The effectiveness of productive participation in employment for those living with HIV/AIDS

Ashley Becker
Pacific University

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The effectiveness of productive participation in employment for those living with HIV/AIDS

Disciplines
Mental and Social Health | Occupational Therapy

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The effectiveness of productive participation in employment for those living with HIV/AIDS

Prepared by; Ashley Becker beck9387@pacificu.edu

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Review date: 11/7/08

CLINICAL SCENARIO:

Medical treatment in the United States has significantly improved and transformed the life for those living with HIV/AIDS from a life-threatening condition to a chronic disability. Secondary conditions such as depression, poverty, addiction, mental illness, and homelessness create additional barriers to living a productive life, impacting one’s volition, self-efficacy, and productivity. For people living with HIV/AIDS (PLWHA), limited research approaches have been developed to improve self-efficacy through productive work. A typical client is approximately 40 years of age, African American, male, with a high school education, and a history of mental illness.

FOCUSED CLINICAL QUESTION: What is the evidence that occupational therapy interventions designed to address productive participation in employment improves one’s sense of self-efficacy for persons living with HIV/AIDS?

SUMMARY of Search, ‘Best’ Evidence’ appraised, and Key Findings:

Of the five key findings, four were Level II-III studies and one was an expert opinion literature review. The literature review examined the effectiveness of combination therapy, to include occupational therapy and vocational rehabilitation services used to enhance self-efficacy and participation through employment for PLWHA (Braveman, Levin, Kielhofner, Finlayson, 2005). Two studies, (Kielhofner, Braveman, Fogg, & Levin, 2008; Kielhofner, Braveman, Finlayson, Paul-Ward, Goldbaum, & Goldstein, 2004) examined a model program designed to increase productive participation that directly examined occupational therapy. Vocational Rehabilitation theory was examined in two studies; one of the two (Conyers, 2004b) directly examined vocational rehabilitation and the other (Paul-Ward, Braveman, Kielhofner, & Levin) included occupational therapy.
CLINICAL BOTTOM LINE: Results support the effectiveness of the Enhanced Self-Determination Model Program in achieving sustained productive participation in PLWHA. The positive findings indicate that the two occupational therapy frames of reference, MOHO and the Social Model of Disability, can be used together to design interventions that address key variable to overcoming obstacles to productive participation. It was recommended that replication of the ESD program with a larger sample size and other populations that face similar challenges (homelessness, mental illness, stigma, discrimination, and poverty), to employment and self-determination, would help more fully evaluate the effectiveness and limitations of these services.

Limitation of this CAT:
- Limited peer-reviews by other independent person/a lecturer.
- No randomization or use of a control group
- Small sample size
- High rate of attrition due to illness, death, recidivism to substance abuse, and personal life crises or changes, meant that some participants were not traceable or available for follow-up.
- Limited triangulation due to the lack of research in this topic of concern
- Sample data primarily volunteers who had affiliation with researchers
- Literature was from the same research group

SEARCH STRATEGY:

Terms used to guide Search Strategy:
- AIDS
- HIV
- Employment
- Return to work
- Memory
- Attention
- Productivity
- Occupational therapy
- Work rehabilitation
- Dementia

- Patient/Client Group: People living with HIV/AIDS (PLWHA)
• **Intervention (or Assessment):** Occupational therapy treatment 1-hr a week to include productive participation in employment program services and strategies.

