

The Role of Occupational Performance in Prediction of Drug and Alcohol Abstinence in a Substance Abuse Population

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CLINICAL SCENARIO:

Substance abuse is a pervasive disorder affecting millions of Canadians. Substance abuse disrupts the normal occupational performance of individuals as they replace their typical routines with ones that revolve around the procurement and usage of drugs and alcohol. Given the link between increased substance abuse and the increased breakdown of occupational performance, could it be possible that improved occupational performance would lead to a decrease in substance abuse?

CLINICAL QUESTION:

Is occupational performance* predictive of duration of abstinence from drugs and alcohol in adults with substance use disorders?

SUMMARY of Search, 'Best' Evidence' appraised, and Key Findings:

- 4 articles met the search criteria
- 1 systematic review was found that identifies four evidence based psychology interventions for substance abuse patients but found no evidence to support or refute the role of occupational performance in substance abuse abstinence
- 2 cross sectional surveys were found that provide weak evidence that occupational performance is predictive of abstinence
- 1 qualitative study was found that demonstrates the high level of importance that substance abuse patients give to leisure activities during their recovery
- There is a scarcity of occupational therapy literature on this topic; it is covered more thoroughly in the psychology literature.

CLINICAL BOTTOM LINE: There is some low level evidence that suggests aspects of occupational performance are predictive of abstinence from drugs. However, more rigorous research must be done before a direct link can be said to exist between occupational performance and abstinence from drugs.

Limitation of this CAT: This CAT was prepared by a single reviewer and not been externally peer-reviewed. Results may be skewed due to a scarcity of articles on substance abuse available at Queen's University.

*Occupational performance is described as a person's ability to perform the required activities, task, and roles of daily living.

SEARCH STRATEGY:

Databases and sites searched	Search Terms	Limits used	Number of Hits
<ul style="list-style-type: none"> • CINAHL • AMED • Cochrane 	<ul style="list-style-type: none"> • Substance abuse • Occupational Therapy • Life skills • Activities of daily living • Instrumental activities of daily living • Prediction 	Years 1995-2005 English only	CINAHL-124 Amed-48 Cochrane-43
<ul style="list-style-type: none"> • OT seeker 	<ul style="list-style-type: none"> • Substance abuse • Prediction 	Years 1995-2005	OT Seeker-22
<ul style="list-style-type: none"> • PsychINFO • EMBASE 	<ul style="list-style-type: none"> • Prediction • Leisure activities • Recreation activities • Work activities • Productive activities • Substance abuse • Activities of daily living 	Years 1995-2005 English only	PyschINFO-59 EMBASE-24

INCLUSION and EXCLUSION CRITERIA**Inclusion:**

- Literature from both rehabilitation and psychology fields were included
- Article must deal with occupational performance as it relates to alcohol and substance abuse
- Articles must deal with substance abuse in an adult population

Exclusion:

- Articles in languages other than English were excluded
- Articles older than 10 years were excluded
- Articles that were not available in print or electronically via Queen's University

RESULTS OF SEARCH

Four 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

Level of Evidence	Study Design/ Methodology of Articles Retrieved	Number Located	Source(s)
1a	Systematic Review of EBP substance abuse interventions	1	CINAHL (ref # 1)
4	Cross Sectional Survey	2	Embase (ref # 2 & 4)
n/a	Qualitative/Phenomenological	1	AMED (ref # 3)

BEST EVIDENCE

The following articles were selected as 'best evidence' for critical appraisal.

- Moyers & Stoffel, 2004: Level 1a evidence, systematic review that includes RCT's pertinent to the clinical question

- Walton, Blow & Booth, 2000: Highest quality quantitative study other than the SR, was not included in the SR
- Hodgson, Lloyd & Schmid, 2001: Qualitative study, although not an optimal study design to address the clinical question, provides in-depth evidence pertinent to the clinical question and was not included in the SR.

SUMMARY OF BEST EVIDENCE

Table 2. Description and appraisal of SR by Stoffel & Moyers, 2004

Purpose of the Study: The purpose of the review was to describe effective interventions from other disciplines as applied to adults and adolescents with substance-use disorders that improve outcomes consistent with the domain of occupational therapy, use an occupational perspective to modify the interventions shown to be effective in order to facilitate engagement in activity and participation within the community and use finding to suggest research questions that would examine the effectiveness of the modified interventions.

Methods: An evidence-based review was performed by two occupational therapists. Databases searched included OT Search, Medline, PsychInfo, CINAHL and the Cochrane Library. Search terms included substance-use disorders, substance abuse, substance dependence, alcoholism, and addictions. Articles from 1990 to 2000 were included. 20 studies were reviewed and ranked according to the American Occupational Therapy Association Evidence Based Practice Project guidelines.

Results: Four interventions were found to be effective in the treatment of substance abuse according to the AOTAEBPP schema: brief interventions, motivational interviewing, cognitive behavioural therapy, and 12 step programs. The reviews found few articles regarding the effectiveness of treatments aimed at increasing occupational performance areas of work, leisure, and play.

Authors Conclusions: There are several effective treatment options for substance abuse that occupational therapist can incorporate in their practice. Occupational therapy researchers need to further examine the interactions among the person, the environment, and that the activity that will result in the further understanding of substance abuse prevention and recovery.

Critical Appraisal

Validity: It was difficult to tell if all relevant studies were chosen as:

- There was no stated follow up from reference lists
- There was no stated personal contact with experts/authors
- There was no stated search for unpublished studies
- Non English articles were not included

Importance of Results: The article's lack of an answer to the clinical question indicates a lack of supporting evidence available to answer such a question. The results do however outline four proven EBP interventions for substance abuse populations.

