CRITICALLY APPRAISED PAPER (CAP)

FOCUSED QUESTION
For adults with psychiatric disabilities, does participation in a supported education program as compared to a traditional therapy program improve skills necessary to pursue educational or vocational training?


CLINICAL BOTTOM LINE:
Results show that adults with psychiatric disabilities who participated in the occupational therapy–supported education program, in conjunction with pharmacological treatment, had more successful outcomes of improving basic academic skills, enhancing professional behaviors and social skills, and returning to school or obtaining a job. The program covered skills and abilities, including exploration of work, training and educational programs, study skills for work or school, time management training, basic proficiency in reading, writing and math, stress management and other skills to help maximize their skills in society. In order to better judge the efficacy of programs such as these, more research is necessary.

In the profession of occupational therapy, it is the therapist’s responsibility to help clients return to a proper level of function so they can engage within society. The Bridge Program corresponds to occupational therapy because it seeks to restore individuals to their desired educational or work environment. Occupational therapists look at the client’s interests and abilities when evaluating treatment and develop interventions based on the client’s skills. The Bridge program has several features that can be generalized into occupational therapy: the usage of empowerment of the clients and providing the opportunity and ability to improve their prognosis and pursue their educational interests. The Bridge Program is based in beliefs similar to the frames of reference used within occupational therapy practice. This includes the acquisitional frame of reference, the Model of Human Occupation, and the postulation of a structured environment as support of the student/worker role. Finally, the group setting the Bridge Program utilizes is supportive of occupational engagement, social interaction, and awareness of skills and behaviors. Within occupational therapy, this promotes an individual’s ability to create an occupational identity as a learner, develop occupational competency in post-secondary skills, and improve occupational adaptation to being functional within society as an adult with psychiatric disability.
RESEARCH OBJECTIVE(S)
List study objectives

The purpose of the study is to examine whether supported education programs for adults with psychiatric disabilities are effective at helping them learn necessary skills to pursue educational or vocational training or obtain work.

DESIGN TYPE AND LEVEL OF EVIDENCE:
Level I: Randomized controlled trial

Limitations (appropriateness of study design):
Was the study design type appropriate for the knowledge level about this topic? Circle yes or no, and if no, explain.

YES/NO Yes

SAMPLE SELECTION
How were subjects selected to participate? Please describe.

Participants were selected from three different mental health institutes. Those who met the criteria signed letters of informed consent, and were then randomized to either the experimental or control group.

Inclusion Criteria
- ≥ 18 years of age
- Their own legal guardian
- Able to cognitively weigh study risks and benefits to decide whether or not they want to participate
- Possess a psychiatric disorder diagnosed by a physician
- Receiving medication management from a licensed psychiatrist or nurse practitioner
- Demonstrate an interest in pursuing further education
- Willing to make a commitment to attend all 12 sessions of the program
- Able to function adequately in most daily living activities
- Ready to begin greater community participation
- Have a minimum 10th grade reading and writing level

Exclusion Criteria
- Lack of fluency in English
- Possession of an active substance abuse disorder

SAMPLE CHARACTERISTICS
N = 38 (initially recruited 46 participants with psychiatric disabilities); randomized to experimental group (n = 21) and a control group (n = 17)

% Dropouts 8/46 = 17.39% (8 dropouts)
#/ (%) Male 22/38 = 58%  #/ (%) Female 16/38 = 42%

Ethnicity 15 (39%) Hispanic
14 (37%) African American
8 (21%) Caucasian

Disease/disability diagnosis Psychiatric disabilities including schizophrenia, schizoaffective, bipolar, and depression

Check appropriate group:

<table>
<thead>
<tr>
<th>&lt;20/study group</th>
<th>20–50/study group ✓</th>
<th>51–100/study group</th>
<th>101–149/study group</th>
<th>150–200/study group</th>
</tr>
</thead>
</table>

