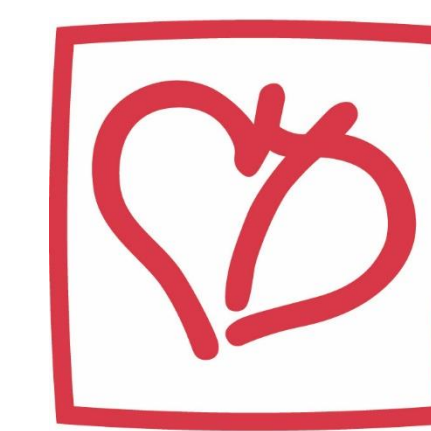




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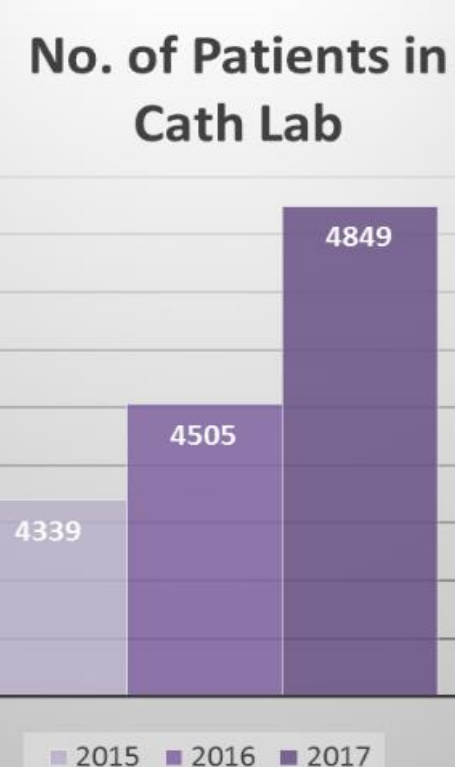
To Reduce Anxiety And Enhance Patient Satisfaction During Cardiac Catheterization Procedures

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INTRODUCTION



The demand for coronary catheterization procedures have been constantly increasing every year. The NHCS Cath Lab sees an average of 100 patients per week. Patients listed for coronary catheterizations are commonly found to be nervous and fearful of the procedure, first timers and repeat patients alike. Before the procedures, patients expressed fear and anxiety and that directly affected their experience. This project seeks to improve patient experience during cardiac catheterization procedures by alleviating their fear and anxiety over physical status, treatment and prognosis of their condition.

This is my first time being in the hospital and they are going to look into my heart while I am still awake.

