The Effect of Occupational Therapy Intervention on the Adaptation of Intimate Personal Violence Survivors

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Disciplines
Occupational Therapy

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The Effect of Occupational Therapy Intervention on the Adaptation of Intimate Personal Violence Survivors

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Review date: December, 2012

CLINICAL SCENARIO:
Domestic violence, or interpersonal violence (IPV), can occur through various forms, including physical, psycho-emotional and verbal abuse, as well as financial control, limited access to medical care and isolation (Thompson et al., 2001). Research has recognized a link between interpersonal violence and cognitive impairment (Helfrich, Fujiura, & Rutowski-Kmitha, 2008). Impaired or lacking cognitive skill hinder one’s ability to formulate a plan to leave an abuser, obtain employment for economic independence, or execute informed safety judgements. Therefore, a cognitive deficit may contribute to an individual’s dependence on an abuser and inability to adapt to an overwhelmingly challenging situation and leave an abusive environment. Occupational therapy has a unique skill set as a profession to facilitate an IPV survivor’s ability to successfully alter their response or approach to the occupational challenge presented by abuse.

FOCUSED CLINICAL QUESTION:
What effect does occupational therapy intervention have on the adaptation of intimate personal violence survivors?

SUMMARY of Search, ‘Best’ Evidence appraised, and Key Findings:
Not all search databases were exhaustively investigated, but five articles were selected that addresses the clinical question:

- Helfrich and Rivera (2006) evaluated an intervention rooted in the Model of Human Occupation developed to enhance the life skills and employment knowledge of IPV survivors living in a shelter. Participant and shelter staff feedback suggested the intervention was effective in enhancing skills critical to obtaining and maintaining employment.

- Gorde, Helfrich and Finlayson (2004) identified a clinically significant difference in
trauma-related symptoms and self-identified needs of female IPV survivors in an emergency shelter, transitional housing, and a graduated community group. The findings support the need for interventions at each point of service delivery to be specifically constructed to address the evolving mental health needs and impact on functional ability.

- Helfrich et al (2006) assessed life skills interventions with homeless youth, domestic violence victims and adults with mental illness living in a shelter environment. Group and individual treatment sessions on financial management were found to be statistically significant (p=.002), indicating an increase in self-reported ability and positive impact on the IPV participants.

- A study done by Helfrich, Fujiura and Rutkowski-Kmita (2008) found IPV survivors to experience a significantly higher rate of mental healthy symptoms than the national population, which negatively impacted over half of the participants’ function in work or school and social environments. Diminished function in these areas may increase the exposure to abuse while decreasing the likelihood of leaving an abuser and/or ability to maintain functional independence.

- Gutman et al (2004) assessed an occupational therapy intervention aimed to address the cognitive impairments that may contribute to a woman’s inability to leave an abusive environment. This study has been deemed by this author as the best evidence demonstrating the effect of occupational therapy intervention on IPV survivors’ ability to adapt. The results are as follows:
  
The authors report “81% of participants attained T score above 50, indicating that they achieved their most favorable outcome. Nineteen percent of the participants attained T score of 50, indicating that they achieved their expected outcome. None of the participants attained T scores less than 50, indicating that all participants achieved their expected outcome or greater” (p. 50).

**CLINICAL BOTTOM LINE:**
This study supports an occupational therapy intervention designed to address the cognitive impairments is effective in increasing the adaptation of intimate partner violence survivors.
Limitation of this CAT:
This critically appraised paper has been individually prepared by a master’s of occupational therapy student as part of a university project and reviewed by a faculty member, but has not been externally peer-reviewed.

