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Evidence-Based Practices for Rehabilitation Services in Asian countries : Applications and Recommendations

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ABSTRACT

There is no disputing the fact that rehabilitation services in the US have entered an age of Evidence-Based Practices. As rehabilitation interventions enhance in effectiveness and efficiency, more studies of rehabilitation also are needed in other countries and cultures. In spite of numerous efforts to enhance the quality of life of people with disabilities among Asian countries, there are still several social barriers and unscientific service approaches which might not be proven by effective research results. The rehabilitation system in these countries would have been more developed if researchers and professionals had applied the evidence-based practices into specific rehabilitation services. In order to apply and disseminate evidence-based practices into Asian countries' rehabilitation services, several applications and recommendations were addressed. By integrating existing advanced knowledge and information of evidence-based practices, professionals could enhance the quality of life of people of disability. Also, the rehabilitation system in Asian countries might be upgraded into an ideal direction.

＜Key-words＞

Evidence-Based Practices, Rehabilitation Services, Asian Countries

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Ⅰ. Introduction

There is no disputing the fact that rehabilitation services in the US have entered an age of Evidence-Based Practices (EBP). Even though there are some difficulties in applying the methods of evidence-based practice to rehabilitation research, it is clear that rehabilitation services will continue to move in this direction (Cicerone, 2005). Until about 1980 rehabilitation in the US lacked any strong evidence, however over the last 25 years the quantity of important evidence has developed significantly as well as quality. Therefore, it is now achievable to practice many rehabilitation services on the basis of evidence (Wade, 2006).

As rehabilitation interventions enhance in effectiveness and efficiency, more studies of rehabilitation also are needed in other countries and cultures (Drake et al., 2003a). Specifically, diverse rehabilitation services such as independent living, assistive technology, supported employment, sheltered workshop, psychiatric rehabilitation, and rehabilitation counseling in the US have inspired the rehabilitation systems in several Asian countries. However, in spite of numerous efforts to enhance the quality of life of people with disabilities in Asian countries, there are still several social barriers and unscientific service approaches which may not be proven by effective research results. The rehabilitation system in these countries would have been more developed if researchers and professionals had applied the evidence-based practices into specific rehabilitation services. Therefore, the purpose of this paper is to describe the evidence-based practices and research outcomes in the US, as well as to suggest specific applications and recommendation for future rehabilitation services in Asian countries.

Ⅱ. Evidence-Based Practices

Since the Congress passed the Health Maintenance Organization Act in 1973, the American healthcare systems has experienced a considerable revolution in implementing managed care measures which designed to control the rising costs of health care services (Mullen, 1995 as cited in Chronister et al., 2005). This new model of health care system has changed the rehabilitation healthcare system and compelled researchers and clinicians to provide evidence to support the efficacy of their services.

According to Drake et., (2003b), “Evidence-based practices are interventions for

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which there is consistent scientific evidence showing that they improve client outcomes" (p. 2). Also, evidence-based practice should be comprehended by a total processes; what clinical questions to ask, how to achieve the best practice, and how to essentially assess the evidence for authenticity to the specific care situation. Further, a clinician has to apply the best data to the consumer's exclusive values and needs. Ultimately, the effectiveness of care and the improvement has to be evaluated continuously (DePalma 2002, as cited in Chronister et al., 2005). In order to confirm these processes and improve the quality of services, the several criteria should be adhered to.

1. Operational Criteria

At first, the practice should be obviously identified, have a list of practice standards, and be evaluated by rigid principles. Also, a clinician must be provided with a practice manual which provides specific instructions for its performance. Further, the target group for evidence-based practices should be specified (Bond and Campbell, 2004).

In particular, to illustrate the best evidence for evidence-based practice, a series of research study results should prove the effectiveness of a detailed treatment approach. As a gold standard for scientific evidence, randomized clinical trials should have been fulfilled (Chronister et al., 2005). The basic idea of randomized clinical trial is that treatments are allocated to subjects at random. This ensures that the different treatment groups are statistically equivalent. Further, Chambless and Ollendick (2001) stated that at least 2 precise experimental studies showing therapy should be better than placebo or another treatment. In order to confirm this effect, meta-analysis could be another gold standard for proving effectiveness.

According to Bond and Campbell, "the practice must demonstrate the capacity to be implemented in a wide range of settings" (2005, p. 6). In particular, the implementation of a practice could be generalized in various settings. Therefore, research limitations such as cost, complexity of the intervention, and biased intentions of researchers must be carefully considered before applying the practice to specific settings.

