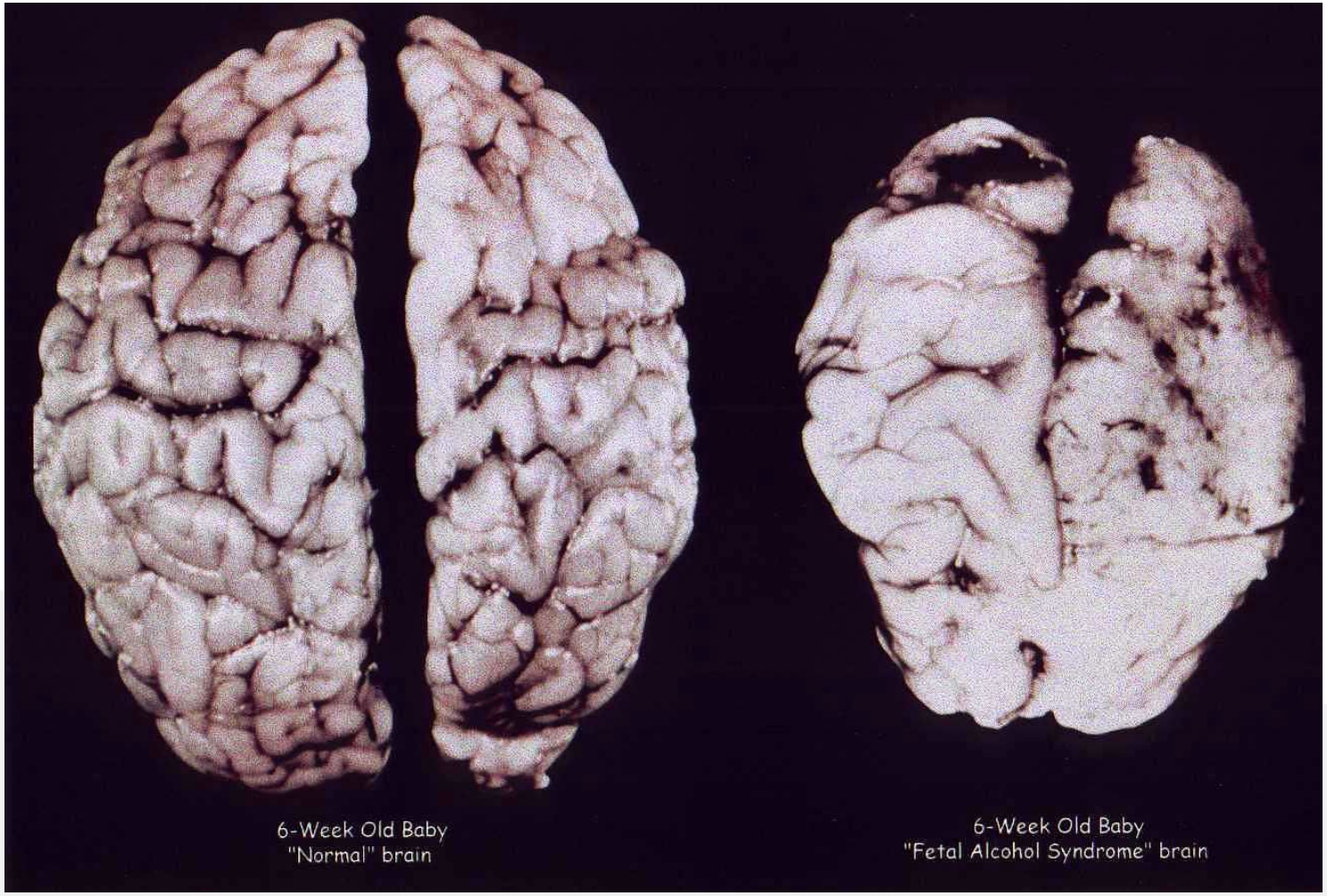
Risks to the unborn baby - physiological