SEARCH STRATEGY:
Terms used to guide Search Strategy:

- **Patient/Client Group:** Intimate personal violence (domestic violence) survivors
- **Intervention (or Assessment):** Occupational therapy intervention
- **Comparison:** Null
- **Outcome(s):** Adaptation

<table>
<thead>
<tr>
<th>Databases and sites searched</th>
<th>Date of Search</th>
<th>Search Terms</th>
<th>Results</th>
<th>Limits used</th>
</tr>
</thead>
<tbody>
<tr>
<td>PsychoINFO</td>
<td>9/10</td>
<td>Domestic violence survivors + occupational therapy intervention</td>
<td>11</td>
<td>No limits were utilized in database search</td>
</tr>
<tr>
<td>CINAHL</td>
<td>9/10</td>
<td>Intimate personal violence + intervention</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Web of Science</td>
<td>10/10</td>
<td>Intimate personal violence + intervention</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Google Scholar</td>
<td>9/10</td>
<td>Intimate personal violence + occupational therapy intervention</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Previous article’s reference list</td>
<td>10/10</td>
<td>Intimate personal violence + occupational therapy intervention</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

INCLUSION and EXCLUSION CRITERIA

- **Inclusion:**
  - Peer reviewed journals
  - Evidence-based reviews
  - Published reports
  - Study of individuals living in a shelter
  - Female IPV survivors
• Exclusion:
  o Intervention programs including children or abuser
  o Intervention for homeless population only
  o Studies published in language other than English

RESULTS OF SEARCH

Five relevant studies were located and categorised as shown in Table 1 (based on Levels of Evidence, Centre for Evidence Based Medicine, 1998)

Table 1: Summary of Study Designs of Articles retrieved

<table>
<thead>
<tr>
<th>Study Design/ Methodology of Articles Retrieved</th>
<th>Level of Evidence</th>
<th>Number Located</th>
<th>Author (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systematic reviews, meta-analysis, randomized control trials</td>
<td>I</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Two groups, nonrandomized studies (e.g., cohort, case-control)</td>
<td>II</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
| One group, nonrandomized (e.g., before and after, pretest-posttest) | III | 4 | Gutman, et al., (2004)  
| Descriptive studies that include analysis of outcomes | IV | 0 | |
| Case reports and expert opinion | IV | 0 | |
| Qualitative studies | | 1 | Gorde, Helfrich, & Finlayson, (2004) |

BEST EVIDENCE

The following study/paper was identified as the ‘best’ evidence and selected for critical appraisal.

Reasons for selecting this study were:

• An occupational therapy intervention was administered and addressed the areas of functioning identified by current literature to be most challenging for IPV population
• Given literature findings identifying a higher rate of mental health symptoms among IPV survivors, the intervention within this study focused on addressing the cognitive impairments of the IPV survivors
• The client acceptability of the intervention was included
• Participant groups included different stages services experienced by IPV survivors

SUMMARY OF BEST EVIDENCE

Table 2: Description and appraisal of before and after study:


**Aim/Objective of the Study/Systematic Review:**
The objective of the study was to assess the effectiveness and client acceptability of an occupational therapy intervention for women experiencing domestic violence and/or homelessness and the possible contribution of their cognitive impairments on their inability to leave an abusive situation.

**Study Design:**
The research design included a quantitative before-and-after design to determine the outcome effects of the specific intervention by using goal attainment scales (GAS) to measure change. Each scale was computed in terms of measurable behavior describing how well the material of the specific intervention area was learned and the participant’s ability to perform the measure. Pre- and post-tests were given for each area of the intervention to assess whether the participants increased their knowledge of and ability to demonstrate the specific skills addressed in the intervention area. The raw scores of the GAS were converted to T scores to determine whether the participants achieved their expected outcome or greater. A qualitative element was used to administer open-ended acceptability questionnaires after each intervention session to assess whether the participant’s goals and were congruent with cultural values. N= 26 women with various disabilities.
Setting
The study was conducted in a large north-eastern metropolitan area at a non-profit shelter providing services and protection to women with disabilities who are presently experiencing domestic violence or have in the past, women who are homeless, and people with disabilities who are homeless. Women experiencing domestic violence and those who are homeless with a history of domestic violence reside in a separate shelter residence from the male clients and receive separate services. The services include individual and family counselling, recreational groups, life skill training, and medical services, which are provided by social workers, case managers, occupational therapists, physicians, and nurses.

