

Research, Policy and Practice – Why longitudinal research?

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Purpose & value of longitudinal studies



- Key aspect of longitudinal research is that it involves repeated measures of the same people over time
- This allows an analysis of:
 - some form of **causality**
 - **change and stability over time and trajectories**

cf **cross-sectional research** - involves measures collected at one point of time which may be retrospective BUT risks re reliability and validity of retrospective accounts of abuse and neglect

See Spatz Widom et al. (2004) *Child Abuse & Neglect*

Purpose & value of longitudinal studies



- **To establish some form of causality**
 - An association or correlation between several factors/variables - cross-sectional
 - Time factor – A occurs before B
 - Taking account of other associated factors / confounding factors
 - eg children in kinship/foster care have poorer outcomes than children who are adopted
 - Age at placement is key predictor
 - Useful to have some ideas re **mechanism involved**

Testing cause and effect relationships



- **Using longitudinal studies :**
 - Testing competing hypotheses and mechanisms esp alert to problems at Time 0 eg prior to entry to care
 - Dose-response relationships – degree and length of exposure to adverse events but alert to threshold effects
 - Multiple pathways to common adverse outcomes and multiple adverse outcomes from single/group of adverse events
 - Importance of accounting for stability / lack of change in outcomes as well as change.
 - See Rutter (1994) Beyond longitudinal data ... *Journal of Consulting and Clinical Psychology*, 62, 928-940.

Questions re change & trajectories



- **Longitudinal studies valuable in:**
 - Assessing frequency of children ‘escaping from risk’ and associated mechanisms – “strength of risk looks rather different when viewed prospectively cf retrospectively (Rutter 1994, p. 930)
 - Detecting unexpected outcomes from earlier risk experiences (Rutter 1994, p. 930)
 - Establishing the effects of children’s experiences through their own actions upon own subsequent behaviour
 - Establishing indirect chain effects eg persistence of adverse sequelae depends to a large extent on indirect chain effects

Questions re change & trajectories



- How does the type and frequency of contact for children in kinship and foster care **change over time**?
- Does the type of placement and the age of the child at placement **affect** children's [later] relationship with their birth families, and their socio-emotional development?
- What are the **early signs** of spiralling up or spiralling down in a child's outcomes?
- Does the **timing of certain transitions** in the child's time in out-of-home care **exacerbate or minimise** the difficulties for the child – and affect the course of their development?

Developmental approach as underpinning theory



- In general, events over time and the links between earlier and later events
- Nature of interaction/s between the features of individuals and of contexts
- Cuts across several disciplines
- Not “just children” but a life span perspective
- Not just “age” but an emphasis on:
 - Paths, trajectories, recovery routes
 - Transitions, points of entry and exit

ECOLOGICAL MODEL



Different levels of effect – context

- *Individual child*
- *Carer family*
- *Birth parents and extended family*
- *Community – school*
- *Services – health, education, disability*

