

Humanistic burden and mental conditions among cancer patients before and during the COVID-19 pandemic in Japan and China

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Introduction

- The COVID-19 pandemic has caused considerable disruptions in various aspects of daily life, from delaying diagnoses and treatment to halting clinical trials, and diminishing access to psychosocial support.
- Due to the need for regular access to treatment and care, cancer patients may be at risk of increased burden during the COVID-19 pandemic

Objective

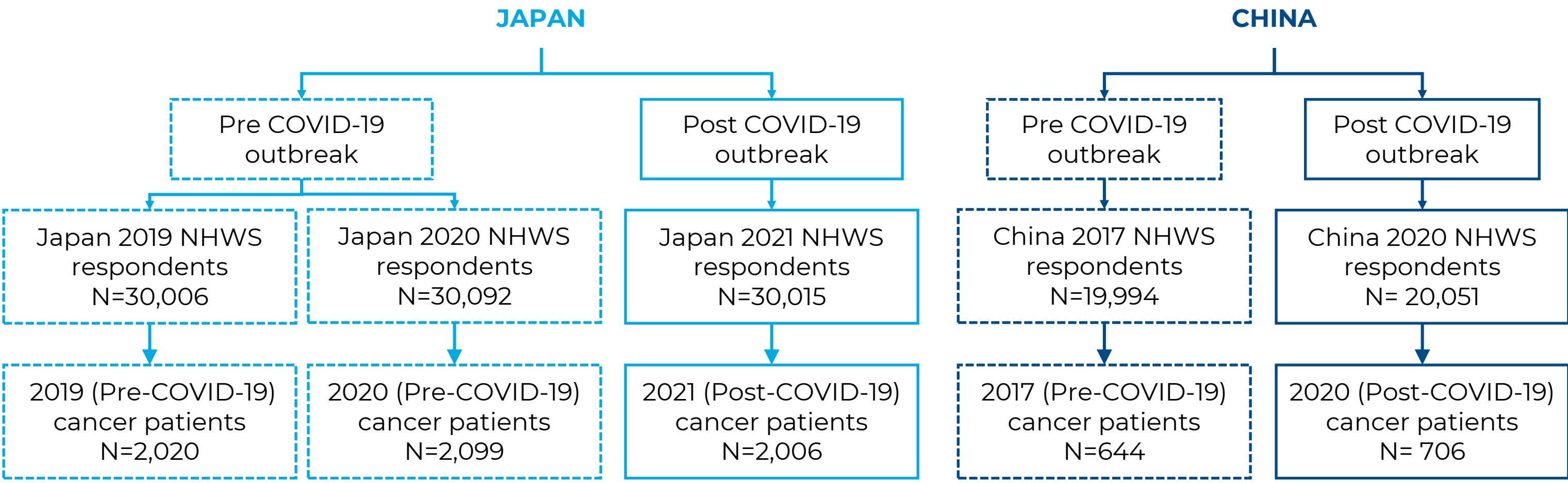
- Using a population-based survey to assess the impact of COVID-19 on the humanistic burden and mental condition prevalence among cancer patients in Japan and China.

Methods

Study design:

- Using existing data from the internet-based National Health and Wellness Survey (NHWS) from Japan and China.
- Inclusion criteria of cancer patients: (a) aged ≥18 years; (b) self-reported physician diagnosis of cancer of any solid tumors and hematologic cancers

Figure 1. Study population flow chart in Japan (left) and China (right)



