Family Involvement in an Orthopedic Clinic – Does it Make a Difference?

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(IFNC, Odense 2015)
Background

- Pressure has increased to reduce length of hospital stay and increase economic efficiency (OECD/WHO 2011, SAMW 2014)
- Standardization of care delivery processes often occur in the form of care pathways (Beazley and Brady 2006; EPA, 2007; Rotter et al., 2012)
- Care pathways often are criticized for their organization-driven focus and missing a holistic approach to care (Hellige & Stemmer, 2005; Schrijvers et al., 2012)
Nurse-led Patient Pathways (NPP)

- The NPPs are characterized by four principles:
  - Patient and family centered care,
  - Comprehensive needs and goal assessment
  - Patient and family-centered goals/objectives
  - Follow-up phone call after discharge

- Aim: to enhance quality of nursing care, patient satisfaction without increasing costs

(Imhof et al., 2014, Seitz & Imhof, 2012; Zigan et al., 2012a&b)
Substudy

- Purpose: To analyze whether length of hospital stay is different in patients with low or high family involvement in nursing care
- Secondary data analysis, quantitative comparative study design
- Population: surgical patients hospitalized for
  - Total hip arthroplasty,
  - Decompression of the spinal cord,
  - Rotator cuff reconstruction
- Setting: two orthopedic units

(Imhof et al., 2014)
Variables and analysis

- Family involvement in nursing care: single item on patient survey to measure patient satisfaction with nursing care quality (PSNCQQ) (Laschinger et al., 2005)

<table>
<thead>
<tr>
<th>Involving Family or Friends in your Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
</tr>
<tr>
<td>□</td>
</tr>
</tbody>
</table>

- Length of hospital stay (LOS): in days, retrieved from patients’ clinical record entries (Imhof et al., 2014)

- Analysis: Mann-Whitney test
Results

Table: Characteristics of the patients (N=265)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Low-level group N=124 (47%)</th>
<th>High-level group N=141 (53%)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age in years</strong></td>
<td>M (SD) 59 (14)</td>
<td>54 (16)</td>
<td>.004**</td>
</tr>
<tr>
<td><strong>Gender female</strong></td>
<td>N (%) 55 (44)</td>
<td>62 (44)</td>
<td>n.s.</td>
</tr>
<tr>
<td><strong>Family status married</strong></td>
<td>N (%) 70 (57)</td>
<td>90 (64)</td>
<td>n.s.</td>
</tr>
<tr>
<td><strong>Relatives yes</strong></td>
<td>N (%) 121 (98)</td>
<td>139 (99)</td>
<td>n.s.</td>
</tr>
<tr>
<td><strong>Type of admission</strong></td>
<td>N (%) 90 / 8 / 26 (73 / 6 / 21)</td>
<td>90 / 8 / 26 (72 / 3 / 25)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Planed / emergency / SDS$^1$</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Type of pathway</strong></td>
<td>N (%) 54 / 41 / 29 (44 / 33 / 23)</td>
<td>41 / 61 / 39 (29 / 43 / 28)</td>
<td>.05*</td>
</tr>
<tr>
<td>NPP-1 / NPP-2 / NPP-3$^2$</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

$^1$SDS = Same day surgery;
$^2$NPP-1 = Total hip arthroplasty; NPP-2 = Decompression of the spinal cord; NPP-3 = Rotator cuff reconstruction
## Results

### Length of hospital stay (LOS)

Table: Statistics for the two groups (N=265)

<table>
<thead>
<tr>
<th>Length of hospital stay in days</th>
<th>Low-level group 124 (47%)</th>
<th>High-level group 141 (53%)</th>
<th>Statistics p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (SD)</td>
<td>6.3 (2.2)</td>
<td>5.8 (2.1)</td>
<td>$U=7535.5$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$z=-1.96$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$p=.05^*$</td>
</tr>
<tr>
<td>Median (Q1,Q3)</td>
<td>6 (5, 8)</td>
<td>6 (4, 7)</td>
<td></td>
</tr>
<tr>
<td>Min - Max</td>
<td>3 - 14</td>
<td>2 -13</td>
<td>$r=-.12$</td>
</tr>
</tbody>
</table>
Discussion / Conclusion

• Older patients had less family involvement

• Patients with total hip arthroplasty had less family involvement

• Patients who reported high-level family involvement had a shorter length of hospital stay \( \text{(Ollson et al., 2014)} \)

➢ Family involvement is an important component of care pathways

➢ Further research, which includes specific characteristics of patients and their relatives
Thank you for your attention!

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Project Website (German only):
http://project.zhaw.ch/de/gesundheit/p27balgrist.html
References