INTERVENTION(S) AND CONTROL GROUPS
Add groups if necessary

Group 1

| Brief Description | There were 21 individuals randomly assigned to the experimental group. This group attended a supported education program known as the Bridge Program aimed at helping adults with psychiatric disabilities learn necessary skills to pursue either an educational or vocational training. Module topics include:
|                  | • Exploration of work, training, and educational programs
|                  | • Study skills for work or school
|                  | • Time management skills for work or school
|                  | • Effective reading skills
|                  | • Basic writing skills
|                  | • Introduction to Internet skills
|                  | • Basic math skills for school and job placement
|                  | • Use of library resources
|                  | • Public speaking skills
|                  | • Professional behaviors and social skills
|                  | • Stress management skills for work or school |
| Setting          | Large urban university |
| Who Delivered?   | Occupational therapists and occupational therapy students |
| Frequency?       | Twice a week |
| Duration?        | 6 weeks |

Group 2

<p>| Brief Description | Control group of 17 randomly assigned individuals who received medication management treatment and daily activities groups such as recreational group, community affairs group, vocational preparation group, life skills group, and world events group. |</p>
<table>
<thead>
<tr>
<th>Setting</th>
<th>Their respective mental health facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who Delivered?</td>
<td>Psychiatrist, nurse practitioners, case management, one-on-one support, group counseling, and daily activities groups</td>
</tr>
<tr>
<td>Frequency?</td>
<td>Twice a week</td>
</tr>
<tr>
<td>Duration?</td>
<td>6 weeks</td>
</tr>
</tbody>
</table>

**Intervention Biases:** *Circle yes or no and explain, if needed.*

**Contamination**

| YES/NO | To ensure that the students were not biased, the scale administered (OT Student Comfort With a Mental Health Population Scale) was administered during the first week in which the students began their occupational therapy educational curriculum. |

**Co-intervention**

| YES/NO | Yes. The experimental group received the “care as usual” that the control group was receiving. |

**Timing**

| YES/NO | No |

**Site**

| YES/NO | No |

**Use of different therapists to provide intervention**

| YES/NO | Yes. Not explicitly reported in the study, yet bias may exist due to multiple providers—students and clinicians—implementing treatment. Each session may have been different depending on who led the group and may reflect quality of treatment based on whether an experienced expert clinician was providing care compared to the students. This could have potentially affected results because each clinician and student has a unique style of teaching, which could influence the way in which information was received and understood by the participants. |

**MEASURES AND OUTCOMES**

Complete for each relevant measure when answering the evidence-based question:

Name of measure, what outcome was measured, whether the measure is reliable and valid (as reported in article – yes/no/NR [not reported]), and how frequently the measure was used.

**Task Skills, Interpersonal Skills, and School Behavior Scales (TSS, ISS, and SBS):** Pre- and posttest (second and final weeks) observational scales that were completed for the participants (experimental and control) by a double-blinded investigator. Outcome measured: Whether participants were able to enhance the professional behaviors and social skills needed to succeed in an academic environment

Reliability: Interrater reliability range from .81 to .93 for TSS; from .70 to .88 for ISS; .86 to .99 for SBS.

Test–retest reliability range from .81 to .93 for TSS; from .82 to 1.0 for ISS; SBS NR.
Internal consistency at an alpha coefficient of .99 for TSS and ISS; .83 for IBS.
Validity: Convergent validity using instruments with recognized content validity; TSS
correlated with Occupational Therapy Task Observation Scale (r = .709, p = .01); ISS
correlated with Specific Level of Functioning Scale (r = .761, p = .01); SBS NR.

