A structured communication intervention to reduce anxiety in family members waiting for relatives undergoing a surgical procedure

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BACKGROUND

Worry

Family Anxiety

Information

Communication
AIM

- To establish the effect of a structured communication program on family members’ anxiety awaiting relatives undergoing elective surgical procedures
OBJECTIVES

- To determine if the intervention reduces anxiety in family members

- To evaluate if the intervention enhances peri-operative communication

- To explore the influences of socio-demographic characteristics on anxiety levels
METHODS

- **DESIGN**
  Quasi-experimental design

- **SETTING**
  Operating theatres in a metropolitan public hospital in Brisbane, Australia

- **POPULATION**
  Adult self-defined family members (preferably closest)
METHODS

- INTERVENTION

1. Information card with hospital information, phone numbers, approximate surgery completion time
2. In-person nursing report when the patient arrived in the recovery room
METHODS

- SAMPLE RECRUITMENT
  - Recruited pre-op and completed questionnaire in immediate post-operative period
  - Control group recruited in first instance to prevent cross-contamination; then intervention group
METHODS

DATA COLLECTION TOOLS

- **Demographics**: sex, ethnic background, relationship to patient, educational attainment, ethnic background, employment status, occupation, level of information about the surgery and source of information

- **State Trait Anxiety Inventory (STAI)**
DATA ANALYSIS

• SPSS Version 15

• Descriptive statistics describe the sample characteristics

• Independent samples t-tests and chi-square tests were used for comparison between two groups

• Statistical significance $P < 0.05$
RESULTS

- March – July 2014
- 129 participants:
  - N = 66 in control group
  - N = 63 in intervention group
### RESULTS: Demographics

<table>
<thead>
<tr>
<th></th>
<th>CONTROL n=66</th>
<th>INTERVENTION n=63</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>50.1 (13.8)</td>
<td>49.7 (16)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>32 (48.5%)</td>
<td>39 (61.9%)</td>
</tr>
<tr>
<td>Male</td>
<td>34 (51.5%)</td>
<td>23 (36.5%)</td>
</tr>
<tr>
<td><strong>Relationship to patient</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse/Partner</td>
<td>36 (54.5%)</td>
<td>39 (61.9%)</td>
</tr>
<tr>
<td>Child</td>
<td>14 (21.2%)</td>
<td>5 (7.9%)</td>
</tr>
<tr>
<td>Parent</td>
<td>11 (16.7%)</td>
<td>14 (22.2%)</td>
</tr>
<tr>
<td>Sibling</td>
<td>2 (3%)</td>
<td>1 (1.6%)</td>
</tr>
<tr>
<td>Niece/Nephew/Aunt/Uncle/Friend</td>
<td>3 (4.5%)</td>
<td>3 (4.8%)</td>
</tr>
<tr>
<td><strong>Level of information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not informed</td>
<td>6 (9.1%)</td>
<td>6 (9.5%)</td>
</tr>
<tr>
<td>Have heard or read about it</td>
<td>27 (40.9%)</td>
<td>22 (34.9%)</td>
</tr>
<tr>
<td>Well-informed</td>
<td>33 (50%)</td>
<td>34 (54%)</td>
</tr>
<tr>
<td><strong>Source of information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgeon</td>
<td>41 (62.1%)</td>
<td>31 (49.2%)</td>
</tr>
<tr>
<td>Internet</td>
<td>4 (6.1%)</td>
<td>3 (4.8%)</td>
</tr>
<tr>
<td>Others</td>
<td>15 (22.7%)</td>
<td>20 (31.7%)</td>
</tr>
<tr>
<td>Not sourced</td>
<td>6 (9.1%)</td>
<td>8 (12.7%)</td>
</tr>
</tbody>
</table>
## RESULTS: State vs. Trait Anxiety

<table>
<thead>
<tr>
<th></th>
<th>State Score (Mean ± SD)</th>
<th>Independent T-Test P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Group (N = 66)</strong></td>
<td>36.8 ± 12.5</td>
<td></td>
</tr>
<tr>
<td><strong>Intervention Group (N = 63)</strong></td>
<td>35.0 ± 11.1</td>
<td><em>P = 0.38</em></td>
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<table>
<thead>
<tr>
<th></th>
<th>Trait Score (Mean ± SD)</th>
<th>Independent T-Test P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Group (N = 66)</strong></td>
<td>34.3 ± 8.8</td>
<td></td>
</tr>
<tr>
<td><strong>Intervention Group (N = 63)</strong></td>
<td>33.1 ± 8.9</td>
<td><em>P = 0.47</em></td>
</tr>
</tbody>
</table>
RESULTS: State Anxiety

State Anxiety Categorised (% in each group)

Family age was significantly negatively correlated with state anxiety  $P = 0.02$
RESULTS: Improvement in Communication

Control Group: 1 (1.5%)
Intervention Group: 100 (100%)
CONCLUSIONS

- Informational intervention decreases family members’ anxiety levels
- Improves communication
- Younger relatives have higher anxiety

But.....

Barriers to change exist
BARRIERS

- **Strategic** – time constraints, staff shortages, lack of resources, heavy workload

- **Cultural** – resistance to change (workers & management), lack of authority, lack of respect for research

- **Technical** – difficulty accessing resources e.g. lack of information-seeking skills, no access to online bibliographic databases
STRATEGIES FOR CHANGE

Involvement of all stakeholders

Transparent and communication/education

Organisational Support

Funding
IMPLICATIONS FOR PRACTICE

- Dedicated role
- Organisational and managerial support
- Financial resource
RESEARCH IMPLICATIONS

- RCT
- Larger sample size
- Different site
- Other technologies to inform families e.g. text messaging, phone apps
ACKNOWLEDGMENTS

- Kim Morotti for her contributions in recruitment and data collection
- Nursing staff of the Perioperative Department for their cooperation and support
Thank you for your attention.