Treatment of psychiatric patients suffering from anxiety using MusiCure – a pilot study

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Summary
Between 1. November 2003 and 1. March 2004, a pilot study was carried out in the two open wards and the closed ward of the psychiatric department at Horsens Hospital. The goal of the study was to investigate whether the use of specially-designed music (MusiCure, 'music as medicine') would have a positive effect on patients suffering from anxiety and distress. Thirty patients were treated using MusiCure one or more times, and 26 demonstrated a positive effect from the treatment: they calmed down and/or fell asleep. One patient demonstrated no effect, and for three patients the treatment had a negative effect. Interviews with patients and nursing staff showed that the use of MusiCure relieved anxiety, either used alone or in combination with on-demand medication and/or a ball blanket. Conclusion: that the combined results of the study suggest that MusiCure can be used to treat both psychotic and non-psychotic patients, and that MusiCure used in isolation or in combination with a ball blanket might be an alternative to the use of on-demand medication.

Background to the project
Psychiatric patients suffering from anxiety are normally treated using on-demand sedative medication and personal contact with staff. In recent years, focus has been given in the medical field to using music to "influence patients' physical, mental and emotional state, before during and after treatment with medication" (Brucia in Bonde et al, 2001). Studies have shown that specially-designed music (MusiCure) consisting of natural sounds and acoustic instruments (oboe, harp and cello) combined with sampled and electronic sounds have a very relaxing and calming effect on patients during post-operative recovery, and on patients undergoing invasive cardiography procedures (Schou 2003, Hansen et al.2003, Thorgaard 2003, Musica Humana 2003, Thorgaard & Thorgaard 2003). Eighty to ninety per cent of patients questioned in Thorgaard's (2003) study described the music as pleasant or very pleasant. Patients indicate that the music (composed by Niels Eje) causes them to feel less tense, and more relaxed and comfortable. According to Thorgaard (2003), MusiCure has the same therapeutic effect on patients, irrespective of age (18 years +) and gender.

Goal of the pilot study
The primary goal of the pilot study was to investigate whether the use of MusiCure alleviates anxiety in psychiatric patients admitted to both open and closed wards.

Problem formulation
Is MusiCure a practical means by which to reduce anxiety in psychiatric patients?
What **indications** are there for using MusiCure? When and why? What **effect** does MusiCure have on psychiatric patients suffering from anxiety? How do patients **experience** MusiCure? Which psychiatric patients might benefit from MusiCure and which do not?

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Target group
The target group for the study was all patients admitted to the two open wards and the closed ward, which nursing staff believed might benefit from treatment using MusiCure.

Project implementation
The background for the pilot project was presented at interdisciplinary staff meetings during September and October 2003. The questionnaire study was carried out between 1. November 2003 and 1. March 2004. Each of the three wards were provided with a CD player, MusiCure CD 1 ("The Journey" 2003) and, after 7. December 2003, CD 2 ("Equator" 2003), along with a folder containing background information about MusiCure, instructions for using MusiCure, and forms for documenting results.

The nursing staff decided in each case whether the use of MusiCure was indicated, and have been responsible for trialling MusiCure.

The method and design of the study
The project involved quantitative and qualitative data collection methods in a triangulated study design (Haugaard 2001).

Nursing staff recorded the results from the use of MusiCure on the forms provided. The following information was recorded: patient name, age, diagnosis, treatment date and start/stop time, treatment number, treatment indication (e.g. anxiety, unease, distress, stress), description of the effects of the treatment (e.g. whether the patient relaxed, fell asleep, showed no effects, or became distressed/tense). After they had listened to the music, the nursing staff asked the patients how they had experienced the treatment, with the following response options: very pleasant, pleasant, neutral, unpleasant, very unpleasant. Results were recorded for the treatment of 30 patients.

The qualitative component of the study consisted of semi-structured interviews with nursing staff and the three ward sisters regarding their experience with MusiCure, as well as interviews with seven patients who were using or had used MusiCure at the time of the interview.

Patients were asked to specify when, why, and for how long and how many times they had listened to MusiCure, whether they had received sedative medication at the same time, and whether they had used a ball blanket. Patients were also asked to describe how they experienced the music, what effects it had on them, what impact they believed it had on their stay in hospital, and whether they would like to use MusiCure at home after being discharged.

Results
Results were recorded for the treatment of 30 patients using MusiCure: eight patients in the closed ward and 22 patients in the open wards, divided as follows: 19 women and 11 men. 15 patients aged 20-40, 12 patients aged 40-60, and three patients over 60 years old.