Risks before birth

- **Intimate partner violence** often begins in pregnancy and its prevalence is high
- Recent findings from a systematic review of data from 20 countries globally suggest that the prevalence amongst ever-pregnant, ever-partnered women ranges from approximately 2.0% in Australia, Cambodia, Denmark and the Philippines to 13.5% in Uganda (Devries et al 2010);
- Impact on unborn baby can be direct (from physical assaults on the mother) and indirect (via its impact on her mental health and her relationship with the unborn baby
- Significant association between IPV during pregnancy and onset, duration, and recurrence of perinatal mental disorders (Howard et al 2010; Trevillion et al 2012) babies more likely to be insecurely attached (Huth-Bocks 2004)

- **Consumption of alcohol and other substances** in pregnancy is high - according to the British Medical Association, **FASD** is the **most common**, **non-genetic cause of learning disability** in the UK

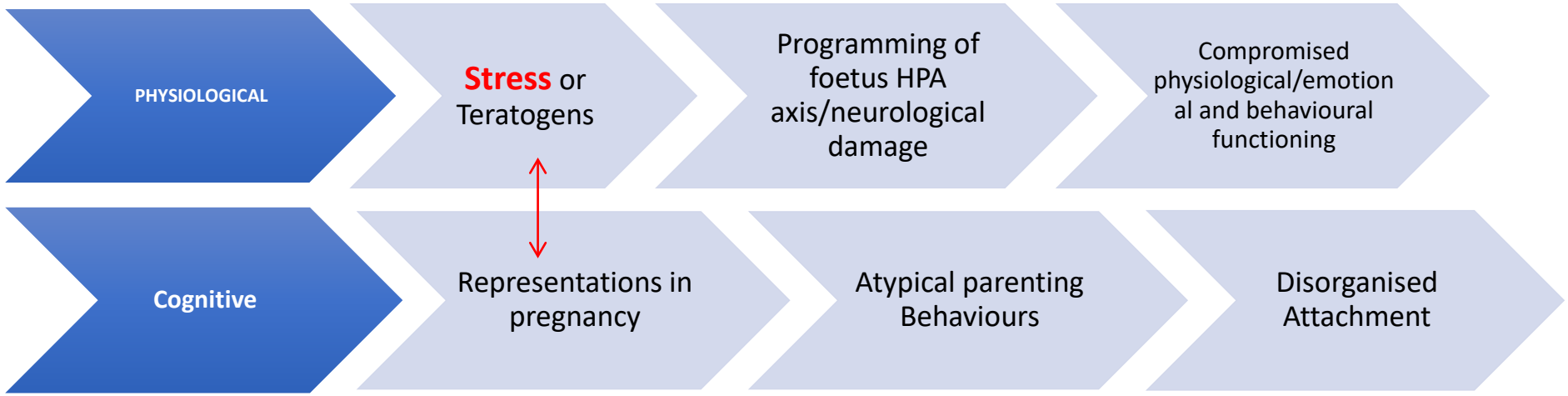


Binge drinking in early pregnancy

Foetal programme or DOHaD model

- ‘Fetal Programming’ or the ‘Developmental Origins of Health and Disease (DOHaD) model’ demonstrated that fetal exposure to a variety of maternal life experiences (e.g., poor nutrition, pollutants, and stress) could alter offspring's neurodevelopment, with the implications for future health and well-being (Barker, 1990; 1995; Barker & Martyn, 1992)
- Adverse exposure affect atypical HPA axis regulation, with negative effects on the maturation of prefrontal and subcortical neural circuits in the offspring
- Biological embedding of social adversity - The origins of much adult health and social inequalities lie in the 'developmental and biological disruptions occurring during the early years of life' and more specifically as a result of the 'biological embedding of adversities during sensitive developmental periods’ (Shonkoff 2016; Shonkoff, Boyce, McEwen 2009)

Pathways in Pregnancy – cognitive/relational



The two streams of research regarding the relationship with the unborn baby

- Maternal ‘attachment’ to baby (e.g. MAAS)
- Mental ‘representations’ in pregnancy

Maternal-foetal attachment

Term ‘attachment’ being used here not to refer to the infant attachment system but to a bond from the mother to the baby

“the emotional tie or bond which normally develops between the pregnant parent and her unborn child” (Condon and Corkindale 1997)

Range of tools designed to measure strength of the relationship to the unborn baby (e.g. PAI; MAAS; MFAS)

