

Short Communication

Ageing Japanese Workforce and Work Ability- A New Challenge in Occupational Health Care

Hiroto Nakadaira*

Graduate School of Nursing, Niigata Seiryō University,
Japan*Corresponding author: Nakadaira H, Graduate
School of Nursing, Niigata Seiryō University, Niigata City,
951-8121, JapanReceived: September 12, 2015; Accepted: September
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Background for Japanese Workforce

As widely known, in Japan, longer life expectancies and low birth rates have been leading to the nation's full-scale depopulation and ageing population, which is automatically threats of shortage and ageing of labor force [1]. Japanese population has begun to shrink with its peak of 128 million in 2010 and it is estimated to be 90 million in 2060 with the percentage of elderly people around 40% [2]. The labor force in 2030 is also expected to be 8.45 million less than it was in 2010 (62.98million), if the economic and labor situation remains the same. Under these circumstances, it is necessary to promote the employment of all those who are capable of working including the young, women, the elderly, and persons with disabilities. In other words, in order to maintain a substantial size of the workforce, it is now essential to manage diversity in our workplace in which those who have the desire and ability to work can fulfill their potential at work as long as they hope. As to the promotion of employment of the elderly, an administrative measure, the Act to Partially Amend the Act on Stabilization of Employment of Elderly Persons, was approved by the Japanese Diet in 2012, in which employers are obliged to introduce a system of continuing to employ an elderly person currently employed after the mandatory retirement age, if he or she wishes to be employed [2]. According to the survey concerning the participation in the community society of elderly people conducted by the Cabinet Office in 2008 showed that more than 90% elderly people had motivation to work until over 65 years old [2]. Recent labor force participation rates of people aged from 60 to 64 were 55.1% and 60.4% in 2006 and 2011, respectively [2]. This Act will accelerate the number of elderly workers here. The elderly also have a strong reason to continue their careers up to the age of 65 in Japan. This is the age when they are eligible to receive the Old-Age Basic Pension. It was gradually being raised from 60 to 65 years for men between 2001 and 2013 and is being raised for women between 2006 and 2018 [2].

A New Challenge in Occupational Health Care

The increasing elderly workers here will be a new challenge for occupational health care [3]. Occupational health services should meet the needs of elderly workers for whom occupational health and safety experts have no effective supporting plans [4]. First of all, to prevent work-related symptoms and diseases in ageing workers is a

high priority [4]. In addition, occupational health services must pay attention to how they can manage at work when they have chronic symptoms and diseases and what occupational health experts including occupational nurses can do to prevent the early exit of those suffering from chronic health problems [4]. Another challenge for occupational health care will be the setting of a suitable assessment standard for ageing workers [5]. The standard is supposed to grasp correctly how long a specific elderly worker is able to work and to what extent being able to work in terms of the work content and job demands [3]. It must be employed on the individual basis because the calendar ages does not always account for their exact levels of ability to work.

The Work Ability Index (WAI)

The WAI would be a leading candidate for the assessment standard. The WAI measures the most important asset of employees in work life, i.e. their ability to work. The studies of measuring the ability of an individual to sustain a working life started in Finland during the early 1980s [3]. It arose from concerns that Finland's ageing population and early departures from the workforce were seriously damaging the economic success of the country. The work ability concept was then proposed by Professor Ilmarinen of the Finnish Institute of Occupational Health [6]. Prof. Ilmarinen set municipal workers as the study target and investigated their ability to overcome a variety of problems which lead to early departures from the work force [7]. The index is based on a self-completion questionnaire which a worker completes before the interview with an occupational health professional during health examinations and workplace surveys [6]. The index is determined on the basis of the answers to the questions of seven items [6]. These items are as follows.

- Current work ability compared with their lifetime best:
(Range 0-10)
- Work ability in relation to the demands of the job:
(Range 2-10)
- Number of current diseases diagnosed by a physician:
(Range 1-7)
- Estimated work impairment due to diseases:
(Range 1-6)
- Sick leave during the past year (12 months):
(Range 1-5)
- Own prognosis of work ability two years from now:
(Range 1-7)
- Mental resources:
(Range 1-4)

The occupational health professionals rate the responses according to the instructions [6]. The WAI ranges from 7 through

49. Occupations are subdivided into three main subgroups: physically demanding work, mentally demanding work and a combination of physical and mentally demanding work [8]. And weighted scoring according to the subgroup of the occupation is used.

