Evaluation of Primary Contact Occupational Therapy Hand Clinics for patients on surgical outpatient waiting lists in eight Australian public hospitals

Ruth Cox, August 2019

Co-authors: Glasgow C, Cox R, Laracy S, Green K, Ross L

QEII HOSPITAL – Occupational Therapy
Background Literature

✓ Hand injury including “cumulative trauma” a significant problem for Australian society
✓ Long public hospital SOPD waits
✓ Emerging evidence - advanced practice hand therapy clinics improve outcomes
  ➢ Small sample sizes
  ➢ One hospital only
  ➢ One or two diagnostic groups
  ➢ Retrospective audits
Study Purpose:

To evaluate an advanced practice hand therapy model of care for patients with chronic hand conditions on surgical outpatient waiting lists at eight Australian public hospitals

Prospective cohort study pre and post test design
Outputs and Outcomes

- Patient safety
- Impact on the waiting list
- Patient satisfaction
- Patient perception of change
  - Global Rating of Change (GROC)
- Effect of waiting time on need for surgical review during hand therapy
How would you describe your **hand or elbow** now compared to when you were here for your first appointment? Please indicate if there has been any change in your **hand or elbow** during daily activities by choosing one of the following options.

Has your **hand or elbow** been:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+7</td>
<td>A very great deal better</td>
</tr>
<tr>
<td>+6</td>
<td>A great deal better</td>
</tr>
<tr>
<td>+5</td>
<td>A good deal better</td>
</tr>
<tr>
<td>+4</td>
<td>Moderately better</td>
</tr>
<tr>
<td>+3</td>
<td>Somewhat better</td>
</tr>
<tr>
<td>+2</td>
<td>A little better</td>
</tr>
<tr>
<td>+1</td>
<td>Almost the same, hardly any better at all</td>
</tr>
<tr>
<td>0</td>
<td>No change</td>
</tr>
<tr>
<td>-1</td>
<td>Almost the same, hardly any worse at all</td>
</tr>
<tr>
<td>-2</td>
<td>A little worse</td>
</tr>
<tr>
<td>-3</td>
<td>Somewhat worse</td>
</tr>
<tr>
<td>-4</td>
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</tr>
<tr>
<td>-6</td>
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</tr>
<tr>
<td>-7</td>
<td>A very great deal worse</td>
</tr>
</tbody>
</table>
Results – Summary data / demographics

- **Large cohort** - 1,947 patients
- **8 sites** across QLD
- **90% single diagnosis**
- **Mean waiting time 232.21 days**
  (sd 304.52 days)
- **Mean age 45 years**
- **59% female**

"File:What´s so funny about snow? (32002249732).jpg" by Rudolphous is licensed under CC BY-SA 2.0
<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>No. Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpal tunnel syndrome only</td>
<td>816 (41.91%)</td>
</tr>
<tr>
<td>Trigger finger / trigger thumb only</td>
<td>183 (9.4%)</td>
</tr>
<tr>
<td>de Quervain’s tenosynovitis only</td>
<td>36 (1.85%)</td>
</tr>
<tr>
<td>First carpometacarpal joint osteoarthritis only</td>
<td>56 (2.88%)</td>
</tr>
<tr>
<td>Ganglion only</td>
<td>284 (14.59%)</td>
</tr>
<tr>
<td>Other single diagnosis</td>
<td>373 (19.16%)</td>
</tr>
<tr>
<td>More than one diagnosis</td>
<td>199 (10.22%)</td>
</tr>
</tbody>
</table>
Results - Patient Safety

– <5% of patients required assessment by surgeon during hand therapy (n=83, 4.36%)
  – Only 3 requested by patient (0.15%)

– 1 adverse event (incidence 0.05%)
– 2 complaints (incidence 0.1%)

– 44 compliments (incidence 2.25%)
Results - Impact on waiting list

TOTAL of 59% removed from SOPD waiting list

Before hand therapy commenced
• 10% lost to follow up
• 25% requested removal at telephone screening

