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Nutritional Status and Dietary Diversity of Women in The Workforce – A Preliminary Assessment of Farmworkers

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Abstract

Overnutrition is a global health concern. Simultaneously, in low- and middle-income countries, hunger and food insecurity continuous. Over- and undernutrition cause health, social and economic consequences for individuals and communities. The workplace is an effective platform for nutrition interventions to address malnutrition. Understanding and improving nutritional knowledge and behaviour of women in the workforce, can improve their nutritional status and enable them to make healthier food choices for their families.

Nested in an umbrella study, a cross-sectional descriptive design was used to determine the nutritional status of 32 women employed at a cattle farm, before implementing nutrition interventions. Participants were conveniently selected and categorized as underweight (BMI [body mass index; kg/m2] <20), healthy weight (20≤BMI<25), overweight (25≤BMI<30) or obesity (BMI≥30). Women's Dietary Diversity Score (WDDS) was calculated using nine food groups. Pearson's correlation was used to explore the relationship between BMI and WDDS.

All participants (aged 36±5.79yrs) were from a lower socio-economic background. Mean BMI was 31.25kg/m2±6.98, with 28% healthy weight, 19% overweight, and 53% obesity. The mean WDDS was 5.05±1.40 out of 9. Thirteen percent had a low (≤ 3), and 53% a medium (4–5) WDDS, with refined carbohydrates consumed by all. Ninety-four percent consumed at least one Vitamin-A rich food/day: 18% consumed organ-meat and 50% plant-based sources. Ninety-four percent consumed at least one iron-rich food/day: 19% consumed organ meat, 81% flesh meat (chicken/stew), 22% canned fish/seafood. Although not statistically meaningful (P=0.85), a negative correlation (r=-0.04) was observed between BMI and WDDS.

Overweight in South African (SA) women is increasing across all socio-economic groups, partially due to increased affordability/accessibility to foods high in refined carbohydrates and energy. Additionally, similar to SA data and supported by the negative relationship observed between BMI and WDDS, these women are also at risk of micronutrient deficiencies, particularly vitamin A and iron. Dietary diversity can improve micronutrient-intake, however adequate consumption of quality sources are expensive. Education about good quality micronutrient-rich foods, anti-nutrients and food cultivation/production skills may assist in improving nutritional knowledge, intake and status of women and their families.