Implications for Practice:

Given that...

- The review showed few existing OT interventions
- The article outlines 4 proven EBP psychology interventions for substance abuse
- The article shows examples of how to incorporate them into OT practice

Then... it seems prudent to incorporate EBP interventions from other fields given occupational therapy's current lack of evidence based practice in this area.

Table 3. Description and appraisal of Cross Sectional Survey by Walton, Blow & Booth, 2000

Purpose of the Study: This study aimed to evaluate whether the risk for relapse perceived by the participants and their counsellors predicted relapse prospectively over 2 years.

Methods:

Participants: Two hundred and forty adults were recruited from inpatient and outpatient programs at a veteran's affair's hospital. Participants varied in age from 18 to 74 years with a relatively equal ratio of men to women.

Study Design: Participants were asked to fill out questionnaires regarding their drug and alcohol use. There were two questionnaire sessions, each were spaced two years apart. The first session included the University of Arkansas Substance Abuse Outcomes Module and the Relapse Risk Index. The second session included the previous measures as well as the Lifetime Drinking History and the Timeline Follow Back. In addition to these sessions, the counsellors of the participants were asked to fill out a modified version of the Relapse Risk Index as well as rating their confidence of the participant abilities on a 5 point Lierart scale. The results from the counsellors were then compared to each participant's rankings.

Results: Counsellors determined income as a relapse risk while participants identified activities revolving around substance abuse as a relapse risk. Counsellors' ratings of coping skills predicted alcohol relapse. Participant's ratings of coping skills, leisure activities predicted alcohol relapse. Participants' ratings of social support predicted drug relapse. All results of the study were reported in terms of statistical significance.

Author's Conclusions: The findings of the study suggest the potential for using patient perceptions to help predict relapse.

Critical Appraisal:

Validity: The purpose was clearly stated as examining the concordance in participants and counsellors perceptions of relapse risk and to identify correlates of both participant and counsellors perceptions of relapse risk. Adequate coverage of background research was given. The sample size was reasonable and the population was well documented. The effect on outcome data from modifying the Relapse Risk Index is not known. Methodology for the collection of counsellor data was unclear in terms of chronology. Numerous participants did not complete the second questionnaire two years later. This loss to follow up may result in a potential bias of the findings.

Results: Results from the study are of clinical importance in the substance abuse population as they potentially change the content of treatment and discharge plans and the way in which these are devised.

Importance of Results: Due to design, this study adds supportive, albeit low-level, evidence to the clinical question posed.

Implications for Practice: Results from the study are of clinical importance in the substance abuse population as they potentially change the content of treatment and discharge plans and the way in which they are devised.

Table 4. Description and appraisal of Phenomenological Study by Hodgson, Lloyd & Schmid, 2001

<p>Purpose of the Study: This article seeks to gain a qualitative understanding of the leisure participation of clients with a dual diagnosis.</p> <p>Methods: Four individuals from a local outpatient drug and alcohol rehabilitation program were selected to participate in the study. The study was phenomenological qualitative study that relied on in depth, semi-structured interviews for data. Interviews lasted approximately one hour and were audio-taped. Interest checklists were used to prompt the interview as well as questions relating to general living situation and medical history. Codes were developed and all information was member checked.</p> <p>Results: The participants felt leisure participation was strongly correlated to their recovery. The sub-themes identified were redefining old activities with new meaning and stressing the importance of meeting new people. The participant also identified several barriers to meeting new people that included mental health, social, transportation, and financial issues.</p> <p>Author's Conclusions: This study gives evidence of the importance that dual diagnosis clients place on leisure activities in their recovery process.</p>
<p>Critical Appraisal:</p> <p>Validity: The stated objective of the research was clearly stated and the phenomenological methodology was appropriate for this type of research. All information was member checked however no mention of triangulation from other sources (theories, researchers in the study, case managers) were mentioned. No indication of the number of interviews was given. The results of the study fulfil the stated objectives. The findings are stated clearly. Direct participant quotes are used to substantiate the findings in several but not all of the sub themes.</p> <p>Limitations: The data gathered relied solely on the willingness of the participants to disclose information. (Informants were occasionally unwilling to speak of their circumstances due to being under the influence of drugs at the time of the interview.)</p> <p>Importance of Results: As a qualitative study with key limitations, this article adds little formal evidence to the body of knowledge needed to answer the clinical question posed.</p> <p>Implications for Practice: This article adds an increased level of depth and understanding of clients in a substance abuse treatment program. As a result, treatment plans could be made that are more relevant and client centered.</p>

REFERENCES

Critically appraised articles:

1. Stoffel, V.C., & Moyers, P.A. (2004). An evidence based and occupational perspective of interventions for persons with substance-use disorders. *American Journal of Occupational Therapy*, 58, 570-586.
2. Walton, M.A., & Blow, F.C. & Booth, B.M. (2000). A comparison of substance abuse patients' and counselors' perceptions of relapse risk relationship to actual relapse. *Journal of Substance Abuse*, 19, 161-169.
3. Hodgson, S., Lloyd, C., & Schmid, T. (2001). The leisure participation of clients with a dual diagnosis. *British Journal of Occupational Therapy*, 64, 487-492.

Related Article (not individually appraised)

4. Walton, M.A. Blow, F.C. Bingham, R. & Chermack, S.T. (2003). Individual and social/environmental predictors of alcohol and drug use 2 years following substance abuse treatment. *Addictive Behaviors*, 28, 627-642. (Level 4 Evidence)