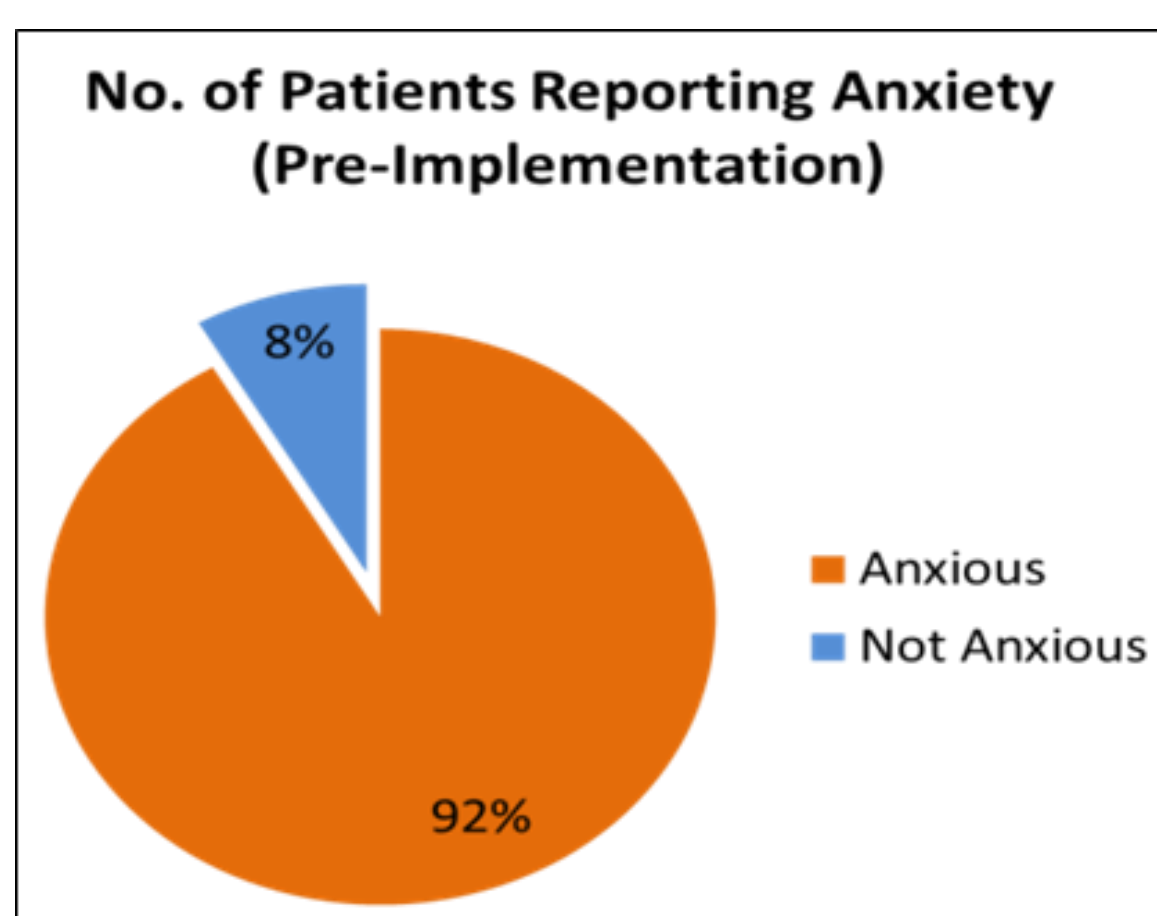
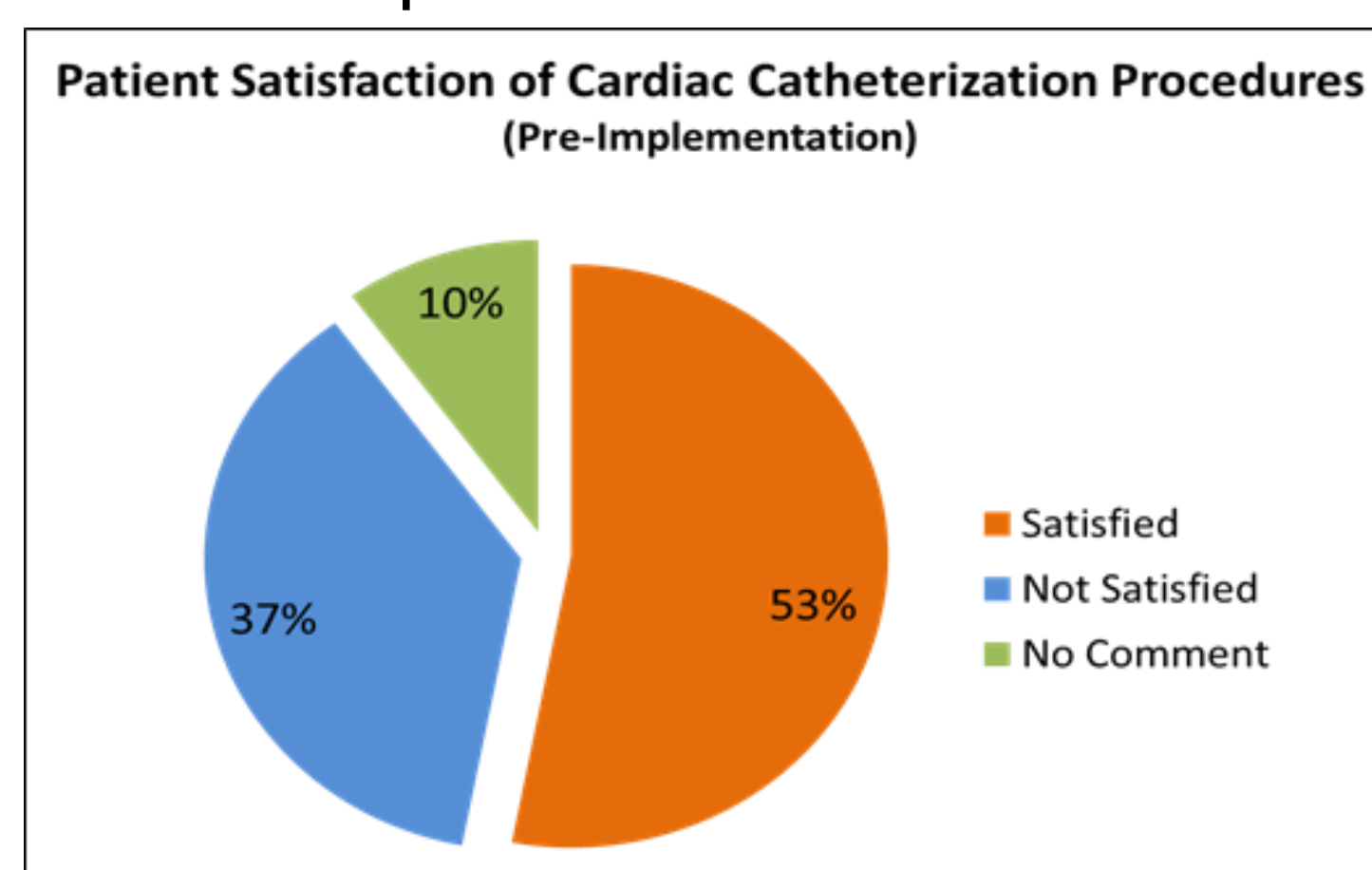
I am worried about the results of my heart procedure.



