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Exploring food insecurity and sustainable food in rural India: collaborative learning through student mobility programme

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Four main NCDs identified in India (cardiovascular diseases (CVDs), cancers, chronic respiratory diseases (CRDs) and diabetes) are closely related to behavioural risk factors - unhealthy diet, lack of physical activity, and use of tobacco and alcohol[(1)]. South India (Tamil Nadu state) where the research was conducted faces challenges like the rich-poor gap in access to health, the persistence of high levels of malnutrition, anaemia, and the ever-increasing expectation and demands for public health services from the public[(2)]. Variation and inequality in nutrient intake showed a declining trend[(3)] due to factors such as expenditure on food, household size, and literacy and poverty especially in rural area[(4)]. There is need to determine the food insecurity situation comprehensively in India and plan appropriate policy actions to address it effectively, to attain the key Sustainable Development Goals (SDGs)[(5)]. This pilot study investigated food insecurity and related health behaviours in a rural village in Tamil Nadu. Additionally, collaborative learning (peer learning) was implemented, as both UK and local Indian students conducted this research - UK students travelled to India using the Turing Funding Scheme.

This is qualitative research, whereby researchers from two universities (UK and India) obtained perspectives of the rural communities. Data was collected in two stages: observation of health behaviours (for each family on three different days in a week), where pictures were taken with permission, and followed by face-to-face interviews (with 6 heads of households). A total of three male and three female adults (aged between 28–68 years old, all married and living in an intergenerational family setting) were interviewed for approximately 30-40 minutes and analysed thematically using the Braun & Clarke approach[(6)]. Consensus coding was used to determine invariant constituents, while reliability and validity were achieved through intercoder agreement, audio recording, triangulation, and member checking.

A total of five themes were identified: *Accessibility to food, Influences of culture, Health behaviour and barriers, and Vision for a healthier community*. It was apparent that their food consumption was affected by their economic background, but it was thought-provoking to discover that they were focusing on more sustainable and traditional ways to address food insecurity, such as consuming different millets rather than rice (which were cheaper, sustainable, and nutrient-rich), vegetables and fruits sourced locally, milk, and eggs. Limited consumption of meat and fish, processed food, and snacking was rare. Deficiencies and malnutrition were self-reported during the interview (such as iron and calcium). Limited motorized vehicles were used, and they walked a lot, there was no exercise routine practiced. Social media plays a significant role in influencing their health behaviour.

There is a need for more awareness of nutrition and health through the right channels- social and digital media.

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