Results were recorded for a total of 60 treatments: 20 patients received one treatment, five patients received two treatments, three patients received three treatments, one patient received six treatments, and one patient received 15 treatments.

Most MusiCure treatments took place during the evening/night (30 treatments) and afternoon (20 treatments). Indications for treatment have been: anxiety, unease, distress (due to hearing voices/anxiety inducing thoughts) and insomnia.

26 of the 30 patients demonstrated the desired effect and had a positive experience of the treatment. Patients relaxed, calmed down/fell asleep, and experienced the music as pleasant or very pleasant. This was the case for 10 patients diagnosed with schizophrenia, five patients diagnosed with depression, four patients diagnosed as psychotic; three patients diagnosed as borderline, and for each of the patients diagnosed as manic-depressive, schizoaffective/psychotic, emotionally unstable personality, delirious, dementia and PTSD. One patient diagnosed as having paranoid schizophrenia demonstrated no effect from the treatment and reported a neutral experience of it. Three patients diagnosed with depression, personality disorder and 'under observation' demonstrated undesirable effects and reported that the music had been an unpleasant or very unpleasant experience.

Results from interviews with seven patients regarding their treatment with and experience of MusiCure

Five of these seven patients demonstrated positive effects from the treatment, one patient demonstrated both positive and negative effects, and one patient demonstrated a negative effect. All seven patients have become aware that music (either MusiCure or another form of music of their choice) can be used to induce calm and reduce their anxiety. The five patients who demonstrated positive effects from MusiCure felt that the music had helped the treatment process, and are considering using music for relaxation after discharge.

A 24-year-old man diagnosed with Schizophrenia received about 10 treatments in the evening. He sometimes received on-demand medication in conjunction with MusiCure, and during the first week he used a ball blanket, and then a normal quilt thereafter. He found the music very relaxing and pleasant. He felt it was "nice to hear sounds from nature because they stimulate the imagination, bringing to mind images of nature such as forests and rivers".

A 20-year-old man diagnosed with Paranoid Schizophrenia used MusiCure four times in the evening, "when I felt stressed… and had annoying thoughts about violence and death". He found that the music helped him to relax.

A 32-year-old woman diagnosed with Depression is receiving ECT treatment and uses MusiCure when she has unpleasant thoughts and needs help to relax. At the time of the interview she had used MusiCure seven times, starting on the first day she was admitted and then every evening/night thereafter. She received on-demand medication to begin with, but now manages without it. She uses a ball blanket in conjunction with MusiCure. The patient is unable to describe her experience of the music, but says it seems relaxing and pleasant, “when I want to be distracted from unpleasant thoughts”.

A 26-year-old man diagnosed with Psychosis used MusiCure for five nights, together with ondemand medication and a ball blanket, “when I lie there and my head is full of thoughts at night”. He finds that “the music takes away some of the thoughts, so that I think about the music and the sounds instead”.

A 21-year-old woman diagnosed as having a disturbed personality structure tried MusiCure once at night because she could not sleep. She also received on-demand medication and used a ball blanket. The patient found the music to be soothing, and cannot describe it more than that, but says "I would like to listen to it again if I need it".

A 20-year-old woman diagnosed with personality disorder tried MusiCure approx. four times when she had anxiety attacks. She also received on-demand medication and used a ball blanket on each occasion. The patient described the music as “annoying and weird”. She became more distressed and tense from listening to MusiCure. “It is not what I consider relaxing music; it has reinforced my own taste in music.”

A 21-year-old woman diagnosed as having an emotionally unstable personality structure has tried MusiCure approx. five times in order “to calm down and be soothed”, sometimes in conjunction with restrainment. She also received on-demand medication and used a ball blanket. She remembers that she asked for the music to be switched off on a couple of occasions, but that she also found the music relaxing sometimes. She associates the music with being restrained and is therefore not enthusiastic about using MusiCure. However, during the interview she was considering using it again it, if she needs to be calmed down. She otherwise uses a wide range of music for relaxation.

Results from interviews with nursing staff

The overall experience of the nursing staff with the use of MusiCure in the closed ward and the two open wards is that the music is often a very useful resource in the care and treatment of anxious and distressed patients, especially patients diagnosed with schizophrenia, psychosis and depression. During the project it was found that the use of MusiCure together with a ball blanket was a very effective means of sedation.

The ward sister on the closed ward feels the timing of the MusiCure trial has been unfortunate, as there has been a big turnover in staff and 27 new appointments in connection with expansion of the department, making it difficult to inform and involve personnel in the project. During the project period there has been a focus on conflict management and preventing violence.