Participants
A convenience sample was recruited from the shelter facility serving women with disabilities. The 26 participants (a) were homeless (38%); (b) were presently experiencing domestic violence or had experienced it in the past and as a result could not function optimally in society (62%); and who (c) had been both homeless and had experienced domestic violence. Fifty-four percent of the participants reported becoming homeless, presently or in the past, after fleeing an abusive home environment. Of those who had experienced domestic violence, nineteen percent reported currently being stalked by their abusers. All the participants reported receiving a medical diagnosis for various disabilities, while 38% reported that their disability was directly caused by their abuser. Mental health diagnosis consisted of (a) some form of mood disorder (88%), (b) major depression (35%), (c) dysthymia (40%), and (d) post-traumatic stress disorder (35%). Sixty-two percent of the participants had some form of cognitive impairment and 27% had a documented seizure disorder. Fifty-four percent of the participants required an ambulatory device. At the time of the intervention, 69% of the participants had left the abusive environment while the remaining 31% currently lived with the abuser.

Intervention Investigated
The intervention provided group and individual one-to-one sessions provided at the shelter for one hour per week for six months and was administered by four graduate occupational therapy students who were supervised by two occupational therapists. The intervention included opportunities to role play and practice new skills outside of therapy, which were then discussed in group. To address cognitive impairments, the occupational therapy intervention included activity analysis, grading, compensatory strategies, repeated practice, and assistive devices. The intervention areas
included; safety planning, drug and alcohol awareness, safe sex practices, assertiveness and advocacy skill training, anger management, stress management, boundary establishment and limit setting, vocation and educational skill training, money management, housing application, leisure exploration, and hygiene, mediation routine and nutrition.

**Outcome Measures**

Each participant identified an average of four goals, each of which were then weighted during the initial stages of data collection based on (a) the participant’s personal goals; (b) the occupational therapy students’ recommendations of goals that would best contribute to the participant’s well being; (c) the social workers’ evaluation of the participant’s goals; and (d) the occupational therapy supervisors’ assessment of which goals would most promote positive life change. Each goal was revised into five ranked predicted behaviors that the participant could achieve, as demonstrated by the example in the table below, producing a possible score ranging from –2 (most unfavorable outcome) to +2 (most favorable outcome). The raw scores of the GAS were converted to T scores to determine whether the participants achieved their expected outcome or greater. In addition to the standardization of the T score, the authors report this measure was chosen because of two important factors: (a) “because the T score combines the outcome scores for one participant’s set of multiple goals, the T score better reflects the participant’s overall performance; (b) the T score also allows the weighting of each participant’s goals to be calculated into the final outcome score” (p. 64).

<table>
<thead>
<tr>
<th>Predicted Outcome</th>
<th>Score</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Favorable Outcome</td>
<td>+2</td>
<td>Demonstrates understanding of 75% or more safe sex practices; able to independently distinguish between consensual and non-consensual sex.</td>
</tr>
<tr>
<td>Greater Than Expected Outcome</td>
<td>+1</td>
<td>Demonstrates understanding of 50-75% safe sex practices; able to distinguish consensual and non-consensual sex with minimum assistance.</td>
</tr>
<tr>
<td>Expected Level of Outcome</td>
<td>0</td>
<td>Demonstrates understanding of 25-50% safe sex practices; able to independently distinguish between consensual and non-consensual sex with moderate assistance.</td>
</tr>
<tr>
<td>Less Than Expected Outcome</td>
<td>-1</td>
<td>Demonstrates understanding 25% or less safe sex practices; able to independently distinguish between consensual and non-consensual sex.</td>
</tr>
</tbody>
</table>
A simple, written multiple-choice and short-answer pre- and post-test was administered after each intervention to determine the participants’ increase in knowledge of and ability to demonstrate the skills pertaining to the particular intervention area. The occupational therapy student who administered the intervention did not administer the pre- and post-tests to avoid researcher bias.

