

Effects of women's empowerment, WaSH and food consumption on stunting of under-five children in South Asia- a DHS analysis

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Saira Parveen Jolly1*, Regien Beisma3, Robert Lensink4, Kaosar Afsana2, Md Khayrul Bhuyan2, Jurjen van der Schans1

1University Medical Center Groningen, The Netherlands
2 BRAC James P Grant School of Public Health, BRAC University
3University medical Center Utrecht, The Netherlands
4University of Groningen, The Netherlands

BACKGROUND

- **Stunting** among under-5 children is still prevalent in South Asia
- Evidence shows that **Women's empowerment** reduces stunting and strengthens key determinants, including household **WaSH** and **child feeding**.
- We examined how different domains of women's empowerment, along with WaSH and age-appropriate food consumption, are associated with childhood stunting.

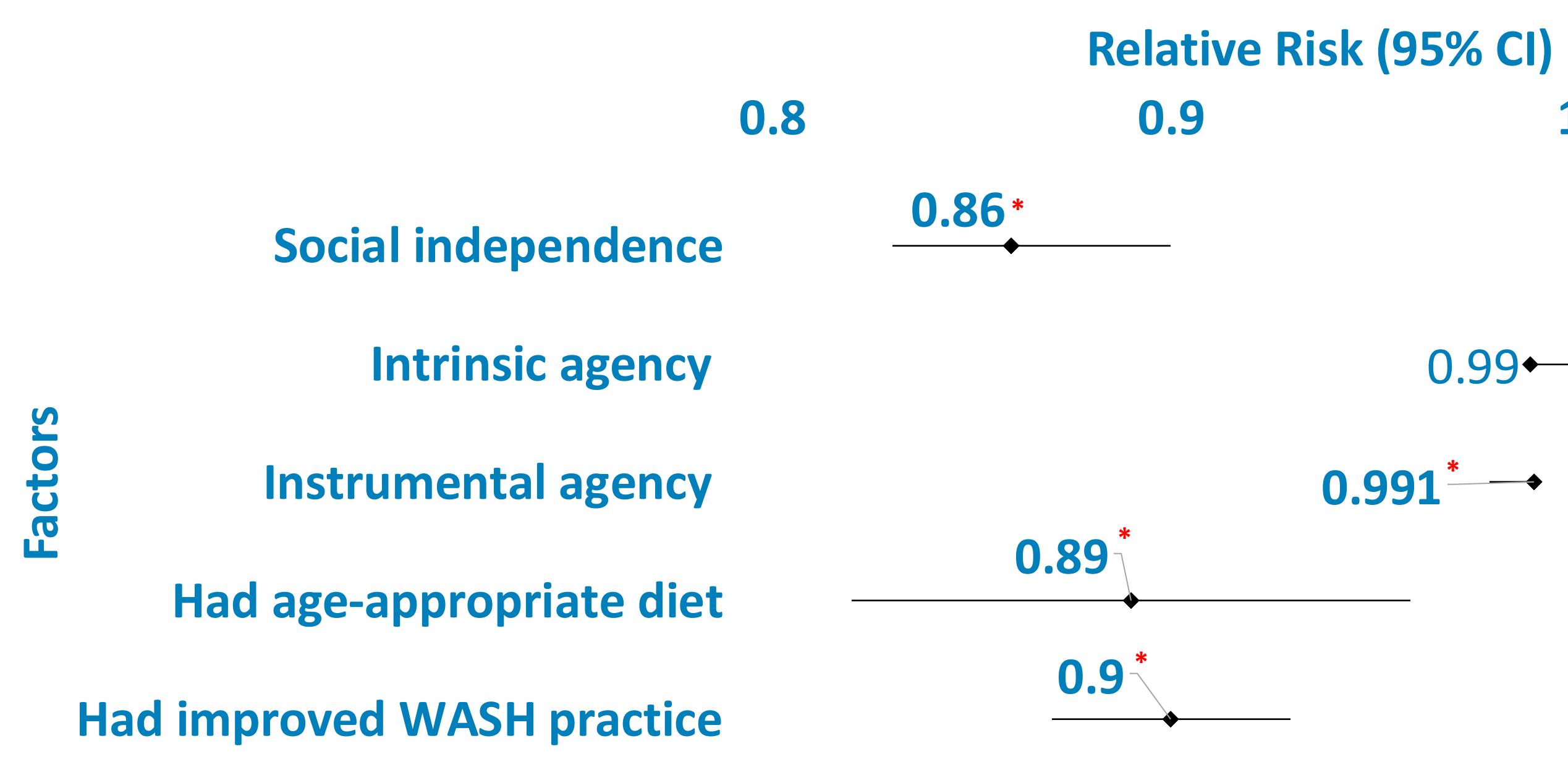
METHODS

- Pooled recent **DHS** data from **Bangladesh, India, Nepal, and Pakistan**, including **37,620** married women with a u-5 child was analyzed.
- Three domains of women's empowerment- **social independence, intrinsic agency, and instrumental agency**, were measured by using survey-based women's empowerment index.
- Generalized linear mixed-effects models were applied to estimate **relative risk (RR)** of stunting with 95% confidence interval (CI).