All the faces here are covered and they look scary.

BACKGROUND & TARGET

We have conducted a pre-implementation survey on a total of 60 patients. Results of the survey showed that 37% of them are not satisfied with the experience and 92% of the patients are anxious during the cardiac catheterization procedure.



To Improve Patient Satisfaction to 90%
To Reduce Patient Interruption Time by 50%

Nurses and doctors often had to pause during the procedure due to interruptions from patients. They will have to attend to the patients' anxiety needs; reassure them, adjust them from their precarious position on the narrow procedure table or remind them not to fidget too much. At times, nurses will need to re-cannulate the diagnostic coronary catheter attached to patients if it disengages when patients move around too much.

METHODOLOGY

Feedback Collection

Qualitative feedback from the survey conducted, suggested that the unfamiliar and cold procedure suite, proximity of the x-ray machines to their faces, the narrow procedure table and the intimidating looking staff in their mask and surgical caps. These were the replies from the patients who underwent the procedures.

Factors Contributing to Anxiety Levels



Analysis and Stakeholders Engagement



The team used the PDCA cycle to guide them through the project stages. Cause & Effect Analysis was used to determine the root causes before the team brainstormed for solutions.

CONCLUSION

Intervention was more successful than anticipated in decreasing anxiety and enhancing patient satisfaction. It has been introduced to the Cardiac Catheterization Laboratory as part of the workflow. Feedback is continuously reviewed so as to seek further improvements.

SOLUTION

The team decided to implement a distraction technique to promote comfort and reduce anxiety by using music as it has proven to be a successful tried and tested method to calm cardiac patients in many studies. In Kolcaba's Theory of Comfort, music has been classified as a comfort measure used to strengthen the patient in an intangible way.



Music Devices	Price of Device	Effectiveness	Cost	Easy Implementation	Total Score
Speakers + MP3 Player	\$75	1	3	1	5
MP3 Player with Wired Earphones	\$40	2	4	4	10
Wireless Earphones	\$120	5	3	4	12

The pilot test ran for a week in Feb 2017 and the result showed that music helped ease the patients' anxiety and distract them from the factors that aggravate their anxiety levels. The result also depicted that anxiety levels were significantly decreased with patients who were given wireless earphones.

Classical, non-lyrical music played through wireless earphones.

