

The Parental and Micro- Environmental Model (PMEM):

A conceptual framework for exploring factors that impact on early adult/child relationships.

Dr Alice Brown, University of Southern Queensland, Springfield, QLD. Alice.Brown@usq.edu.au

Infant and Early Childhood Social and Emotional Wellbeing Conference, Canberra, 2013

Thriving communities and the foundations of our nation are built on strong families, reciprocal relationships and the healthy development of our children (McNeil, 2010; Shonkoff, 2012; Shonkoff & Garner, 2011).

# Some ponderings about working and researching with families of young children.



Does your research explore the contextual nuances and micro-context in which families live, work and play?

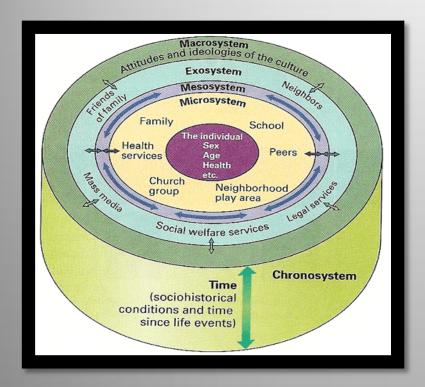
What approach could support a more comprehensive exploration of the history, values/attitudes/skills/behaviours of parents?

What could we be doing better to understand parent support structures and trigger points for toxic stress in order to then strengthen capacity in their relationships and support for children?

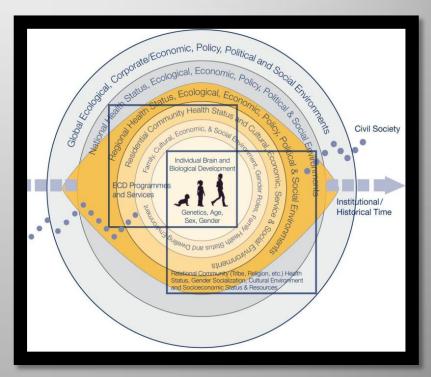
•How could understanding more about the family context, adult thinking and values contribute to more effective community capacity building and intervention strategies?

# Models for making sense of the nurturant environment

Social ecological models have been embraced in a range of disciplines, including public health, education, the behavioural sciences and environmental planning, to help make sense of the dynamic interplay of factors both socially, temporarily and environmentally that impact on human behaviour (<u>Brooks-Gunn, Duncan, & Maritato, 1997; Irwin, Siddiqi, & Hertzman, 2007; Jamner & Stokols, 2000</u>).



Source: Santrock 2007



Source: Total Environmental Assessment Model of Early Childhood Development (TEAM-ECD) framework developed for the WHO Commission on Social Determinants of Health (Irwin, Siddiqi & Hertzman, 2007).

**Nurturant environments**: Environments where children "grow, live, and learn" and are of most significant impact on their development "grow, live, and learn" (includes parents, caregivers, family, and community) (Irwin et al., 2010, p. 4).

# A rationale for investigating the "ecological niche of the family environment"



"Micro-environment" - the ecological niche defined by a specific location or physical boundary where a person is most heavily influenced or spends a large amount of time.

**Ecological niche**, "includes not only the immediate context in which a person is embedded, but also the contexts in which that context is situated" (Davidson & Birch, 2001, p. 160).



Human behaviour does not occur in a social vacuum, rather it is influenced by a complex set of determinants that emerge from multiple environments, including that of the micro-environment of the family home (Kolar & Soriano, 2000).

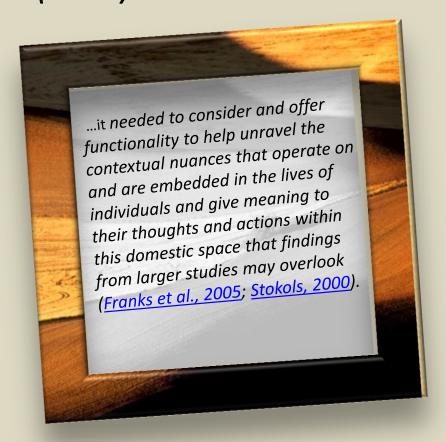






The PMEM model needed to be robust enough to acknowledge factors impacting on the microenvironment for each family, while also recognising that each micro-environment was, in itself, a micro-context with its own set of unique conditions and circumstances that operate on and are embedded in the lives of individuals which in turn give meaning to their thoughts and actions actions, and the interrelationships between the various social, institutional, and cultural contextual (Stokols, 1992).

