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An In-House Prevocational Training Program for Newly Discharged Psychiatric Inpatients: Exploring Its Employment Outcomes and the Predictive Factors

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Learning Objectives

1. After this course, participants will be able to describe the important features and clinical implications of an OT-led multidisciplinary in-house prevocational training program for chronic/severe psychiatric patients.

2. After this course, participants will be able to describe the employment outcomes of the participants who attended the in-house prevocational training program.

3. After this course, participants will be able to list the factors that affected the employment outcomes of the participants of the in-house prevocational training program.

4. After this course, participants will be able to illustrate the clinical implications of the prevocational training program for individuals with chronic/severe mental disorders.
What Was the Problem We Tried to Address?

- Employment often serves as an aspiration of individuals with disabilities and is deemed an important path to social inclusion. It increases self-efficacy, productivity, economic security, meaningful participation, physical and psychological health and quality of life (Twamley et al., 2003; Drake et al., 2009; Lysaght et al., 2009).

- Despite the wide-ranging benefits of employment, individuals with mental disorders worldwide continue to experience the lowest employment rates among all people with disabilities (World Health Organization, 2010).

What Was the Specific Clinical/Cultural Context as It Relates to the Stated Problem?

- According to statistics by the Ministry of Labor of Taiwan (2011), individuals with mental disorders had an employment rate of 15.59% while those with physical impairments had an employment rate of 36%.

- Supported employment, sheltered workplace and prevocational training programs are common types of vocational services for people with disabilities in Taiwan (Wang et al., 2012). Because of the limited availability of supported employment for individuals receiving mental health services in Taiwan, the sheltered workplace has been a common goal for chronic psychiatric patients.
Then, What Were the Issues that Affected the Clients’ Performance and Sustainability in Sheltered Workplaces?

- the lack of transitional service between hospital and community-based settings
- insufficient disease and medication management skill
- poor self-efficacy
- inadequate social and job-related skills

(Chou and Tang, 2007; Wang et al., 2012; Lin et al., 213).

So, What Was the Program Developed to Address Those Issues Affecting the Clients’ Performance and Sustainability in Supported or Sheltered Workplaces?

- **In-House Prevocational Training Program – the ABC Workshops**
  - a government-funded prevocational training program led by occupational therapists at a regional psychiatric hospital in central Taiwan.
  - an innovative in-house program aiming to provide structured work behavior and skill training for the hospital’s newly discharged inpatients.
  - an alternative to placement in a traditional community-based day program
What Were Some Important Characteristics about this In-House Prevocational Training Program – the ABC Workshops?

- the utilization of the hospital’s existing spaces, facilities and manpower alongside the community sources and networks to train its participants in one of the three job options (workshops):
  - Auto Wash/Detailing
  - Bakery & Cafe
  - Clothes and Linen Cleaning (wash & fold laundry service)

(Cont.)

- was staffed with occupational therapists (case managers), on-site job coaches and volunteers, and cross-disciplinary support from psychologists, social workers and nurses at the hospital.

- Each workshop contained three sessions
  - Work-Related Behavior & Skill Training Session
  - On-the-Job Training Session
  - Life Balance & Coping Session
What Were Some Important Characteristics about this In-House Prevocational Training Program – the ABC Workshops? (Cont.)

- **Work-Related Behavior & Skill Training Session**
  - a rich array of lectures and discussion, group activities and presentations and assignments
  - such as proper appearance and attire; punctuality, attendance and responsibility; communication and self assertion; engagement, concentration and work completion; workplace social skills and etiquette; problem solving and conflict resolution; and job searching and interview skills

- **On-the-Job Training Session**
  - took place in the car wash/detailing facility, the bakery and café and the laundry facility that were all housed in the hospital and were open to the public
  - a full-day unpaid internship where the participants gained the job-specific training and hands-on experience from paid or volunteer job coaches
  - an occupational therapist (case manager) responsible for overseeing each participant’s various work-related behaviors
What Were Some Important Characteristics about this In-House Prevocational Training Program – the ABC Workshops? (Cont.)

- Life Balance & Coping Session
  - a series of module-based courses and activities that aimed to further enhance the participants’ ability to tackle potential hardships and barriers to work
  - such as stress management and relaxation techniques, coping strategies, work and leisure, time and money management, medication issues, and community outreach and resources
  - cross-disciplinary initiatives/supports (e.g. psychologist, social worker, nurses, occupational therapist).

Workshop A: Auto Wash & Detailing

Signed released forms were received for these photos
Workshop B: Bakery & Café

Signed released forms were received for these photos

Workshop C: Clothes & Linen Cleaning

Signed released forms were received for these photos
What Was Our Study Purpose?

