

# Pathways of improved nutritional status of under-five children through women’s empowerment modified by healthcare services

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## BACKGROUND

In Bangladesh, women experience restricted agency regarding healthcare access and prioritizing under-five children's food and nutrition. Enhancing women's empowerment (WE) positively influences nutritional status. Comprehending how WE affects food security, healthcare access, onset of acute respiratory infection (ARI), and progress toward Sustainable Development Goals (SDGs) 2, 3, and 5 is pivotal.

## OBJECTIVE

To identify effect of women’s resources and agency on food security, seeking treatment from medically trained providers (MTPs) and nutritional status of under-five children.

## METHODS

- Secondary data analysis was conducted.
- Data source: Three waves of data from the Bangladesh Demographic Health Survey (BDHS), 2011, 2014 and 2017-18.
- Inclusion criteria of women: Age between 15-49 years, married and currently living with husband, have at least an under-five child.
- A survey-based women’s empowerment (SWPER) index was used for measuring women’s empowerment. It is comprised of resources and agency. The agency is divided into two parts, such as intrinsic and instrumental agencies. These three variables are latent variables comprised of 14 available variables of BDHS.
- A composite variable, age-appropriate diet was generated based on the Infant and Young Child Feeding (IYCF) practice for the children aged <24 months and minimum dietary diversity for the children aged 24-59 months.
- Nutritional status of the under-five children measured by Height-for-age Z score (HAZ), Weight-for-age Z score (WAZ) and Weight-for-height Z score (WHZ).
- Generalized Structural Equation Modeling (GSEM) was performed by using SATA 17.