• **Comparison:** Standard care (no occupational therapy intervention)

• **Outcome(s):** increased sense of self-efficacy and self-determination

<table>
<thead>
<tr>
<th>Databases and sites searched</th>
<th>Search Terms</th>
<th>Limits used</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERIC (EBSCOhost)</td>
<td>• Productiv*</td>
<td>• published before 2000</td>
</tr>
<tr>
<td></td>
<td>• AIDS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• HIV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Occupational therapy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Voc*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• work</td>
<td></td>
</tr>
<tr>
<td>MEDLINE – OVID</td>
<td>• rehabilitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• cognition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• memory</td>
<td></td>
</tr>
<tr>
<td>CINAHL (EBSCOhost)</td>
<td>• attention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• dementia</td>
<td></td>
</tr>
<tr>
<td>CINAHL (cumulative index)</td>
<td>• employment</td>
<td></td>
</tr>
</tbody>
</table>

**INCLUSION and EXCLUSION CRITERIA**

• **Inclusion:**
  • Articles that are based on OT intervention strategies
  • Articles published 2000<
  • Adults living with HIV/AIDS
  • People living with HIV/AIDA (PLWHA) who want to return to work

• **Exclusion:**
  • No articles published before 2000
  • Articles not based on OT theory
RESULTS OF SEARCH

Table 1: Summary of Study Designs of Articles retrieved

<table>
<thead>
<tr>
<th>Study Design/ Methodology of Articles Retrieved</th>
<th>Level</th>
<th>Number Located</th>
<th>Author (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participatory Action Research, focus groups, qualitative, longitudinal data (three ongoing studies), treatment group vs. standard care</td>
<td>II</td>
<td>1</td>
<td>Braveman, Kielhofner, Levin, Paul-Ward, (2005)</td>
</tr>
<tr>
<td>Participatory Action Research, Qualitative study based on two focus groups. No control group</td>
<td>III</td>
<td>1</td>
<td>Conyers (2004b)</td>
</tr>
<tr>
<td>Participatory Action Research, Qualitative, Focus groups and interviews; retrieved from research database, no control group</td>
<td>III</td>
<td>1</td>
<td>Kielhofner, Braveman, Finlayson, Paul-Ward, Goldbaum, Goldstein, (2004)</td>
</tr>
</tbody>
</table>

BEST EVIDENCE

The following study/paper was identified as the ‘best’ evidence and selected for critical appraisal. Reasons for selecting this study were:

**Summarizing best evidence**

- Recent research
- Development of ESD work preparedness program services
- Occupational therapy based intervention
- Most developed, evidence-based research on topic of concern
- MOHO as guiding theory
- Results demonstrated significant improvement in treatment group
- Effect size; p=.59
SUMMARY OF BEST EVIDENCE


**Aim/Objective of the Study/Systematic Review:**

**Study Design:** Non-Randomised Controlled Trial, quantitative cohort study.

The Level II non-randomized control trial (Kielhofner, Braveman, Fogg, & Levin, 2008) indicated that a community-based outreach program model designed to enhance productive participation through employment services (working, attending school or training programs, and volunteering) that targeted people living with HIV/AIDS within supportive-living facilities showed significantly higher levels of productive participation in comparison to standard treatment models. The aim of this study was to examine and to test the effectiveness of Enabling Self-Determination (ESD), a model program designed to enhance self-efficacy for people living with HIV/AIDS (PLWHA) in a supportive-living facilities. Forty-six participants were assigned into one of two groups and compared; the enabling self-determination (ESD) model treatment group or the standard treatment group. Researchers believed that it was not feasible to assign residents in the same facility to different groups. ESD participants showed high effect size and significantly higher levels of productive participation (twice as likely) at all three times points (months 3, 6, 9) (p<.05).

The interventions studied include:
- Focus groups of both residents and staff
- Weekly 1-hour group sessions
- Eight groups sessions
- OTs available upon individual request
- Peer mentors

**Setting:** Two supportive-living facilities in metropolitan Chicago

**Participants:** Originally, 65 participants were recruited into the study. 46 were still available for outcomes data collection during at least one of three points (months 3, 6, 9). Participants were recruited from four different supportive-living facilities for adults living with HIV/AIDS in metropolitan Chicago. Inclusion criteria were that participants must be at legal age, have a diagnosis of HIV/AIDS, and have signed a consent form. Demographics of participants in the ESD and standard care program showed no differences at baseline. Participants were categorized into one of two groups. Demographic data was collected on age, race/ethnicity, education, history of mental illness, substance abuse, or felony conviction, and impairment.

