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# Characterising users of community-based interventions designed to improve the food practices of low-income populations

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Approximately two out of three adults and three in ten children living in Scotland are overweight or obese, which increases their susceptibility to non-communicable diseases such as type II diabetes, specific cancers, heart disease, and stroke<sup>(1)</sup>. The burden of poor diet and its associated health consequences disproportionately affect those living in the most deprived communities<sup>(1)</sup>. Cost of living pressures have exacerbated this issue, making a healthy diet unaffordable for many low-income households<sup>(2,3)</sup>. Thus, promoting affordable and practical ways to help low-income families improve dietary behaviours and achieve a healthy weight represents a priority for Scottish public health policy<sup>(3)</sup>. For such interventions to be appropriately tailored and targeted, it is important to better understand the intended recipients. The present study aimed to assess the dietary practices and psychosocial characteristics of users of Aberdeen City community-based interventions (e.g., food banks, social cafés, community kitchens) designed to support low-income communities in accessing food and engaging in healthier food practices.

From January to June 2023, a cross-sectional survey was conducted employing convenience sampling among users of community-based interventions (N = 105; 73 females) situated in an urban location. The questionnaire assessed diet quality (measured through a short-form FFQ and a 10-point self-rated diet quality item), household food insecurity (HFIAS), mental health (PHQ-4), wellbeing (Cantril Ladder), intention and self-efficacy toward healthy eating, and sociodemographic variables. Data were analysed using descriptive statistics, group comparisons, Pearson correlations, and regression analyses.

Results indicated that community-based food provision users are highly vulnerable to food insecurity and related negative health experiences. Among participants, 53.3% reported severe food insecurity, 18.1% reported moderate levels, and higher food insecurity was significantly associated with higher levels of mental distress ( $r = .41$ ,  $p < .001$ ) and lower well-being ( $r = -.460$ ,  $p < .001$ ). Results also indicated that service users have a diet high in discretionary foods and drinks (26% consume daily > 1 portion of fizzy juice, 18.2% sweets, 16.7% crisps vs. 11.5% fruits and 10.6% vegetables). The mean dietary quality score (DQS) based on fruit, vegetable, oily fish, non-milk extrinsic sugar, and fat intake was 9.48 (SD = 1.90) from a possible 15. In addition, 73.8% of participants rated their diet as unsatisfactory. Both low objective and subjective diet quality scores were also significantly associated with greater mental distress ( $r = -.287$ ,  $p = .005$ ;  $r = -.332$ ,  $p = .001$ ) and poorer well-being ( $r = .19$ ,  $p = .049$ ;  $r = .462$ ,  $p < .001$ ). Notably, service users who perceived their current diet as healthier reported stronger intentions to eat healthily in the future ( $r = .249$ ,  $p = .013$ ).

This study is part of a larger project aiming to optimise community-based dietary interventions for low-income populations. The results provide a clearer picture of the intended beneficiaries of such interventions and highlight user needs that can be prioritised in optimisation efforts.

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## References

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