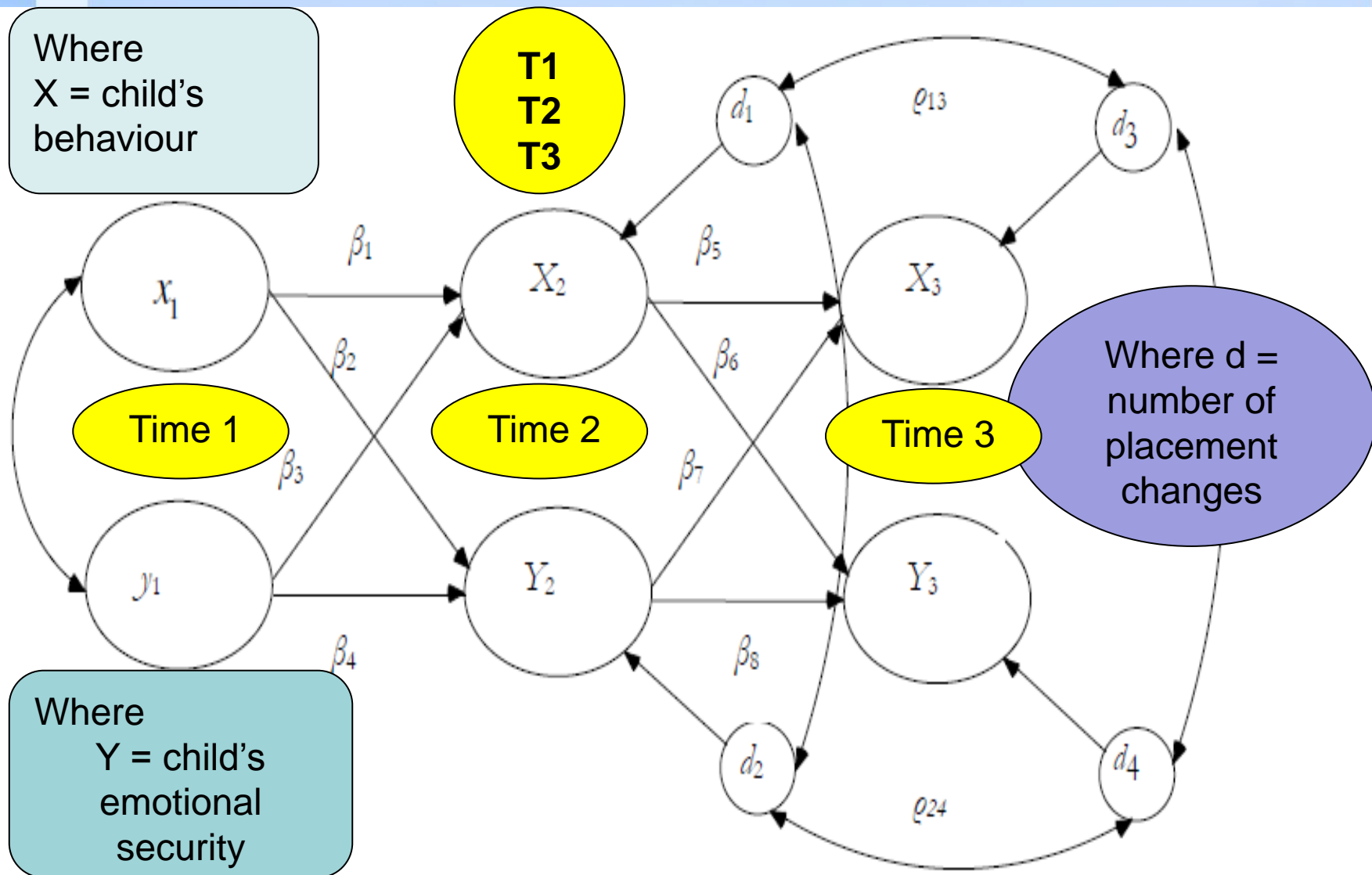
CUMULATIVE EFFECT



Critical aspects

- Total number of factors / life events, transitions
- Spacing
- Presence of protective factors
 - Warm supportive relationship
 - Social support esp through transitions
- **Unique combination of risk and protective factors**
- But different methods of assessing eg additive cumulative scales vs factor analysis
(see Brumley et al., in press, *Child Abuse and Neglect*)

Predicting associations over time



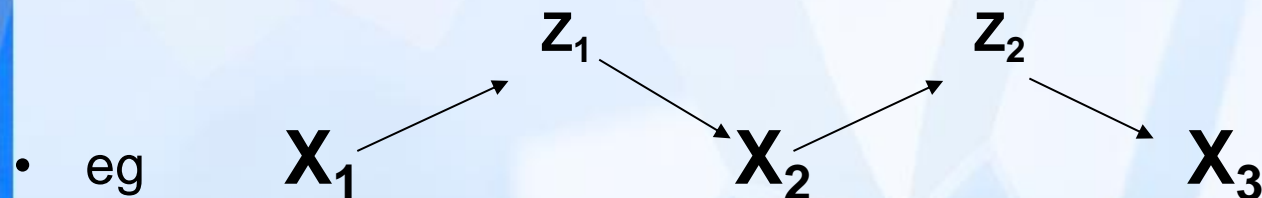
Different types of effects



- **Single direct effects**, which may be cumulative or waning over time.



- **Multiple direct effects**, which may be additive or one may mask the another.
- **Indirect effects**, which may be mediated through other factors → implications for prevention.



Different types of effects



- **Interactive effects**, where two factors simultaneously cause an effect different from each on its own.
- **Persistent effects**, where a factor is intractable but leads to consistently expected outcomes.
- **Nested effects**, where the influence of a factor (such as low birthweight) may be important for a particular outcome, which in turn affects other outcomes later in time.



