

## Background

Although available data suggests that disruptions in cancer care during the pandemic negatively impacted patients' mental health, it remains unclear how those disruptions have influenced fear of cancer recurrence (FCR) levels.

**FCR:** the fear, worry, or concern regarding the possibility that cancer will come back or progress

## Objective

This study aimed to assess the relationship between disruptions in cancer tests/treatments due to the COVID-19 pandemic and FCR in women with breast cancer.

It was expected that women who experienced changes in their care trajectory would show greater FCR.

## Methods

### Procedure

- This study is part of a larger mixed-methods study aiming to describe the effects of the COVID-19 pandemic in women diagnosed with breast cancer.
- Participants completed online questionnaires between November 2020 and March 2021 (2<sup>nd</sup> wave of the COVID-19 pandemic).

### Participants

**245** women diagnosed with breast cancer in the previous 5 years (2016-2021).

### Questionnaires

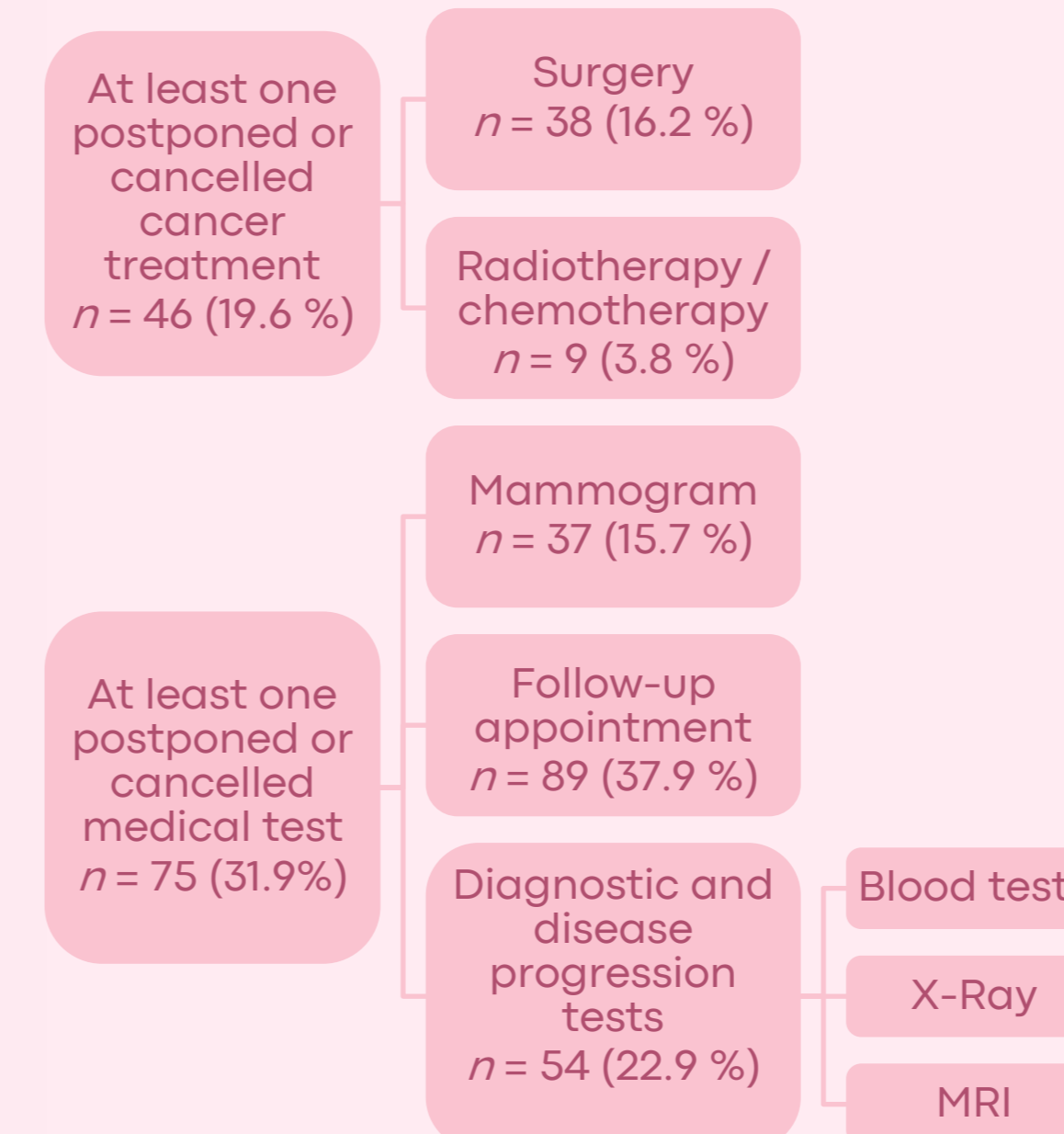
- Sociodemographic and Medical Characteristics
- Changes in Treatments and Cancer Care Appointments (independent variable)
- The severity subscale of the Fear of Cancer Recurrence Inventory (FCRI-S; dependent variable)
  - A score of  $\geq 13$  indicates a clinical level of FCR