## RESULTS

Figure 1: Pathways for women’s empowerment and height-for-age Z score

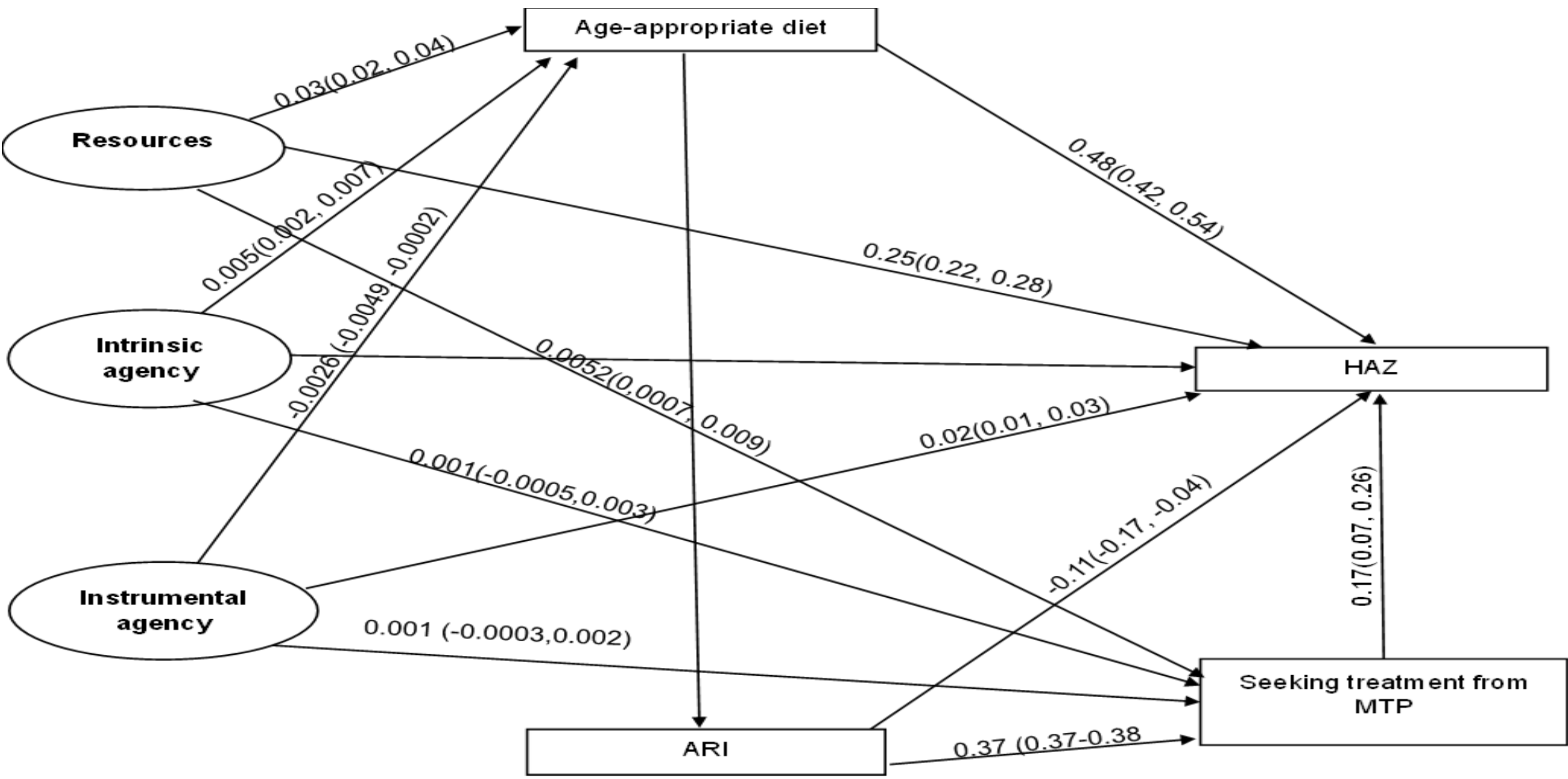


Figure 2: Pathways for women’s empowerment and weight-for-age Z score

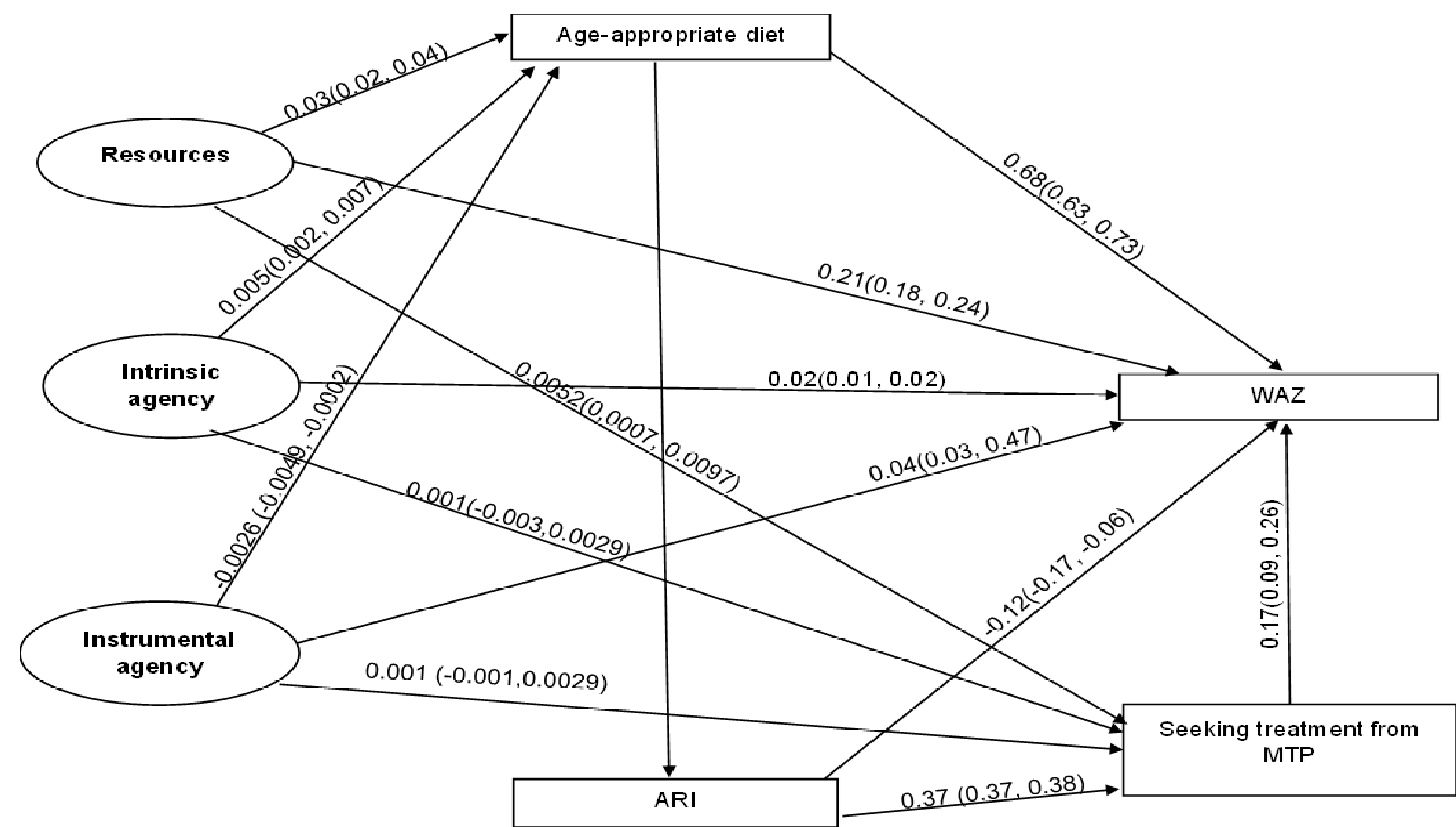


Table 1: Pathways for women’s empowerment and weight-for-height Z score

| Endogenous | Exogenous/ latent          | Co-efficient | 95% CI |       |
|------------|----------------------------|--------------|--------|-------|
| WHZ        | Resources                  | 0.48*        | 0.43   | 0.53  |
|            | Intrinsic agency           | 0.12*        | 0.04   | 0.19  |
|            | Instrumental agency        | -0.07*       | -0.12  | -0.02 |
|            | Age-appropriate diet       | 0.09*        | 0.07   | 0.11  |
|            | Seeking treatment from MTP | 0.02*        | 0.02   | 0.03  |
|            | ARI                        | 0.004        | -0.004 | 0.012 |

\* $p < 0.05$

## DISCUSSION

- Among the components of the SWPER-index, women's resources were the sole factor with a positive effect on enhancing stunting, under-weight, wasting, diet intake, and access to healthcare.
- Intrinsic and instrumental agency demonstrated effects on children's nutritional status. Instrumental agency has a negative effect on age-appropriate diet intake. However, both Intrinsic and instrumental agency, have no effect on healthcare service utilization.
- Age-appropriate diet and healthcare access were linked to improvements in stunting, under-weight, and wasting.
- Both the consumption of age-appropriate foods and seeking treatment from MTPs serve as mediators in the pathway connecting women's empowerment to the improved nutritional status of under-five children who are suffering from ARI.

## CONCLUSION

In conclusion, interventions aimed at enhancing WE through increased resource access including women's education, mass media, and addressing issues like early marriage, teenage pregnancy, and spousal age and education disparities are essential for realizing SDGs pertaining to the food and nutrition security, and health of under-five children suffering from ARI.