Some of these measures are psychometrically weak

Maternal foetal attachment (MFA) and postnatal parenting

- Systematic reviews (Alhusen 2008; Canelli 2005)

- Impact of MFA and caretaking postnatal (Bloom 1995); sensitivity and involvement at 3 months (Siddique & Hagloff, 2000); mother-infant attachment 1-2 months (Muller 1996; Damato 2004); and 1-8 months in high risk pregnancies (Mercer and Ferketich 1990), maternal sensitivity, self identify and identification with baby 1-6 weeks (Shin et al 2006); infant temperament at 8 months (White et all 1999 but not Wilson 2000);

- Most recent studies using more objective measures of outcome - Sensitivity to caregiving and free play but not face-to-face play (Maas et al 2016); sensitivity (Alvarenga et al 2013); mind-mindedness (McMahon et al 2016)

Representations of baby, view of self as parent etc

- During pregnancy women reorganise their representations of themselves, their relationships with their mother, and the baby
- ‘Representations’ are conscious and unconscious images and beliefs about the baby, and the self as mother-to-be
- Reorganisation typically begins in 2nd trimester
- Has been measured using both self report (e.g. Child Concept Questionnaire) and interview-based (e.g. WMCI; IRMAG-R; IRMAN) tools

Maternal representations - WMCI

Balanced mothers are able to tell richly detailed, coherent stories about their experiences of their pregnancies and their positive and negative thoughts and feelings about their fetuses

Disengaged mothers seem uninterested in the fetus, including their relationship with the fetus, and they have few thoughts about the babies' future traits and behaviors or themselves as mothers; thus, their narratives tend to be quite short

Distorted mothers tend to be tangential or express intrusive thoughts about their own experiences as children, often viewing their fetuses primarily as an extension of themselves or their partners (Levendosky et al 2011)

‘…I know its there and I know I’m pregnant…but I don’t feel anything for the baby. I don’t like to touch my tummy. I don’t imagine it in any way. I haven’t thought about what it might look like. And I don’t think I’ll love it when its born…But I’ll look after it, and I’ll love it eventually’.

Prevalence

Prevalence in population samples:

- One study showed 51% of women had balanced representations with 30% being disengaged and 19% having distorted representations in pregnancy (Theran et al 2005).

- A second showed 53% balanced; 29% disengaged, and 18% distorted representations (Huth-Bocks et al 2011)

Stability

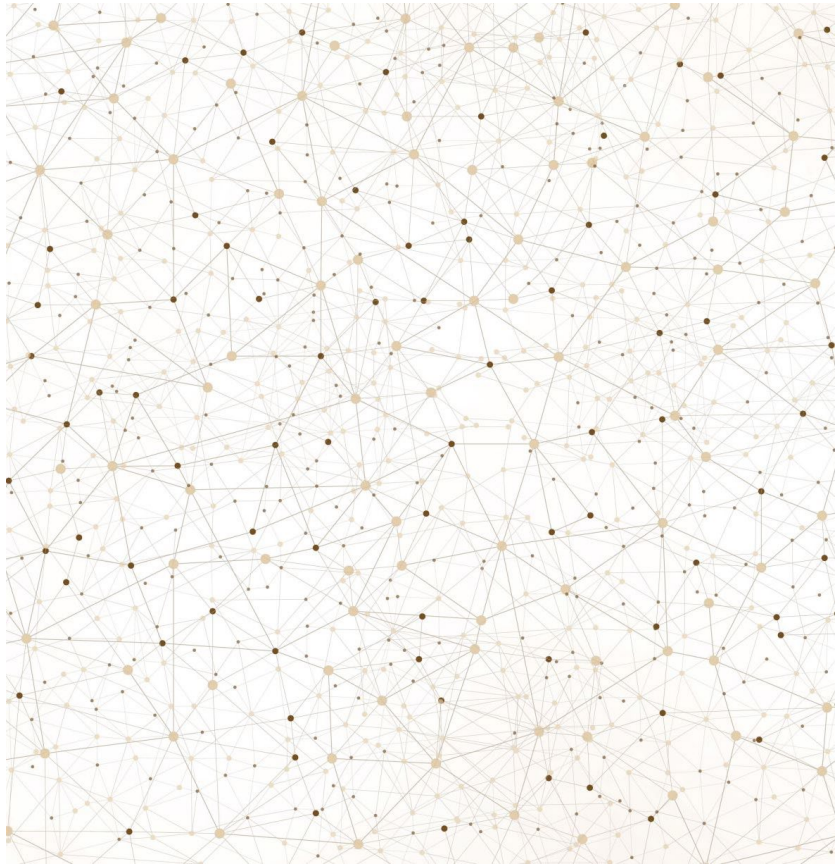
- Women with distorted or disengaged prenatal representations were likely to still have them at 1 year post-partum (Theran et al., 2005; Benoit, Parker and Zeanah 1997)
- 79% of the women with balanced representations in pregnancy were also balanced postnatally; and 62% of women with non-balanced representations in pregnancy still had them postnatally (Theran et al 2005)
- The women who were unbalanced in pregnancy and then became balance postnatally were less sensitive, more disengaged, and less warm in their interaction than women who were balanced at both times.

