

Evaluating the Association Between Baseline Food Insecurity and Financial Distress in Patients Undergoing Cancer Treatment in Nigeria: Results from the COST-FIN Trial (NCT06630962)

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Background

- Cancer care imposes a significant financial burden on patients, particularly in low- and middle-income countries (LMICs), like Nigeria, where healthcare financing is largely out-of-pocket.
- Concurrently, over 40% of the population experiences food insecurity.
- With over 100,000 new cancer cases annually in Nigeria, the dual burden of limited food security and high treatment costs may worsen financial distress (FD).
- The link between food insecurity and FD is well-documented in high-income settings, however, this relationship remains understudied in LMICs.

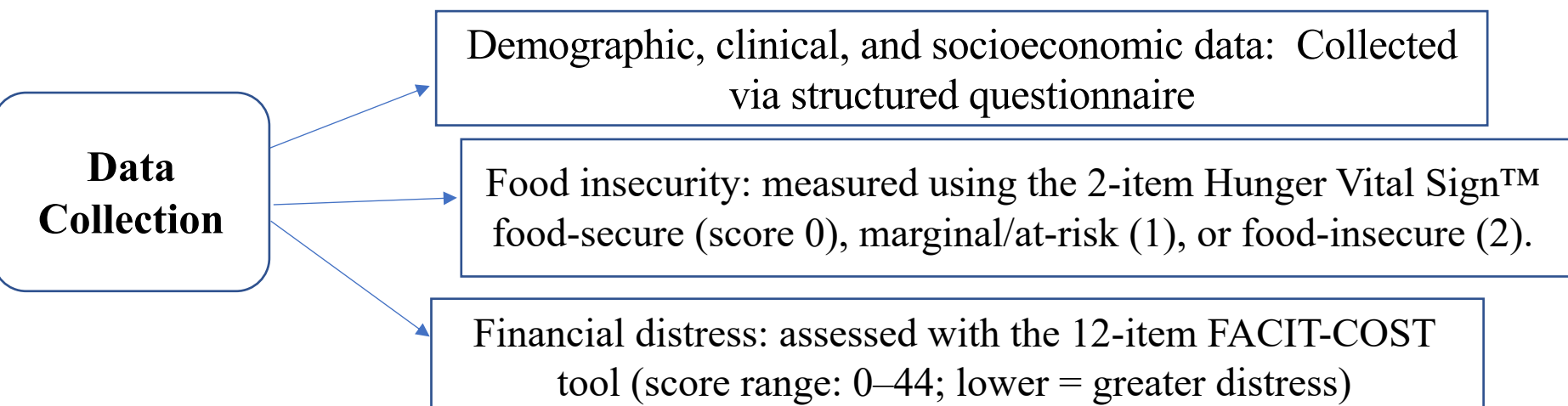
Research Objectives

- To explore the relationship between baseline food insecurity and FD among Nigerian patients undergoing cancer treatment.

Methods

Study Design: Prospective Randomized Controlled Trial

Recruitment: Adult patients (≥18 years) with a new diagnosis of breast, colorectal, or prostate cancer were enrolled within six weeks of diagnosis at a public and a private cancer center in Nigeria.



Statistical analysis: Kruskal–Wallis test, χ^2 or Fisher’s exact test, Spearman rank correlation, and a univariable linear trend model (FACIT-COST ~ food-security score), with significance set at $p < 0.05$

Results

Summary of Results

Characteristic	Result
Sample size	135
Median age (years)	56
Female (%)	65
Cancer type (%)	Breast 64 Prostate 21 Colorectal 15
Food-secure (%)	31.9
Marginally insecure (%)	9.6
Food-insecure (%)	58.5
FACIT-COST β (\pm SE)	-4.3 \pm 0.8 ($p=7.4 \times 10^{-7}$)
Correlation (ρ)	-0.41 ($p=6.5 \times 10^{-7}$)
Personal income (\$)	52 33 31
Household income (\$)	121 59 33

