An Eclectic Framework for Combining Theoretical Conceptual Practice Models in Clinical Decision Making
Moses N. Ikiugu, PhD, OTR/L
Professor and Director of Research
Occupational Therapy Department
University of South Dakota

Introduction

• Demonstration of professionalism depends on use of a profession’s body of knowledge including its theories (Boniface et al., 2008).

• Occupational therapists have tended to resist prioritization of theory as a guide to practice, even as they have embraced Evidence-Based Practice (EBP) (Cole & Tufano, 2008; Ikiugu, 2010; Law & McCall, 1990; O'Neal, 2007).

• Resistance to use of occupational therapy theoretical conceptual practice models is based in part on the argument that no single model is adequate to address all clients’ occupational performance issues (OPIs) (Ikiugu & Smallfield, 2011).

• De-emphasizing theory while embracing EBP may usher in an identity crisis similar to what the profession experienced beginning the 1930s with advent of the rehabilitation movement.

Introduction (Contd.)

• As Hinojosa (2013) warns: “occupational therapy must not allow EBP to move practitioners away from theoretically based practice [emphasis mine]. Although we need to establish the scientific basis of our practices, we must also develop sound theoretical guidelines for intervention and establish their efficacy”, (p. 217).

• One way of embedding theory in practice so that EBP is better integrated with professional theories is by developing clear eclectic frameworks for combining theories systematically during clinical decision-making.

• Ikiugu (2007) developed such a framework (see also Ikiugu, Smallfield, & Condit, 2009).
Introduction (Contd.)

- Ikiugu’s Eclectic Framework:
  - Therapist chooses a model that best addresses a client’s presenting OPIs (known as Organizing Model of Practice [OMP])
  - Complementary models are chosen as therapy continues to provide extra assessments and intervention strategies (known as Complementary Models of Practice [CMP(s)])

(DoDude, Smallfield, & Condit, 2009)

Study Purpose

- Ikiugu and Smallfield (2011) found that the framework was effective in improving theory use skills among students, and in particular, improving their ability to systematically combine theoretical conceptual practice models to guide clinical decision making in a case study.

- The purpose of the present study was to investigate the effectiveness of Ikiugu’s eclectic framework in increasing competency in systematically combining theoretical conceptual practice models by clinicians to guide their clinical decision-making.
Research Questions

• Was Ikiugu’s eclectic framework for combining theoretical conceptual practice models effective in helping study participants enhance their skills in theory application and in particular in systematic combination of theoretical conceptual practice models in clinical decision-making?

• How confident did occupational therapists introduced to the eclectic framework feel regarding their ability to apply theory and to systematically combine theoretical conceptual practice models during clinical decision-making?

• How did therapists feel that introduction to the eclectic framework enhanced their theory application skills and in particular their ability to systematically combine theoretical conceptual practice models in clinical decision-making?

Research Methods

• Mixed methods pilot study with pre-experimental pre-test/post-test and phenomenological designs (Creswell, 2007; Depoy & Gitlin, 2011)
  - Qualitative findings used to elaborate on quantitative trends

• Participants – Six practicing occupational therapists:
  - Two men, four women
  - All members of the American Occupational Therapy Association (AOTA)
  - Specialties were pediatrics and physical disabilities
  - Length of their clinical experiences ranged from 2 to 20 years

Research Instrument

• The Theory Application Assessment Instrument (TAAI) (Ikiugu & Smallfield, 2010):
  - Used to assess ability to systematically combine theoretical conceptual practice models in clinical-decision making

• Consists of four sections:
  - Section I: Therapist chooses assessments that can be used to identity the Client’s OPIs. The OPIs are identified and short-term and long-term goals are established
  - Section II: Theoretical conceptual practice model(s) used to provide assessments and intervention strategies to address the client’s OPIs are identified
  - Section III: Therapist is asked to provide the rationale for choosing each of the conceptual practice models listed in part II and how the models were used to address the client's OPIs
Research Instrument (Contd.)

• **Section IV**: The therapist is rated on theory combination skills based on the case documents generated in Parts I through III of the assessment.
  