Impact on parenting behaviours

- Five studies measured impact of representations in pregnancy on parent-infant interaction; 3 included high risk populations (e.g. substance dependency; DV; depression) (Theran et al 2005; Tun Hohenstein et al 2005; Crawford et al 2009; Dayton et al 2010; Tambelli et al 2014)

- Overall, balanced reps associated with greater sensitivity, responsiveness, regulatory ability;

- Non-balanced associated with lower sensitivity; structuring; child responsiveness etc



Impact on Attachment

- Four studies measured impact of representations on attachment at 12-14 months (SSI) (Benoit et al 1997; Huth-bocks et al 2011; Crawford et al 2009; Atkinson et al 2009)
- Prenatal representations predicts infant attachment security at 1 year with between 60 to 74% concordance
- Two studies that added a ‘disrupted’ or ‘irrational fear’ category showed an association with ‘disorganised’ attachment in infant

Factors Affecting Representations

- Presence of 2-3 children under 7 years in the household and planning of the current pregnancy; childhood maltreatment; domestic violence; prenatal health behaviours, parity; maternal personality traits (e.g. openness and agreeableness; conscientiousness; extraversion); object relational experiences of self and other; marital adaptation, maternal education, social support and substance use.

- Factors not found to be associated with prenatal maternal representations include social class, previous abortions, duration of gestation, somatic problems in pregnancy

DV in pregnancy

- Associated with maternal depression and PTSD
- Significantly more negative representations of their infants and themselves;
- Babies were more likely to be insecurely attached

(Huth-Bocks 2004)

Part 2 – Current decision-making process – its failure to hear the voice of the infant

The issues with the current system - Significant Harm of Infants Study: Key findings

Prospective study explored the decision-making process that influenced the life pathways and developmental progress of a sample of very young children who were identified as suffering, or likely to suffer, significant harm before their first birthdays and were then followed until they were three.

- Parents showed a high prevalence of factors such as drug and alcohol misuse, intimate partner violence and mental health problems that are known to be associated with an increased risk of children suffering significant harm.
- About a third of the mothers and an unknown number of fathers had already been separated from at least one older child before the birth of the index child.
- Just under two-thirds (65%) of the infants were identified before birth and almost all before they were six months old; neglect was the most common form of maltreatment, often compounded by exposure to intimate partner violence. About a third of the children were maltreated *in utero*.

(Ward et al 2010; 2012)

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- By their third birthdays, 35 per cent of the infants had been permanently separated from parents who had been unable to overcome their difficulties.
- However, the long-term well-being of 60 per cent of the permanently separated children had been doubly jeopardised – by late separation from an abusive birth family followed by the disruption of a close attachment with an interim carer when they entered a permanent placement.
- Of those children who remained with their birth families at age three, 43% were considered to be at continuing risk of significant harm from parents whose situation had largely remained unchanged or had deteriorated; however, 57 per cent were living with parents who had managed to make sufficient changes to enable them to offer good enough care for the index child.
- All but one of the parents who made sufficient changes did so before the baby was six months old.
- By their third birthdays over half the children who did not have a recognised medical condition were displaying developmental problems or showing signs of significant behavioural difficulties: aggression and speech problems were prominent.
- Developmental and behavioural difficulties were more evident amongst children who had experienced some form of maltreatment, often whilst professionals waited fruitlessly for parents to change. These were children who, at the end of the study, either remained living at home amidst ongoing concerns or had experienced lengthy delays before eventual separation.