RESULTS

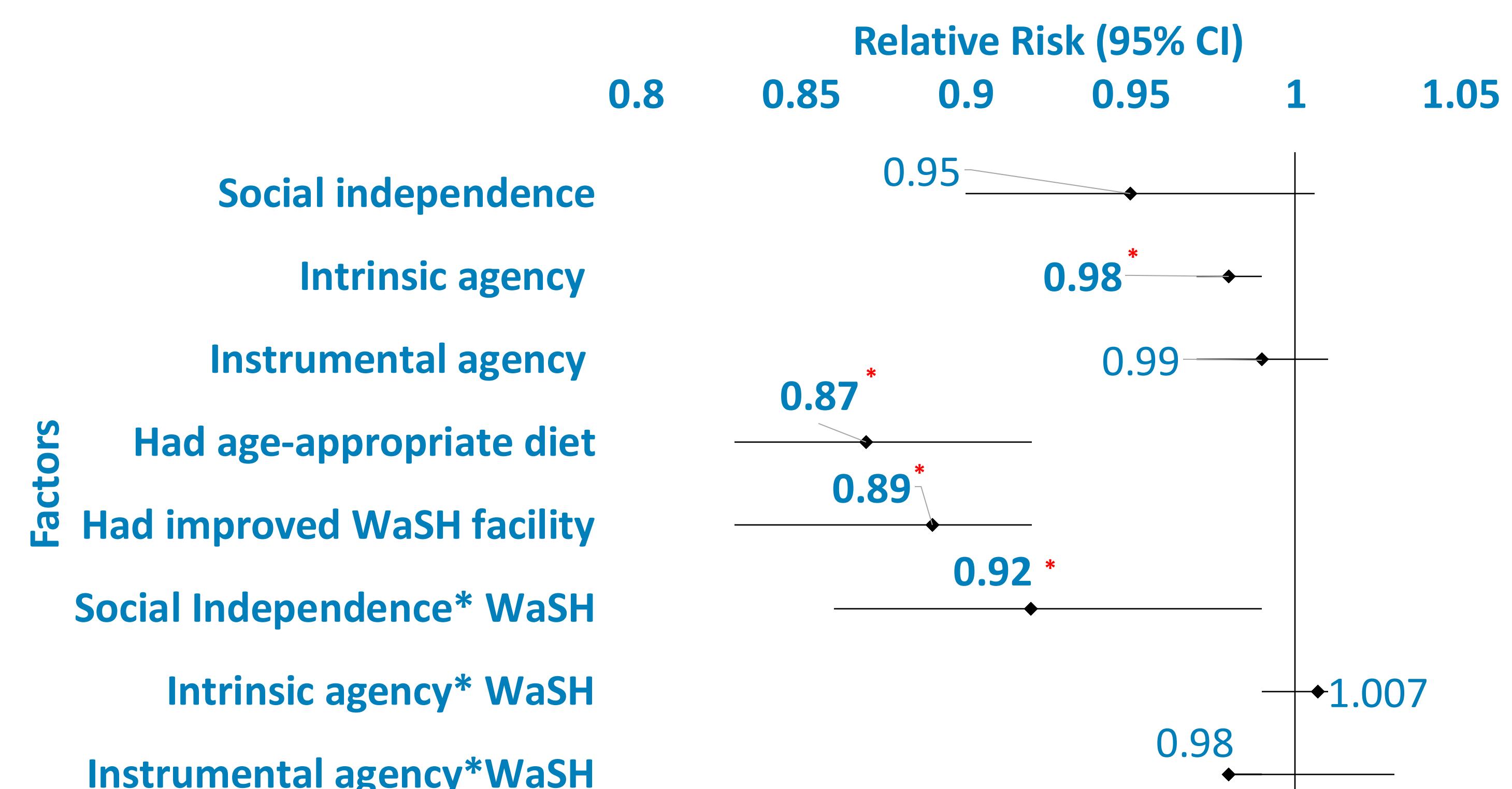
- Women's empowerment independently reduced the risk of childhood stunting (Fig 1,2,3).
- Interaction between women's social independence and household WaSH further decreased this risk (Fig 2).
- Conversely, interactions of social independence and instrumental agency with age-appropriate food intake were associated with increased stunting risk (Fig3).