  • Rating is on a 5-point Gutman scale anchored at 0=“no indication of competency” and 4=“highly competent”
  
  • Therapist is rated on the ability to (four subscales):
    1. Identify an appropriate OMP consistent with the client’s presenting OPIs
    2. Identify at least one CMP to supplement the OMP as indicated by the client’s OPIs
    3. Demonstrate how the chosen theoretical conceptual practice models relate to the client’s OPIs and complement each other
    4. Demonstrate client-centeredness as indicated by emphasis on collaboration with the client and/or his/her caregivers in the assessment and intervention planning process
  
  • Scores were aggregated across the 4 sub-scales to yield an overall model combination score

---

Research Instrument (Contd.)

**Sample TAAI subscale:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates how the chosen theoretical conceptual practice models relate to the client’s occupational performance (OP) issues and complement each other in addressing the issues</td>
<td>4</td>
</tr>
<tr>
<td>Clearly and explicitly explains how the theoretical conceptual practice model(s) relate to the client’s OP issues but only one model is identified or if more than one is used, there is no explanation of how they complement one another</td>
<td>3</td>
</tr>
<tr>
<td>Seems to have an idea of how the theoretical conceptual practice model(s) relate to the client’s OP issues but does not explicitly explain</td>
<td>2</td>
</tr>
<tr>
<td>No evidence of awareness of how the theoretical conceptual practice model(s) relate to the client’s OP issues [e.g., simply states that he/she chose the model(s) because he/she likes it/them, or is most familiar with it/them]</td>
<td>1</td>
</tr>
<tr>
<td>There is no indication of use of theoretical conceptual practice models to guide assessment and intervention planning</td>
<td>0</td>
</tr>
</tbody>
</table>

---

Research Instrument (Contd.)

• **Section V**: In a focus group, study participants discussed their experiences in the study by responding to three open-ended questions:
  
  - Generally, how would you describe your experience working on the case study presented?
  - Based on your performance on the case study, how competent do you feel about your ability to apply occupational therapy theory in clinical practice? Specifically, how competent do you feel about your ability to combine conceptual practice models to address a client’s occupational performance issues?
  - To what extent was introduction to Ikigui’s Framework for combining Conceptual Models useful in helping you learn how to systematically combine Conceptual Practice Models in clinical decision-making?

  - The 3rd question was posed only during the posttest focus group.
Study Procedures

• Study was completed in the fall 2011 and spring 2012
• After approval of study protocol by the USD IRB, a random sample of 1000 names of occupational therapists was purchased from the AOTA
• Another sample of 500 names of therapists practicing in South Dakota was purchased from the SDBMOE registry
• One thousand recruitment packets were sent out
• 15 therapists responded (1.5% response rate)
• TAAI was created as a survey questionnaire on PsychData electronic platform
• Link to the site along with a cases description was sent to the 15 volunteers

Study Procedures (Contd.)

• Participants completed the TAAI on PsychData
• One week later, a one hour synchronous focus group session was conducted on BlackBoard (Bb) Collaborate electronic platform
• Another case description for use in an intervention session was sent to participants along with an article describing Ikiugu’s eclectic framework (Ikiugu, Smallfield, & Condit, 2009)
• On the 3rd week, participants were introduced to Ikiugu’s Eclectic Framework in a one and half hour synchronous session through the Bb Collaborate electronic platform (intervention session)
• On the 4th week, the post-test TAAI was administered on PsychData
• On the 5th and final week, a posttest focus group session was conducted through the Bb Collaborate

Study Procedures (Contd.)

• 9 out of 15 participants dropped out of the study (60% attrition rate)
• Data analysis
  – Exploratory data analysis revealed that three of the five variables violated the assumption of normality (skewness=1.52 for pretest TAAI Variable 2, -2.65 for pretest TAAI Variable 4, and -1.54 for posttest TAAI Variable 3).
  – Scores on the above variables were treated as ordinal data
  – Change on these variables from pretest to posttest was tested using the Wilcoxon signed ranks test
  – Changes in TAAI variable 1 and total TAAI scores were tested using a paired-samples t-test
Because the sample was extremely small \((n=6)\), a better indicator of change was effect size rather than \(p\)-value (effect size is not dependent on sample size) (Hoyle, 1999).

