

There's Music in the OT

Music relaxes the mind, relieves stress, stimulates the elderly, encourages the depressed and invigorates the tired. And thus, we listen to music not just in our leisure time, or as a way of relaxation, but also when we are doing important work which requires our full mental attention and alertness. We all listen to music while driving. Many writers are known to get stimulated to write better whilst listening to music. And so it is, with surgeons! It is not surprising to hear all types of music emanating from operating rooms across the world, albeit interspersed with the same regular beeps, sounds and alarms of the monitors attached to the patients.

“People’s lives are in my hands and listening to rock puts me in a comfortable place, so my full attention is on my patients,” Alan I. Benvenisty, a vascular and transplant surgeon at the Mount Sinai Health System, told Spotify. “I listen to bands from my youth and the feeling of nostalgia brings me to a calm, focused place.”

It is not uncommon for doctors to put on music while in the operating room – many of those surveyed said it helps them relax. Most of the surgeons surveyed said they preferred listening to playlists over albums while few even added that they had more than five playlists in their device.

Classical music when played with a low to medium volume can improve the surgical task performance by increasing both accuracy and speed. The effects included a more relaxing and pleasant environment, more accurate and precise performance of tasks, a decrease in the mental workload and task completion time, increased situation awareness, a reduction in stress and anxiety and improved memory consolidation. Most studies reported positive effects of music on the surgical team during surgery. These results indicate that it may be possible to improve the performance of the surgical team during surgery

while playing controlled music.

The volume of the music played also had a tremendous effect on the mood of the OT staff. In a study, of the total study population 59% of the respondents preferred medium volume while 41% preferred low volume of music in the OT. It was evident that the staff would not let music compromise or interfere with the technical aspects of patient care or competence.

Doctors don't always get to choose what they will listen to – patients get the first pick of the music in operations where they get to stay awake. "If they have a preference, we go with what they want," one of the doctors told the study researchers.

Among a study group 62% of the respondents thought that music helped in reducing anxiety of patients before anesthesia, though 28% could not offer an opinion. Of the study population, 42% of the respondents thought that music made the patient feel less fatigued. Among the respondents 63% agreed that music produced a sense of familiarity in a strange environment for the patients, giving them emotional backup for the surgery.

The questionnaire-based assessment also revealed that most of the study population (58%) preferred instrumental music. The concept of music decreasing pain and discomfort in patients was consented by 38% of the respondents although 34% could not offer an opinion. Hawksworth et al in their study had deduced that 26 % of their study population felt music

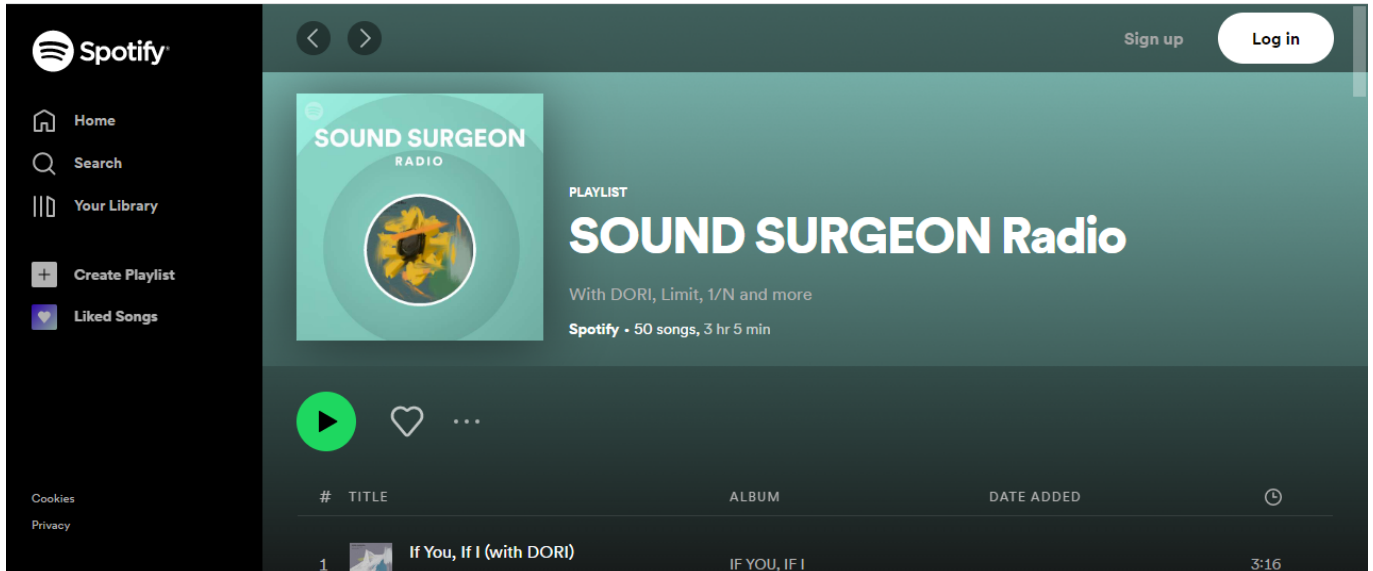
restricted their communication with other staff in the OT,[2] which was almost like our study finding where 28% agreed to the same. Our study revealed that 59% of the respondents thought that music helped in reducing their autonomic reactivity in stressful surgeries thus calming them down and allowing them to approach their surgeries in a more thoughtful

