

Methodological Error: Frequency Rating vs Prevalence Assessment

The Specific Claim and Citation

FJC Guidance Statement:

"Research evidence suggests that Alienating Behaviours which actually impacts on the child's relationship with the other parent are relatively rare"

Evidence Cited: Hine et al. (2024): "Across the entire sample, the average rating for children's manifestation of alienating behaviour across all questions was 2.04 (2='Rarely')"

The Methodological Error Explained

What Was Actually Measured

The Hine et al. study used a **Likert frequency scale**:

- 1 = Never
- 2 = Rarely
- 3 = Sometimes
- 4 = Often
- 5 = Always

Research Question Type: "When your child exhibits alienating behaviours, how frequently do they occur?"

What 2.04 Means: On average, parents whose children showed alienating behaviours rated the frequency of manifestation as "rarely" on the scale.

What the FJC Concluded

The FJC interpreted this to mean alienating behaviours are "relatively rare" as a **phenomenon in the population**.

Why This Is a Category Error

Frequency Rating

- **Measures:** How often a behaviour occurs within affected cases
- **Question:** "When X happens, how frequent is it?"
- **Scale:** Never → Rarely → Sometimes → Often → Always
- **Domain:** Temporal frequency within individual cases

Prevalence Assessment

- **Measures:** What proportion of the population experiences something
- **Question:** "How many people/families are affected by X?"
- **Scale:** Percentage or proportion of population
- **Domain:** Population-wide occurrence

The Logical Fallacy

Invalid inference:

- Children in affected families show behaviours "rarely" (frequency)
- Therefore, families are rarely affected (prevalence)

This commits the error of **shifting domains** - using within-case frequency data to make population-level prevalence claims.

Illustration of the Error

Medical Analogy

Consider a study of families where a parent has epilepsy:

- Finding: "Children rarely (2.0) express worry about their parent's seizures"
- Invalid conclusion: "Epilepsy rarely affects families"

The frequency of a specific manifestation within affected cases tells us nothing about how many cases exist in the population.

Mathematical Demonstration

Scenario A:

- 1,000 families affected
- Children show behaviours "rarely" (2.0 average)
- Population prevalence: Could be 40%

Scenario B:

- 100 families affected
- Children show behaviours "often" (4.0 average)
- Population prevalence: Could be 4%

The frequency rating (2.0 vs 4.0) is independent of prevalence (40% vs 4%).

What the Study's Prevalence Data Actually Showed

While the FJC focused on the 2.04 frequency rating, the same study reported:

- **39.2%** of the sample experienced alienating behaviours affecting the parent-child relationship
- Extrapolation: "hundreds of thousands of families, and over 1 million UK children"
- Authors' assessment: "urgent and critical public health crisis"

The prevalence data directly contradicts the "relatively rare" characterisation.

Technical Analysis of the Measurement Error

Within-Case Frequency \neq Population Prevalence

1. **Frequency ratings** answer: "In affected families, how often do specific behaviours manifest?"
2. **Prevalence data** answers: "What proportion of families are affected?"

These are **orthogonal dimensions** - one cannot be inferred from the other.

The Averaging Problem

The 2.04 figure represents an **average across all behavioural items** within the affected sample:

- Some behaviours might occur "never" (1.0)
- Others might occur "sometimes" (3.0)
- Average = 2.04 ("rarely")

This averaging across items within cases cannot be transformed into a statement about prevalence across the population.

Formal Statement of the Error

Given:

- F = Average frequency rating of behaviours within affected cases (2.04)
- P = Proportion of population affected by the condition

FJC's inference:

- Low F ($2.04 \approx$ "rarely") \rightarrow Low P ("relatively rare")

Why this is invalid:

- F and P measure different dimensions
- F is conditional on being an affected case
- P is unconditional across the entire population
- No mathematical relationship exists between F and P that would support this inference

Conclusion

The FJC has made a fundamental error in research interpretation by:

1. Taking a **within-case frequency measure** (how often behaviours occur when present)

2. Interpreting it as a **population prevalence indicator** (how many are affected)
3. Using this to characterise the phenomenon as "relatively rare"

This represents a basic methodological error that confuses two entirely different types of measurement. The frequency with which behaviours manifest within affected families provides no information about the prevalence of affected families in the population.