

Unravelling the Relationship Between Food Security, Financial Management and Household Food Waste: The Case of Lebanon During the COVID-19 Pandemic

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Objectives: To explore associations between household food security (HFS), household financial management (HFM) skills, and food literacy (FL) with household food waste (HFW) generation during the COVID-19 crisis.

Methods: Data were collected through online surveys and face-to-face interviews with a random sample of households in Lebanon ($n = 323$, January-May2021). HFI and HFM were assessed using the previously validated food insecurity experience scale and a 14-item food literacy behavior checklist, respectively. HFW and FL measures were constructed based on validated tools. Multiple tobit regression was conducted to examine the relationship of HFS, HFM and FL with HFW adjusting for other socioeconomic variables.

Results: Overall, 50.5% ($n = 163$) of the study population reported experiencing moderate to severe FI during the pandemic. Approxi-

mately one-third of participants had low FL score (29.7%) and HFM (34.1%). University education and being employed were both associated with increased HFW ($\beta = 1.730$ and $\beta = 1.246$; $P < 0.10$). Multiple linear regression model showed that participants with high HFM skills score had significantly higher HFW compared to those with lower HFM scores, even after adjusting for significant correlates including education, employment, and crowding ($\beta = 3.758$, $P < 0.01$). However, participants with highest FL score had lower HFW scores (i.e., less food to be discarded) compared to their counterparts ($\beta = -1.652$, $P < 0.05$). Specifically, tobit regression revealed that participants with highest FL score had lower expected waste behavior scores compared to those with lowest FL scores (mean = 13.8[90%CI:13.0, 14.7] vs. mean = 15.5[90%CI:14.6, 16.4]). Severe HFI was also shown to be associated with increased HFW ($\beta = 2.799$, $P < 0.01$).

Conclusions: Improved FL may lead to better cooking and eating practices that are less wasteful (e.g., plan meals, cook on budget, estimate portion sizes, etc.). Findings highlight the need to develop interventions addressing FL and better HFM practices to help improve HFS and reduce HFW.

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