



Single and multiple perpetrator rape perpetration in rural South Africa: understanding causation through modelling factors associated with prevalent and incident cases and pathways

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Introduction

- ▶ In all populations studied, a fairly high proportion of the adult men disclose having ever raped (between 11 – 61%)
- ▶ In research on rape causation, the relationship between social marginalisation and rape perpetration remains unclear.
- ▶ In some settings, multiple perpetrator rape (MPR) is associated with social marginalisation (poorer education and more food insecurity), whereas in others, including South Africa, a notable finding is that men who rape, including MPR, are wealthier than other men
- ▶ Childhood trauma exposure is a well recognise risk factor
- ▶ Also men who have perpetrated rape are more likely to have been gang members, have weapons, fight with other men and used drugs = behaviours indication of hypermasculinity
- ▶ Leaving a key question of the relationship between these and hegemonic masculinity



Aims of the presentation:

- ▶ To explore factors associated with the two types of rape using a multinomial regression model
- ▶ the relationship between the types with an ordinal regression model
- ▶ Poisson regression models of incidence of rape
- ▶ structural equation modelling (SEM) on cross-sectional data to further elucidate some of the relationships between social marginalisation, childhood trauma and rape, and between delinquency, other male behaviours and rape.
- ▶ Using data from the 1370 men aged 15-26 years enrolled in the Stepping Stones cluster randomised controlled trial conducted in 70 villages of rural South Africa

Overview of the men

- ▶ Among the men in the study 76.1% had never raped, 10.0% had raped as a single perpetrator and 13.9% had ever engaged in multiple perpetrator rape (MPR).
- ▶ The mean age was 19.1.
- ▶ Only 12.7% had completed Grade 10 or were in a higher school grade.
- ▶ Most were still in school

| Socio-demographic and behavioural characteristics of men by rape perpetration category | | | | |
|---|--------------------|---------------------------|-----------------------------|----------------|
| | Never raped | Single perpetrator | Multiple perpetrator | |
| | n=1039 | n=137 | n=190 | |
| | %/ mean | %/ mean | %/ mean | p value |
| Social characteristics | | | | |
| Socio-economic status(mean) | -0.09 | 0.21 | 0.32 | <0.0001 |
| Mother completed school | 62.6 | 73.7 | 80.0 | <0.0001 |
| Ever earned money | 50.8 | 71.5 | 63.7 | <0.0001 |
| Childhood | | | | |
| Sexual abuse in childhood: none | 87.6 | 74.5 | 66.3 | <0.0001 |
| 1 | 9.9 | 21.2 | 22.6 | |
| >1 time | 2.5 | 4.4 | 11.1 | |
| Sexually coerced by a woman | 6.3 | 20.4 | 20.0 | <0.0001 |
| Physical abuse in childhood: score | 4.78 | 5.07 | 4.99 | 0.008 |
| Social capital | | | | |
| Community cohesion score (high is less cohesive) | -0.06 | 0.19 | 0.15 | 0.001 |
| Involvement in 1+ clubs | 72.5 | 73.0 | 83.2 | 0.007 |
| Social and peer practices | | | | |
| Gang membership & arrests: none | 90.1 | 75.3 | 77.9 | <0.0001 |
| Gang member | 2.7 | 9.9 | 10.5 | |
| Arrested | 5.8 | 8.6 | 6.3 | |
| Both gang member & arrested | 1.5 | 6.2 | 5.3 | |
| Peer pressure resistance | 0.06 | -0.11 | -0.24 | 0.002 |
| Problem drinking | 20.2 | 44.5 | 38.9 | <0.0001 |
| Ever drug use | 34.2 | 52.6 | 51.6 | <0.0001 |
| Attitudes and practices of gender relations | | | | |
| Gender attitudes and relationship control score | -0.02 | 0.02 | 0.08 | 0.288 |
| Any transactional sex | 22.0 | 43.4 | 50.8 | <0.0001 |
| 8+ lifetime partners | 21.6 | 36.3 | 54.0 | <0.0001 |
| Ever physical IPV | 22.4 | 44.8 | 46.0 | <0.0001 |