<table>
<thead>
<tr>
<th>Gender</th>
<th>ESD</th>
<th>Standard Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male:</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>----------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>White:</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>African American:</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>Hispanic/Latino:</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other:</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Education:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>High school or GED</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>some college or trade school</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Completed trade school or A.A.</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>College degree</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>History of mental illness, substance abuse, or felony conviction:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental illness</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>History of substance abuse</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>Felony conviction</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Impairment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean symptom intensity, n (SD)</td>
<td>31.33</td>
<td>21.86</td>
</tr>
<tr>
<td>Mean symptom total, n (SD)</td>
<td>18.73</td>
<td>13.60</td>
</tr>
<tr>
<td>Number of participants at follow-up:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 months:</td>
<td>28</td>
<td>17</td>
</tr>
<tr>
<td>6 months:</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td>9 months:</td>
<td>25</td>
<td>14</td>
</tr>
</tbody>
</table>

**Intervention Investigated** (provide details of methods, who provided treatment, when and where, how many hours of treatment provided)

Aim of this study: Compared two groups: ESD to Standard Care Program.

**Control:** Standard Care Program (SCP) was led by one occupational therapist. Goal of SCP intervention was to reflect the most common vocationally relevant services PLWHA are receiving nationwide.

A series of educational groups designed to provide residents with an awareness of resources and services available within the community.

1-hr a week for 8 weeks followed by monthly presentations on topics related to employment and productivity for 9 months.

Participants provided with written materials throughout study

Could meet individually with OT

**Experimental:** ESD Model program based on MOHO and Social Model of Disability (SDM) frames of reference. Led by two occupational therapists
Group and individual interventions

Interventions designed to enhance volition and to support the development of routines, habits, and skills for new productive occupational roles

Weekly 1-hour group sessions led by OT and designed to educate clients about relevant topics

Each participant was offered eight group sessions and topics reflected themes from MOHO and SDM

Peer mentors available

OTs available for discussion and assistance
*see page 38 for list

Outcome Measures (Primary and Secondary) Give details of each measure, maximum score for each measure and range, administered by whom, where

<table>
<thead>
<tr>
<th>Outcome</th>
<th>ESD participants w/prod participation f/n (%)</th>
<th>Standard w/ prod par f/n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 months:</td>
<td>20/28 (71.4)</td>
<td>6/17 (35.3)</td>
</tr>
<tr>
<td>6 months:</td>
<td>21/27 (77.8)</td>
<td>5/18 (27.8)</td>
</tr>
<tr>
<td>9 months:</td>
<td>18/25 (72.0)</td>
<td>5/14 (35.7)</td>
</tr>
</tbody>
</table>

72% of clients who received ESD program services had productive employment outcomes (56% employed) 9 months after the intervention is comparable to the average employment outcomes (57%) reported by investigators for vocational program participants that share similar characteristics with clients in this study.

Main Findings: (inset table of mean scores/ mean differences/ treatment effect, 95% confidence intervals and p-values etc where provided – if you need to calculate these data yourself put calculations here and add interpretation later, under ‘critical appraisal’ on next page).

Effect size (odds ratio):
3 months: 4.58
6 months: 9.10
9 months: 5.66
Original Authors’ Conclusions (paraphrase as required. If providing a direct quote, add page number)

Study results indicate that ESD can influence the employment outcomes and the level of involvement in other productive activities for people living with HIV/AIDS and living in supportive-living settings. This is promising considering the multiple and substantial impairments and psychosocial barriers faced by this population. Furthermore, the ESD program’s positive results are indicative of the two frameworks effectiveness in pairing them together to design interventions that address key variables to overcoming obstacles to productive participation. This program may be effective to implement as intervention strategies for other populations faced with multiple barriers such as, homelessness, and chronic mental illness,