Part 3 – A framework for prebirth assessment

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RISK ASSESSMENT
PRE-BIRTH:
A PRACTICE MODEL

Initial Pilot

NSPCC
Cruelty to children must stop. FULL STOP.

Risk assessment prebirth – a practice model

Core components

Underpinning principles

- Structured Professional Judgment
- Assessment of Capacity to Change

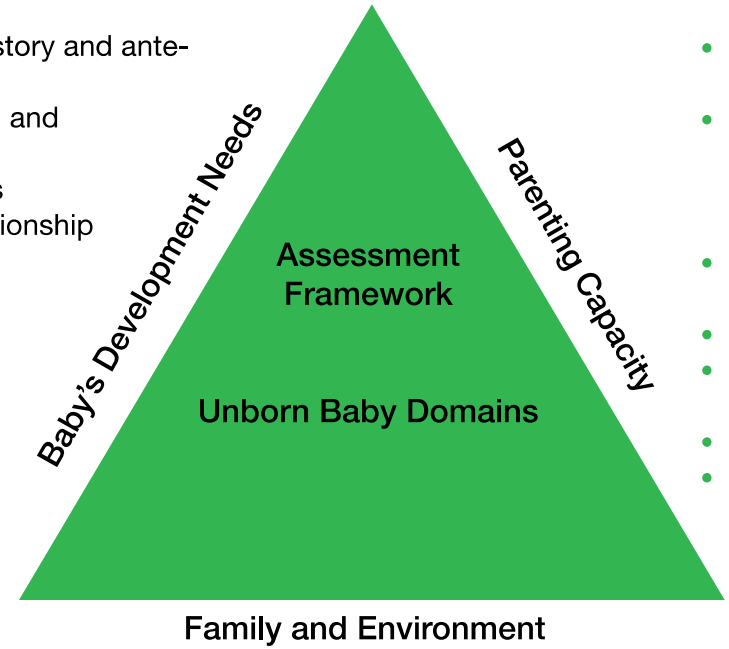
Stages

- Cross sectional assessment and data gathering
- Case conceptualization
- Assessing capacity to change and goal setting
- Working therapeutically
- Decision-making: risk classification

Prebirth Assessment Framework

Baby's Development Needs

- Foetal Development (e.g. impact of smoking, substance dependency, stress, poor parental nutrition, HIV or Hepatitis C.
- Planned/unplanned pregnancy
- Pregnancy history and ante-natal care
- Birth planning and preparation
- Feeding plans
- Maternal relationship with foetus



Parenting Capacity

- Maternal and paternal pre-natal attachment styles
- Attitude towards pregnancy
- History of previous pregnancies
- Understanding of foetal and infant development
- Previous experience of parenting
- Impact of current domestic abuse/substance misuse or mental ill-health on future parenting
- Ability to manage stress and regulate emotions
- Couple relationship
- Capacity for reflective parenting style
- Family planning
- Capacity to change adverse behaviours and to learn new skills

Parents medical history

Family and Environment

- Home environment and preparation for birth
- Attitude to professional involvement
- Employment and child care plans
- Financial problems
- Criminal history
- History of childhood exposure to domestic abuse parental substance misuse, parental mental ill-health
- Experience of childhood sexual abuse or unresolved trauma

Risk and resilience template

Table 4.8.1: Risk and Resilience Factors (modified for pre-birth)