In one of the open wards, many patients diagnosed with personality disorder did not wish to try out MusiCure. These patients have wanted personal contact with staff instead. In the other ward, a female patient diagnosed as manic-depressive received 15 treatments and the positive effect this patient demonstrated from MusiCure provided a big incentive to the staff to offer

MusiCure to other distressed and tense patients. In this ward there was often a need for several CD-players and CD's simultaneously.

In many cases, using MusiCure has led to a reduction in the use of on-demand medication, and other patients have been able to completely do without on-demand medication and have used MusiCure, sometimes in conjunction with a ball blanket, instead. In one of the wards, MusiCure has become the first choice when offering new patients treatment to reduce anxiety.

Discussion

The nursing staff have had full responsibly for managing the application of the MusiCure treatment. They had to assess whether MusiCure would be beneficial. The music has not been used to replace music therapy, such as psychotherapy, where the goal of the music therapy is to work with the relationship to the patient and use music/voices/sounds to improve contact with the patient and their capacity to communicate.

It is apparent from the interviews with the nursing staff that there has been variation in the degree to which the nursing staff on the three wards has been aware of the option of using MusiCure. It has been up to the individual nurse or nursing assistant to think about and actively use MusiCure. The MusiCure treatment has therefore not been used systematically in the pilot study. However, in one of the wards, MusiCure has begun to be routinely offered to anxiety patients before they are offered on-demand medication.

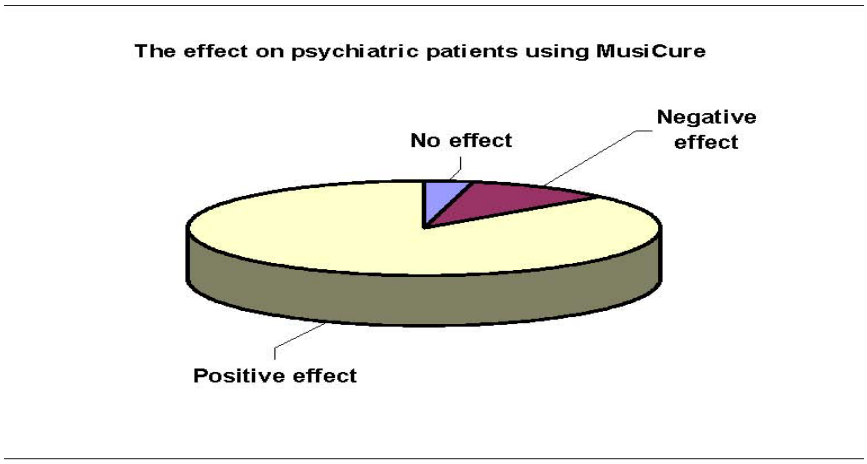
Some patients have a negative experience of the MusiCure music. These patients use other music which they find relaxing instead. It might be interesting to take a closer look at what it is about MusiCure that they do not like – is it the whole design of the music, or just components of it? (for example, one patient does not like the "strange animal noises"), and the role the patients' context plays in their experience of MusiCure (in general, how do patients find being in hospital and needing help?) Have they been admitted voluntary or under compulsion? Is it their first admission? etc.

The study results do not indicate whether patients have been alone when they listened to the music or whether the nursing staff has been present for some or all of the time they listened to music. It has been recorded for one patient that someone sat with the patient until they fell asleep. The question is, whether MusiCure can or should be a substitute for personal contact with nursing staff. The degree to which the experience of the effect of listening to MusiCure is governed by the situation is an open question. For example, for one young female patient, the fact that she listened to MusiCure in conjunction with compulsive restrainment had a partially negative significance, with the consequence that she now has a quite ambivalent attitude to MusiCure. The experience of MusiCure may have been more positive if the patient had been introduced to MusiCure before the compulsive restraints were applied. It would be worth considering whether MusiCure should be introduced for all patients at the beginning of their admission, as there are indications that up to 9 out of 10 patients have a positive experience of listening to MusiCure.

Conclusion

The pilot study has contributed significantly to raising awareness among nursing staff that MusiCure/music can be used as en element in the care and treatment of psychiatric patients suffering from anxiety. The combined results of the study suggest that MusiCure can be used and

expected to have good anxiety-reducing effects on both psychotic and non-psychotic psychiatric patients. Many patients have come to realise that they can get relief using something other than ondemand medication. Experience from the project thus appears to show that MusiCure, used in isolation or together with a ball blanket, may be an alternative to traditional treatment using sedative medication.



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2nd CD "Equator" (2003). Music by Niels Eje.
Included booklet featuring article by L. Heslet on our musical brain ", article by music therapist K. Schou "Summary of the project ataraxia", article by N. Eje about the music. References to projects and findings.