2. Three Levels of Evidence

In order to score evidence-based practices, the Agency for Healthcare Research and Quality has classified levels of scientific evidence. The agency developed the diverse practice guidelines in the 1990s and exemplified this approach by using three levels of evidence: Level A is defined by good research-based evidence, with some expert

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opinion. Level B refers to fair research-based evidence, with considerable expert opinion, to support the recommendation. Level C indicates a recommendation based primarily on expert opinion, with minimal research-based evidence (Drake et al., 2003b). By categorizing these levels, researchers and practitioners could easily distinguish statistical and clinical significance, clinical utility, and cost-effectiveness between various research outcomes.

3. Evidence-Based Practices in Rehabilitation Applications

Initially, Evidence-Based Practices were interventions which improve client outcomes in the medical model. From 1980, evidence-base practices have expanded significantly in rehabilitation system. However, in spite of similar theoretical rationale, comparing to the medical model, the rehabilitation application of evidence-based practices has a couple of specific distinctions. Primarily, the main outcome of rehabilitation practices is usually at the level of activities or participation, and various factors influence these outcomes beyond the treatments. Further, the central aspects of rehabilitation seem to be associated with more to process than specific interventions (Wade, 2006). For example, supported employment programs are extraordinarily effective of the employment of people with specific disabilities, but the employment outcomes could be associated with the various factors such as socio-economic status, education, social support, and demographic variables. Therefore, rehabilitation researchers and practitioners should carefully consider these unique differences when facilitating rehabilitation services and researches.

Ⅲ. Evidence-Based Practices in Psychiatric Rehabilitation

Innumerable empirical researches have demonstrated that rehabilitation applications of evidence-based practices are effective in improving the lives of people with disabilities. Researchers from various fields have attempted to distinguish which factors in rehabilitation processes impact outcome variables and how evidence-based practices improve the quality of rehabilitation interventions. In order to demonstrate specific rehabilitation applications of Evidence-Based Practices, factors, programs and evidence which were applied in people with psychiatric disabilities will be presented.

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1. Demographic Factors

Over the past few decades, a number of studies have studied the relationship

between clinical and demographic factors and later vocational outcomes of persons with disabilities. According to Anthony and Jansen (1984), employment history, one of the demographic variables, is the most predictive of future vocational outcome, accounting for between 27%-53% of the variance in employment status of people with mental illness. Also, vocational outcomes have been examined to correlate with the other clinical and demographic factors such as number of previous hospitalizations, length of last hospitalization, marital status, race, and occupational level (Rogers et al., 1997).

Researchers have struggled to find the relationship between employment outcome and psychiatric symptoms. A variety of studies have indicated that there is little relationship between future work performance and various assessments of psychiatric symptoms. However, Tsuang and Coryell (1993) conducted long-term follow-up studies with respect to rehabilitation outcomes. Results indicate that psychotic-like features were connected with poorer role functioning and low employment outcomes.

An additional outcome study was conducted by Rogers et al., (1997) to examine the relationship between the clinical and demographic variables and vocational outcome for persons with psychiatric disabilities. The authors administered clinical, demographic, work skills, and vocational outcome measurements to 275 individuals at three psychosocial rehabilitation centers. During 39 months, vocational outcomes data were collected quarterly. Results indicate that demographic variables are correlated with work skills and future vocational outcomes. Nonetheless, the authors indicate, “Diagnostic category was not predictive of work outcome” (p. 110) even though the research may have some limitations with respect to reliability of measures of symptomatology.

2. Cognitive and Clinical Factors

In attempting to discern the possible role of cognitive impairments which impact social and occupational deficits of people with schizophrenia, Green (1996) indicated these cognitive impairments as ‘rate-limiting’ factors for success in both social and occupational domains of outcome. Numerous studies have found that cognitive function is related with parallel measures of adaptive function such as work performance. Over the past few years, researchers have chiefly examined the predictive utility of cognitive performance on future vocational success. In numerous studies, the results show a shared conclusion: that cognitive functioning was associated with competitive employment among a group of people with psychiatric disabilities.