Critical Appraisal:

Validity (Methodology, rigour, selection, bias, provide PEDro score/ PEDro partitioned score and sub-test items 1-10 for RCTs; other study designs, follow headings used in critical appraisal checklist forms. Comment in missing information in original paper)

This study examined the interventions effectiveness, in which measures external validity. The goal was to measure external validity and assess if treatment is generalizable to real-life populations and treatment circumstances. Researches approach to generalizing was to recruit program participants who faced a variety of challenges in the context of supportive-living facilities. The rigor of controlled outcomes was difficult to achieve b/c they were not able to randomly assign participants and they experienced a high rate of attrition.

Interpretation of Results (Favourable or unfavourable, specific outcomes of interest, size of treatment effect, statistical and clinical significance; minimal clinically important difference – some of which you may have calculated yourself. Email original authors for information needed such as additional data needed to calculate confidence intervals.)

- This critically appraised paper has not been peer-reviewed by on other independent person/ a lecturer
- Not a randomized control trial
- Small sample size
- Originally, 65 participants enrolled, 45 were still available for outcome data collection during at least one time point. High rate of attrition due to illness, death, recidivism to substance abuse, and personal life crises or changes, meant that some participants were not traceable or available for follow-up

Summary/Conclusion:

Pairing MOHO and SMD frames of reference and utilizing a client-centered approach within an occupational therapy-based return to work program showed significantly higher levels of productive participation at all three time points.
### Table x: Characteristics of included studies

<table>
<thead>
<tr>
<th>Study 1 (author &amp; year)</th>
<th>Study 2 (author &amp; year)</th>
<th>Study 3 (author &amp; year)</th>
</tr>
</thead>
</table>

**Intervention investigated:**
- Study 1: Occupational therapy, MOHO-based vocational services for persons with AIDS
- Study 2: Perception of vocational services and the impact of employment for PLWHA. Two focus groups interviewed in a PAR study
- Study 3: Enabling Self-Determination Model program. Implementation of employment and independent living services for PLWHA based on occupational therapy principles and MOHO

**Comparison intervention:**
- Study 1: No control group
- Study 2: No control group
- Study 3: Standard care received at vocational rehabilitation services in North America

**Outcomes used:**
- Study 1: The success rate for program completion was 66.7% in gainful employment
- Study 2: Positive perceptions of employment among participants who returned to work. Experienced-based outcomes drawn from narratives
- Study 3: Year one of a three year longitudinal study. Not enough data to perform meaningful statistical analyses. Qualitative statements about the usefulness of the services provided were positive

**Findings:**
- Study 1: Stressed importance of
- Study 2: Based on participants
- Study 3: Increased self-determination, a
A narrative for understanding participants and proceeding future behaviour, as well as for therapy process being client-centered feedback from interviews, success found was identified in the following approaches: individualized therapy (client-centered), provided with incremental levels of participation that was manageable (task analysis), peer support, increased self-agency (self-efficacy), empathic, and being with others (support group). return to independent living, re-entering the workforce, readoption of ADLs.

Collaboration between the research team, staff, and residents proved successful.

### IMPLICATIONS FOR PRACTICE, EDUCATION and FUTURE RESEARCH

Limited research has been conducted on this population and this topic of concern. Results of the ESD study demonstrate the need for further development of intervention strategies in the return to work for people living with HIV/AIDS. Occupational therapy intervention can facilitate the participation in productive employment for those who would like to return to work. Model of Human Occupation is an excellent frame of reference to use in identifying barriers and support strategies for those who may experience multifactorial challenges in the return to work process. Referring to the ESD model will behove occupational therapists in the implementation of intervention strategies as it is clearly and concisely formulated to address PLWHA and the desire to return to work. The ESD can be accessed online at [http://www.moho.uic.edu/assessments.html](http://www.moho.uic.edu/assessments.html)
REFERENCES:


