

## International Journal of AdvancedResearch in Science, Engineering and Technology

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# SUSH - Stand Up for a Silent Hospital

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**ABSTRACT:** This study highlights the importance of having quiet and peaceful hospital environment for patients since a quiet environment improves patients healing. Heart rate and brain wave activity increase in patients who have disturbed sleep or who do not get enough rest. In fact, hospital noise has an adverse effect on patients' ability to heal since it causes them to react similarly to stress. To curb Culture of Noise, "SUSH – Stand Up for a Silent Hospital" campaign was launched. Various activities to lower the noise level were planned and implemented after assessing the initial situation. At the end of the camping the noise level had reduced from 78 dB (pre-campaign) to 42 dB (post-campaign) around the hospital; measured by using noise control pro app, patient complaints were reduced post campaign and patient satisfaction score improved from 75% (March 2023) to 84.5% (August 2023).

**KEY WORDS:** Patient Complaints, Campaign, SUSH, Silent Hospital, Silence Campaign, Hospital staff, Noise level, Noise in the hospital, and Quiet hospital

#### I. INTRODUCTION

The World Health Organization (WHO) recommends that average patient room noise levels remain around 30 decibels, but the actual average hovers around 48 decibels according to a study by the University of Chicago's Pritzker School of Medicine (April 2010 and May 2011)<sup>1</sup>.

It's well established that silence is needed for optimal rest and healing. Nurses play an integral role in silent healing. Many research articles explain the importance of silence, which can provide a therapeutic nursing presence that demonstrates compassion and respect for the patient. The nurse is a patient health guide in acknowledging, processing, and reflecting on the changes in their health.

#### Objectives of the campaign

- To identify the sources of noise
- To discuss the impact noise has on patients and staff.
- To evaluate measures that help create a silent healing environment.
- To draw & implement interventions to decrease the noise level in patient care areas.

#### II. BACKGROUND

Indraprastha Apollo Hospitals' Department of Nursing recently published a study titled "Shhh... Silent Hospital Helps Healing!" which found that hospitals typically have noise levels between 50 and 80 decibels (dB), which is louder than or equivalent to a chainsaw<sup>2</sup>. It's also proven that post the campaign the noise levels had drastically reduced. Moreover, what adds more to the problems is that despite our findings and the hospital's attempts to correct the situation, noise levels are still not controlled; in fact, it must have increased over the last few years due to the continuous beeping of monitoring alarms, trolleys rolling through the hallways, televisions in patient rooms, telephones, visitors talking loudly on cell phones, nurses tendency to talk loud & casual and endless issues contributing to noise what is witnessed during the leadership walk around. Sadly; patient complaints of noise have become common in the past few months. Indraprastha Apollo Hospital is a tertiary care hospital with a complex setup covering various super specialties and noisy workplace reflects poorly on our Brand. Because of the noisy environment; patients do perceive us to be unprofessional. Noisy environment depicts that our Workplace doesn't promote restful healing.



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#### III. SCOPE OF CAMPAIGN

In view of increased number of patient's complaints based on extreme noise level in the hospital, SUSH (Stand Up for a Silent Hospital) campaign began in the hospital with the aim of reducing patient complaints and implementing various strategies and activities across the hospital in order to reduce noise in patient care areas and provide a healing and calm hospital environment to the patients.

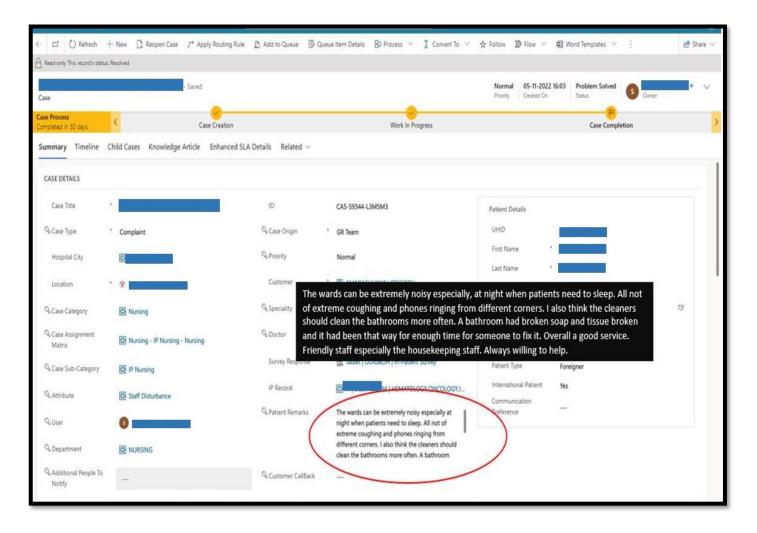


Fig 1: Snapshot of CRM (Customer Relationship Management) portal depicting patient complaint about noise level in the hospital

#### IV. PROPOSED METHODOLOGY AND DISCUSSION

The campaign was launched in March 2023 to reduce the noise level in the patient care areas. This hospital-based campaign was a quantitative research design and this four-week campaign was led by the Department of Nursing and supported by all other departments like doctors, HR, IT, Quality, Finance, Security, CSSD, Housekeeping, OT, Food and Beverages etc.



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## Campaign Activities Stage 1 (a): Initiated the Campaign

- 1. An announcement of the SUSH campaign was made in the departmental meeting. Each team leader from each unit acted as a silent healer. Silent healers promoted silence during shift briefing, by frequent round-ups and by interrupting noise sources, etc. and they also inspired others and fostered the campaign.
- 2. Data analysis of patient complaints of the last six months was done and a contact session was conducted for the staff where the maximum number of complaints reported.





Fig 2: Glimpses of the contact session on silence campaign to sensitize staff of the units where maximum complaints reported

#### Stage 2 (b): Identified Sources of Noise

To accomplish Stage 1, each unit identified controllable and uncontrollable noise factors – is it voices, or equipment? Each unit appointed the Team Leader as the Silent Healer in every shift (Silent Custodian) to identify the source of the noise.

#### **Controllable Sources: -**

- 1. Cart noise (Food Carts, Lab Carts, Housekeeping carts)
- 2. Loud Staff
- 3. Noisy Doors/ squeaky door hinge/ squeaky chair
- 4. Televisions
- 5. Telephones
- 6. Alarm(s), Monitors, IV Pumps
- 7. Noise from staff during Clinical Hand Off
- 8. Shouting across the corridor

#### **Uncontrollable Sources -**

- 1. External source- Noise from outside premises
- 2. Announcements (Activating emergency codes)
- 3. Drills (Fire safety drills)

Each Silent healer filled Table 1 for 1 week. This exercise was conducted to identify the time when the noise was most. It also aids in identifying the noisiest factor.



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#### **Table 1: Identify the Sources of Noise**

Unit Name	Controllable factors (Numbers)	Uncontrollable factors (Numbers)
Morning Sift		
Evening Shift		
Night Shift		
Sum	Total Number of controllable factors encountered in the units	Total number of uncontrollable factors encountered
Most Noisy time	The most commonly encountered controllable factors	The most commonly encountered uncontrollable factors

#### Stage 3: Survey - "SIP IT UP" - Silence is Power

Silent healers/Silence custodians handed out survey questionnaires (Part A) to random five patients and five visitors at the end of their shift for a week. No personal health information needed to be collected. Silent healers explained to individuals the purpose of the survey and their anonymity would be maintained. Individuals filled out the surveys on their own.

SIP IT - Part A (For patient/attendant/visitor)

Table 2: Questionnaire for Patient/Attendant/Visitor

Questionnaires	No noise at all	Moderate noise	Extreme noise
Staff talking in the hallway/ at working station			
Doors opening, closing, slamming			
Nurses socializing at the nurses station			
Telephones and phone conversations			
Loud volume of Radios and televisions			
Others			

SIP IT - Part B (For Staff)



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**Table 3: Questionnaire for Staff Nurses** 

Questionnaires	Yes/No/Remarks (if any)	
Is our hospital noisy? (Yes/ No)		
Do we as staff contribute to the noise? (Yes/No)		
Does noise impacts our patients? If yes, how?		
Do patients complain of noise/ provide poor feedback? (Yes/ No)		
Why do you think our hospital is noisy?		
Have you noticed anyone/ anything making noise? If yes, what?		
Do you think silence promotes healing? (Yes/ No)		
Can we as staff help to make our environment less noisy? (Yes/ No)		
How can we reduce the noise?		
Are you as an individual promoting silence? (Yes/ No)		

#### Activity 1: Signage for Silence

#### Signage-making competition

Inter-departmental activity was conducted to promote silence across the hospital. Each ward participated and created one signage by involving other department members for example, Housekeeping, Pharmacy, F& B, Doctors; etc; Bilingual languages was also used to make them more understandable to the patients. The signage highlighted the theme- "Stand Up for a Silent Hospital". These Silence Signages was kept/ pasted at the entrance. The best Signage awarded at the closing ceremony.

Fig 3: Glimpses of Signage making competition across the hospital





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#### Activity 2: Vow for Silence

Members from different departments took a vow of silence to maintain silence across the hospital.



Fig 4: Glimpses of Pledge taken for Silence

#### Activity 3: Silence Pledge

Every department does a silent pledge led by the Silent healer and the Department of Nursing. Pledge card was made for every 3 categories:

- ✓ Nurse,
- ✓ Patient/ Attendee/ Visitor,
- ✓ and Doctors as shown in Table 4.