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More recently, in order to examine how cognitive impairments in schizophrenia are associated with social problem solving, social and vocational functioning, and psychosocial skill acquisition, Evans et al., (2004) attempted to examine the relationship of cognitive functioning, as well as clinical symptoms, to vocational outcomes among people with schizophrenia. 112 individuals with schizophrenia were administered by the neuropsychological measurements such as verbal learning, and memory, attention, speed of information processing, and executive functioning. In order to evaluate clinical symptoms, employment outcome and work performance, the Positive and Negative Syndrome Scale (PANSS) and the Work Behavior Inventory (WBI) were administered. Results indicate that negative symptoms, learning and memory performance, processing speed, and executive functioning were associated with hours, weeks, and wages earned on the job.

Taken together, to succeed in the vocational rehabilitation for people with schizophrenia, two factors are vital; professionals should find and support the appropriate jobs for people with schizophrenia. Also, individuals with schizophrenia may have the proper work behaviors and skills necessary to retain a competitive employment.

3. Individual Placement and Support (IPS) Program

By 1987 supported employment programs had been applied to the psychiatric rehabilitation field (Bond et al., 2001). A paradigm shift occurred lately in understanding the course of people with psychiatric disabilities: Recovery in not only a possibility, but the goal (Ralph & Corrigan, 2004 as cited in Corrigan & McCracken, 2005).

In order to understand the current supported employment model, both Train-Place model and Place-Train model will be briefly addressed. In Train-Place model, service providers seem to view recovery as an outcome that must be accomplished before vocational and independent living goals can be achieved. On the contrary, in the Place-Train model, recovery occurs when people pursue their personal goals in spite of experiencing symptoms and disabilities. Also, recovery as a process provides a possibility to accomplish goals for people with psychiatric disabilities who may never be completely free of symptoms. Therefore, recovery at work only takes place when the person is on the job at real-world employment (Corrigan & McCracken, 2005).

According to Drake et al., (1996), the Individual Placement and Support (IPS) model has become an important issue in rehabilitation field over the past two decades. The authors attempted to compare Individual Placement Support (IPS) program and Group Skills Training (GST) in two distinctive sites. They surveyed 143

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adults with severe mental illness by several standardized instruments such as the Employment and Income Review, the Global Assessment Scale, the expanded Brief Psychiatric Rating Scale, the Rosenberg Self-Esteem Scale, and the Quality of Life Interview which were administered by volunteers. Also, participants were assessed at baseline, 6, 12 and 18 months. Results indicate that the IPS program is more successful at helping people with severe mentally disability to achieve competitive employment. Also, people in IPS obtained jobs faster and maintained their improvement during the 18 months of the study.

4. Further Evidence for an Evidence-Based Practice

A number of specific program elements such as reasonable case size, diverse employment settings, assertive outreach, and benefit counseling seem to have the relationship with better employment outcomes. Also, in order to clarify critical ingredients, client factors, community and economic factors, and program factors, further research is needed to refine these critical factors of supported employment (Bond et al. 2001).

An outcome study conducted by Jones, Perkins & Born (2001) attempted to examine the relationship between amounts of supported employment provider time devoted to travel, training, and non-employment advocacy and obtaining competitive work of people with psychiatric disabilities. Results indicate that there is a strong positive relationship between amounts of time and employment.

In attempting to uncover the factors that contributed to differences in competitive employment rates for people with severe mental illness between high and low performing programs, Gowdy, Carlson, and Rapp (2004) compared the five programs with the highest competitive employment rates to the four lowest performing programs. Results find notable and reliable differences between high performing group (5 programs) and low performing group (4 programs) in administrative practices and the roles of case managers and therapists. Unique differences were found in the practices of the two groups of programs; Program leaders in high performance emphasized the value of work talked to staff and consumers about employment. Program leaders in high performance discussed the strengths model, strengths training, or the strengths perspective of people with psychiatric disabilities. Also, program leaders in high performance tend to use vocational data to guide programming and practice. In high performance programs, staff do not view stigma against individuals with mental illness as a barrier to consumer's ability to obtain employment. Further, staff considers that consumers have a desire and motivation to work (Gowdy et al, 2004).

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Further, the authors show five ingredients which affect employment outcomes between high performance and low performance groups (Bond et al., 1999 as cited in Gowdy et al., 2004). High performance groups have frequent team meetings and a teamwork approach between case managers and other staff. Also, they show systematic ways of informing consumers about supported employment services. Further, the high performance group excels in rapid approval from vocational rehabilitation and rapid initial assessment. Finally, high performance group might focus on minimizing prevocational programming.

