Occupational Rehabilitation in Twenty-First Century Asia Pacific: Facilitating Health and Work: An Introduction

Chetwyn C. H. Chan · Da-hong Zhuo

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Abstract *Introduction* Asia Pacific has more than 20 countries which are different in terms of size, population, gross domestic product (GDP), and technological development. This paper highlights certain common obstacles faced by the workers' compensation and occupational rehabilitation systems in the region. *Methods* A review was conducted of the 9 papers contained in this supplementary issue of the *Journal of Occupational Rehabilitation*. Important items discussed in each paper were extracted and collated. The suggestions for the way forward are also summarized. *Results* In general, there is an obvious mismatch between the current theoretical and service models in occupational rehabilitation and the provision of the workers' compensation systems in the majority of Asia Pacific countries. Legislation and policy awareness of stakeholders, and coordination and synergy of services, in addition to competence building of professionals, were the common obstacles identified. *Conclusion* The Asia Pacific countries could fill the policy-and-service gaps by using available knowledge on occupational rehabilitation and return to work. Any effective model and services should be culturally relevant to be responsive to healthcare services, employers and the health and work needs of injured workers in Asia Pacific countries.

Keywords Occupational rehabilitation · Workers' compensation policy · Return to work · Cross-cultural practices · Work disability prevention

The Asia Pacific Scenario

The Asia Pacific region is comprised of more than 20 countries or territories. These countries vary considerably in terms of size, population, gross domestic product (GDP), and technological development. Since the 2008 global economic downturn, this region has shown a faster recovery than the rest of the world [1]. There are at least two factors which account for the present situation. First, Asia Pacific has several developing and underdeveloped markets which attract net capital inflows from developed countries such as North America and Europe. As a result, there has been an influx of cash supporting financial and business activities in the region. Second, many countries in the region have undergone rapid economic development such as China and Malaysia in the past 10 years owing to globalization of goods and services [2]. This economic development fuels steady increases in GDP which in turn boosts domestic consumptions in these countries. The net capital inflows are expected to be short-term and will probably resume their normal level when the global economy stabilizes. The domestic consumption in these countries however, is expected to be long-term and will become a prominent source of growth in the region [1, 3]. In Asia Pacific, increases in GDP are often attributable to the growth of the manufacturing and industry sectors, and to a lesser extent the service sector. Nevertheless, it is anticipated that increases in domestic consumption will boost the growth of the service sector in the years to come [1].

C. C. H. Chan (✉)
Department of Rehabilitation Sciences, The Hong Kong
Polytechnic University, Hung Hom, Kowloon, Hong Kong
e-mail: Chetwyn.Chan@inet.polyu.edu.hk

D. Zhuo
Department of Rehabilitation Medicine, Sun Yat-Sen University,
Guangzhou, People's Republic of China

Implications for Occupational Rehabilitation

The recent economic developments in Asia Pacific have implications for work-related injuries, occupational rehabilitation and return to work in the region. First, investments in building infrastructure by these countries benefit the development of reliable and accurate reporting systems on occupational fatality and injuries of workers [4, 5]. These systems play important roles in the design and implementation of an effective occupational rehabilitation and return to work regime for injured workers. A reliable and accurate system would enable an early notification followed by timely delivery of occupational rehabilitation services which promote early return to work of injured workers. Such a system also offers an opportunity for monitoring the progress made over time in implementation and outcomes of various policies and approaches related to return to work and prevention of long-term disability. Second, despite rapid developments, the number of occupational accidents reported by these countries was found to be fairly flat in much of the South-East Asia region [2]. Early figures indicated that an increase in cases was owed to the increase in occupational accidents in both China and India (*Note* Figures were collected in 1998 and 2001). The author of two studies on globalization and occupational accidents further commented that the increases in the report of occupational accidents on the one hand was owed to extensive industrialization and on the other hand reflected increased awareness of occupational safety and health issues among these countries [2, 6]. This is indeed encouraging as it lays a foundation for developing comprehensive, evidence-based, and effective occupational rehabilitation and return to work services for workers in these countries. Third, it is noteworthy that government expenditure on social security, social welfare, and health is relatively low in the majority of these countries. Until 2000, China, Singapore, Malaysia and the Philippines all spent <1% of their GDP on social security and welfare, whereas Hong Kong spent 2–3% [7]. Similarly, all of these countries except Hong Kong (slightly <3%) committed less than 2% of GDP to health. In terms of an employment injury scheme (such as workers' compensation), in 2008–2009, slightly less than 30% of the working-age population in Asia Pacific had legal coverage. This compared with 60–70% of that of North America and Western Europe. Under the scheme, employer liability and social insurance were the most common (50–60%). These figures suggest that occupational rehabilitation and return to work services for injured workers are less likely to be funded under the national social security and welfare, and health systems of these countries. Rather, they should be covered under employment injury schemes which are available in all

countries although the low legal coverage is a major concern beyond the scope of this paper.

