Holland Bloorview
Kids Rehabilitation Hospital

Evaluation of an Occupational Therapy Mentorship Program
OACRS November 9, 2010
Linda Fay, OTReg(Ont.)
Martha Pilkington, OTReg(Ont.), MHSc(Health Admin)

Agenda

Introduction on Mentorship

Present Study: Evaluation of an Occupational Therapy Mentorship Program: Effects on Therapists’ Skills and Family Centered Behaviour

Implications on Practice

Questions

Holland Bloorview
Kids Rehabilitation Hospital

Evaluation of an Occupational Therapy Mentorship Program: Effects on Therapists’ Skills and Family Centered Behaviour

- Gillian King, PhD, Bloorview Research Institute
- Cynthia Tam, MSc, Bloorview Research Institute
- Linda Fay, BSc(OT), Bloorview Kids Rehab
- Martha Pilkington, BSc(OT), MHSc(Health Admin), Bloorview Kids Rehab
- Michelle Servais, MD, Thames Valley Children’s Centre
- Hasmik Petrosian, BSc, Bloorview Research Institute

To be published in Physical and Occupational Therapy in Pediatrics

Holland Bloorview
Kids Rehabilitation Hospital

Importance of Supporting Practitioner Development

- Clinical service organizations need to take care of the clients they serve and to provide a motivating and rewarding environment for the providers of service
- By actively supporting the ongoing development of staff members, organizations serve to meet the needs of children and families
- Maximizes practitioners’ ability to provide the best quality care

Holland Bloorview
Kids Rehabilitation Hospital

Parallel Processes

- When therapists know that their skills, knowledge, development, and welfare are important to an organization, they take this experience of feeling respected, supported, and empowered, and use it to inform how they work with children, families, and colleagues on a day-to-day basis

Holland Bloorview
Kids Rehabilitation Hospital
What is Mentorship?

- A process whereby a more experienced person helps someone less experienced to develop skills and abilities (Iverson, 2004; Provident, 2005)
- Mentorship encompasses:
  - Providing feedback on observed performance
  - Providing one-on-one instruction
  - Encouraging reflection through guided discussion (Heath, 1998)
  - Providing support (Rees & Hays, 1996)
  - Serving as a role model (Benner, 1984)

Background

- Little is known about the effectiveness of formal mentorship programs designed to foster the development of expertise
- Our review of the literature failed to find any previous evaluations of mentoring interventions that:
  - Employed a group format
  - Used standardized measures to evaluate changes in skills or behaviour as a result of mentoring

Objectives of the Study

- To determine whether there are significant pre-post differences in the family-centred behaviour and the critical thinking, clinical, interpersonal, and listening/interactive communication skills of therapists who take part in the two types of mentoring interventions
- To conduct focus groups at the end of the intervention to examine participants’ perceptions of the elements of the program and effects on practice

Method

- Participants: 8 new, 17 experienced therapists employed in in-patient, outpatient and community programs
- Design: two group (new vs. experienced) pretest-posttest pre-experimental research design (Cook & Campbell, 1999) examining pre-post differences on self and peer report measures of skill and behaviour
- 11 month intervention involving 1 to 1 mentoring for new therapists and facilitated group mentorship meetings for both new and experienced

Intervention: Description of Mentorship Program

Two pathways

- **New therapist stream**: recent graduate, new employee, new to program
  - Mentor assigned, bi-weekly meetings initially, then monthly
  - Activities include knowledge acquisition, observation, and practice

- **Experienced therapist stream**: establishing new goals, broadening their skill base
  - Self selected mentor
  - Activities include knowledge acquisition, research, student supervision, program initiatives and evaluation
Peer Mentorship Meetings

- Held 3 times/month (focus on out patient, inpatient and community caseloads
- Participants attended a minimum of 8 meetings in 11 month intervention period and completed one case study or topic of interest
- Case study notes posted on intranet for easy access for staff unable to attend meeting

Case Study Template

- Brief History
- Occupational Performance Issues/Interventions
- Best Practice Evidence
- Client-Centered Considerations
- Community Partnerships
- Environmental Considerations
- Communication Strategies
- Relevant Policy Issues
- Reflection on Learning