| Multinomial regression model of multiple perpetrator rape compared with never having raped and single perpetrator rape | | | | | | | | |
|---|---|---------------|------|----------------|---|---------------|------|----------------|
| | Multiple perpetrator rape compared to never having raped | | | | Single perpetrator rape compared to never having raped | | | |
| | RRR | 95% CI | | p value | RRR | 95% CI | | p value |
| Socio-economic status scale | 1.15 | 1.00 | 1.32 | 0.043 | 1.11 | 0.95 | 1.29 | 0.201 |
| Sexual abuse in childhood: none | 1.00 | | | | 1.00 | | | |
| once | 1.81 | 1.16 | 2.82 | 0.01 | 1.93 | 1.19 | 3.11 | 0.008 |
| >1 time | 2.86 | 1.54 | 5.31 | 0.001 | 1.06 | 0.35 | 3.20 | 0.922 |
| Sexually coerced by a woman | 1.95 | 1.19 | 3.22 | 0.009 | 2.59 | 1.44 | 4.65 | 0.002 |
| Peer pressure resistance | 0.80 | 0.67 | 0.95 | 0.011 | 0.92 | 0.75 | 1.12 | 0.394 |
| Gang membership | 2.31 | 1.24 | 4.31 | 0.009 | 1.61 | 0.82 | 3.16 | 0.164 |
| Ever drug use | 1.76 | 1.20 | 2.57 | 0.004 | 1.80 | 1.17 | 2.79 | 0.009 |
| Any transactional sex | 2.05 | 1.35 | 3.14 | 0.001 | 1.71 | 1.06 | 2.75 | 0.027 |
| Alcohol abuse | 1.30 | 0.91 | 1.85 | 0.149 | 2.11 | 1.36 | 3.27 | 0.001 |
| 8+ lifetime partners | 2.85 | 1.89 | 4.28 | <0.0001 | 1.25 | 0.75 | 2.09 | 0.386 |
| Ever physical IPV | 1.92 | 1.37 | 2.71 | <0.0001 | 1.85 | 1.19 | 2.89 | 0.007 |

Ordered regression

Multivariable ordered regression model of the three rape perpetration categories: never raping, single perpetrator rape and multiple perpetrator rape

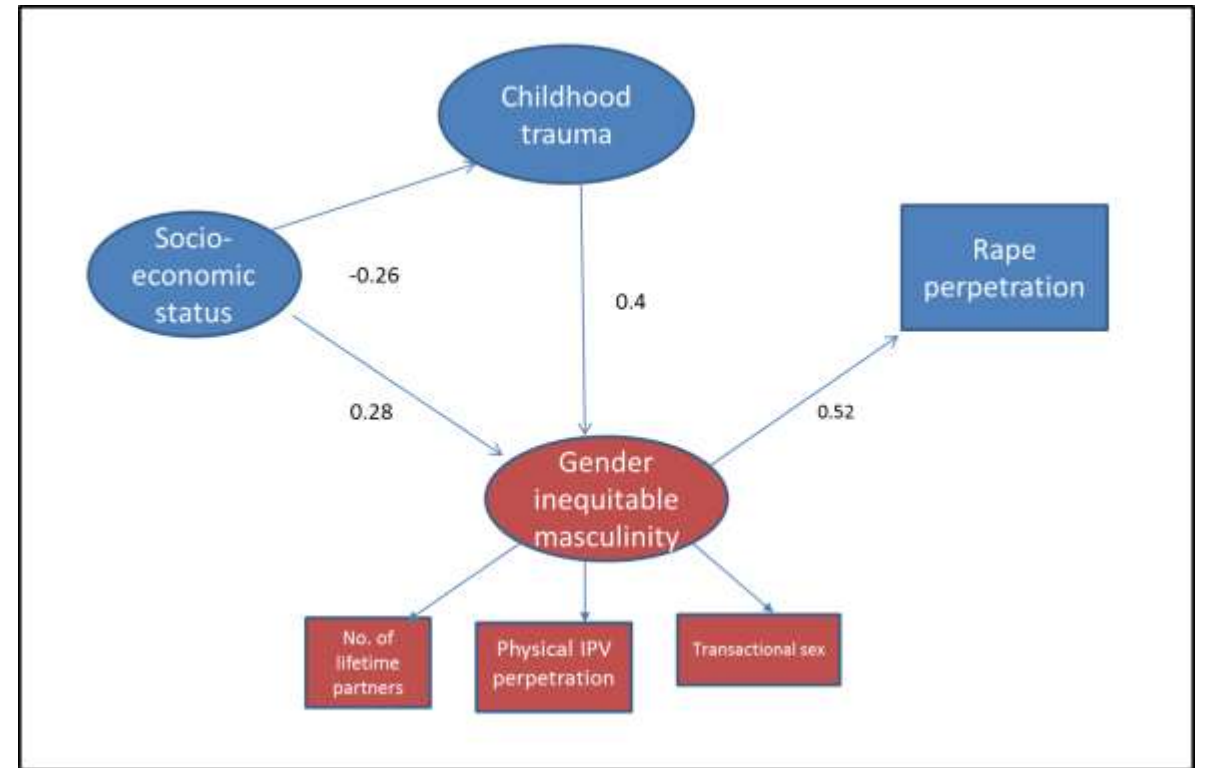
| | OR | 95% CI | | p value |
|---------------------------------|------|--------|------|---------|
| Mother completed school | 1.77 | 1.30 | 2.42 | <0.0001 |
| Sexual abuse in childhood: none | 1.00 | | | |
| 1 | 1.63 | 1.14 | 2.33 | 0.009 |
| >1 time | 2.54 | 1.40 | 4.61 | 0.003 |
| Sexually coerced by a woman | 1.88 | 1.29 | 2.75 | 0.001 |
| Peer pressure resistance | 0.82 | 0.71 | 0.95 | 0.011 |
| Gang membership | 2.24 | 1.39 | 3.62 | 0.001 |
| Ever drug use | 1.72 | 1.26 | 2.34 | 0.001 |
| Any transactional sex | 2.08 | 1.47 | 2.92 | <0.0001 |
| 8+ lifetime partners | 2.12 | 1.50 | 3.01 | <0.0001 |
| Ever physical IPV | 1.86 | 1.40 | 2.49 | <0.0001 |
| brant test p=0.312 | | | | |