- To explore employment outcomes and identify factors that could affect the employment outcomes of the in-house prevocational training program.
- Employment outcomes in the 1st, 3rd and 6th months following the program completion.
- If factors such as demographics, diagnostic history, physical fitness, functional levels and vocational counseling service were predictive of the participants’ employment outcomes.

Our Research Design

- Retrospective Cohort Study
  - Utilizing data collected with a cohort of the In-House Prevocational Training Program (ABC Workshops) participants.
Our Participants

- 58 participants who were recently discharged from the regional psychiatric hospital in central Taiwan.
  - completed the entire course of the prevocational training program and follow-up employment outcome interviews

Our Participants – Their Characteristics

- male (60.3%), single (79%), with a high school diploma (56.9%)
- diagnosed with schizophrenia (91.4%)
- ages ranged from 18 to 50 (M = 34.4; SD = 8.2)
- The age of onset of schizophrenia ranged from 13 to 39 (M= 22.2, SD = 6.0)
- The duration since onset ranged from 1 to 28 years (M= 11.4, SD = 6.3).
Our Participants – Their Received Service

- Workshop A (auto wash & detailing): 8
- Workshop B (bakery & café): 12
- Workshop C (clothes & linen cleaning): 38

- 42 participants (72.4%) received vocational counseling services during the first month post-training; 38 (65.5%) received vocational counseling services during the 3 and 6-month periods post-training.

Note: the vocational counseling service was provided by OTs at the hospital-affiliated community rehabilitation centre.

Our Measurements

- Chu’s Occupational Assessment Inventory (Chu, 1991; Chu, 1997)
  - Activities of Daily Living (ADL) Test – 2nd ed.
  - Hand Dexterity Test
  - Attention Test.

- The Standardized Physical Fitness Indices (PFIs) (Sports Affairs Council, Executive Yuan, Taiwan ROC, 1998)
  - Body Mass Index (BMI)
  - Core Strength (60-second sit-up test)
  - Body Flexibility (sit and reach test)
  - Cardiovascular Fitness (3-minute step test).
**Our Data Collection**

- approval by the Research Ethics Committee of the hospital
- each participant’s case manager (occupational therapist) collected data and administered all measurements
- Information about the employment status and the use of vocational counseling services was collected through the 1, 3 and 6-month follow-up interviews

**Our Data Analysis**

- Descriptive statistics and frequency analysis to summarize the initial data
- McNemar’s test with 2 × 2 contingency tables for the pairwise comparisons of employment outcomes (employed vs. unemployed) across the 1, 3 and 6-month periods post-training
- participants’ data (N= 58) across the three time parameters were pooled to yield 174 longitudinal data entries for the subsequent statistical analyses to finalize the significant predictors for employment outcomes
  - Chi-square and simple logistic regression
  - multiple logistic regression
What Did We Find?

Employment outcomes at 1-month, 3-months, and 6-month follow ups post-training (N = 58)

<table>
<thead>
<tr>
<th></th>
<th>Unemployed n (%)</th>
<th>Employed n (%)</th>
<th>Employment Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Month</td>
<td>12 (20.7%)</td>
<td>46 (79.3%)</td>
<td>Sheltered Employment: 33 Supported Employment: 7 Regular Employment: 6</td>
</tr>
<tr>
<td>3-Month</td>
<td>19 (32.8%)</td>
<td>39 (67.2%)</td>
<td>Sheltered Employment: 24 Supported Employment: 8 Regular Employment: 7</td>
</tr>
<tr>
<td>6-Month</td>
<td>18 (31.0%)</td>
<td>40 (69.0%)</td>
<td>Sheltered Employment: 21 Supported Employment: 9 Regular Employment: 10</td>
</tr>
</tbody>
</table>

What Did We Find? (Cont.)

- A variety of jobs were reported by the employed participants, ranging beyond the three options in the prevocational training (i.e. auto wash/detailing, bakery, clothes/linen cleaning) into such jobs as cafeteria assistant, packing house job, landscaping, gift wrapping and a warehouse job.

- The results of McNemar’s test showed no significant differences in the employment outcomes (employed vs. unemployed) between the 1 and 3-month periods, 3 and 6-month periods and 1 and 6-month periods, respectively (all McNemar chi-squares<3.84, p>.05).
What Did We Find? (Cont.)

- Chi-square test used to screen categorical independent variables for employment prediction showed four variables: education ($\chi^2 = 5.97, p = .05$), hand function ($\chi^2 = 13.01, p<.001$), core strength ($\chi^2 = 6.82, p = .03$) and vocational counseling service ($\chi^2 = 70.24, p = 0.01$), reached statistical significance.

- Simple logistic regression used to screen continuous independent variables for employment prediction showed none of the three variables (age at the time of training, age of onset, and duration since onset) reached statistical significance.

What Did We Find? (Cont.)