  Signatures of all these 3 categories were taken at the back of the pledge card



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Table 4: A pledge to stand up for a silent hospital

As a nurse, I pledge to:-	As a patient/ attendee/ visitor, I pledge to:-	As a doctor, I pledge to:-
Be sensitive to patients, who need rest and silence to recover.	Be sensitive to my fellow patients, I will assure maximum silence during my stay	To provide patient(s) with a more peaceful, quiet environment for recovery.
Encourage them to switch devices off or on silent mode.	Turn my device to silent mode (wherever applicable); will use headphones instead of speaker	To understand and educate others about the impact of silence.
Have conversations with my fellows away from the patient in a "Library voice"	Not speak too loudly to attendees & staff; Limit my movement in corridors.	To Keep hallway conversations to a minimum.
Limit the movement of noisy carts (food carts/ housekeeping carts) to avoid noise.	* Voluntary participation and signatures required	To maintain and promote Silence across the hospital
Take the lead in promoting silence.		* Voluntary participation and signatures required
Signatures (All nurses):-		

#### Activity 4: Nurses against the Noise

Relevant information was communicated through sign language during the charades competition. The purpose of this activity is to teach Nurses about hand gestures which they can use while communicating especially during silent hours (3-4 pm) in order to maintain silence in the hospital.



Fig 5: Examples of Hand gestures



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Fig 6: Glimpses of charades competition

#### Post-Campaign Survey:

During the post-campaign, random audit was conducted by the senior leadership team to assess the staff knowledge on SUSH campaign and also checked the noise level in the patient care areas. Reinforcement training done for the staff on maintaining silence in the units, especially during silent hours (3-4 pm)



Fig 7: Glimpses of random audit by Senior Nursing Leadership team



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*Closing Ceremony/Reward Ceremony:* Recognition given to the Best silent department, unit, best signage, and unit with the maximum pledge signature.



Fig 8: Glimpses of Closing Ceremony

#### V. RESULTS

The campaign led to the following outcomes:

#### A. Reduction in patient complaints based on noise level in the patient care areas

The campaign had an effective impact on reducing the number of patient complaints based on increased noise levels in the patient care areas.

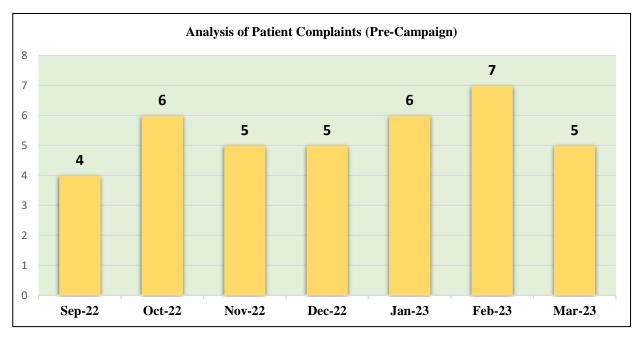
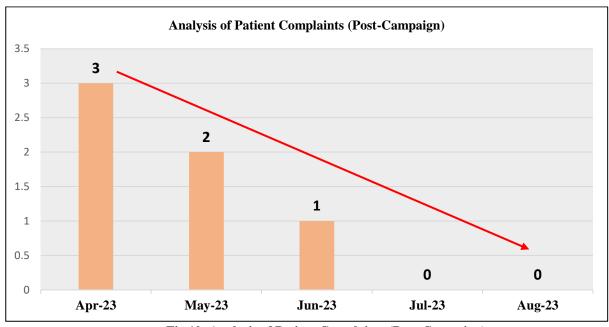


Fig 9: Analysis of Patient Complaints (Pre-Campaign)



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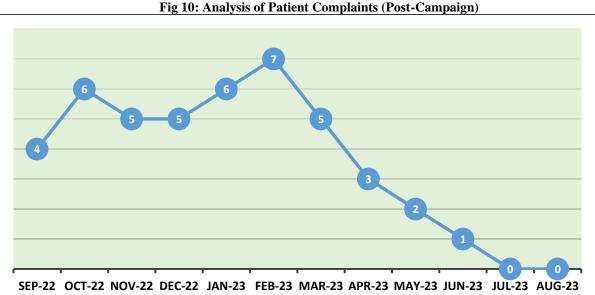


Fig 11: Reduction in Patient Complaints based on staff making noise in patient care areas (Sep'22-Jul'23)

# B. Reduction in the sources of noise (Pre and Post Campaign) SUSH Campaign helped in identifying the most common sources of noise and the most noisy time which gradually reduced post campaign.