Activity Log

- An activity log was submitted by participants which recorded all their individual and group mentorship meetings as well as other professional development activities participated in during the intervention period. These included conferences, workshops, program and discipline education, rounds, in-services, etc

Procedure

- Participants were recruited from Occupational therapy staff by invitation following presentations
- Study was coordinated by Research Associate to ensure confidentiality
- Pretest measures were completed consisting of the following questionnaires:
  - Background Information Form: demographics on age, years in practice and caseload experience
  - Self-Nomination Scale of Expertise In Pediatric Rehabilitation (King & Bartlett et al, 2008): (novice, intermediate, expert) refers to qualities, skills, knowledge, outcomes and reputation
  - Measure of Process of Care for Service Providers (MPOC-SP) (Woodside et al, 2001): assesses therapists’ perceptions of their family-centered behaviour
  - Effective Listening and Interactive Communication Scale (ELICS) (King et al, 2010): measures Receptive Listening, Exploratory Listening, Consensus-oriented Listening, Action-oriented Listening
  - California Critical Thinking Disposition Inventory (CCTDI) (Facione et al, 1996): 75 item self-completed with subscales of truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, cognitive maturity

Procedure (cont)

- Participants submitted list of peers to Research Associate
- 2-3 randomly selected consenting peers completed:
  - Peer Nomination Scale of Expertise (King, Bartlett et al 2008): uses same definitions of expertise as Self-Nomination scale
- Participants received individualized feedback on their family-centered behaviour, critical thinking ability, listening/interactive communication skill, and clinical behaviour skills
**Individualized Feedback on Measures Completed**

**Measure of Processes of Care for Service Providers (MPOC-SP)**
- Showing Interpersonal Sensitivity (SIS)
- Providing General Information (PGI)
- Communicating Specific Information about the Child (CSI)
- Treating People Respectfully (TPR)

**Procedure**
- Following 11 month intervention post-test measures were completed
- Focus groups were held to obtain feedback on perceptions of the questionnaires, the mentorship program and effects on practice

**Data Analysis**
- Correlations calculated among outcome variables with Alpha set at < .01 and 2-tailed
- Series of between group (new vs. experienced therapists) analyses of covariance (ANCOVAs) examined pre-post differences with level of statistical significance at .05, 2-tailed (error rate per hypothesis) (Kirk, 1968)
- Effect sizes calculated to supplement statistical significance testing following recommended procedures (Kazis, Anderson & Meenan, 1989)
- Comments from focus groups reviewed by all investigators identifying key concepts and clustering into themes

**Results—Participant Descriptions**

<table>
<thead>
<tr>
<th>Variable</th>
<th>New Therapists (N=8)</th>
<th>Experienced Therapists (N=17)</th>
<th>Total (N=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>27.8 (2.9)</td>
<td>40.7 (7.9)</td>
<td>36.6 (9.0)</td>
</tr>
<tr>
<td>yrs. in Practice</td>
<td>2.4 (2.2)</td>
<td>15.7 (9.4)</td>
<td>11.5 (10.3)</td>
</tr>
<tr>
<td>yrs. employed at Holland Bloorview</td>
<td>0.8 (0.5)</td>
<td>11.8 (7.1)</td>
<td>6.2 (7.9)</td>
</tr>
<tr>
<td>yrs. worked with current caseload</td>
<td>&lt; 2 yrs. 43.8%</td>
<td>8.3%</td>
<td>20.3%</td>
</tr>
<tr>
<td></td>
<td>2-5 yrs. 6.5%</td>
<td>13.4%</td>
<td>10.8%</td>
</tr>
<tr>
<td></td>
<td>5-8 yrs. 9%</td>
<td>6.7%</td>
<td>5.8%</td>
</tr>
<tr>
<td></td>
<td>&gt; 8 yrs. 9%</td>
<td>63.6%</td>
<td>28.4%</td>
</tr>
<tr>
<td>% clients with &gt;3 service needs</td>
<td>30.5%</td>
<td>55.5%</td>
<td>44.4%</td>
</tr>
</tbody>
</table>