Factors	Future significant harm more likely (e.g. Risk)	Rating Yes/No/ NA	Protective factors evident post intervention	Rating Yes/ No/ NA
Current and previous pregnancies Preparation for parenthood	• Unwanted/unplanned pregnancy • Concealed pregnancy • Non-attendance at appointments • No preparation		• Preparation for parenthood • Realistic expectations and understanding about potential issues	
Health and development of unborn baby	• Poor health behaviours (e.g. smoking; alcohol; substanes) • Foetal abnormalities		• Significant changes to health behaviours demonstrated and sustained (e.g. stopped smoking/ drinking etc)	
Parental attachment to unborn baby	• Little attachement to unborn baby • Poor parental represeantations • Low reflective function		• Early signs of bonding to infant • Improvements in represenations and reflective function	
Parental Experiences	• Parent experienced maltreatment/trauma as a child • Little expereince of good parenting (e.g. Care leaver)		• Evidence of understanding about the impact of early life experiences • Ability to reflect and work on relevant issues	
Parental Health	• Personality Disorder • Paranoid Psychosis • Learning Disability plus mental illness • Denial of problems • Lack of compliance		• Enagement with relevant mental health services • Acceptance of support/intervention	
Parenting and parent/child interaction	• Abuse/suspected abuse of other children (e.g. neglect; growth failure; physical abuse such as burns; fabricated induced illness) • Existing children experierncing problems (e.g. attachment / EBD)		• Accetance of role in earlier abuse • Appropriate feelings of guilt expressed • Motivation to parent differently • Demonstrated ability to benefit from support to improve existing parenting	

Cont.

Factors	Future significant harm more likely (e.g. Risk)	Rating Yes/No/ NA	Protective factors evident post intervention	Rating Yes/No/ NA
Partner	• No partner support • Interparental conflict violence		• Developed supportive relationship with partner • Couple developed conflict resolution skills • Discontinuation of violent relationships	
Family	• Family stress • Poor home environment • Power problems (poor negotiation; autonomy and affect expression)		• Moved away from family • Made necessary changes to home or financial circumstances	
Professional	• Refusal to engage with social worker and/or other professionals		• Ability to sustain a working relationsihip with social worker • Ability to benefit from intervention/services being offered	
Social Setting	• Social isolation • Lack of social support • Violent, unsupportive neighbourood		• Moved to a new home • Developed new contacts/support with local family centre	
Macro setting	• Cultural/social setting that supports violence		• Removal to new setting	

Assessing Capacity to Change

‘Cross-sectional assessment of families provides important information about family functioning at one point in time, but is of limited usefulness when the results are equivocal’ (Harnett and Dawe 2008)

What is actually needed at such times is an assessment of a family’s **capacity to change**, including an evaluation of the parent’s motivation and capacity to acquire parenting skills

OXPUP - Care Pathway

ANTENATAL

- Identify high risk families during pregnancy – pre-birth assessments at 18 weeks
- PuP Intervention begins ante-natally for 3 months

BIRTH

- Assess parent-infant interaction; mother-baby foster placements and concurrrent foster care where necessary

NEXT 8 MONTHS

- Continue time-limited intervention and clear goals to be achieved; re-assess 2, 4, 6 months
- Remove infants where there is insufficient improvement before 8 months

Step 1

A cross-sectional assessment of the parents' current functioning

Use a range of standardised psychological assessments to supplement other sources of information

Include an assessment of *parent-child interaction*

Standardised assessment tools

Domain	Description	Standardised assessment tool
Family and environmental risk factors	Social Support	THE MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (Zimet al atl., 1988) - Part A: 12 items and Part B: 4 items.
	Interpersonal aggression	The ABUSIVE BEHAVIOUR INVENTORY (Zink, T., Klesges, L. M., Levin, L., & Putnam, F. 2007) - 58 items
Parental Mental Health	Depression, anxiety and stress.	DEPRESSION, ANXIETY AND STRESS SCALE (DASS) (Lovibond and Lovibond, 1995)- 42 items
	Adult attachment style	THE RELATIONSHIPS QUESTIONNAIRE (Bartholomew and Horowitz, 1991) -4 items
	Emotional regulation	DIFFICULTIES IN EMOTIONAL REGULATION SCALE (DERS) (Gratz and Roemer, 2004) - 36 items
Parent behaviours	Alcohol consumption	ALCOHOL USE DISORDERS IDENTIFICATION TEST AUDIT-C (Babor and Grant 1989) - 3 items
Relationship with baby	Bonding with foetus	MATERNAL/PATERNAL ANTENATAL ATTACHMENT SCALE (MAAS) (Condon, 1993) - Maternal - 19 items; Paternal - 16 items. PICTORIAL REPRESENTATION OF ATTACHMENT MEASURE (PRAM) – (Van Bakel, 1999)
	Quality of relationship with unborn baby (3rd Trimester only)	PREGNANCY INTERVIEW – REVISED (Slade, 2011) - 22 questions
Parenting Attitudes/Problems	Parent-child stress	PARENTING DAILY HASSLES SCALE (Crnic and Booth, 1991) - 20 items
	Understanding child's needs	THE NEEDS JIGSAW (APS Marketing & Consultancy, 2007)

