

Non-pharmacological interventions to reduce anxiety in patients undergoing conscious surgery

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INTRODUCTION

In the operating theater at Bispebjerg Hospital approximately 5600 patients annually undergo surgery due to pathology in bones, joints and muscles

Anxiety is common amongst surgery patients and a review estimates the prevalence between 21-77%. Anxiety can cause a physiological stress response that may complicate the post-operative progress.

Accelerated patient flow has led to an increasing amount of surgical procedures being performed under local or regional anesthesia. As a consequence, the patient is exposed to anxiety-inducing sounds and visible impacts from the operating environment for a longer period of time.

AIM

To examine the effect of non-pharmacological interventions on anxiety experienced in patients undergoing conscious surgery.

METHODS AND MATERIALS

From October 2017 until May 2018 the database PubMed was researched for Randomized Controlled Trials (RCT) with anxiety in non critically ill adults undergoing conscious surgery as a primary outcome.

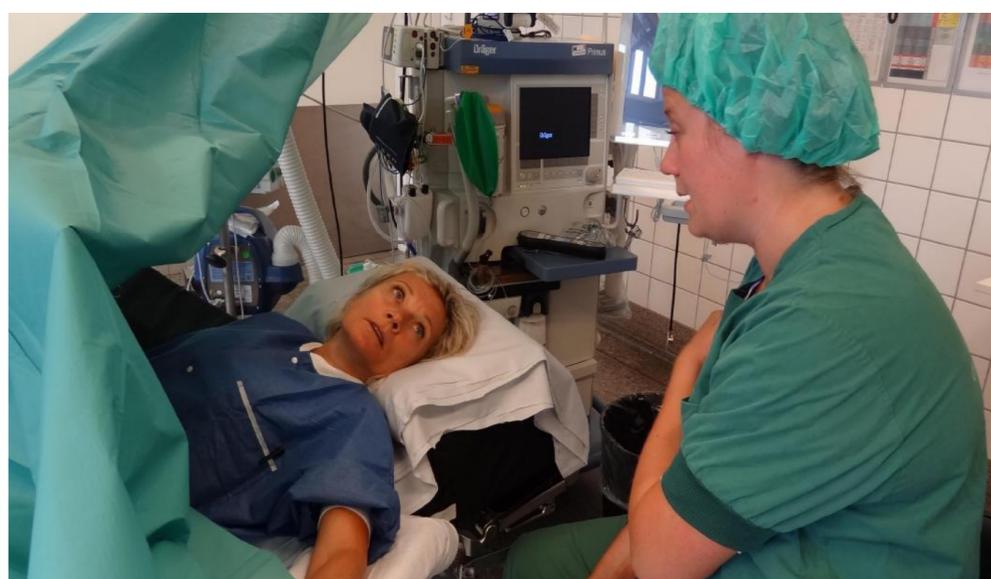
The systematic search for literature was based on the PICO strategy and the screening for eligibility, was based on the PRISMA flowchart. The Critical Appraisal Skills Programme (CASP) Checklist to evaluate RCT was used to methodologically assess the selected literature.

The population was limited to European, American and Australian adults. Cranial-, dental and large cardiologic surgery was excluded just as section and surgery as a consequence of cancer.

Furthermore interventions not possible for the operating nurse to put into practice were excluded. Examples could be hypnosis and reflexology.

The search resulted in (n=98) articles and (n=3) were included in the review, two non blinded RCT and one single blinded RCT.

All the included studies showed limitations in terms of either the design of the intervention, the population examined or the use of measuring tools.



RESULTS

The included studies examined the effect of:

Pre-operative multimedia information:

- Video (live-action showing the peri-operative period)

Simple intra-operative distraction interventions:

- DVD (wall-mounted screen showing comedy, drama or quizz-shows)
- Music (optional)
- Stressballs (two palm sized balls to be squeezed when feeling discomfort)
- Interaction (a nurse close by dedicated to conversation)
- Bedscapes (photomural with healing music)

The included studies all use self-reported data as measure method either Spielbergers State Anxiety Inventory (STAI-S) or a Numeric Rating Scale (NRS). Finally all the studies measured the level of anxiety retrospective.

Measured with STAI-S: Post-operative the degree of anxiety was significantly lower after the interventions 'Interaction' and 'Pre-operative multimedia information' when compared to the control group.

The intervention DVD, Music, Stressball and Bedscapes did not conclude any significant difference when compared to the control group.

Measured with NRS: Post-operative the patients rated their level of anxiety significantly lower after the interventions DVD, Interaction and Stressballs when compared to the control group. Music did not show any difference.

CONCLUSION

The studies indicate an anxiety reducing effect of:

- Interaction by way of a distraction technique
- Video as pre-operative multimedia information

The studies are not precise regarding:

- DVD
- Stressballs

The studies did not find a significant effect of:

- Music
- Bedscapes

IMPLICATION FOR PRACTICE

This study about non-pharmacological interventions to reduce anxiety in patients undergoing conscious surgery highlights the importance of interacting with nurses and solid pre-operative visual information.

The research in the area seems insufficient but the interventions potentially have great benefits for future patients.

Furthermore the interventions seem rather low of cost. Therefore the operating theater at Bispebjerg Hospital should likely investigate the effect of these interventions upon a selected representative group of patients.