About the Supplementary Issue

This supplementary issue of the *Journal of Occupational Rehabilitation* is titled *Occupational Rehabilitation in Twenty-First Century Asia Pacific: Facilitating Health and Work*. The issue addresses topics related to the planning, design and implementation of occupational rehabilitation services and return to work interventions among the Asia Pacific countries. Given the rapid economic growth and awareness of workers' health in the region, it is a timely topic for all stakeholders who are concerned with the safety and well-being of injured workers. These stakeholders can be government officials in ministries and departments of manpower, labour affairs and/or social security; policy-makers; administrators in the field of workers' compensation and insurance; employees and employers, co-workers and workers' family members; workers' unions; professionals and non-professionals participating in service delivery. Because of the manpower and time constraints, this issue cannot include submissions from every country within the Asia Pacific region. We are aware that this will affect the representativeness and hence the generalization of the content to the practices in different countries within the region. Nevertheless, we believe that the papers from China, Hong Kong, Malaysia, the Philippines and Singapore which describe the policies related to workers' compensation and rehabilitation, current provision of occupational rehabilitation and return to work services, and perceived obstacles to future developments highlight the characteristics of emerging systems and capture the common issues faced by different stakeholders. The invited papers by Professor Michael Feuerstein and Professor Patrick Loisel and colleagues further enrich the supplement by discussing how existing knowledge related to occupational rehabilitation, return to work and the prevention of disability developed from more mature systems such as those in North America and Europe can be modified and utilized by stakeholders in Asia Pacific. In return, the knowledge and experiences of the evolving systems in Asia Pacific countries will provide new perspectives on the innovative application of principles and techniques of occupational rehabilitation and work disability that may have reciprocal benefit for systems in countries that have had workers' compensation systems for decades.

Towards an Emerging System in Asia Pacific

Occupational rehabilitation over the past 20 years has evolved from a medical model-, hospital- and remediation-based

focus to a biopsychosocial model-, workplace- and work disability prevention-based focus [8–11]. There is an obvious mismatch between the current theoretical and service models in occupational rehabilitation and the provision of workers' compensation systems in the majority of Asia Pacific countries. One main reason is that the workers' compensation systems and stakeholders predominantly emphasize compensation and medical treatment rather than rehabilitation and return to work. The question then is how the existing knowledge in occupational rehabilitation and work disability can be effectively and appropriately modified to meet the cultural, system, stakeholder and competence building needs of Asia Pacific countries?

The purpose of Feuerstein's paper is critical review of the findings from studies conducted by his research group on pain, function and work disability in the United States. Consistent with the epidemiology and evidence related to clinical application, Feuerstein demonstrates time and again that work disability as a multi-factorial problem depends on many contextual and environmental factors that extend beyond the work-related injury itself. Feuerstein also emphasizes that the knowledge and experience accumulated in the West may not necessarily directly apply to the Asia Pacific systems. He explains that contextual factors such as problem-specific patterns of occupational injuries and illnesses, costs, provision of various rehabilitation services, and employers and workplace could very much be influenced by the cultural views of illness, injury, recovery and health, attitudes of employees and employers towards work, and national policies regarding work, work injuries and illnesses and policies inherent in systems of workers' compensation. This paper sets the stage for readers reviewing the policies, systems and practices in individual Asia Pacific countries. It is important to understand a country's unique history, culture, political and economic background. This awareness helps develop insight into how work disability can be further conceptualized, researched, managed and prevented.

The second conceptual paper was written by Costa-Black and colleagues. The main contribution of this paper is to offer a model utilized by various countries to translate theory and research findings into policy-making and service development in occupational rehabilitation. This paper complements that of Feuerstein by promoting effective knowledge uptake by the Asia Pacific countries. The authors use the application of Loisel's work disability prevention to China as a case and illustrate the usefulness of the Ottawa Model of Research Use (OMRU) for knowledge translation. The analysis of the factors which might influence outcomes of the translation process is thorough. The findings and suggestions by these authors can provide a working framework that could perhaps be generalized to other countries in the Asia Pacific region.

The other papers are from researchers, practitioners and policy-makers in China, Hong Kong, Malaysia, the Philippines and Singapore. Among all these countries, Hong Kong has the longest history of implementing work rehabilitation and return to work services for injured workers. The competence of professionals providing occupational rehabilitation services appears to be more mature. This is evidenced by the vibrant research activities conducted by various researchers in the territory. Kwok and colleagues describe the structure and content of services available to injured workers in Hong Kong. The main drawback of the system, according to Kwok and colleagues, is the lack of coordination and synergy of services across the rehabilitation, compensation and prevention sectors. They further explain that this current deficiency is attributable to outdated legislation and policies on workers' compensation and insurance.