## Results

**Table 1.** Participants' demographic and medical characteristics

Characteristics	M (SD)	N (%)
Age (range: 26-77)	52.9 (11.4)	
Time since the most recent cancer diagnosis (years)		
0-1	76 (31.1)	
1-2	61 (25.0)	
2-3	48 (19.7)	
3-4	30 (12.3)	
4-5	29 (11.9)	
Cancer stage		
1-3	194 (79.2)	
4	16 (6.5)	
Did not know/unsure	35 (14.3)	
Postponement and cancellation (overall)		
At least one medical test postponed or cancelled	75 (31.9)	
At least one treatment postponed or cancelled	46 (19.6)	
No postponement or cancellation of any type	114 (48.5)	

**Figure 1.** Independent variables



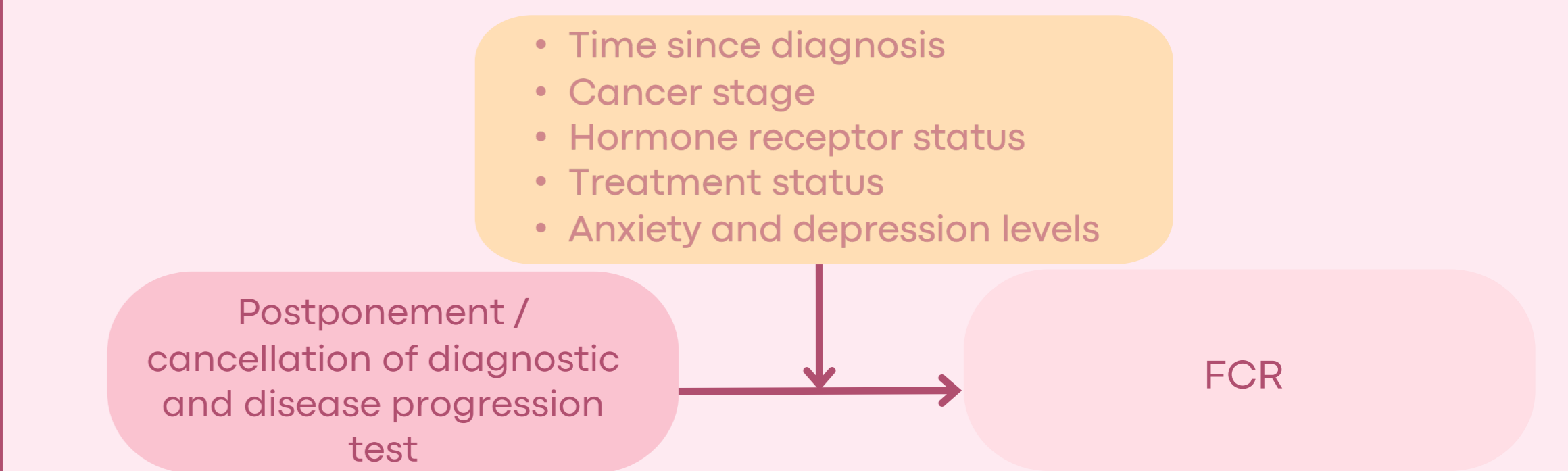
**Table 2.** Mean FCR levels as a function of cancer care trajectory changes and results of generalized linear models