The scores can be classified into four categories which specify the levels of work ability [9]:

- Poor: (7–27 points)
- Moderate: (28–36 points)
- Good: (37–43 points)
- Excellent: (44–49 points)

The lower the index score is, the earlier the retirement is [9]. Poor work ability might be caused by poor health, poor work competence, skills or knowledge, inappropriate values and attitudes, poor working conditions or management [3]. In general, work ability is also thought to be affected in part by private lives. A careful consideration should be given to the impacts of family and the close community to which an individual belongs on work ability, too.

Maintaining Work Ability

Maintaining work ability leads to retention of skilled workers and improvements in productivity and quality in an organization. A pile of evidence for maintaining and promoting the WAI has been stocked in Finland [3,10]. Maintenance of Work Ability (MWA) started there in early 1990s with consensus agreement between politicians and labor market parties [11]. In this practical approach, employer and employees as well as co-operative organizations at a work place make an effort hand in hand to promote and support the work ability and functional capacity of all active workers throughout their working careers. From 1998 through 2002, the Finnish National Program for Ageing Workers was employed with the main aim of encouraging workplace health promotion to maintain the working capacity of ageing workers, and of increasing awareness about issues related to ageing, in which MWA was the basic principle [12]. The concept of MWA has thus become familiar to all Finns over the next decade and has been a part of daily routines that have been taken into use in most Finnish workplaces [11]. Central roles are played by the occupational health and occupational safety functions in the organization [3].

Use of the WAI in Japan

The use of the WAI has been expanding worldwide [3,6,8,13]. Particularly in Japan, the use of the WAI is urgent. A nationwide scheme to maintain good or excellent work ability among workers

by means of the WAI is important towards the future rapid decrease in its workforce as mentioned above. Good work ability for workers should be achieved in a continuous developing process during the work career. In this process, the roles of occupational health and safety experts including occupational nurses, and other intermediary organizations, are important as proven in Finland. It is also obvious that better coordination and cooperation among the different layers influencing work ability, whether they are governmental or nongovernmental, are needed.

References

1. Statistics bureau. Annual report on the labor force survey. Ministry of internal affairs and communications, Government of Japan. 2014.
2. International affairs division. Ministry of health, labor and welfare. Employment measures for older people in Japan.
3. Ilmarinen J. Work ability a comprehensive concept for occupational health research and prevention. *Scand J Work Environ Health*. 2009; 35: 1-5.
4. Ilmarinen J. The ageing workforce challenges for occupational health. *Occup Med (Lond)*. 2006; 56: 362-364.
5. Ahlstrom L, Grimby-Ekman A, Hagberg M, Dellve L. The work ability index and single-item question: associations with sick leave, symptoms, and health - a prospective study of women on long-term sick leave. *Scand J Work Environ Health*. 2010; 36: 404- 412.
6. Ilmarinen J. The work ability index (WAI). *Occup Med*. 2007; 57: 160.
7. Tuomi K, Ilmarinen J, Martikainen R, Aalto L, Klockars M. Aging, work, life-style and work ability among Finnish municipal workers in 1981-1992. *Scand J Work Environ Health*. 1997; 23: 58-65.
8. Lin S, Wang Z, Wang M. Work ability of workers in western China: reference data. *Occup Med (Lond)*. 2006; 56: 89-93.
9. Tuomi K, Ilmarinen J, Seitsamo J, Huuhtanen P, Martikainen R, Nygård CH, et al. Summary of the Finnish research project (1981-1992) to promote the health and work ability of aging workers. *Scand J Work Environ Health*. 1997; 23: 66-71.
10. Tuomi K, Huuhtanen P, Nykyri E, Ilmarinen J. Promotion of work ability, the quality of work and retirement. *Occup Med (Lond)*. 2001; 51: 318-324.
11. Peltomäki P, Husman K. Occupational health services and maintenance of work ability at workplaces. *Arh Hig Rada Toksikol*. 2002; 53: 263-274.
12. Ilmakunnas S, Takala M. Promoting employment among ageing workers: lessons from successful policy changes in Finland. *The Geneva Papers*. 2005; 30: 674- 692.
13. Alavinia SM, van Duivenbooden C, Burdorf A. Influence of work-related factors and individual characteristics on work ability among Dutch construction workers. *Scand J Work Environ Health*. 2007; 33: 351-357.