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Preparing fathers for a child's heart surgery: reducing anxiety and building confidence

Submission date
13/11/2025

Recruitment status
No longer recruiting

Registration date
18/11/2025

Overall study status
Completed

Last Edited
18/11/2025

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
When a child needs heart surgery, it is an extremely stressful time for the whole family. While a lot of support is often available for mothers, fathers are frequently overlooked. Fathers face their own unique challenges, including feeling left out of medical conversations while bearing the weight of family decisions. This study aimed to test a special preparation program designed specifically for fathers. The goal was to see if providing fathers with clear information and support before their child's surgery could help reduce their anxiety and increase their confidence in their ability to care for their child.

Who can participate?
The study involved fathers of children (aged 3 to 7 years) who were scheduled for open-heart surgery at the participating hospital. To take part, fathers needed to be living with their child and spouse, be able to speak Farsi, and have no severe visual, hearing, or speech problems. Fathers who were already experiencing very high levels of anxiety or very low confidence were not eligible, as the study was designed to see if the program could prevent these feelings from developing or worsening.

What does the study involve?
Fathers who agreed to participate were divided into two groups by a method based on their child's hospital file number.
The intervention group took part in a special preparation program before their child's surgery. This program included:
1. A tour of the operating room and intensive care unit.
2. Educational sessions explaining their child's heart condition, the surgery, and what to expect afterwards.
3. Group meetings with other fathers who had been through a similar experience.
4. Learning simple stress-management techniques.
5. Receiving pamphlets and other written information.
The control group received the hospital's standard care, which included routine pre-operative information from nurses, but did not receive the special tours, group sessions, or extra educational materials.
All fathers were asked to complete short questionnaires about their anxiety and confidence

levels at three different times: before any preparation, immediately after the preparation program, and when their child was discharged from the hospital.

What are the possible benefits and risks of participating?
For fathers in the intervention group, the possible benefits included feeling less anxious, more prepared, and more confident in supporting their child and family during a difficult time. There were no expected physical risks from participating. The main potential risk was emotional, as talking about the surgery and visiting clinical areas could be temporarily stressful. However, the program was designed and led by healthcare professionals to provide support in a safe and helpful way.

Where is the study run from?
Children's Medical Center Hospital in Tehran (Iran)

When is the study starting and how long is it expected to run for?
January 2024 to March 2025

Who is funding the study?
Shahid Beheshti University of Medical Sciences (Iran)

Who is the main contact?
Dr Hadi Khoshab, Hadikhoshab@gmail.com

Contact information

Type(s)
Scientific, Public, Principal investigator

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Additional identifiers

Study information

Scientific Title
Exploring the role of fathers' preoperative preparation in reducing anxiety and enhancing self-efficacy before pediatric open-heart surgery

Study objectives

Parents of children undergoing cardiac surgery face significant anxiety. This study evaluated a preoperative preparation program for fathers of children (aged 3–7 years) having open-heart surgery.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 06/12/2023, Research Ethics Committees of the School of Pharmacy and Nursing and Midwifery (Shahid Beheshti University of Medical Sciences, Tehran, 655678958, Iran; +98 (0) 9132425700; Zamaniroya146@gmail.com), ref: IR.SBMU.PHARMACY.REC.1401.193

Primary study design
Observational

Secondary study design
Case-control study

Study type(s)

Health condition(s) or problem(s) studied
Anxiety and self-efficacy of fathers of children aged 3 to 7 years undergoing open-heart surgery due to CHD

Interventions
In this semi-experimental study, 60 fathers were randomly assigned to an intervention group (n=30) receiving structured preparation (hospital tours, group counseling, education) or a control group (n=30) receiving standard care. Anxiety and self-efficacy were measured using the VAS-A and PSAM at three timepoints.

Intervention Type
Other

Primary outcome(s)
1. Paternal anxiety measured using the Visual Analog Scale for Anxiety (VAS-A) at before the intervention (preoperative/baseline), immediately after the intervention (post-preparation), upon discharge (postoperative)

2. Paternal self-efficacy measured using the Parenting Self-Agency Measure (PSAM) at before the intervention (preoperative/baseline), immediately after the intervention (post-preparation), upon discharge (postoperative)

Key secondary outcome(s)

Completion date
12/03/2025

Eligibility

Key inclusion criteria
1. Having children with CHD between the ages of 3 and 7 years as candidates for open-heart surgery
2. Able to speak Farsi
3. Not having visual issues, auditory issues, or speech problems
4. Low score in the anxiety and self-efficacy scale
5. Living with a spouse and child in a house

Healthy volunteers allowed
Yes

Age group
Adult

Lower age limit
30 Years

Upper age limit
50 Years

Sex
All

Total final enrolment
60

Key exclusion criteria
1. Discharge or death of the child
2. Withdrawal of the father from the study

Date of first enrolment
01/01/2024

Date of final enrolment
12/02/2025

Locations

Countries of recruitment
Iran

Sponsor information

Organisation
Shahid Beheshti University of Medical Sciences

ROR
https://ror.org/034m2b326

Funder(s)

Funder type

Funder Name
Shahid Beheshti University of Medical Sciences

Alternative Name(s)
Shahid Beheshti University of Medical Sciences (SBMU), Iran, Shahid Beheshti University of Medical Sciences (Iran), Shahid Beheshti University of Medical Sciences - Iran, , Université des Sciences Médicales de Shahid Beheshti, , Shahid Beheshti University of Medical Sciences Tehran Iran, Shahid Beheshti University of Medical Sciences Tehran, Université des Sciences Médicales de, , , SBUMS

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Iran

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available