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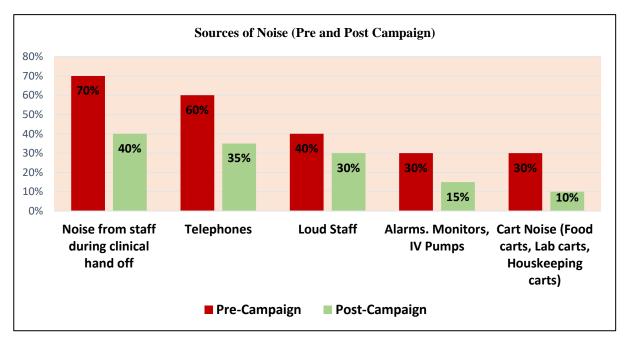


Fig 12: Sources of Noise (Pre and Post Campaign)

#### C. Reduction in the Noise level in patient care areas

Compliance check was done on daily basis to monitor and control the noise level. At the end of the campaign the noise level has reduced from 78 dB to 42 dB in ICUs and wards which was measured by using noise control pro app.



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Fig 13: Noise level was measured by using Noise Control App - Sound Meter

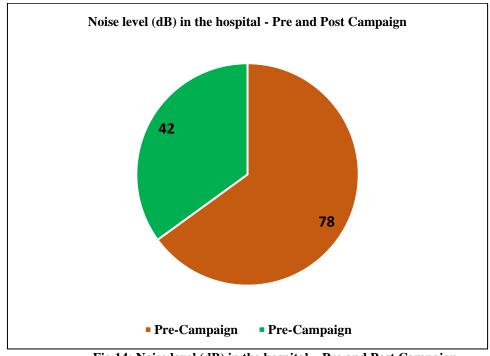


Fig 14: Noise level (dB) in the hospital – Pre and Post Campaign



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#### D. Improved patient satisfaction and their feedback

Our Patient satisfaction scores (Net Promoting Score) improved with a reduction in noise levels in patient care areas.

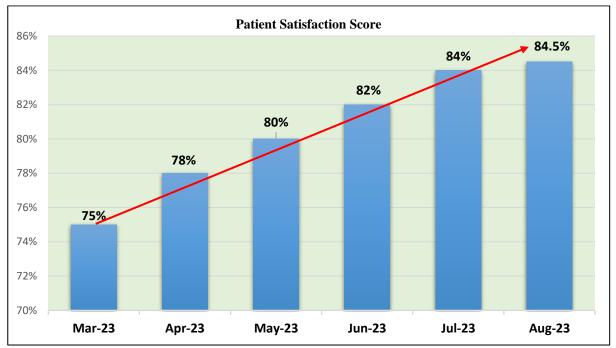


Fig 15: Improved Patient Satisfaction Score

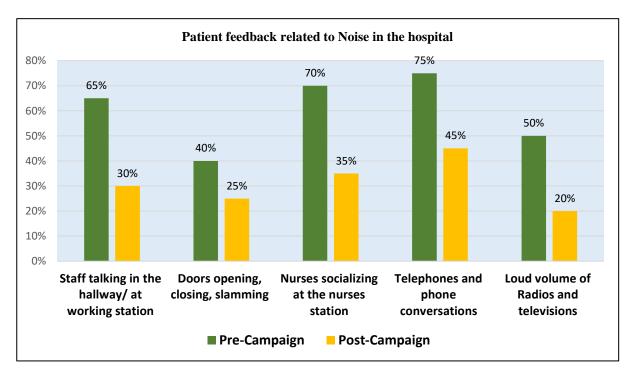


Fig 16: Patient feedback related to Noise in the hospital (Pre and Post Campaign)



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#### VI. CONCLUSION

Through this campaign, the hospital was able to create a calm and peaceful environment which is conducive to recovery as well as an organizational culture that supports patients and families through the stress caused by illness, hospitalization, medical visits, healing, and bereavement. Patients, staff members of the unit, and physicians expressed their gratitude and praise towards the silent hospital. Long-lasting effects were achieved by using thorough and durable monitoring and management techniques to lower the noise level <sup>3</sup>. Results were long-lasting as it helped in reducing the number of patient complaints, reducing the sources of noise, reducing the noise level in the patient care areas from 78 dB (pre-campaign) to 42 dB (post-campaign), and enhancing patient satisfaction score post-campaign.

SUSH campaign concluded that implementing several activities and strategies into practices will significantly reduce hospital noise, resulting in a more comfortable environment for patients to recover and enhancing patient satisfaction.

#### REFERENCES

- 1. https://nycaamn.wordpress.com/2014/09/10/shhh-too-much-hospital-noise-slows-recovery/
- 2. https://www.researchgate.net/publication/321003595\_SHHH\_SILENT\_HOSPITAL\_HELPS\_HEALING

https://pubs.aip.org/asa/jasa/article-abstract/118/6/3629/962743/Noise-levels-in-Johns-Hopkins-Hospital?redirectedFrom=fulltext