Therefore, the effect sizes were calculated for changes on all the TAAI variables.

**Phenomenological Data Analysis**

The researcher identified statements indicating participants’ feelings about how:

- Confident they felt about their ability to use theory in general
- Confident they felt about their ability to combine models
- They felt about how their level of confidence and theory application skills were affected by introduction to the eclectic framework

**Findings**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Posttest M</th>
<th>SD</th>
<th>Pretest M</th>
<th>SD</th>
<th>(t/z)</th>
<th>(p)-value</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAAI Variable 1</td>
<td>2.0</td>
<td>1.26</td>
<td>.83</td>
<td>.75</td>
<td>t=1.94</td>
<td>.11</td>
<td>d=1.12</td>
</tr>
<tr>
<td>TAAI Variable 2</td>
<td>z=1.38</td>
<td>.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAAI Variable 3</td>
<td>z=1.84</td>
<td>.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TAAI Variable 4</td>
<td>z=1.86</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total TAAI Score</td>
<td>6.67</td>
<td>1.03</td>
<td>5.17</td>
<td>2.56</td>
<td>t=1.34</td>
<td>.24</td>
<td>d=.77</td>
</tr>
</tbody>
</table>
Findings (Contd.)

- There were no statistically significant changes in any of the TAAI variables.
- However, the effect sizes ranged from typical to larger than typical for all variables except therapists’ ability to choose CMPs ($r = .11$, smaller than typical effect size) (Cohen, 1988).
- This suggests that the lack of statistical significance was likely due to lack of statistical power rather than lack of actual change.

Qualitative Findings

- Theme #1: At pretest, there was lack of confidence by participants in regard to their level of confidence in explaining how they used theory leave alone their model combination skills.
  - “I would most likely have difficult verbalizing my application of a practice model to the intervention if asked on the spot” (Participant 1209).
- The level of confidence was notably higher at posttest.
  - “I do feel more confident with the process on the case study with Richard than I did on the first case study provided” (Participant 1206).
- Theme #2: Participants recognized the need for a framework to guide systematic combination of theoretical conceptual practice models because model combination is not only challenging but necessary.
  - “…learning to combine the various areas the client needs to be successful, can be very challenging for the therapist because you have to make the treatment approach very eclectic to cover all the client’s needs” (Participant 1206).

Qualitative Findings (Contd.)

- Theme #3: It was clear that Ikugu’s eclectic framework for theoretical conceptual practice model combination was experienced by study participants as useful in helping them develop skills in use of theoretical models in clinical decision-making.
  - “I feel very competent to combine models to meet the client’s needs and feel I have been doing this if not verbalizing or organizing using these constructs” (Participant 1211).
- There was a feeling that this eclectic framework should be taught in schools.
  - “I learned many of the practice models individually in school and rarely understood how they blended together. I feel as though I was able to develop some strategies to implement them together, however, understanding theory application through integrative ways would have been more helpful as a student” (Participant 1104).
Discussion/Conclusions

• The positive trend of change in theoretical model combination skills indicated by quantitative results (high effect sizes) was supported by qualitative findings which indicated that participants felt more confident in their ability to use theory and to combine models to guide clinical decision making at posttest than at pretest.

• The finding that introduction to Ikiugu’s eclectic framework enhanced their theoretical model combination skills and their level of confidence in theory use were consistent with similar findings among students by Ikiugu and Smallfield (2011).

Discussion/Conclusions (Contd.)

• Educating therapists about theoretical conceptual practice models and teaching them how to combine them systematically during clinical decision-making using Ikiugu’s eclectic framework may be one way of encouraging them to embed theory more in their practice.

• Further research with larger samples and preferably using action research design (Boniface et al., 2008) may be one way of helping develop a culture of theory use through the eclectic framework.

Strengths of the Study

• Triangulation of Research methods
  – Made it possible to elaborate on quantitative trends using qualitative findings, which increased the level of confidence in the findings.
Limitations of the Study

- Low response rate (1.5%)
- High Attrition rate (60%)
- Extremely small sample size ($n=6$)

References