Step 2

- Specification of **operationally defined targets for change**
- Should include the unique problems facing individual families
- Should involve the use of standardised procedures such as Goal Attainment Scaling – GAS

LEVEL OF EXPECTED OUTCOME	GOAL 1 DECISION MAKING	GOAL 2 SELF ESTEEM	GOAL 3 ISOLATION
Review date:			
Much more than expected **(+2)**	Makes plans, follows through, modifies if needed, and reaches goal	Expresses realistic positive feelings about self	Actively participates in group or social activities
More than expected **(+1)**	Makes plans, follows through without assistance unless plan needs changing	Expresses more positive than negative feelings about self	Attends activities, sometimes initiates contact with others
Most likely/expected outcome **(0)**	Makes plans and follows through with assistance/reminders	Expresses equally both positive and negative feelings about self	Leaves house and attends community centre. Responds if approached
Less than expected outcome **(-1)**	Makes plans but does not take any action to follow through	Expresses more negative than positive feelings about self	Leaves house occasionally, no social contact
Much less than expected **(-2)**	Can consider alternatives but doesn't decide on a plan	Expresses only negative feelings about self	Spends most of time in house except for formal appointments

Step 3

- Implementation of an intervention with proven efficacy for the client group that:

- addresses multiple domains of family functioning;
- is delivered in the home using individualised goals;
- is tailored to address the specific problems of individual families and the achievement of identified targets for change.

C2C template

Capacity to Change Template

Evidence	Change Scores	
	T1	T2
Standardised measures North Carolina Family Assessment Scale • Domain 1 • Domain 2 • Domain 3 • And so on Multidimensional Scale of Perceived Social Support Depression, Anxiety, Stress Scale Emotion Regulation Questionnaire Parenting Daily Hassles Parenting Stress Index Needs Jigsaw Reflective Function Maternal Attachment Scale Paternal Attachment Scale Relationship Questionnaire Alcohol Substance misuse Conflict Tactics Scale		
Goal attainment scale • Goal 1 • Goal 2 • Goal 3 • Goal 4		
Key points re direct observations of change (e.g. High; Medium; Low) • Motivation • Engagement with professionals • ? Others		
Key points re reports from other agencies (e.g. Describe) • Main areas of strength • Main areas of concern		

Collate the evidence from both qualitative and quantitative data in the template shown above. Both types of data are required to support structured professional judgment and evidence informed decision-making in relation to a parent's capacity to change.