# The ultimate test of the utility of the *Parental and Micro-Environmental Model (PMEM)* was that:





Context in this case is understood to be a "unique set of conditions or circumstances that operate on or are embedded in the life of an individual, group, a situation, or an event that gives meaning to its interpretation" (Brown & Reushle, 2010, p. 37; Oers, 1997).

Contextual nuances: The environments, behaviours and circumstances that are altered due to being located in a particular context – and present within each family micro-environment.

Privileging this nuanced space and intentionally illuminating individual complexity means paying pay closer attention to the micro-environment and the "power of context", whilst still accounting for the multiple layers of influence on a phenomenon and changes that occur over time.



# Components of the model - The rationale for investigating the "ecological niche of the micro-environment"

- To "walk in another's shoes" and see domestic spaces and the "intimate realm" of young families through their eyes (Irwin et al., 2010).
- To help shed light on the complexities and subtleties of the everyday and the pervasive influence that multiple factors exert on parental practices, understandings and values in supporting with children within the family home.
  - To unravel the contextual nuances that operate on and are embedded in the lives of individuals and give meaning to their thoughts and actions within this domestic space that findings from larger studies may overlook (<u>Franks et al., 2005</u>; <u>Stokols, 2000</u>).
    - Acknowledges the vital role that parents and other significant adults play as 'gatekeepers' in the formative stages of a young child's development (<u>Campbell et al.</u>, <u>2008</u>; <u>Hinkley, Crawford, Salmon, Okely, & Hesketh, 2008</u>; <u>The National Obesity Taskforce Secretariat, 2003</u>; <u>Trost & Loprinzi, 2010</u>).



The importance of the adult/child dyad



The micro-environment, a component of the PMEM model, is a valuable reference point for interpreting data and understanding various factors of influence unique to a family. The first two considerations that make up the central focus of the multidimensional framework of the PMEM model include: (1) the physical environment and resources; and (2) the individual characteristics of the child and parents.

The micro-environment of **the family home** is only one of a number of environments that influence individuals, but represents a significant place in which the parent (primary carers)/child dyad are located.



Although only one part of a multiple level system, Siddiqi, Irwin, & Hertzman (2007) reinforce that investigating more proximal systems are of critical importance to better understanding factors impacting on the way parents in young families live, think, engage with others and how this then translates into behaviours of parenting, health, and nurturant conditions.



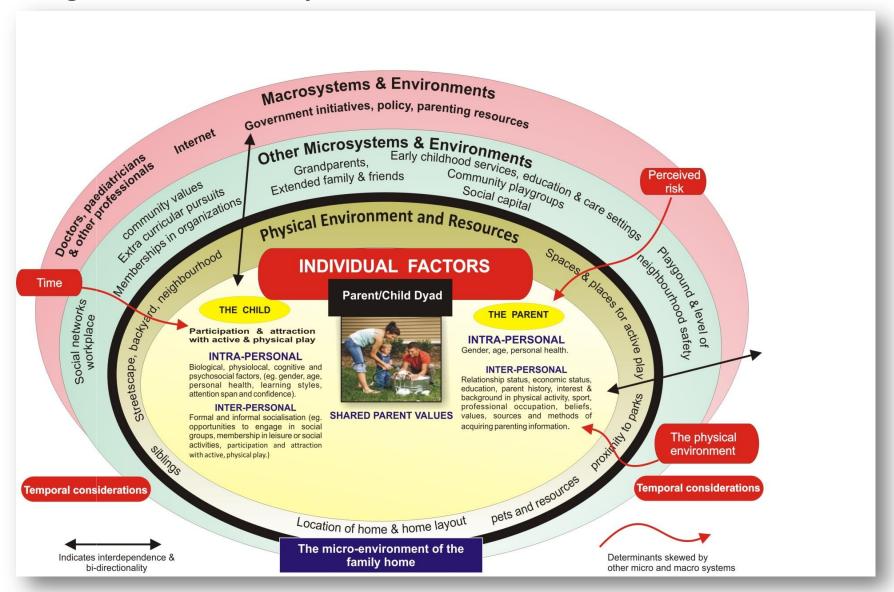
## **Component 1**

• Recognises one of the most salient features of the micro-environment of the family- the physical environment and resources (including immediate personal, physical and economic resources present within the family home).

### **Component 2**

• The second component within the micro-environment is that of individual characteristics of the child/children and parent/carer. Childhood factors could include their temperament, health, interests, intrapersonal details and interpersonal characteristics. For parents, factors could include parental health, ages, marital status, income, education, background and prior social history of relationships and family life. Note that component 2 includes detailed consideration of intra and interpersonal factors. It would also include their work status/occupation, parenting beliefs and values.

