

BACKGROUND

- COVID-19 continues to have long-lasting effects on healthcare experiences and health-related quality of life, especially for individuals who are more reliant on frequent medical services, such as those living with a cancer diagnosis.
- We examined the effects of healthcare disruption and psychosocial well-being among people with cancer more than 2 years into the evolving COVID-19 pandemic.

METHODS

- A longitudinal sample (N=173) of adults aged 18+ in the US who have ever been diagnosed with cancer participated in online surveys about their COVID-19 experiences at three timepoints: Time 1 (September – December 2020), Time 2 (June – July 2021), Time 3 (June – July 2022)
- Participants answered questions regarding:
  - COVID-19:** negative impact (1=Not at all negatively impacted; 5=Extremely negatively impacted) and ever testing positive (yes/no)
  - Disruptions in cancer care:** if experienced, how, and why
  - Psychosocial well-being:** PROMIS-29 4-item Depression and Anxiety subscales; transformed standardized T-scores reported
- Frequencies were calculated and within-groups (repeated measures) and between-groups analyses (t-tests) were conducted

PARTICIPANTS

Descriptives at Time 1 (N = 173)		Mean/ n	SD/ %
Age (years), range (32-88)		M=60.4	SD=11.4
Gender			
Woman		139	80%
Man		33	19%
Genderqueer/Non-binary		1	<1%
Race & Ethnicity			
Non-Hispanic White		136	79%
Non-Hispanic Black		12	7%
Non-Hispanic other/Multiracial		12	7%
Hispanic		11	6%
Household Income			
<\$60,000		64	37%
\$60,000 - \$99,999		37	21%
\$100,000+		43	25%
Cancer Diagnosis			
Breast cancers		54	31%
Blood cancers		48	28%
Gynecological cancers		13	8%
Gastrointestinal cancers		10	6%
Other cancers†		38	22%
Years Since Diagnosis, range (<1-49)		M=9.1	SD=8.0
<2 years		24	14%
2 to <5 years		49	28%
≥5 years		100	58%
Current Cancer Status			
Experiencing cancer for the first time		22	13%
Experiencing cancer recurrence/relapse		18	10%
In remission/No current evidence of disease		115	67%
Ever Metastatic		32	19%

† Other cancers reported include bladder, head and neck, kidney, melanoma, prostate, skin, and thyroid, among others. Note: Percentages may not = 100% due to missing data or “prefer not to share” response.

RESULTS

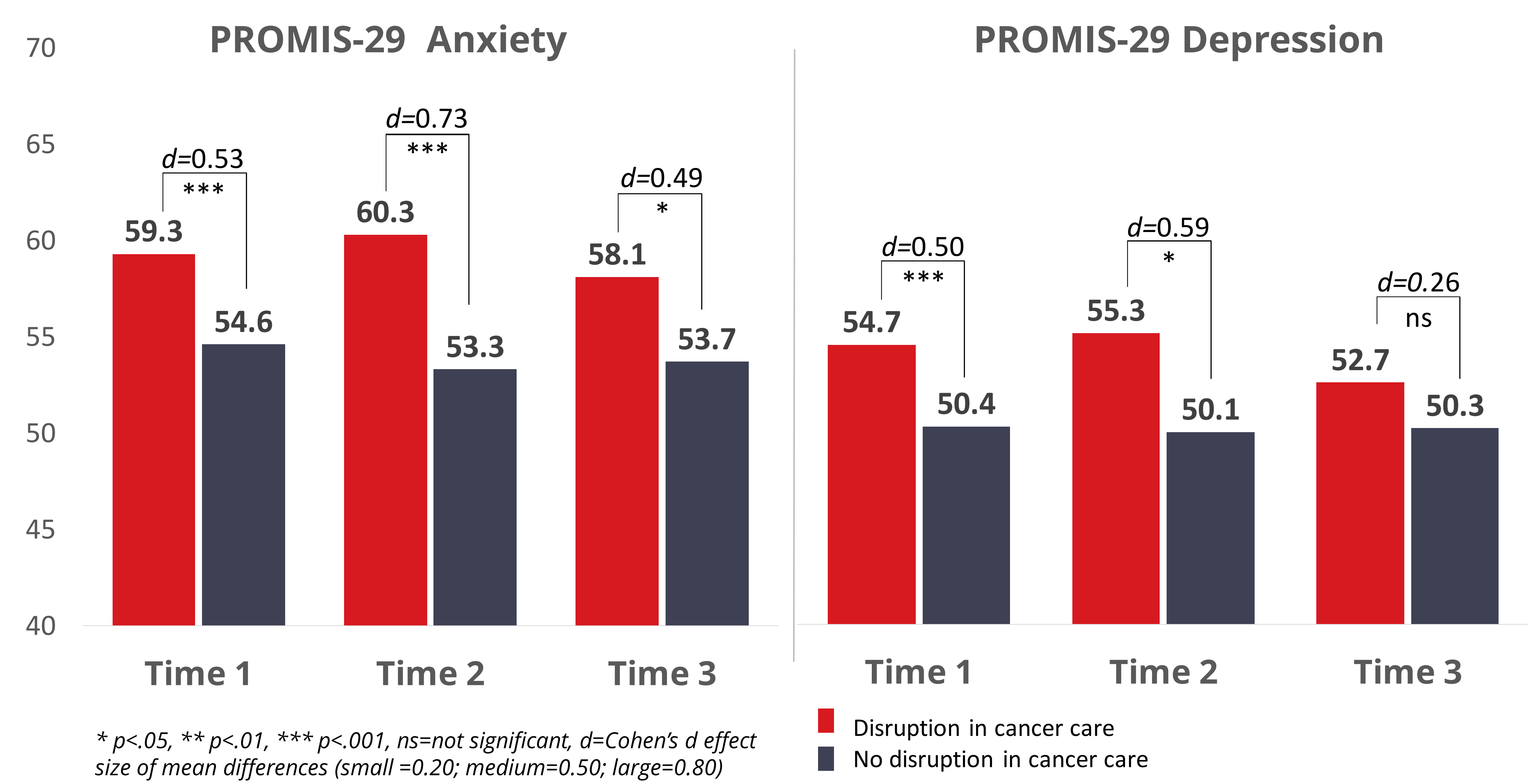
Table 1. Frequency of disruption in cancer care at three time points during COVID-19