Results

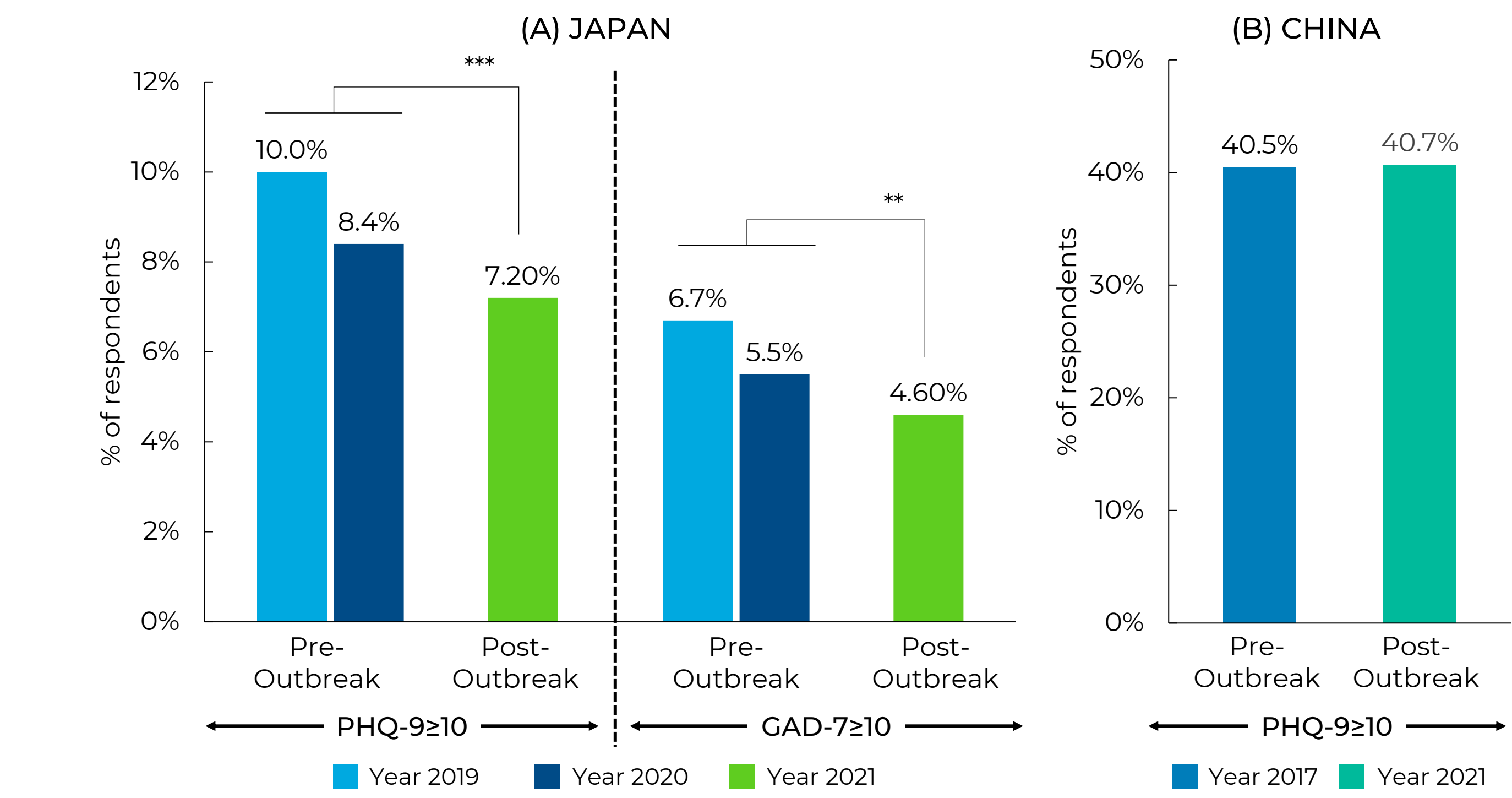
Patient demographics and health characteristics

Table 1. Demographics and health characteristics of patients during pre- and post-COVID-19 outbreak

COVID-19 Outbreak Year of NHWS		Japan			China	
		Pre-		Post-	Pre-	Post-
		2019	2020	2021	2017	2020
Age (years)	<30	13.8%	13.7%	13.8%	24.0%	20.9%
	30-39	13.8%	13.5%	13.1%	17.9%	19.5%
	40-49	17.0%	16.8%	16.8%	21.3%	19.3%
	50-59	16.0%	15.5%	15.5%	18.5%	21.1%
	≥60	39.4%	40.5%	40.7%	18.4%	19.2%
Sex	Male	52.2%	52.1%	48.7%	50.0%	50.5%
	Female	47.8%	47.9%	51.3%	50.0%	49.5%
Education level	University degree	46.6%	44.0%	45.3%	46.9%	49%
Employment status	Currently employed	57.7%	57.2%	56.8%	74.5%	68.6%
	Underweight (18.5<BMI)	11.2%	11.2%	12.0%	9.1%	10.3%
	Normal (18.5≤BMI<25)	66.0%	66.0%	65.1%	66.3%	64.9%
	Obese (25≤BMI)	18.2%	18.3%	18.0%	21.4%	21.5%
Body mass index (BMI)	Decline to answer	4.6%	4.5%	5.0%	3.2%	3.3%
	Never	59.1%	59.4%	62.6%	75.1%	75.1%
	Former	22.9%	22.6%	21.6%	7.6%	7.5%
	Currently smoking	17.9%	18.0%	15.8%	17.3%	17.3%
Alcohol use per week	≤once	64.1%	63.9%	65.5%	81.4%	83.2%
	≥2-3 times	35.9%	36.1%	34.5%	18.6%	16.8%
	Exercise frequency in the past 30 Days	82.1%	80.4%	80.1%	73.4%	69.7%
	0-11 times	17.9%	19.6%	19.9%	26.6%	30.3%
	≥12 times					