MANAGING LONGITUDINAL DATA

Data management / analysis issues

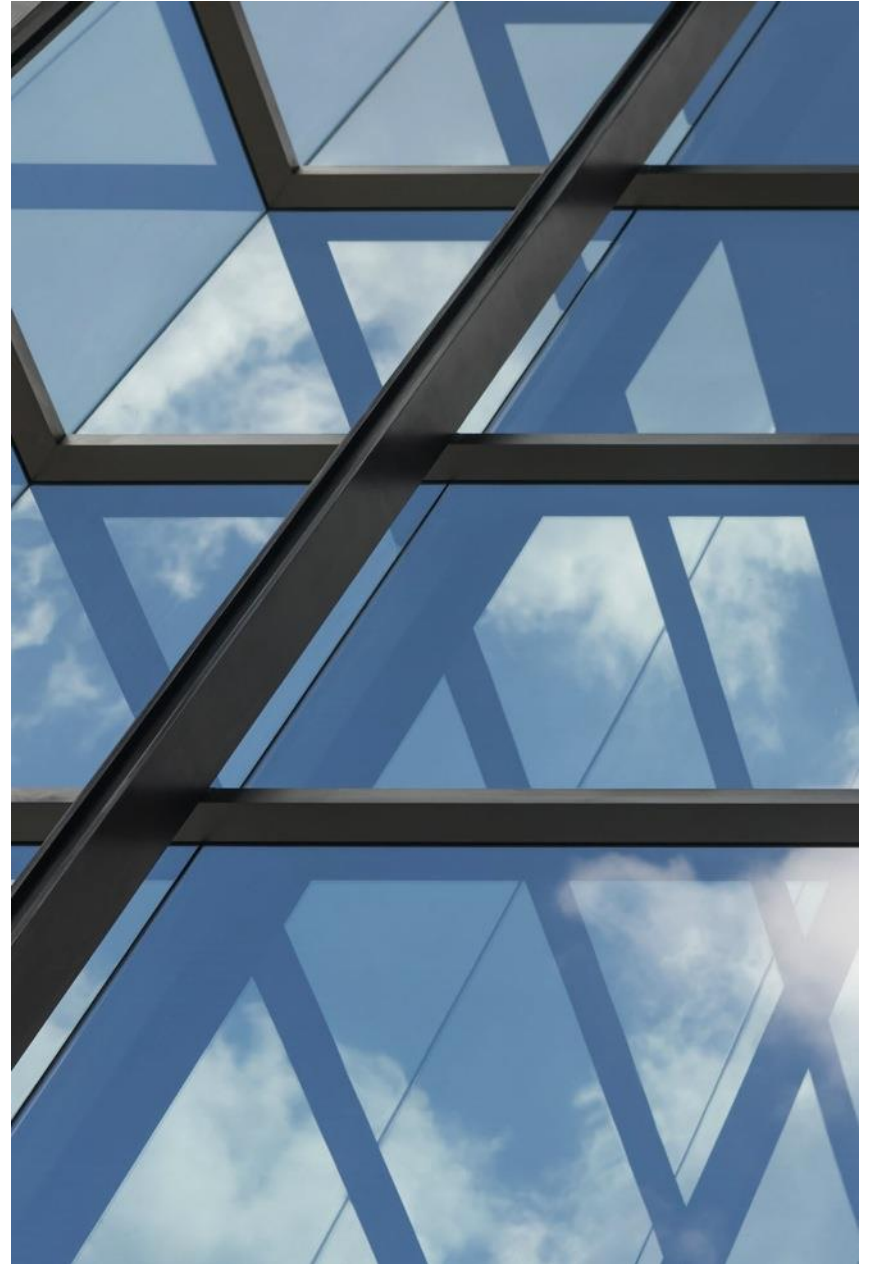


- Cleaning and managing access and consistency and understanding of use of measures
- Attrition and missing data
 - weighting, imputation
- Underpinning theory → Analysis and exploration, not 'fishing expedition'
- Risk of statistically significant but not significant or important in practical and policy terms
- Risk of missing important effects by missing sub-group differences but cell-size constraints

**Where to from
here?**



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Australia: International Context



- Research agenda - Link to other areas of research and theoretical foundations beyond child protection and out-of-home care research
- Adequate research funding
- Research centres
 - Training for new generation of researchers
- Accessible case level data
- Research-to-policy and practice translation and support cf US, UK, Canada
- Collaborative approaches ... ?