FIGURE 1 : Association between women's empowerment and stunting



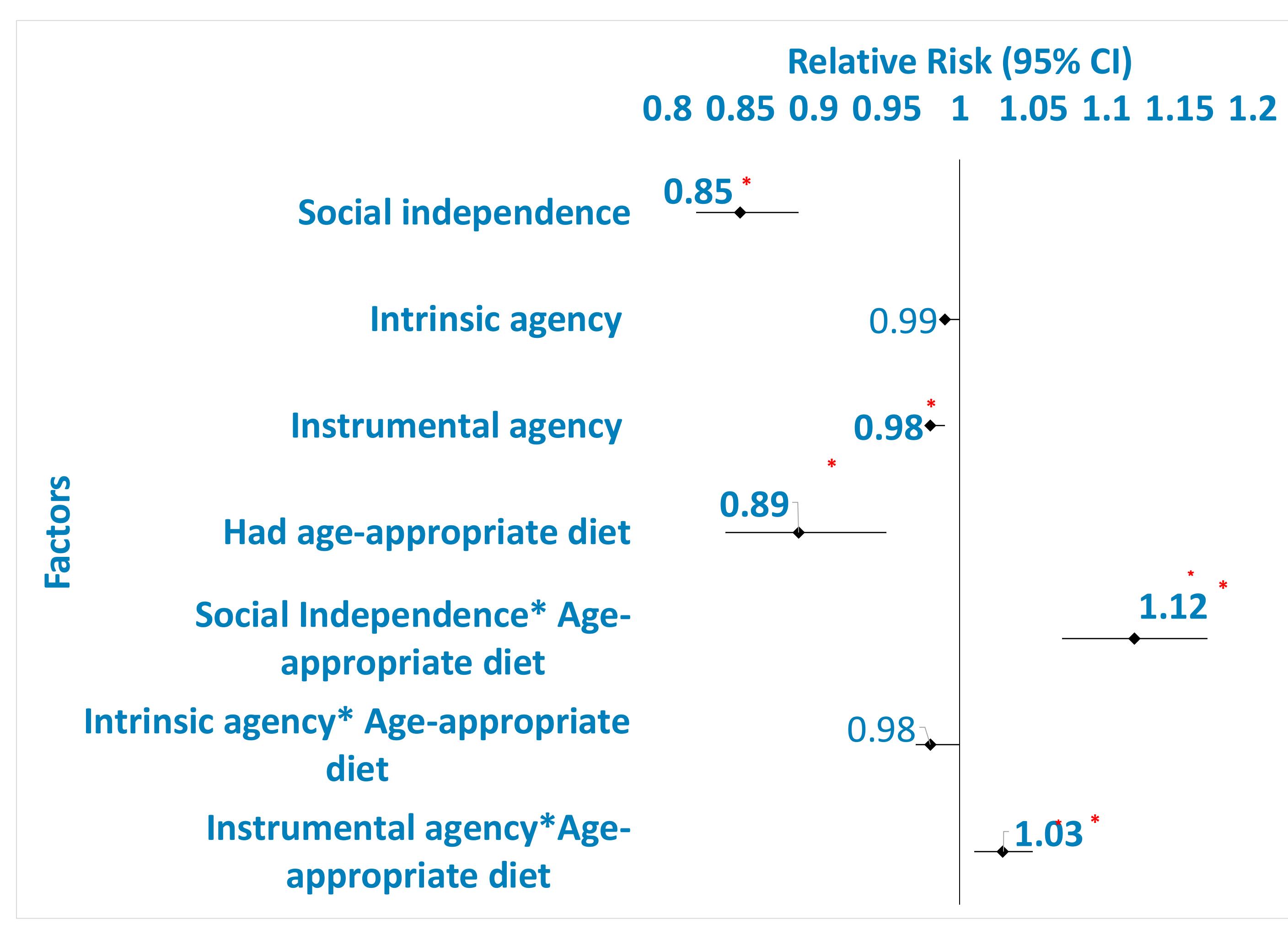
Model 1: HAZ= Social independence+ Intrinsic agency+ Instrumental agency+ Food intake+ WaSH+ Maternal height+ Women involved in income+ sex of the child+ WAZ +WHZ

FIGURE 2: Association with interaction of women's empowerment & WaSH and stunting



Model 2: HAZ= social independence+ intrinsic agency+ instrumental agency+ food intake+ WaSH+ social independence* WaSH+ intrinsic Agency* WaSH+ Instrumental Agency*WaSH+ Maternal height+ Women involved in income+ sex of the child+ WAZ +WHZ

FIGURE 3: Association with interaction of women's empowerment & age-appropriate food intake and stunting



Model 3: HAZ= social independence+ intrinsic agency+ instrumental agency+ food intake+ social independence* food intake+ intrinsic Agency* food intake+ Instrumental Agency*food intake+ WaSH+ Maternal height+ Women involved in income+ sex of the child+ WAZ +WHZ

CONCLUSION

- Interactions between women's empowerment and WaSH and food consumption reveal complex effects including both synergy and trade-offs.
- This study is highlighting the need for integrated strategies combining women's empowerment, WaSH improvements, and targeted nutrition specific interventions.

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