Patients' mental conditions

Figure 1. Proportion of cancer patients experiencing depression (Patient Health Questionnaire-9 [PHQ-9≥10]) and anxiety (Generalized Anxiety Disorder, GAD-7≥10) pre- and post-COVID-19 outbreak in Japan (A) and China (B)

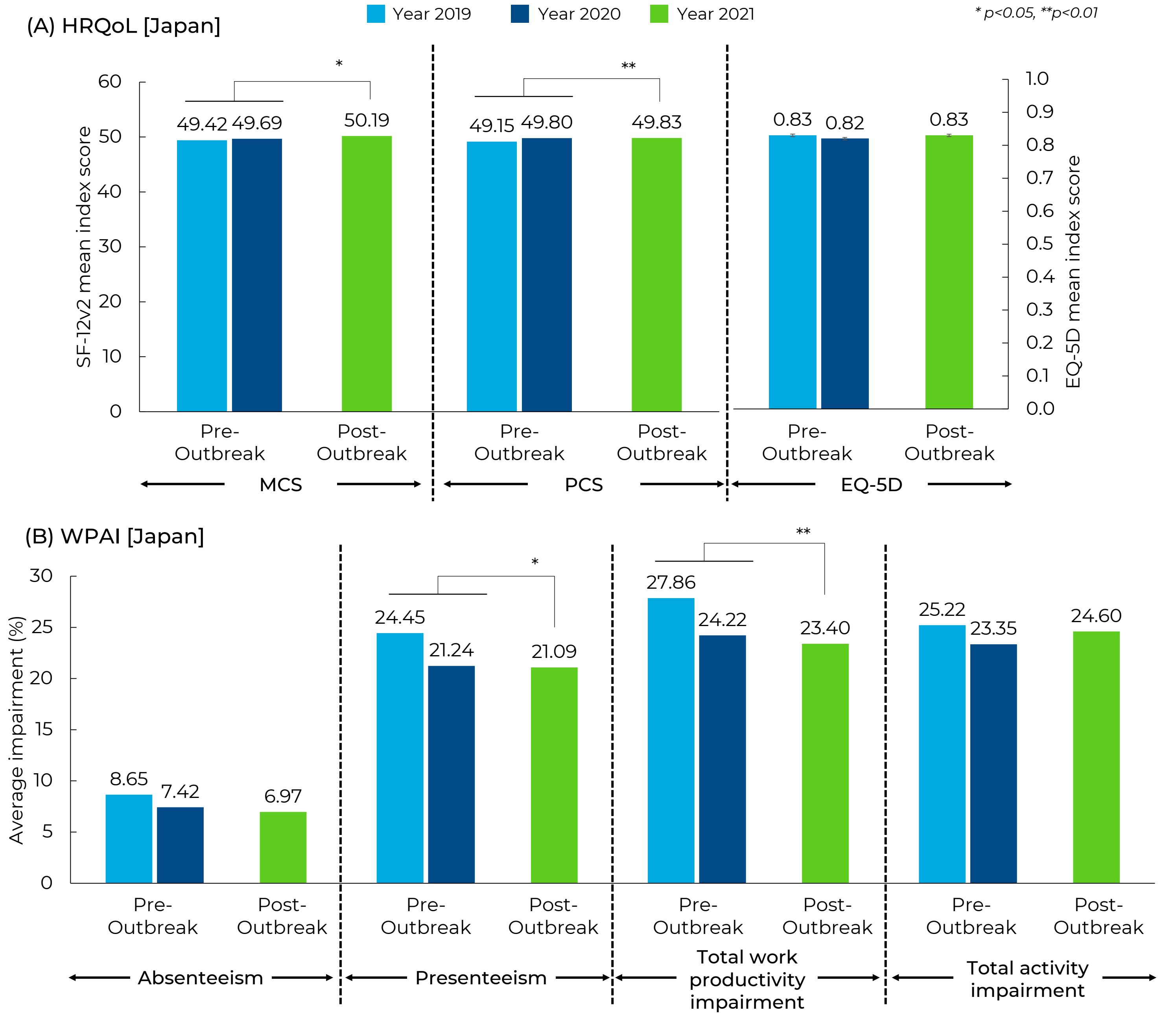


p<0.01,*p<0.001
Note: GAD-7 was not available in China 2017 NHWS

- Less cancer patients in Japan had depressive (PHQ-9≥10) and anxiety symptoms (GAD-7≥10) post COVID-19 outbreak than pre COVID-19 outbreak (Figure 1A).
- No differences observed in terms of depressive symptoms in China pre-COVID-19 vs. post-COVID outbreak (Figure 1B)