Ⅳ. Strategies for Disseminating the EBP to Asian Countries

Although many funds and innumerous efforts spent for establishing evidence-based practices, service providers may refuse to accept these innovations into their day-to-day service situation (Corrigan et al, 2003). This delay might be explained by a couple of barriers related to distribution and implementation of evidence-based practices.

For the most part, the lack of the basic knowledge and skills to incorporate evidence-based practices is one of the most critical barriers. Also, professionals' work-related factors such as burning out might weaken their interest with respect to new and innovative practices. Further, due to organizational barriers such as poor leadership, a change-averse culture, insufficient collegial support and bureaucratic restrictions, the team approach, one of the most important principles in evidence-based practices, might not be implemented and maintained (Corrigan et al, 2003).

According to Argyris (1993, as cited in Goldman et al, 2003), "the results of experimental studies that involve human interaction may not generalize to any great degree to typical treatment circumstances, because the complexity of social system cannot be captured in controlled experiments" (p. 111). At this point, although numerous rehabilitation programs and theories for people with disabilities were introduced from other countries to Asian countries, there are still several social barriers and unscientific service methods. Further, a number of professionals are complaining about the effectiveness of theories and programs which were initiated from other countries due to the complexity and difference of social and economic system between each nation. Therefore, the new theories and programs applied to Asian countries' rehabilitation systems necessitate critical thinking and flexible attention of professionals and researchers. In terms of evidence-based practices,

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professionals and researchers must discern how the evidence-based practices impact the unique cultural, social, and economic circumstances in Asian countries.

1 . Applications and Recommendations

In order to apply and disseminate evidence-based practices into Asian countries' rehabilitation services, several applications and recommendations will be addressed.

In the beginning, it is difficult to apply the principles of evidence-based practice to rehabilitation research and services straightforwardly. Also, to design and carry out well-controlled and highly defined studies on rehabilitation programs are not easy tasks (Cicerone, 2005). However, the same concerns have been pronounced many times before in the US. The rehabilitation system in several Asian countries is at the early stage of developing. Therefore, professionals and researchers in these countries must start these rigorous and demanding methods to make good clinical decisions and improve the quality of life of people with disabilities.

Particularly, to make evidence-based practices more accessible to staff, the development of treatment manuals and practice guideline is a crucial part. Also, these manuals might explain the specific steps which accomplish the goals of services (Corrigan et al, 2003). In some Asian countries, there are no proper treatment manuals and practice guideline for enhancing evidence-based practices to line-level professionals. To initiate these approaches, the evidence in the US could be applied and used in Asian countries' rehabilitation systems. However, in this process, professionals and researches must consider the differences of each social system and have the flexibility which enables modifications to establish the evidence-based practices in Asian countries' rehabilitation system. It might be beneficial to establish the research institutes which manage, collect, publish, and computerize the theories and contents of the evidence-based practices.

Further, it is imperative to train professionals to learn evidence-based practices. Education programs might target two different groups such as students and professionals in rehabilitation. Also, several researches indicate that professionals who complete evidence-based practice training programs have improved attitudes about innovative practices (Corrigan et al, 2003). Therefore, training system with respect to evidence-based practices in Asian countries must be founded in a short period of time. As a result, professionals might facilitate innovative practices and strengthen the quality of rehabilitation services.

Taken in total, although there are still several social barriers and unscientific service approaches which may not be proven by effective research results in several Asian countries' rehabilitation system, this system also has a great deal of

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possibility and optimism. In order to offer effective rehabilitation services to people with disabilities, rehabilitation professionals and researchers in these countries must understand the concept and process of evidence-based practices and apply these innovative practices to specific rehabilitation programs. By integrating existing advanced knowledge and information of evidence-based practices, professionals could enhance the quality of life of people of disability. Also, the rehabilitation system in Asian countries might be upgraded into an ideal direction.

References

1) Anthony, W.A., & Jansen, M.A. (1984). Predicting the vocational capacity of the chronically mentally ill: Research and policy implication. *American Psychologist, 39*, 537-544.

2) Bond, G.R., & Campbell, K. (2004). Evidence-Based Practices for Individuals with Severe Mental Illness, *Journal of Rehabilitation*, 1-39

3) Bond, G.R., Becker, D.R., Drake, R.E., Rapp, C.A., Meisler, N., Lehman, A.F., Bell, M.D., & Blyler, C.R. (2001). Implementing Supported Employment as an Evidence-Based Practice. *Psychiatric Services, 52*(3), 313-322.