After hand therapy commenced
• 8% FTA
• 28% discharged with no surgical OPD follow-up
Impact on the waiting list

41% returned to surgical OPD wait list

- 86.73% at hand therapist request
- 3.17% at surgeon request
- 10.51% at patient request
Global Rating of Change (GROC)

Mean score 2.09 (SD 3.58) - “a little better”
## GROC Score by Diagnosis

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>N</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpal tunnel syndrome only</td>
<td>281</td>
<td>1.32 (3.52)</td>
</tr>
<tr>
<td>Trigger finger / trigger thumb only</td>
<td>71</td>
<td>4.21 (2.92)</td>
</tr>
<tr>
<td>de Quervain’s tenosynovitis only (small sample)</td>
<td>10</td>
<td>4.6 (3.2)</td>
</tr>
<tr>
<td>First carpometacarpal joint osteoarthritis only</td>
<td>27</td>
<td>1.7 (3.66)</td>
</tr>
<tr>
<td>Ganglion only</td>
<td>32</td>
<td>1.75 (3.28)</td>
</tr>
<tr>
<td>Other single diagnosis</td>
<td>83</td>
<td>3.07 (3.27)</td>
</tr>
<tr>
<td>More than one diagnosis</td>
<td>113</td>
<td>1.9 (3.69)</td>
</tr>
</tbody>
</table>
Patient Satisfaction n=108

- Waiting time to initial appointment: 63% Very satisfied, 31% Satisfied, 3% Neither, 3% Dissatisfied, 0% Very dissatisfied
- Seeing Advanced Hand Therapist rather than doctor: 59% Very satisfied, 31% Satisfied, 3% Neither, 5% Dissatisfied, 1% Very dissatisfied
- Level of knowledge of Advanced Hand Therapist: 76% Very satisfied, 22% Satisfied, 1% Neither, 0% Dissatisfied, 0% Very dissatisfied
- Treatment received: 67% Very satisfied, 24% Satisfied, 5% Neither, 3% Dissatisfied, 1% Very dissatisfied
Patient Satisfaction

Amazing customer service… most of all … the Advanced Hand Therapist.

They were able to explain the condition to me. The hand braces have helped me greatly.

At first I didn’t think that it would work, but it did.

I learnt how to better manage my condition.

My case got reviewed and has been moved along to appropriate area.

Pain and discomfort eased without medication.
Effect of waiting time on need for surgical review during hand therapy

• patients who required a surgical consultation during hand therapy waited longer
  – median 385 days vs median 109 days (P<.001)

Waiting longer -> deterioration, distress

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"Waiting" by Paul L Dineen is licensed under CC BY 2.0
Key Messages

✓ Active administration of waiting lists imperative
✓ Model of care safe and effective
✓ Access to MDT crucial
Key Messages

- Patients highly satisfied
  - Need to address 7.53% of patients requesting return to SOPD at D/C from hand
- Longer wait = more likely to need surgical consult during hand therapy
  - ?? Larger proportion for discharge if shorter wait time
- Some diagnoses may respond better than others
Strengths and Limitations

• Strengths
  – Large data set
  – 8 sites
  – Prospective

• Limitations
  – Not controlled for bias
  – Variation in waiting times
  – No follow-up post discharge
Future Directions / Recommendations

• Prospective RCTs by diagnosis
• Longer term outcomes
  – Functional
  – Re-presentation
  – Surgery
  – Self-management
• Extended scope of practice
• Trauma

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Contacts – QEII Hospital

Ruth.cox@health.qld.gov.au – Director Occupational Therapy
Stacey.cross@health.qld.gov.au – Advanced Occupational Therapist, PCOTH Clinical Lead

Related publications:


Under review:
Glasgow, C., Cox, R., Laracy, S, Green, K., Ross, L. A cohort investigation of patient reported function and satisfaction following the implementation of advanced practice occupational therapy led care at eight Australian public hospitals.