- ▶ Testing the assumption that MPR is an intensified form of single perpetrator rape
- ▶ Analysis is important if we want to use a continuous variable in analysis with categories of no rape, SPR and MPR



Origins of rape perpetration: SES, childhood trauma and gender inequitable masculinity

- ▶ Structural Equation Model showing pathways between socio-economic status and rape perpetration
- ▶ A latent variable, gender inequitable masculinity, is a common mediating factor
- ▶ Measured variables which contribute to the latent variable: having multiple partners, transactional sex and using physical IPV
- ▶ This model shows connections between SES and childhood trauma and masculinity and rape perpetration



Modeling incident cases of rape: n=1147 men follows up for 2 years, n=217 cases of rape/attempted rape

| Multivariable poisson model of relative incidence of rape | | | | |
|--|---|---------------|------|----------------|
| | Any rape during follow up: adjusted for age, education, treatment, stratum and person years of follow up (exposure) | | | |
| | IRR | 95% CI | | p value |
| Ever drug use | 1.86 | 1.39 | 2.49 | <0.0001 |
| 8+ lifetime partners | 1.48 | 1.09 | 2.01 | 0.012 |
| Ever physical IPV | 1.50 | 1.11 | 2.03 | 0.009 |
| Raped or attempted rape at baseline | 1.45 | 1.07 | 1.97 | 0.016 |
| Peer pressure resistance | 0.85 | 0.74 | 0.97 | 0.016 |



Discussion

- ▶ Single-perpetrator rape and multiple perpetrator rape share many etiologic factors, and the ordered regression indicates that it is reasonable to view MPR as a more intense or severe form of SPR
- ▶ The SEM assists in understanding the apparently contradictory findings of research which indicate both social advantage (wealth and status) and social marginalisation as associated with raping
- ▶ It also provides important information to advance our understanding of the relationship between men's behaviours, masculinities and rape perpetration
- ▶ This study has shown that the **central task of interventions** to prevent rape must be to **change the socialisation of boys and young men** to build more gender equitable, and less anti-social, ideals of masculinity.
- ▶ Childhood trauma and abuse are key exposures of some men who rape and are important to prevent in their own right
- ▶ Reducing poverty on its own will not prevent rape