After each intervention session, an acceptability questionnaire was administered, consisting of five short-answer, open-ended questions, to assess whether that session addressed the participant’s goals and were congruent with cultural values. The occupational therapy students also wrote progress notes for each client and recorded their observations and reactions to the participants in logs, which were read by the occupational therapy supervisors.

Main Findings:

Table 4: Overall Performance in T Scores by Range

<table>
<thead>
<tr>
<th></th>
<th>50-55</th>
<th>55-59</th>
<th>60-69</th>
<th>70-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Violence Group</td>
<td>2</td>
<td></td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Homeless Group</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

The participants’ goal pertaining to the intervention were measured by converting the raw score of the goal attainment scale (GAS) to standardized T scores to determine whether the participants achieved their expected outcome or greater.

Table 5: Overall Performance in Goal Achievement

<table>
<thead>
<tr>
<th></th>
<th>Expected Outcome (T Score = 50)</th>
<th>Most Favorable Outcome (T Score &gt; 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Violence Group</td>
<td>12.5%</td>
<td>87.5%</td>
</tr>
<tr>
<td>Homeless Group</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Total</td>
<td>19%</td>
<td>81%</td>
</tr>
</tbody>
</table>

*Goal achievement is also reported in detail for each intervention area within the study.
The intervention was widely accepted, as 99% of the participants expressed great satisfaction with the intervention. As a group, the two qualities of the intervention were identified as most important: (a) the intervention was client-centered and specific to each participant’s personal goals, and (b) that the intervention helped participants take “baby steps” to learn new skills (p. 73).

**Table 6: Influential Themes Identified by Participants**

<table>
<thead>
<tr>
<th>Intervention Area</th>
<th>(% of participants, if available)</th>
<th>Supporting Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Anger management and stress reduction: (92%)</td>
<td></td>
<td>• Had the most significant impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Assisted in making “meaningful changes in their daily interactions” (p. 73).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “…has begun to help me with my relationships with my children and other family members... trying to apply this to all situations in my life” (p. 74).</td>
</tr>
<tr>
<td>• Stress management techniques</td>
<td></td>
<td>• Developed tools that could be used daily to monitor and reduce stress levels</td>
</tr>
<tr>
<td>• Boundary establishment &amp; limit setting skills (100%)</td>
<td></td>
<td>• Better understanding of their own rights and how others have violated those rights</td>
</tr>
<tr>
<td>• Therapist assistance in safety planning (86%)</td>
<td></td>
<td>• “I knew I needed to do these things but I just couldn’t do it by myself” (p. 74)</td>
</tr>
<tr>
<td>• Assertiveness and advocacy skills (85%)</td>
<td></td>
<td>• Learned how to “stand up for myself and get the resources and assistance that I need” (p. 74)</td>
</tr>
<tr>
<td>• Money management &amp; vocational/educational training (80%)</td>
<td></td>
<td>• “…necessary for their ability to live independently in the community” (p. 74)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• “We will all need these things when we are on our own” (p. 74)</td>
</tr>
<tr>
<td>• Leisure exploration and healthy activities (80%)</td>
<td></td>
<td>• “These activities made a big difference in my life; there seems to be more meaning in my life now” (p. 75)</td>
</tr>
<tr>
<td>• Engagement in social roles</td>
<td></td>
<td>• The roles of mother, worker, and student were identified as reclaimed</td>
</tr>
</tbody>
</table>

**Original Authors’ Conclusions**

All of the participants made gains toward their personal goals. The authors suggest a possible factor contributing to the results lies within the approach used to develop the intervention, which

Prepared by Marrissa Gottlob (December, 2010). Available at [http://commons.pacificu.edu/otcats/](http://commons.pacificu.edu/otcats/)
addressed the impaired executive thinking due to the cognitive impairment sustained from the abuse. Future intervention designs are also recommended to allow an extended amount of time in order to effectively assess the smaller, yet successful, changes made by this population of participants with cognitive impairments.