Table 1: Summary of results

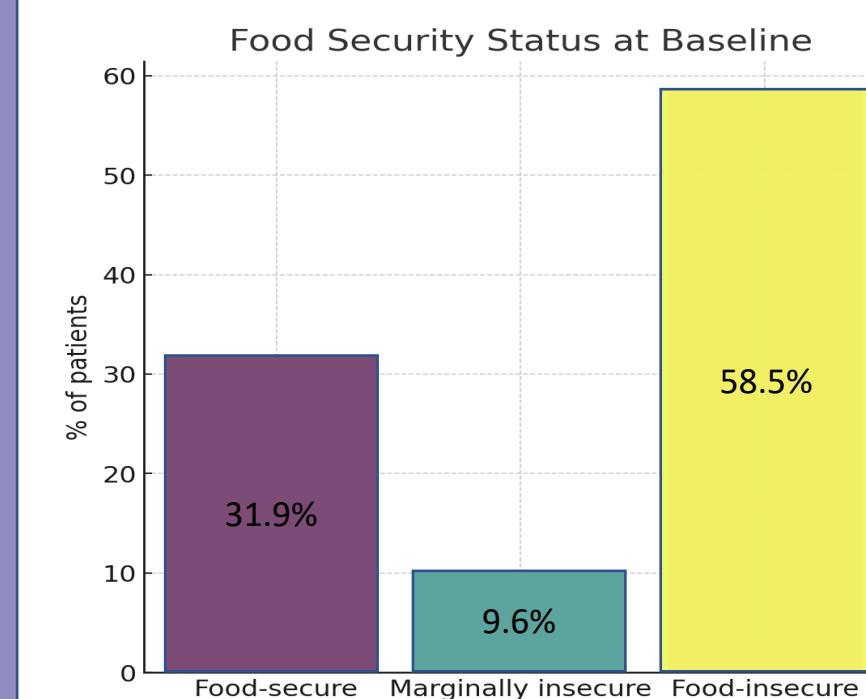


Fig 1: Patients grouped by baseline food security status

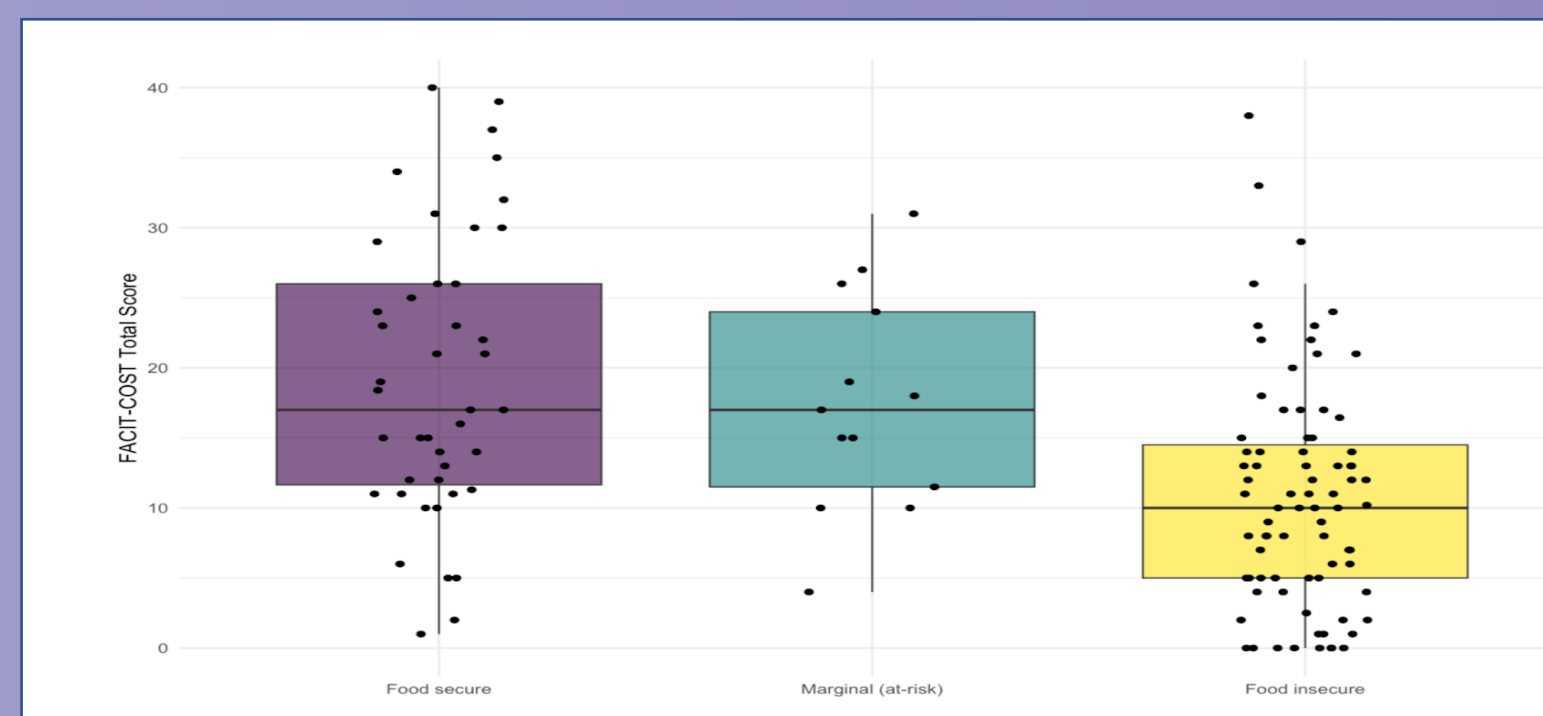


Fig 2: Boxplots illustrate the impact of food security on FACIT-COST total scores, showing that food insecurity is associated with greater financial burden in this sample ($p < 0.001$)