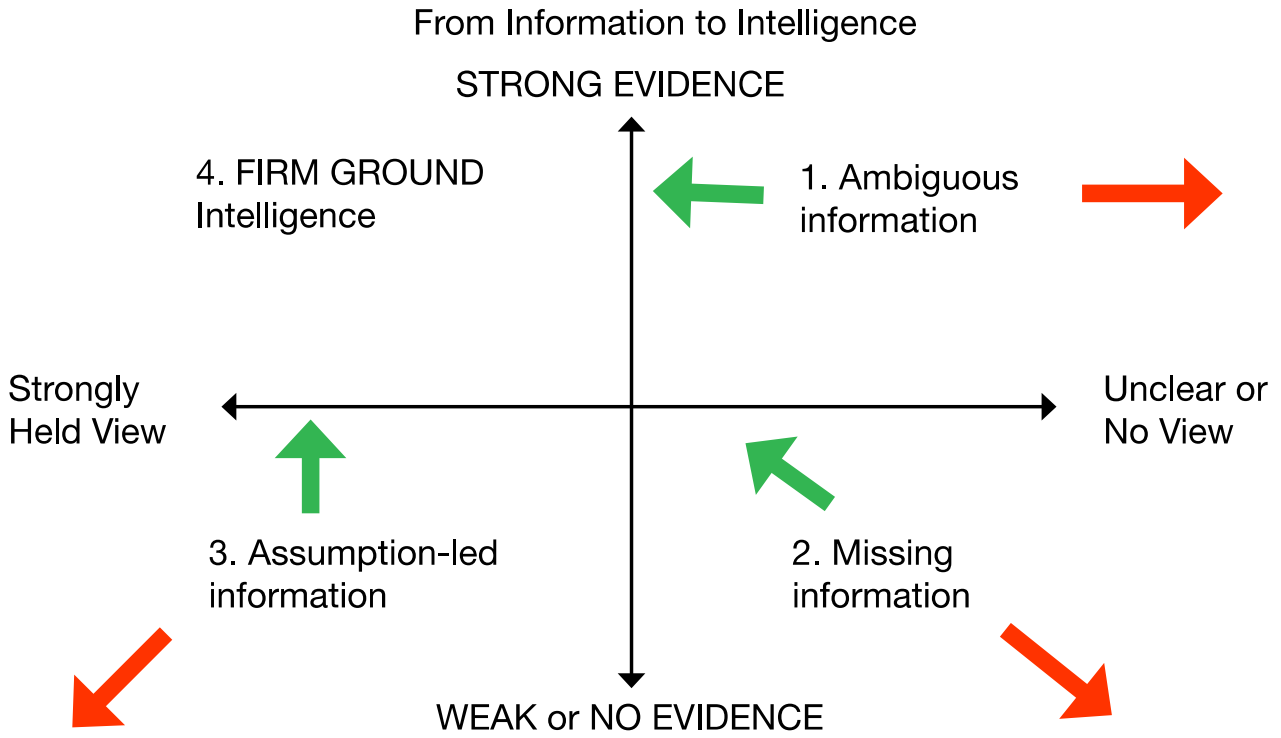
Decision-making

Bringing the information together

Use the Capacity to Change template provided to undertake Activity 1 below.

Activity 1	Sources of information	Framework or guidance	What to think about
Synthesise the data about the family's Capacity to Change	1. Professional judgment 2. Standardised measures 3. Goal Attainment Scaling	Prebirth assessment model; Prebirth guidance	1. How well did **each** parent engage with process; were they motivated to achieve change; 2. Which of the tools showed a need for improvement and was there change after the intervention; was the change achieved sufficiently great to be confident about the safety of the foetus/ infant? 3. How many goals showed some change; no change; worsening?

4.4.8 The Discrepancy Matrix



Visual mapping tools

Risk matrix

Low risks	Medium risks	High risks	Severe risks
CIN/Child protection plan	Child protection plan	Child protection plan	Legal proceedings
No risk factors apparent (or previous risk factors fully addressed)	Risk factors apparent (or not all risk factors fully addressed)	Risk factors apparent (and risk factors not being addressed)	Risk factors apparent (and risk factors not being addressed)
Protective factors apparent	Protective factors apparent	Protective factors apparent	No protective factors apparent
Parents ABLE to demonstrate sustained capacity for actual change	Parents ABLE to demonstrate sustained capacity for actual change	Parents UNABLE to demonstrate sustained capacity for actual change	Parents UNABLE to demonstrate sustained capacity for actual change
Very unlikely that abuse will occur/ recur	Some possibility that abuse will occur/recur	Strong possibility that abuse will occur/recur	Very strong possibility that abuse will occur/ recur

Ward et al. (2012).

Key policy changes needed

- Significant programming of the unborn baby's neurological development
- Prebirth care pathways for 'high risk' women that aim to a) optimize their ability to parent their baby; b) utilize more timely decision-making
- Assessment should be based on use of SPJ and C2C assessment
- Effective use of prebirth court procedures; planning for removal to permanent foster care placements
- Use of recently developed good practice guidelines for removal

Publications

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