

Effect of elective surgery cancellations during the COVID-19 pandemic on patients’ activity, anxiety and pain

B. M. Sims¹, A. D. Patel¹, B. G. Garnica¹, M. T. Faraj², A. Tang³, T. Parsons³, J. J. Hoegler³ and C. S. Day^{1,3,*}

¹Wayne State University School of Medicine, Detroit, Michigan, USA

²Oakland University William Beaumont School of Medicine, Rochester, Michigan, USA

³Department of Orthopedic Surgery, Henry Ford Health System, Detroit, Michigan, USA

*Correspondence to: Department of Orthopedic Surgery, Henry Ford Health System, 2799 W. Grand Blvd, CFP-6, Detroit, MI 48202, USA (e-mail: cday9@hfhs.org)

Dear Editor

The COVID-19 pandemic forced cancellation of elective surgical procedures as a public health measure¹. While the impact of the pandemic on patients’ mental health has been documented and shown to be unequal between ages, gender and race², the impact of elective surgery cancellations on patients’ physical and mental health is not well

understood³. This study aims to determine the burden of elective surgery cancellations on patients’ physical and mental health symptoms. In addition, it aims to examine how long patients wanted to wait to reschedule their procedure and if there were differences, with respect to impact of the cancellation and rescheduling preferences, among different patient groups. The hypothesis was that a majority of patients

Table 1 Frequency of answers for non-demographic survey questions

Topic	Answer	Frequency (n = 1327)
Affected by COVID-19	Patient or immediate family tested positive	75 (5.7)
	Untested but self quarantined	231 (17.4)
	Neither patient or family member tested positive	1021 (76.9)
Sentiments about cancellation	Extremely disappointed	196 (14.8)
	Somewhat disappointed	268 (20.2)
	Indifferent	98 (7.4)
	Somewhat agreed	298 (22.5)
ADL	Definitely agreed	467 (35.2)
	Much less difficult	12 (0.9)
	Somewhat less difficult	60 (4.5)
	No change	768 (57.9)
Pain	Somewhat more difficult	348 (26.2)
	Much more difficult	139 (10.5)
	Much less pain	27 (2.0)
	Somewhat less pain	103 (7.8)
Anxiety	No change	591 (44.5)
	Somewhat more pain	421 (31.7)
	Much more pain	185 (13.9)
	Much less anxious	91 (6.9)
Rescheduling preferences	Somewhat less anxious	220 (16.6)
	No change	672 (50.6)
	Somewhat more anxious	282 (21.3)
	Much more anxious	62 (4.7)
	As soon as possible	855 (64.4)
	3 months	226 (17.0)
6 months	150 (11.3)	
12 months	66 (5.0)	
Did not wish to reschedule	30 (2.3)	

Values in parentheses are percentages. ADL, activity of daily living.

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will experience worse pain, less ability to complete their activities of daily living (ADLs) and increased anxiety after cancellation. Moreover, that females and minority patients, due to increased fear of receiving treatment, will be more likely to further delay surgery than their counterparts⁴.

This study was carried out at a large multicentre health system, spanning a diverse range of populations, in the midwestern USA. Data were collected using a survey designed by a research consortium of orthopaedic providers employed by the health system's orthopaedic service line. The survey was designed to assess the impact of the COVID-19 elective surgery cancellations on patients. Survey topics included patients' sentiments about their cancellation, change in symptoms and preferences for rescheduling. Study subjects included all patients who had their surgery cancelled due to the pandemic. Data were gathered from 15 March 2020 until 31 May 2020 over the phone by orthopaedic providers. After collection, data were collated in Excel files void of protected health information for analysis. Following univariable analyses, multivariable logistic regression models were used to determine significant independent predictors of outcomes.

There were 1703 patients who qualified for the study and full data collection was achieved for 1327 (77.9 per cent). The study sample consisted of 64.4 per cent female patients 71 per cent of patients identifying as white, and had a mean age of 59 years. Patients most frequently reported no change in pain, ability to complete ADLs and anxiety (Table 1). Additionally, the majority of patients wanted to reschedule surgery as soon as possible after reopening (Table 1). Comparing between demographics, women had significantly worse ability to complete ADLs and more anxiety than men (39.6 versus 32.4 per cent, $P = 0.016$, and 25.9 versus 19.1 per cent $P < 0.001$, respectively). Furthermore, white patients were significantly less likely to delay surgery compared with black patients (odds ratio 0.53 (95 per cent c.i. 0.39 to 0.73), $P < 0.001$).

While these results indicate that the majority of patients experienced no change in symptoms after their cancellation, they also

revealed specific patient groups who experienced negative impacts of the elective surgery cancellation more severely. Female patients who have already been shown to experience worse mental health due to the pandemic¹, displayed more anxiety and less ability to complete ADLs compared with men. Black patients, whose higher rates and worse outcome after the SARS-CoV-2 infection are well documented⁵, chose to delay surgery further significantly more often than white patients. These results display a more severe negative impact of the COVID-19 pandemic and subsequent elective surgery cancellations on women and black patients. Recognition of these disparities is a necessary step towards providing compassionate and equitable care to all patients.

Disclosure. The authors declare no conflicts of interest.

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