Validity of reports of partner age reports in a rural South African population-based cohort

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Background

- Relationship age-disparities is seen as risky for intimate partner violence and sexually transmitted infections - due to power disparities & disease prevalence age-profiles

- Research & interventions on this topic rely on individuals' perceptions of partner age

- This may be problematic due to:
  1. Unintended mis-reporting:
     - Lack of knowledge
     - Rounding towards landmark ages
  2. Non-random mis-reporting:
     - Social desirability bias

- Existing evidence on partner age reports:
  - High income (USA) :   high accuracy
  - Low income (Malawi): low sensitivity

- No evidence from middle-income settings

Methods

Study site: 432km² rural surveillance site, northern KwaZulu-Natal

Period: January 2005 – December 2012

Sample: All adults in conjugal relationships

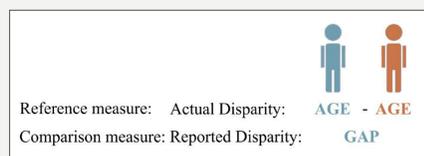**Data**: Self-reported age; report of age-disparity in sexual relationship

Reference measure: Actual Disparity: AGE - AGE
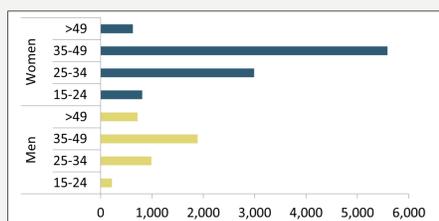Comparison measure: Reported Disparity: GAP

Fig 1: Relationship age-disparity measures

Fig 2: Age-sex distribution of respondents

Results

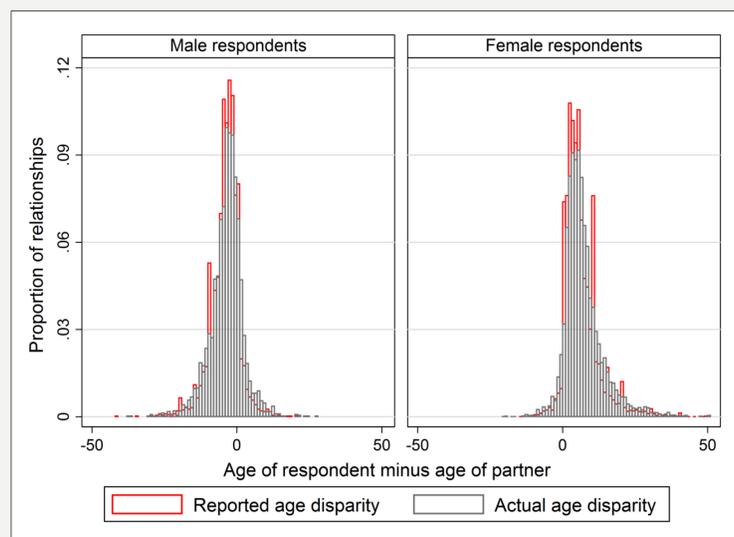Reported age disparity   Actual age disparity

Fig 3: Distribution of reported and actual age disparities

- Highly age-assortative partnering

- Males older by a mean of ~5 years

- *Reported disparities* higher than *actual disparities* close to 0 and at landmark differences (5, 10 years)

- Both women and men *reported* to be slightly older than *actually* the case:
  - Men under-report disparity by median of 1 year
  - Women over-report disparity by median of 1 year

Fig 4: Distribution of difference in age-disparity measures

- 59% accurate to within 1 year; 72% accurate to within 2 years

- Small minority (3%) of *reported* differed from *actual* by >10 years.

- Lin correlation of measures:
  - Female respondents: ρ=0.78
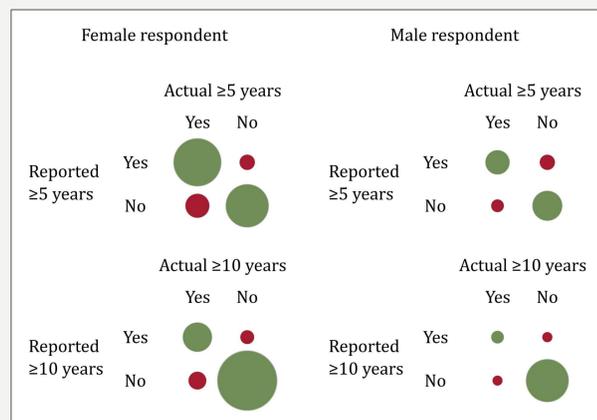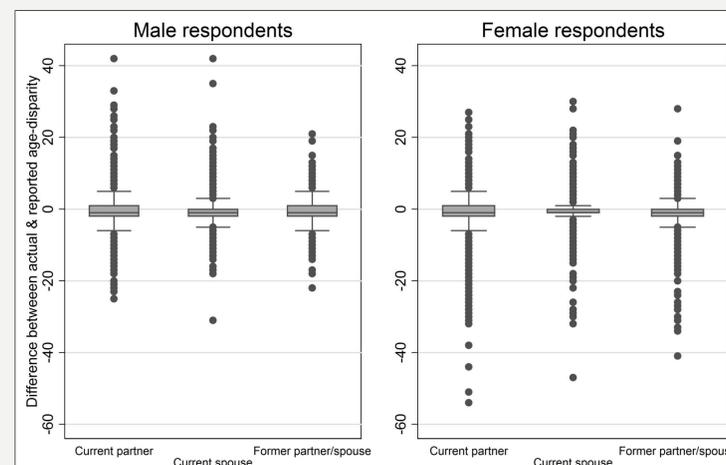 - Male respondents: ρ=0.62

Fig 5: Sensitivity & specificity for reports of age-disparate relationships

- Disparities of ≥5 or 10 years are commonly considered particularly risky

- 53% of relationships have disparity ≥5 years

- 21% of relationships have disparity ≥10 years

- For identify *actually disparate* relationships from *reported disparate* relationships:
  - Sensitivity ranged from 62-80%
  - Specificity ranged from 79-95%

Discussion

Predictors of accuracy: Older age (men only); only one partner (men only); married; living in same household; *not* relationship length
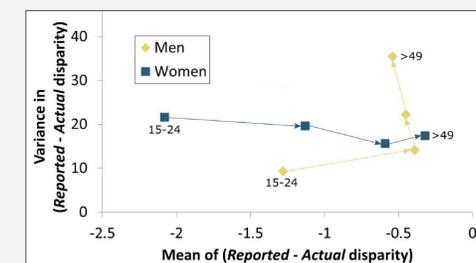

Fig 4: Age-sex pattern of mis-reporting

Continuous vs binary measures: Binary cut-points set at over-reported values maximizes error in self-identification

Generalizability

Geographic generalizability: Setting is one of poorest in South Africa, but has better vital registration than much of sub-Saharan Africa

Sensitivity greater than in Malawi; maybe in part due to better vital registration in South Africa (date of birth ascertained from national ID book in >95% of cases)

Relationship generalizability: Knowledge may be lower for non-marriage-like relationships

Conclusions

Accurate perceptions of partners' ages allow:

- *Valid data for analysis* of the risk posed by relationship age disparities; accuracy is relatively high in this population

- *Effective targeting of interventions*; most "at-risk" individuals know they are targets in this population

Continuous age-disparity measures better than binary ones, unless binary theoretically justified

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