**Participant Overall Satisfaction Scale:** Given to the experimental group participants on the
final day of the Bridge Program.
Outcome measured: The participants’ level of satisfaction with specific aspects of the Bridge
Program
Reliability: Internal consistency at an alpha coefficient of .88
Validity: NR

**12 Modules:** A pre- and posttest were administered to the experimental group for each of the 12
modules covered in the Bridge Program.
Outcome measured: Whether participants were able to learn the concepts presented in the
program
Reliability: NR
Validity: NR

**Measurement Biases**
Were the evaluators blind to treatment status? *Circle yes or no, and if no, explain.*

**YES/NO** Yes

Recall or memory bias *Circle yes or no, and if yes, explain.*

**YES/NO** NR

**Others (list and explain):**

**NR**

**RESULTS**
List results of outcomes relevant to answering the focused question
Include statistical significance where appropriate
Include effect size if reported

There were no statistically significant differences between experimental and control
group pretest scores on the Participant Comfort with Student Role Scale, TSS, ISS, and
SBS (p > .05). However, there were statistically significant differences between the
group’s posttest scores on the same assessments (p ≤ .000). Paired *t* tests were used to
determine differences between pre- and posttest scores for the 12 modules taught in the
Bridge Program:
- Exploration of training programs, degrees, and work options (p ≤ .000)
- Study skills for school or work (p ≤ .000)
- Time management skills for school or work (p ≤ .000)
- Effective reading skills for school and job training (p ≤ .000)
- Basic writing skills for school or work (p ≤ .000)
- Basic computer skills (p < .01)
Introduction to Internet skills ($p < .01$)
- Basic math skills for school and job placement tests ($p \leq .000$)
- Use of library resources ($p \leq .000$)
- Public speaking strategies for school or work ($p < .05$)
- Professional behaviors and social skills ($p < .05$)
- Stress management skills for school or work ($p \leq .000$)

Based on this data, the Bridge Program did have a positive impact on the individuals who completed it.

A Spearman rho was used to determine what factors correlated with success (ability to complete program and enroll in further school or job training) in the program:
- Whether participant adhered consistently to medication routine ($r = .70, p \leq .000$)
- Having a stable residence during the program ($r = .64, p < .001$)
- Having moderate child care responsibilities ($r = -.62, p < .001$)
- Consistent program attendance ($r = .84, p \leq .000$)
- No statistical significant correlations between success and education level of participants or parents, age of onset, or number of hospitalizations in past 5 years.

Seventy-six percent (16 members) of the 21 experimental group members completed the program, and 63% (10 members) of these participants had enrolled in some form of educational/job training program, obtained employment, or were in the process of applying to a program in the next year at the 6-month follow up after the study.

The reports from the Overall Satisfaction Scale signified that the program prepared members for further education and job pursuit by teaching them skills and supporting their self-confidence in their abilities for school and work.

Was this study adequately powered (large enough to show a difference)? Circle yes or no, and if no, explain.

**YES/NO**  
No. The authors’ themselves indicated that the study was limited by the small sample size.

Were appropriate analytic methods used? Circle yes or no, and if no, explain.

**YES/NO**

Were statistics appropriately reported (in written or table format)? Circle yes or no, and if no, explain.

**YES/NO**  
There was no table indicating the percentages of those who completed the program and the percentage of those who had further achieved the outcome desired by the study.

**CONCLUSIONS**

State the authors’ conclusions that are applicable to answering the evidence-based question.

Overall, the results support the effectiveness of the Bridge Program. The results suggest that the Bridge Program helped participants increase their skill level in basic academic areas, improve professional behaviors and social skills needed for school and work settings, and gain confidence to test their skills in the larger world. Finally, based on the results of this study, the authors were able to demonstrate that occupational therapists have the skills to develop and provide educational services for individuals with mental illness. This includes occupational
therapists’ unique expertise, specifically designing adaptive strategies that enhance functional performance in school/work; using activity analysis necessary to break down skills into learnable components with increasing mastery; and assisting clients with developing new or desired identities and roles by enhancing performance for activities, habits, and routines. This type of education service is necessary for this adult population to be successful and independent socially and economically.

This work is based on the evidence-based literature review completed by Kevin Mukalel, OTS; Kerry Tong, OTS; Christopher Yang, OTS; and Colleen Maher, OTD, OTR, CHT, Faculty Advisor, University of the Sciences


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