and relaxed manner.

Its effect has been measured in terms of its impact on the person's heart rate, blood pressure and respiratory rate. It reduced the severity of pain and the need for analgesia in people with acute or chronic pain. It was found to improve cognitive function in terms of behavior, eating and minimized the need for physical restraint for people with dementia.

The effect of noisy environments produced by medical equipment in OTs and critical care units on patients was also found to be minimal when music was played in such settings. Patients and hospital visitors were more satisfied with the care provided. It improved mood and feeling of wellbeing for a range of different patient groups. It enhances the tolerance level of people to unpleasant or invasive procedures, such as insertion of intravascular lines, surgical interventions, burns, dressings, and chemotherapy.

During critical moments in the operation, however, music is turned down. A tempo around 60-80 beats per minute was found to be the best for creating relaxation. A higher tempo acted like a "driving input", which resulted in increased heart rate, blood pressure and respiratory rate. Studies have found that (in India) instrumental music was the most sought-after type of music; followed by FM radio, Hindi ghazal, English country, English classical and Hindi classical in that order. However, Ulmann et al found classical music as the most preferred type of music. Our study showed that OT staff preferred music with entertainment value and humor which came in generous proportions with FM radio.



A joint study between Spotify and **Figure 1** research company found that over 90% of surgeons put on music while in the operating room and, for 49% of those doctors, rock is the most popular genre. Other popular genres included pop (48%), classical music (43%), jazz (24%) and R&B (21%).

The distracting effect of music should also be put in consideration when playing a loud or high-beat type of music in the operating theaters. Negative effects of music during surgery have a negative impact on task completion, poor auditory performance and increased likelihood of having to repeat requests. Speculation about music restricting the communication with other staff in OT was set aside with the results showing 66% of the respondents disagreeing with aforesaid theory and 28% agreeing to it.

It could cause distraction thus may be hazardous in the OT settings. It can restrict communication with other staff members and could be a nuisance in an emergency scenario. It could interfere with hearing the patient's breathing and important alarms. It could lead to unnecessary wastage of time in the form of time spent on selecting songs, adjusting volume, etc.

Hence playing music in the OT is not to be considered a trivial matter but the pros and cons of the same need to be

weighed with utmost care because it is an important determining factor in the outcome of the patient care, especially when the patient's life remains at stake on the operation table. Our study has reinforced the benefits of playing music in the OT.

Although beneficial effects of music on surgical performance have been observed, there is insufficient evidence to definitively conclude that music has a beneficial effect on surgical performance in the simulated setting. Future studies should be conducted using greater numbers of participants focusing on a more limited range of tasks, as well as validation in the live operating environment.

But till then, there will be Music in the OT. In an operating room in a Children's Hospital in USA, the Music not only relaxes the surgeon and makes him perform better, but the music also tells you what's happening inside the OT – because if it's the saxophone or the Flute the surgeon has just started the surgery, if it's the piano then he's halfway thro and if one hears drums and rhythms then you know that the surgeon is closing and the surgery is nearing completion !!

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