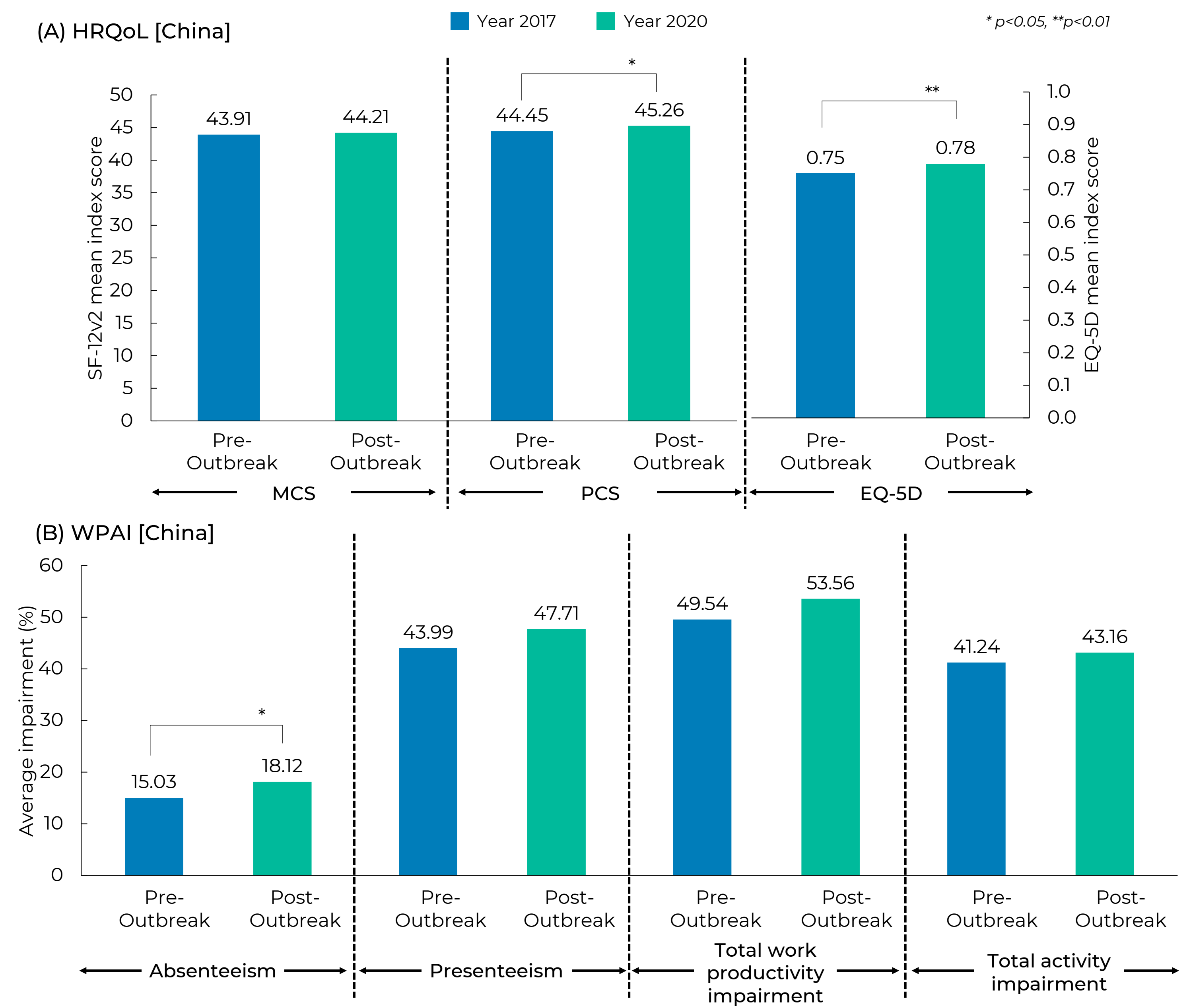
Patients' Health-related Quality of Life (HRQoL) and Work Productivity and Activity Impairment (WPAI)

Figure 2. HRQoL (A, top) and WPAI (B, below) measures among cancer patients in Japan pre- and post-COVID-19 outbreak.



- Increases in mental component summary (MCS) and physical component summary (PCS) and decreases in absenteeism and WPAI were observed among Japan cancer patients post-COVID-19 outbreak (Figure 2).

Figure 3. HRQoL (A, top) and WPAI (B, below) measures among cancer patients in China pre- and post-COVID-19 outbreak.



- Cancer patients in China have increased PCS and EQ-5D scores, albeit marginal; and have higher absenteeism post-COVID-19 vs pre-COVID-19 outbreak (Figure 3).

Conclusion

- HRQoL, evidenced by changes in mental and physical aspects and depression improved during the COVID-19 pandemic in Japan and China.
- Work productivity and impairment were different between both countries with decreases observed in Japan while China showed increases.
- The differences observed between Japan and the two countries could be due to the variations in COVID-19-related policies.