	Time 1 Sep-Dec 2020		Time 2 Jun-Jul 2021		Time 3 Jun-Jul 2022	
<b>Had Disruption*</b>	<b><i>n</i></b>	<b>%</b>	<b><i>n</i></b>	<b>%</b>	<b><i>n</i></b>	<b>%</b>
Yes	78	45%	27	16%	27	16%
No	95	55%	142	84%	144	84%
<b>Disruption Type</b>	<b><i>n</i></b>	<b>%</b>	<b><i>n</i></b>	<b>%</b>	<b><i>n</i></b>	<b>%</b>
Routine screening	20	12%	12	7%	8	5%
Imaging service	30	17%	8	5%	6	3%
Lab service	29	17%	7	4%	6	3%
Treatment session	10	6%	1	1%	4	2%
Supportive services	10	6%	4	2%	2	1%
Other type	13	8%	3	2%	2	1%

\*For Time 1 and 2, respondents were asked about disruption in cancer care within last 3 months. For Time 3, time frame was changed to “in 2022.”



Figure 1. Psychosocial well-being across time by disruption in cancer care




CONCLUSIONS AND IMPLICATIONS

- Notably, over 2 years into the COVID-19 pandemic, those living with cancer are still experiencing disruptions in their care despite high vaccination rates.
- While disruptions in cancer care, anxiety, depression, and negative impact of COVID-19 all decreased over time, those experiencing disruption in their cancer care reported worse psychosocial well-being at each of the three time points.
- Our results underscore the continued need for (1) tracking pandemic-related disruptions in cancer care and (2) providing accessible psychosocial support and resources among those experiencing disruptions in their cancer care, due to the ongoing impact of COVID-19.


ACKNOWLEDGMENTS

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Commonly cited reasons for **delay or cancellation of cancer-related appointments** were similar across time:



Provider recommendation



Fear of contracting COVID-19

Despite the **96% vaccination rate** by Time 3, missing a recent cancer-related appointment **due to testing positive for COVID-19** was more frequently reported at Time 3 (31%) than at Time 1 or 2 (4% and 5%, respectively).

Table 2. PROMIS-29 Anxiety and Depression across time for all respondents

	Mean	SD
<b>Anxiety</b>		
Time 1	56.7	9.2
Time 2	54.4	10.0
Time 3	54.5	9.2
<b>Depression</b>		
Time 1	52.3	8.9
Time 2	50.9	9.0
Time 3	50.8	9.0
<b>COVID-19 Impact</b>		
Time 1	3.6	1.0
Time 2	3.3	1.0
Time 3	3.3	1.1

- Repeated measures analysis** indicate a significant effect of Time on Anxiety,  $F(2, 344)=9.459, p<.001$  and Depression,  $F(2,344)=4.967, p<.01$ .
- Pairwise comparisons** show significantly higher Anxiety and Depression at Time 1 compared to Time 2 and Time 3.