As the largest economic force in Asia, China has an important role to play in promoting occupational rehabilitation for injured workers. The paper by Tang, Chen and colleagues introduces the Chinese system that was implemented in 2004. The authors describe the current work rehabilitation approach and illustrate how the new Chinese system and related policies were implemented by means of a three-tier system in the country. In contrast to Hong Kong, which lacks policy support, China has faced challenges as its uptake of research and contemporary concepts on occupational rehabilitation lags behind the existing policies integrating rehabilitation, compensation and prevention. The paper further suggests ways to develop a service delivery approach which accommodates the Chinese culture and more importantly can build up the competence of professionals providing services for injured workers in the system. Cheng and other researchers recognized the importance of stakeholders to take part in the return to work process. The results of their study revealed that activities such as workplace assessment and mediation, social problem solving and role and liability clarification were placed in high priority and the order was consistent across the stakeholders. The inconsistency among the stakeholders was on the potential role of union which has been known to play an important part in return to work in the Western world. The authors suggest more research and training are needed to enhance stakeholders' understanding on the return to work process. Tang and colleagues use case studies to illustrate the application of case management to help injured workers return to work following long-term absence. Olavides-Soriano and colleagues point out the policy and service gaps in the Philippines. The country instituted employee compensation schemes as early as in the mid-1970s. As these schemes appear to emphasize compensation and benefits for injured workers, rather than the development of occupational rehabilitation services in

the Philippines, the approach to work-related injuries lagged behind and is less differentiable from rehabilitation services provided for people with disabilities. Olavides-Soriano and colleagues also emphasize that a model-driven and specialized occupational rehabilitation service is desirable for filling these gaps. A comprehensive and uniform data system and improved competence of professionals are recommended. Chan K-F and colleagues discuss the systems in Malaysia and Singapore. These two countries are geographically close to one another and yet their developments are quite different. Malaysia has a less distinct system for meeting the needs of injured workers than its Singapore counterpart. Similarly, to the situation in the Philippines, the majority of the rehabilitation and return to work interventions in Malaysia are adopted by agencies providing services for people with disabilities. In contrast, Singapore has a distinct set of policies for injured workers returning to work but as pointed out by the authors infrastructure and professional competence have yet to be developed. The authors suggest that educating stakeholders on the benefits of occupational rehabilitation and investing more resources to develop evidence-based interventions for injured workers are the way forward in terms of building a better system for the two countries. Mak and colleagues' paper takes a different perspective, reviewing how the existing Singaporean system facilitates the return to work of people with chronic illness, particularly cancer survivors. The return to work process for cancer survivors is largely similar to that for injured workers except that legislation and the source of funding to support the services are different. Taking a demand-side approach, the authors relate the challenges to the negative attitudes of employers and co-workers towards cancer survivors. The paper also emphasizes the importance of raising the awareness of stakeholders regarding the potential benefits to both employers and those who choose to work following cancer diagnosis and treatment.

Conclusion

This supplement provides a sample of the current development and implementation of occupational rehabilitation principles and approaches in Asia Pacific. The five countries or territories covered in this supplement are diverse in terms of size, history, socioeconomic environment and culture. The shortfalls and challenges identified in the

various workers' compensation systems and occupational rehabilitation services provided in each country/territory highlight the importance of policy, legislation, stakeholder awareness, coordination and synergy of services, and the competence building of healthcare professionals. The knowledge and experiences accumulated in more established systems. New systems can be created that learn from the mistakes made over the years in the old systems. Models and services that are culturally relevant and respond to the diverse needs of all stakeholders can evolve from continuous communication and experimentation of thoughtful adaptations of systems that have been operational for decades in the West. Innovative approaches will continue to evolve. It is hoped that in a decade we will have an opportunity to edit a follow-up supplementary issue of this journal that will describe the implementation and evaluation of Asia Pacific policy, research and practice related to occupational rehabilitation and work disability prevention.

References

1. International Monetary Fund. Regional economic outlook: Asia and Pacific. Washington DC: International Monetary Fund; 2010.
2. Hamalainen P. The effect of globalization on occupational accidents. *Saf Sci*. 2009;47:733–42.
3. Asian Development Bank. Asian development outlook 2010 update. Philippines: Asian Development Bank; 2010.
4. Lee HS, Tan A. Singapore's framework for reporting occupational accidents, injuries and diseases. *Asian-Pac Newsl*. 2010; 17(2):28–31.
5. Leman AM, Omar AR, Rahman KA, Yusof M. Reporting of occupational injury and occupational disease: current situation in Malaysia. *Asian-Pac Newsl*. 2010;17(2):39–41.
6. Hamalainen P, Takala J, Saarela KL. Global estimates of occupational accidents. *Saf Sci*. 2006;44:137–56.
7. International Labour Office. World social security report 2010/11. Providing coverage in times of crisis and beyond. Geneva: International Labour Office; 2010.
8. Schultz IZ, Stowell AW, Feuerstein M, Gatchel R. Models of return to work for musculoskeletal disorders. *J Occup Rehabil*. 2007;17:327–52.
9. Loisel P, Buchbinder R, Hazard R, Keller R, Scheel I, van Tulder M, Webster B. Prevention of work disability due to musculoskeletal disorders: the challenge of implementing evidence. *J Occup Rehabil*. 2005;15:507–24.
10. Xu YW, Chan CC, Lam CS, Li-Tsang CW, Lo-Hui KY, Gatchel RJ. Rehabilitation of injured workers with chronic pain: a stage of change phenomenon. *J Occup Rehabil*. 2007;17(4):727–42.
11. Feuerstein M. Introduction: the world challenge of work disability. *J Occup Rehabil*. 2005;15(4):451–2.