4) Chambless, D.L., & Ollendick, T.H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology, 52*, 685-716.

5) Chronister, J., Cardoso, E.D., Lee, G.K., Chan, F., & Leahy, M.J. (2005). Evidence-Based Practice in Case Management. In F. Chan, M.J. Leahy, & J. Saunders (Eds.), *Case management for rehabilitation health professionals Vol. 2* : Advance practice. Osage Beach, MO: Aspen Professional Services.

6) Cicerone, K. D. (2005). Evidence-Based Practice and the Limits of Rational Rehabilitation. *Archives of Physical Medicine and Rehabilitation, 86*, 1073-1074.

7) Corrigan, P.W., & McCracken, S.G. (2005). Place first, then train: An alternative to the medical model of psychiatric rehabilitation. *Social work, 50*(1), 31-39.

8) Corrigan, P.W., Steiner, L., McCracken, S.G., Blaser, B., & Barr, M. (2003). Strategies for disseminating evidence-based practices to staff who treat people with serious mental illness. In R.E. Drake, & H.H. Goldman (APA), *Evidence-based practices in mental health care* (pp. 11-19). Arlington, VA: American Psychiatric Association.

9) Drake, R.E., Becker, D.R., & Bond, G.R. (2003a). Recent research on vocational

Received
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Accepted
August 16,2011

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September 1,2011

rehabilitation for persons with severe mental illness. *Current Opinion in Psychiatry, 16*, 451-455.

10) Drake, R.E., Becker, D.R., Bond, G.R., & Mueser, K.T. (2003b). A process analysis of integrated and non-integrated approaches to supported employment. *Journal of Vocational Rehabilitation, 18*, 51-58.

11) Drake, R.E., Goldman, H.H., Leff, H.S., Lehman, A.F., Dixon, L., Mueser, K.T., & Torrey, W.C. (2003). Implementing evidence-based practices in routine mental health service settings. In R.E. Drake, & H.H. Goldman (APA), *Evidence-based practices in mental health care* (pp. 1-4). Arlington, VA: American Psychiatric Association.

12) Drake, R.E., McHugo, G.J., & Becker, D.R., & Anthony, W.A. (1996). The New Hampshire study of supported employment for people with severe mental illness. *Journal of Consulting and Clinical Psychology, 64*(2), 391-399.

13) Evans, J.D., Bond, G.B., Meyer, P.S., Kim, H.W., Lysaker, P.H., Gibson, P.J., & Tunis, S. (2004). Cognitive and clinical predictors of success in vocational rehabilitation in schizophrenia. *Schizophrenia Research, 70*, 331-342.

14) Goldman, H.H., Ganju, V., Drake, R.E., Hogan, M., Hyde, P.S., & Morgan, O. (2003). Policy implications for implementing evidence-based practices. In R.E. Drake, & H.H. Goldman (APA), *Evidence-based practices in mental health care (pp. 109-115)*. Arlington, VA: American Psychiatric Association.

15) Gowdy, E.A., Carlson, L.S., & Rapp, C.A. (2004). Organizational factors differentiating high performing from low performing supported employment programs. *Psychiatric Rehabilitation Journal, 28*(2), 150-156.

16) Green, M.F. (1996). What are the functional consequences of neuro-cognitive deficits in schizophrenia? *American Journal of Psychiatry, 153* (3), 321-330.

17) Jones, C. J., Perkins, D. V., & Born, D. L. (2001). Predicting work outcomes and service use in supported employment services for persons with psychiatric disabilities. *Psychiatric Rehabilitation Journal, 25*(1), 53-59.

18) Rogers, E.S., Anthony, W.A., Cohen, M., & Davies, R.R. (1997). Prediction of vocational outcome based on clinical and demographic indicators among vocationally ready clients. *Community Mental Health Journal, 33*(2), 99-112.

19) Tsuang, D., & Coyell, W. (1993). An 8-year follow-up of patients with DSM-III-R psychotic depression, schizoaffective disorder, and schizophrenia. *American Journal of Psychiatry, 150*, 1182-1188.

20) Wade, D.T. (2006). Rehabilitation in practice: a new section in Clinical Rehabilitation. *Clinical Rehabilitation, 20,* 93-96.

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