Changes in the cancer care trajectory	FCR adjusted mean	Mean differences	95% CI	Wald $\chi^2$	$p$
Any postponement or cancellation				4.6	0.03
No	16.8				
Yes	18.9	2.1	(0.2 - 3.9)		
Postponement or cancellation of medical tests					
Mammogram				1.6	0.21
No	17.6				
Yes	19.2	1.6	(-0.9 - 4.1)		
Follow-up appointment				2.5	0.11
No	17.3				
Yes	18.8	1.5	(-0.4 - 3.5)		
Diagnostic and disease progression tests				13.4	0.0002
No	17.0				
Yes	21.0	4.0	(1.9 - 6.1)		
Postponement or cancellation of cancer treatment					
Surgery				0.8	0.39
No	17.7				
Yes	18.8	1.1	(-1.4 - 3.6)		

**Table 3.** Proportion of patients with clinical FCR levels and prevalence ratios across cancer care trajectory changes

Changes in the cancer care trajectory	Prevalence of clinical FCR (%)	Prevalence ratio	95% CI	Wald $\chi^2$	$p$
Any postponement or cancellation				1.8	0.18
No	72.0				
Yes	79.9	1.11	(0.95 - 1.29)		
Postponement or cancellation of medical tests					
Mammogram				2.2	0.14
No	74.5				
Yes	84.2	1.13	(0.96 - 1.33)		
Follow-up appointment				1.8	0.18
No	73.2				
Yes	80.7	1.10	(0.96 - 1.27)		
Diagnostic and disease progression tests				15.1	0.0001
No	71.7				
Yes	91.1	1.27	(1.13 - 1.43)		
Postponement or cancellation of cancer treatment					
Surgery				0.7	0.39
No	75.1				
Yes	81.0	1.08	(0.91 - 1.28)		

**Figure 2.** Moderation analysis



- In women receiving or about to receive a cancer treatment, FCR scores were significantly higher among those who reported a postponement or cancellation ( $MD = 7.6$ ,  $p = 0.001$ ), while the effect of postponement/cancellation on FCR scores was significantly less critical in women who had completed their treatments ( $MD = 2.6$ ,  $p = 0.05$ ; interaction  $p = 0.04$ ).
- In women with a subclinical level of anxiety, the proportion of patients showing a clinical level of FCR was significantly different whether they did or did not experience a postponement or cancellation (49% higher when experiencing a postponement or cancellation,  $p = 0.001$ ), while the association between postponement/cancellation and FCR was not significant in those who reached the clinical anxiety threshold on the GAD-7 ( $p = 0.14$ ; interaction  $p = 0.02$ ).

## Conclusions

### FCR mean levels - Partially confirmed hypothesis

- ✓ Mean FCR scores were significantly higher among women who reported at least one postponement or cancellation of a medical test or of a treatment than among those who did not experience any changes.
- ✓ Participants who reported a delay or cancellation of a diagnostic and cancer progression test had a significantly higher mean FCR level than those who did not.

✗ No significant difference was observed in mean FCRI-S scores, whether women did or did not experience delayed or cancelled mammograms, follow-up appointments, and surgery.

### Prevalence of clinical FCR levels - Partially confirmed hypothesis

- ✓ The proportion of women with a clinically significant level of FCR was 27% higher among patients who experienced a delay or cancellation of at least one diagnostic and cancer progression test than among those who did not.

✗ The proportion of women with a clinical level of FCR was not significantly different whether they did or did not experience the postponement or cancellation of at least one medical test or treatment.

✗ No other significant differences were found whether women did or did not experience any other type of change (mammogram, follow-up appointment, and surgery)

These results emphasize the importance of maintaining as much as possible progression tests on schedule to avoid surges in FCR.