Different models of influence

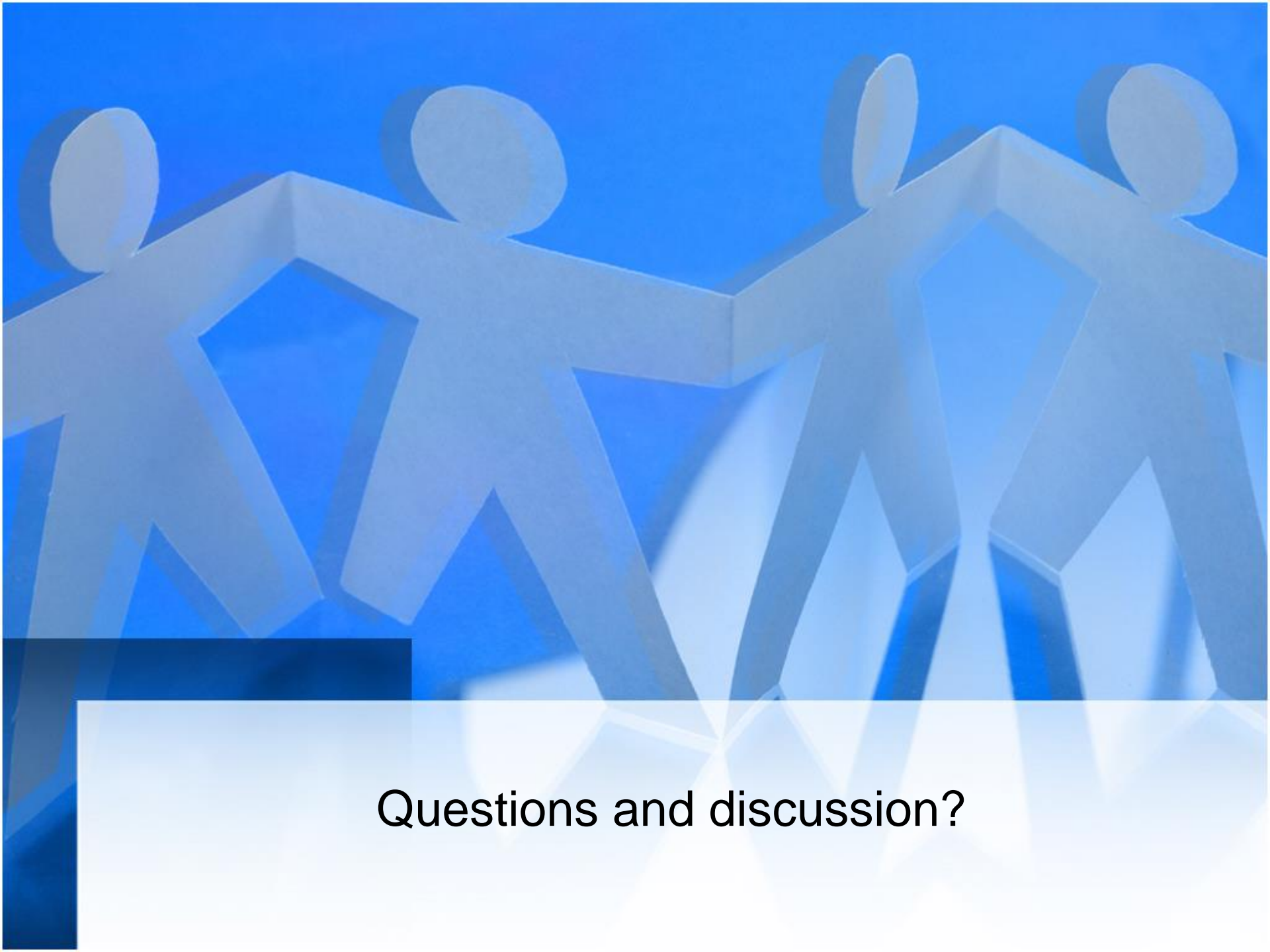
Involvement of practitioners and service users

- Hypothesis generating – **“theories of change”**
(Assumptions about what might make a difference)
 - Better data – measure what matters
 - Better interpretation
 - Better acceptance of findings and implications
- **Action research – participatory and collaborative**
- **“Realist synthesis”**

Collaborative Practice / Research



- **Policy** → to make research relevant
- **Practice** → to inform research and make it relevant
- **Research** → to inform policy and practice
→ to understand impact of policy & practice
- **Who asks the questions?**
- **Who contributes to the literature?**
- **Who uses the answers?**



Questions and discussion?