## Recognition for other spheres of influence in the PMEM model



Human behaviours do not occur in a social vacuum, rather they are influenced by a complex set of determinants that emerge from multiple environments including that of the micro-environment of the family home (Kolar & Soriano, 2000).



#### Meet the Masons: Sarah, Tom & Helen Multidimensional model of parental influence on children's active play

# Mason's micro-context

lished neighbourhood,

bedroom

brick

proximity to

ne o





parks, streetscape lined house



lelen

#### Macrosystem

Government, policy, media, social, cultural beliefs, behaviours, attitudes, values



#### Other micro-environments

(Grandparents, extended family, friends, early childhood services, preschool, community playgroups group, neighbourhood, workplace)

Helen's family - raised primarily by mother:

- Encouraged to play outside before dark
- Give everything a go'
- Encouraged to go out and 'get some fresh air' One younger sister

#### Sarah- Age 45 Part-time lecturer

Background: Finished school in grade 10 and then completed a tertiary teaching degree majoring in drama, music and literacy

Tries to participate in exercise and gym twice a week and an art class once aweek

Limited spare time due to parenting commitments and supporting the Mason's fitness business

#### Values, Beliefs:

- Prioritise the time to 'connect with Helen and Tom'
- Active play is about 'giving everything a go' and enjoying the outdoors
- Active play is often creative and social

Shared parental values: Active play and time spent with Helen is prioritised particularly in her own environment and with people she knows; Both parents support an active lifestyle;

#### Tom's family-

- Parent's history of active participation in sport
- Parental support for Tom's participation in sport One younger sister

#### Tom - Age 40, Personal Trainer

Background: Born in Roma, spent schooling days in current town at local catholic primary and high school; Works in the fitness industry (16 years); Part owner of fitness centre; Often required to work long hours (starts early in morning); A passion for sport and competition since a young age

Spare time is spread between family and father commitments as well as high level touch football and other sports

#### Values, Beliefs:

- Places importance of teaching key fundamental movement skills as a precursor to a range of sports (swimming, running, surfing
- Important to take calculated risk and challenge yourself



sometimes occurs inside or on week-ends

Temporal environment/influences: Tom's long work hours means active play

needs to be prioritised

#### Parental influences

- •Married 9 years
- Several attempts at conceiving before Helen was born

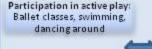
#### Micro-environment of the family home

Social factors: Confident, vivacious socialises with a wide group of friends and relatives, attends prep, only child, can be talkative but sometimes reserved when meeting new people

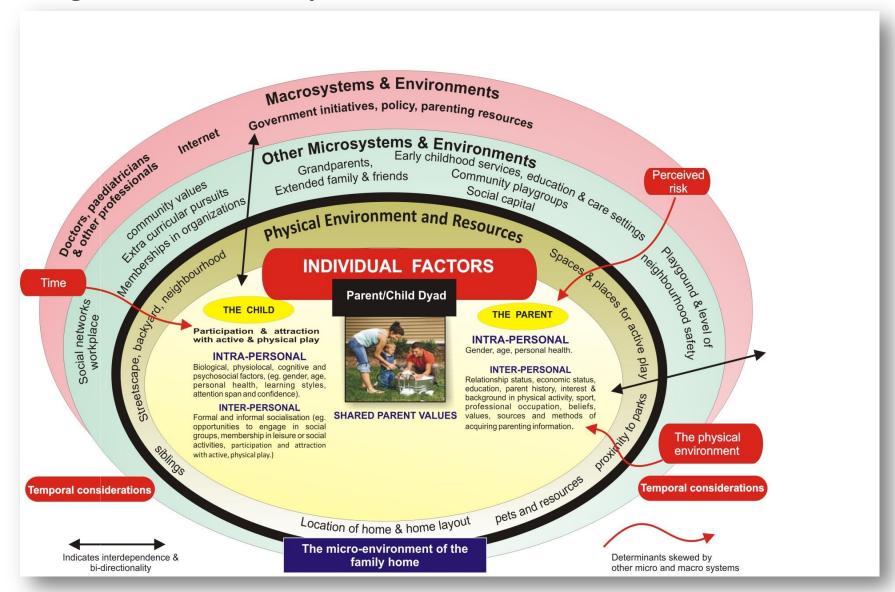
Physiological/cognitive factors: Female, age, 4.7 years, no health issues identified, kinaesthetic and creative learning styles, attention span is good for age.



Attraction to Active Play and Physical activity Walking with parents, running/riding her bik with parents, playing and talking to pets



## Recognition for other spheres of influence in the PMEM model



Human behaviours do not occur in a social vacuum, rather they are influenced by a complex set of determinants that emerge from multiple environments including that of the micro-environment of the family home (Kolar & Soriano, 2000).