- Finally, multiple logistic regression was conducted with the preselected variables (education, hand function, core strength and vocational counseling service) as the independent/predictive variables and employment status (employed vs. unemployed) as the dependent/outcome variable.

- Vocational counseling service (yes/no) and hand function were selected as significant predictors.

- Participants who received vocational counseling services post-training were most likely to be employed ($p<.001$), and participants who had very severe hand impairment ($p = .003$) were less likely to be employed than those who had a hand functional level at good, fair or mild impairment.
What Is the Clinical Significance?

- How was our in-house vocational preparation program different from the traditional employment training models?

  - Traditional employment training models were often criticized for the fact that the mental health service and the vocational training program maintain separate organizations, finances, workforces and documentation, leading to the lack of coordination and collaboration in services (Drake and Bond, 2008).

What Is the Clinical Significance? (Cont.)

- How was our in-house vocational preparation program different from the traditional employment training models? (Cont.)

  - The in-house vocational preparation program led by occupational therapists in the psychiatric hospital enabled the newly discharged clients to gain continuous access to services that aimed to enhance both mental health and employment capacity.

  - The integration of cross-disciplinary support and community resources further epitomized the essential function of the in-house prevocational program in generating all-inclusive services.
What Is the Clinical Significance? (Cont.)

- How good was the employment outcome in this study compared to other findings?
  - The employment rates at 1, 3 and 6-month follow-ups (79.3, 67.2 and 69.0%) were overtly higher than the previously reported 21.5% employment rate (including sheltered employment) by a European population-based study of people with schizophrenia who received vocational services (Marwaha et al., 2007).
  - These employment rates are also conceivably higher than the post-training employment rate of 50.7% reported in a Taiwanese population-based study of people with various mental diagnoses (Jang et al., 2014).

What Is the Clinical Significance? (Cont.)

- How was the sustainability of the employment outcome in this study?
  - No significant differences in the employment rates across the three time periods post-training suggest the participants’ ability to maintain their employment.
  - The types of jobs pursued by the participants presented a wide variety that ranged beyond the three intended jobs in training.
  - Although a high percentage of a sheltered job was presented, given the relatively low accessibility of supported employment for individuals with severe mental disorders in the area, we view the resulting employment outcomes in high regard.
What Is the Clinical Significance? (Cont.)

- What factors were predictive of the employment outcome in this study?

  - Among the variables of demographics, diagnostic history, vocational counseling service, physical fitness and functional skills that were analyzed, vocational counseling service and hand function were found to be significant predictors of the employment outcome.

  - Receiving vocational counseling services post-training and having a hand functional level at good, fair or mild impairment (as opposed to severe impairment) could contribute to positive employment outcome (employed).

What Is the Clinical Significance? (Cont.)

- **Vocational Counseling Service**

  - Given the demanding nature of maintaining employment for individuals with severe mental disorders, ongoing supportive services such as vocational counseling are paramount.

  - Vocational counseling professionals, such as occupational therapists or rehabilitation counselors, help clients develop an individualized employment plan; locate job opportunities; conduct periodical assessments to monitor motivational, emotional and medication-related problems; seek out community resources and social networks; and retain work-related skills and behaviors (Caporoso & Kiselica, 2004).
What Is the Clinical Significance? (Cont.)

**Hand Function**

- Hand dexterity deficits are commonly observed in individuals with a severe mental disorder (e.g., schizophrenia). The problems have frequently been attributed to the side effects of antipsychotic or neuroleptic medications (Falk-Kessler and Bear-Lehman, 2003).

- Other authors also have concluded that hand dexterity influences employment outcomes for individuals with schizophrenia (Chu, 1997; Michon et al., 2004).

- Occupational therapists should recognize the need for periodically monitoring and improving hand function in psychiatric clients in order to optimize their employment outcomes.

What Are the Limitations of This Study?

1. This was a retrospective cohort study where the lack of control and randomization can limit the interpretation of the overall program efficacy.

2. Analyses were limited to data available in the participants’ existing files. Some other potential predictors of employment outcomes, such as intelligence, clinical symptoms or employment history, were not included in the study.

3. The concluded factors contributing to job sustainability may only be applicable to labor-intensive or dexterity-demanding jobs akin to those used in this study.

4. This study was conducted in Taiwan. Caution is warranted in generalizing the results.
Conclusion

- Our study showed that the OT-Led In-House Prevocational Training Program (ABC Workshops) consisting of Work-Related Behavior & Skill Training Session, On-the-Job Training Session, and Life Balance & Coping Session, yielded positive employment outcomes for newly discharged psychiatric inpatients.

- It is important that occupational therapists attend to clients’ need for continuous vocational counseling services following prevocational training and carefully monitor each client’s personal, functional and environmental factors that can affect his or her employment outcome.

Comments & Feedback

Should you have any further questions or comments, please do not hesitate to contact me.

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References


References (Cont.)

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