- ✓ Distraction from pain
- ✓ Block out unfamiliar sounds

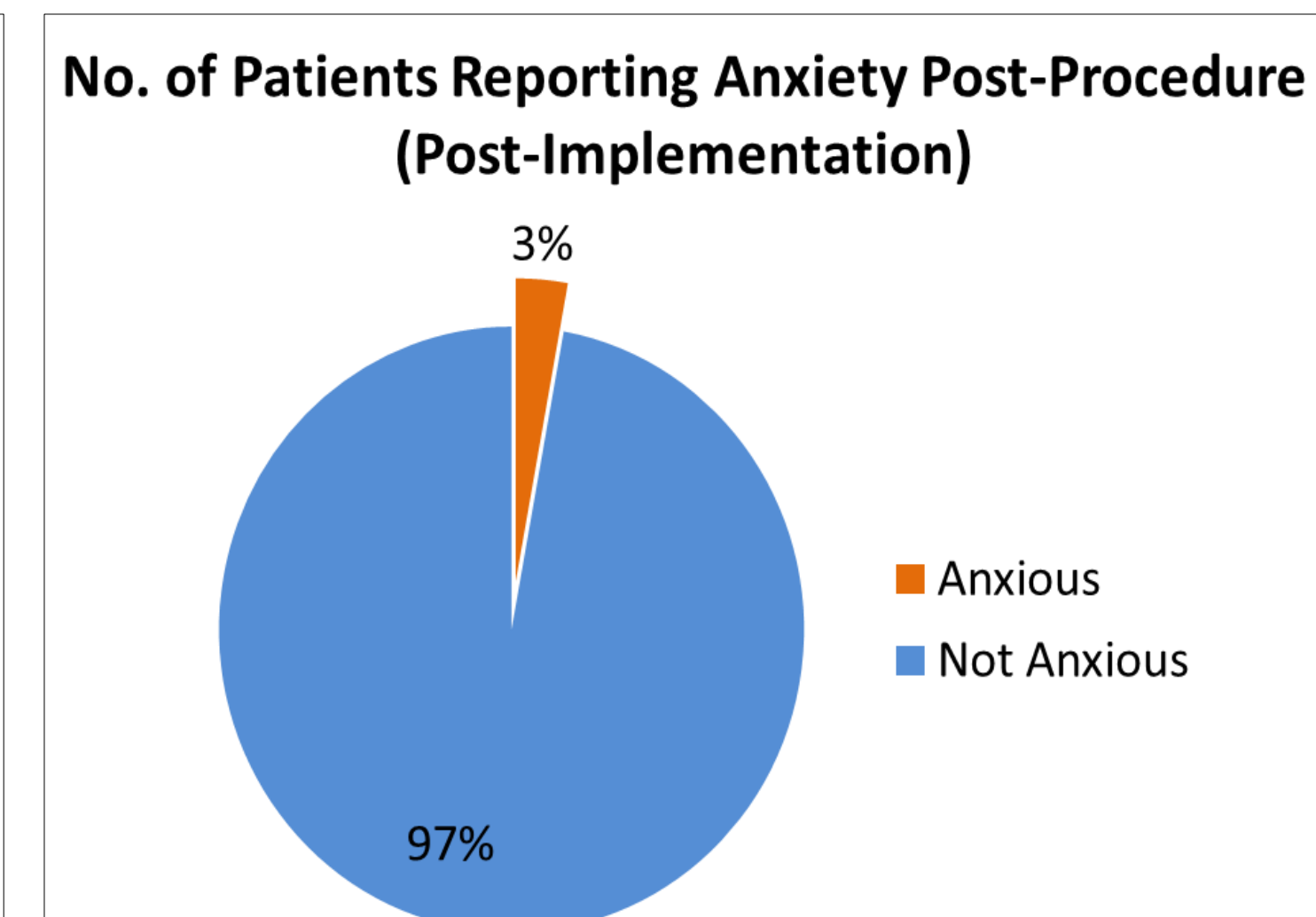
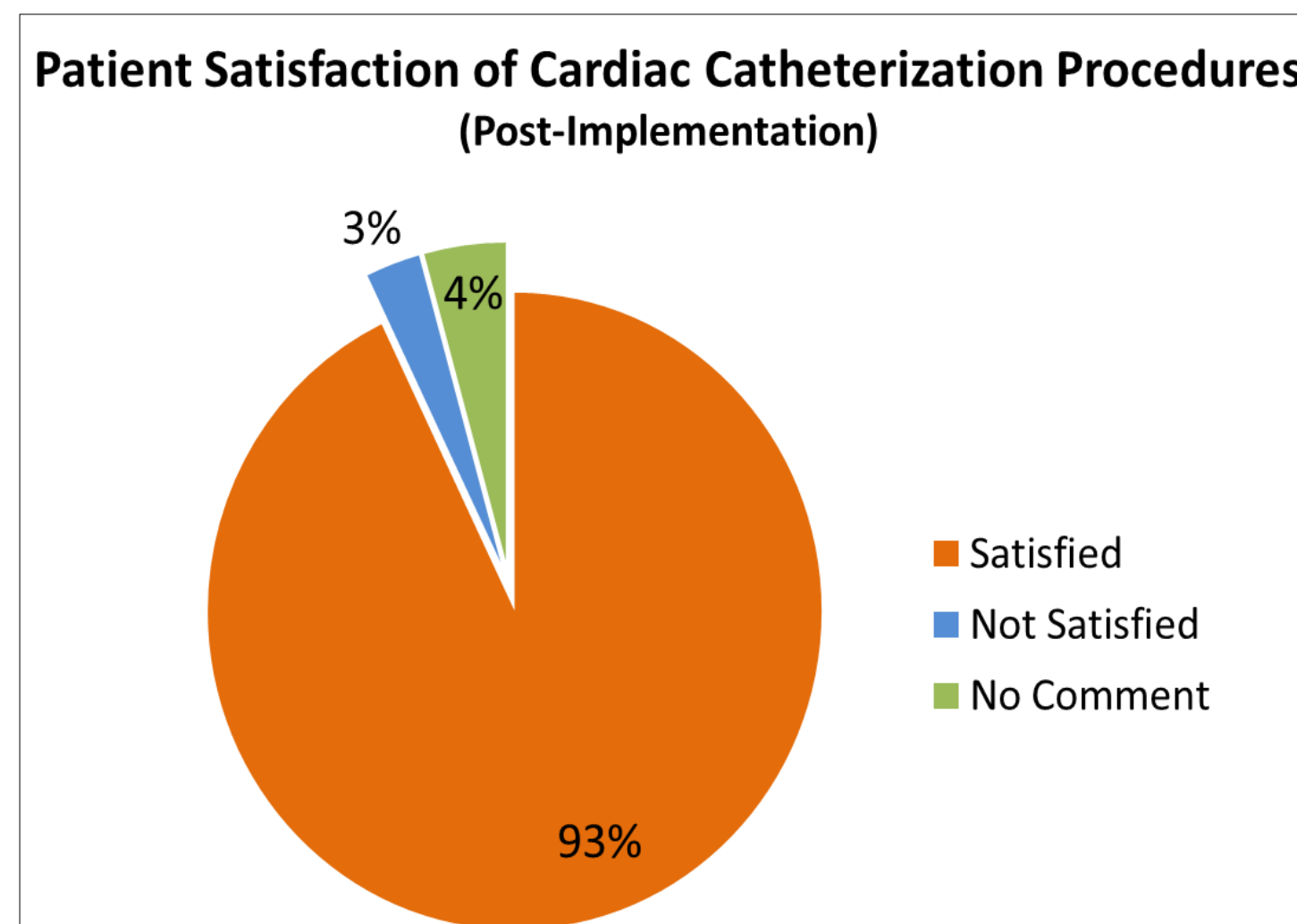


RESULTS

Post implementation survey reported a higher satisfaction level of their cath lab experience.

Satisfaction Rate Improved from

53% → 93%

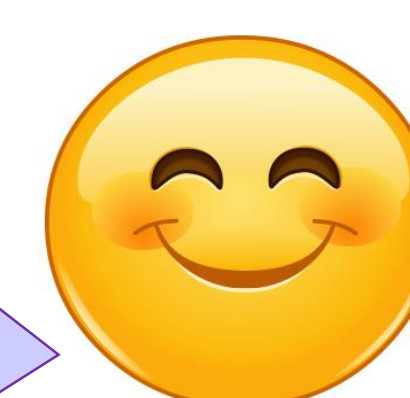


The procedure time is shorter as that there is reduced interruption from patients due to their anxiety.

TIME SAVED = 669 HOURS

Patients' Feedback

It helps me to feel very relax and comfortable.



I heard a lot from my friends who undergone this procedure that it's really painful but I think the music helps me a lot to divert my attention.

I did this procedure twice. This time I did it was music, it felt less painful.

For me, it was helpful because it helps me relax especially because I wasn't able to sleep last night as I didn't know what to expect during the procedure.