Critical Appraisal

Validity
A variety of methods were used to gather data and appropriate measures were taken to avoid researcher bias in implementation and data analysis. The GAS is not designed to measure the same amount of change among participants, but was selected to measure a client’s change over time and determine if the participants were able to achieve specific desired goals. Although the rate and type of disabilities experienced by the population sample within this study may not be able to be generalized to the larger population, the intervention is still applicable to IPV survivors.

Interpretation of Results
The intervention produced favourable results for the target population. The cognitive impairments of this unique population may contribute to an abused individual’s inability to function independently, adapt, and initiate the positive changes required to leave the abusive environment.

Summary/Conclusion:
The impact of mental health conditions on the individual’s ability to adapt in response to a dangerous environment may increase exposure to abuse while also decreasing the likelihood of leaving the abusive environment and/or maintaining functional independence. Therefore, the occupational therapy intervention should be delivered in a manner which provides the tools and support to develop the executive functioning skills necessary to successfully adapt to the challenges and barriers of intimate partner violence.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention Investigated</td>
<td>N/A</td>
<td>Comprehensive group and individual sessions administered by OT staff</td>
<td>Financial management group and individual sessions administered by OT staff</td>
<td>N/A</td>
<td>Employment skills group and individual sessions administered by OT staff</td>
</tr>
<tr>
<td>Outcomes Used</td>
<td>Trauma Symptom Inventory</td>
<td>Goal Attainment Scale</td>
<td>Ansell-Casey Life Skills Assessment</td>
<td>Structured interview of 165 items adapted from National Health Interview Survey</td>
<td>Self-assessment</td>
</tr>
<tr>
<td></td>
<td>Occupational Self Assessment</td>
<td>Acceptability questionnaires</td>
<td>Pre- and post-session test</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff focus groups</td>
<td></td>
<td>Progress notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Findings</td>
<td>Mental health needs of IPV survivors are clinically significant at each stage of service delivery/ Employment, housing, and self-esteem are prioritized needs</td>
<td>All participants achieved expected outcome or greater; 81% achieved most favourable outcome, 19% achieved expected outcome</td>
<td>Statistically significant increase in mastery score, indicating an increase in self-reported ability</td>
<td>IPV survivors experience significantly higher rate of mental health symptoms than national population</td>
<td>Challenges, strategies, and suggestions for replication provided</td>
</tr>
</tbody>
</table>

Table 5: Characteristics of Included Studies
IMPLICATIONS FOR PRACTICE, EDUCATION and FUTURE RESEARCH

- At each stage of the systems delivering domestic violence services, IPV survivors exhibit different trauma-related symptoms and identify different life-skill needs. Therefore, different intervention approaches should be utilized to assess and treat the mental health needs different points of service delivery.

- A review of the five included studies shows that more research is necessary to determine the best practice intervention for addressing cognitive impairments experience by IPV survivors, and its impact on the ability to leave an abusive situation. Interventions are also needed to be developed and assessed with regard to increasing IPV survivor’s adaptation. Data regarding the impact of occupational therapy intervention on the rate an IPV survivor returns to an abuser must also be collected.

- The cognitive impairments sustained by the brain damage may contribute to an abused individual’s dependence on the abuser, impeding adaptation.

- Interventions including financial management and employment skills have a positive impact on the life skills of this population.

- Practitioners should evaluate and address psychological symptoms in all treatment settings as a medical condition, instead of a personality weakness, in order to provide appropriate services to enhance functional ability and adaptation.

- Intimate partner violence survivors residing in a shelter were discovered to experience a significantly higher rate of mental conditions and functional impairments affecting their work, school and social functioning than the nation population of women. The mental health conditions resulting in functional impairments in work, school, and social environments and contributing to an abused individual’s inability to remove themselves from an unhealthy environment ultimately increases the exposure to abuse while decreasing the likelihood of leaving an abuser and/or ability to maintain functional independence.
REFERENCES