Decrease in FACIT-COST Score by Food Security Level

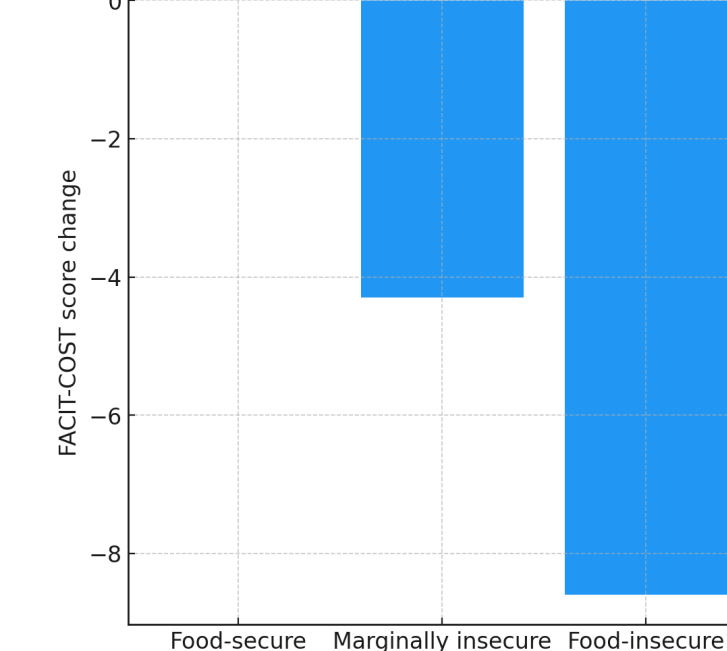


Fig 3: Worsening by one food-security level corresponded to a 4.3-point decrease in FACIT-COST score

Median Income by Food Security Status

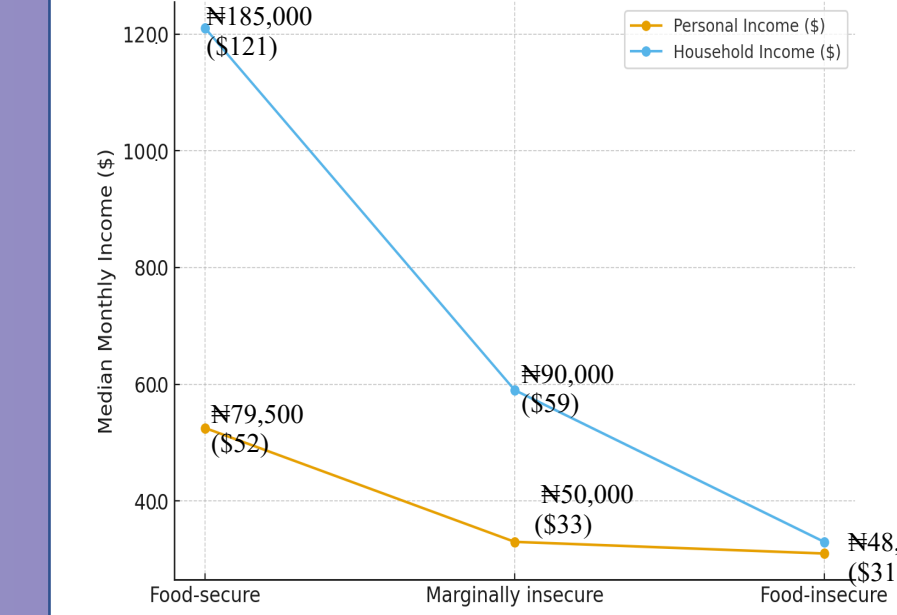


Fig 4: Decrease in median personal and household incomes with worsening food-security

Discussion/Conclusions

- Food insecurity was highly prevalent at diagnosis and strongly associated with financial distress in Nigerian cancer patients.
- Food insecurity is a clear early indicator of financial vulnerability during treatment.
- Routine screening for food insecurity could help identify high-risk patients and guide support services.
- Findings underscore the importance of integrating food and financial assistance into cancer care programs in low-resource settings to reduce treatment-related hardship.
- Findings also provide insights into the some of the challenges faced by cancer patients as well as emphasize the importance of a comprehensive care approach.
- This can potentially inform policy decisions, guide resource allocation, and ultimately improve treatment outcomes and quality of life for some of the most vulnerable populations.

Future Directions

- Given the extent of baseline food insecurity in the Nigerian population, it is important to determine the impact of cancer treatment on food insecurity and financial distress.
- Prospective study to evaluate changes in financial distress and food security status during the course of cancer treatment.
- Introduce a novel financial navigation program for cancer patients in Nigeria.
- Study the effect of financial navigation on the incidence of food insecurity and financial distress.

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