**Results—Intervention Received**

<table>
<thead>
<tr>
<th></th>
<th>New Therapists (N=8)</th>
<th>Experienced Therapists (N=17)</th>
<th>Total (N=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td># Group Mentorship Sessions attended</td>
<td>8.8 (0.7)</td>
<td>9.8 (3.3)</td>
<td>9.5 (2.8)</td>
</tr>
<tr>
<td># Additional Professional Development Activities</td>
<td>14.5 (7.0)</td>
<td>12.9 (4.2)</td>
<td>13.4 (5.1)</td>
</tr>
</tbody>
</table>

**Correlations among Study Variables**
- Correlations generally were non significant and moderate in magnitude indicating that distinct measures were used
- Significant correlations between ELICS scales of Receptive, Exploratory and Consensus-oriented Listening and MPOC-SP scales of Showing Interpersonal Sensitivity and Treating People Respectfully
Variance Analysis

- Series of ANCOVAs on outcome variables
- Determined that covariate was not significant factor in any of analyses and was dropped from analyses
- ANOVA’s demonstrated significant effects for time on: 3/4 MPOC-SP scales, CCTDI self-confidence scale, all scales of ELICS and MPR clinical skill scale
- Significant main effects were found for new vs. experienced therapists on ¾ MPOC-SP scales, 3 ELICS scales and MPR Clinical Skill scale but not on Interpersonal Skill Scale

Focus Group Findings

- Benefits identified by majority of participants:
  - Broadened thinking and awareness
  - Changed perspectives
  - Stimulated reflection on interactions with families
  - Communal support
  - Generation of new ideas
  - Sharing of ideas
  - Discussion of professional issues
  - Gained confidence from support of mentorship sessions

Discussion

- Findings are novel and noteworthy:
  - Have been no evaluations addressing outcomes of reflective practice beyond self reports (Mann, Gordon & MacLeod, 2009),
  - No mentorship program evaluations using psychometrically sound measures of relation skills and family-centered behaviours
  - No evaluation of peer mentorship programs in OT
- Significant pre-post changes on 75% of measures examined
- Largest change was in family-centered behaviour accounting for 1/3 of variance

Discussion (cont)

- Significant changes also found on:
  - self-confidence
  - self assessed listening skills
  - peer-assessed listening skills
- No statistical influence on:
  - Open-mindedness
  - Interpersonal sensitivity
  - Interpersonal skill
- No significant interactions between time and therapist’s experience on open-mindedness and listening skill

Discussion (cont)

- Significant differences between new vs. experienced therapist with experienced therapist reporting higher self-reported scores on family-centered behaviour and listening skill and peer completed measure of clinical skill
- Little difference in two groups between providing general information and exploratory listening
- Was discrepancy in focus group reported changes in practice and the pre-post outcome measure results—points to need to include both qualitative and quantitative measures in future studies of effectiveness of mentorship programmes
Study Limitations

• Small sample size (25) for number of variables assessed leading to concerns about study power
• No control group so cannot be sure effects due to mentorship intervention
• Role of early individualized feedback unclear in contributing to changes

Directions for Future Research

• Findings need to be replicated using randomized controlled trials to provide more vigorous approach
• Future studies should include family feedback
• Peer evaluations should continue to be included to validate self-ratings
• Pattern of responses provide evidence of internal validity as changes were not found on all measures
• Changes demonstrated in self-confidence, listening and communication skills and clinical skills are reasonable expectations in 11 month intervention

Implications for Clinical and Managerial Practice

• Findings point to usefulness of OT mentorship program using facilitated group format to develop skills, behaviours and beliefs fundamental to working effectively with clients
• Peer mentorship programs encourage reflection on practice
• Study demonstrates importance of providing workplace opportunities to facilitate professional growth
• Study indicates mentorship programs have substantial effects on therapists relational skills and behaviours

Implications for Practice (cont)

• Peer mentoring programs promote situated learning and development of collaborative relationships among therapists
• Peer mentoring supports development of expertise-related competencies and family-centered approaches to practice
• Study provides model for design and evaluation of mentorship programs in pediatric rehabilitation service organizations

Thank You

Questions?