World Academy of Science, Engineering and Technology
International Journal of Humanities and Social Sciences
Vol:10, No:6, 2016

Well-Being and Helping Technology for Retired Population in Finland

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***Abstract*—**This study aimed to evaluate parameters influencing well-being and how to maintain well-being as long as possible after retirement. There is contradictory information on the health changes after retirement in Finland. This work is based on interviews, statistics, and literature evaluation of Finland. Most often, balance, multitasking reaction time, and adaptation of vision in dim and darks areas are worsened. Slowing is one characteristic that is difficult to measure properly. The most important is try to determine ways to manage daily activities and symptoms of disease after retirement. Medicine is advancing, problems are often also on the economic side. Information of technical aids is important. It is worth planning a retirement age.

***Keywords*—**Retirement, working, aging, wellness.

I. Introduction

THE definition of a retired person is those who receive pension and are not employed. All over age of 74 years are defined to be retired. Statistically of the 1.5 million retired persons (27% of the population), about 1.2 million receive the old age pension, approximately 0.26 million receive the survivor's pension, 0.24 million are recipients of the disability pension, and 0.6 million are supported by other pensions [1].

Heikkinen [2] analyzed in 2005 the health and performance of aged persons in Finland. According to the data, 65–84-year-old people had on average two diseases. The most common illnesses were heart and circulatory (about 50%) and musculoskeletal diseases (about 30%). Age-related diseases were dementias and tumors. Diabetes comprised about 5% of the cases in this age group. All diseases do not cause symptoms and part of the diseases can be maintained at a minor symptomatic level when treated properly. Four out of ten cases involved symptoms that are disruptive to the sufferer's life. Depression affected about 2–4% of the population.

Sahlgren´s report [3] stated that after retirement, depression increased by about 40%, and the likelihood of receiving drugs by about 60%. This result is based on 9,000 50–70-year-old people in 11 countries in Europe. The hypothesis for this research was that part of the reason why persons retire is for health problems. However, it was found that retirement was such a big life change that it can be much more stressing than continuing at work. The health problems are caused due to, among other things, a diminished social life after retirement. The data also pointed that changes in income have some correlation to health.

Seitsamo [4] analyzed that participation on different activities increased after retirement, but later this activity remained on the same level as during work life. He also found that subjectively experienced health improved after retirement, although illnesses worsened. There were significant professional deviations for the benefit of white collar workers. Good performance and active lifestyle helped to continue to the retirement age and beyond. Possibilities to influence one's work and to develop oneself, responsibility on others, and satisfactory work arrangements influenced one positively at work. Tervonen [5] studied emotions at work and how they influence retirement. If one is not satisfied at work, temptation to retire increases. We do not always recognize the significance of emotions at these major decision-making stages.

Retired persons increase their regular consumption of alcohol [6]. Finnish statistics show in 2009 that 40% of 65–84-year-old men drank alcohol at least once a week. For females, regular alcohol consumption was 18%. Especially in the 60–70-year-old age group, 80% of men, 60% of women consume alcohol weekly. Hajek et al. [7] stated that longitudinal regressions revealed that functional impairment increased significantly with age, as did the occurrence of depression, cognitive impairment, the number of chronic conditions; less than daily alcohol consumption for both sexes was also included in the calculations. Moreover, the onset of smoking and living without a spouse/partner in the household increased functional impairment in the total sample. The effect of depression on functional impairment was significantly more pronounced in men. Particularly, since depression and smoking may be avoidable, developing strategies to prevent depression or stop smoking might be useful approaches to postpone functional impairment in older adults.

Finnish citizens retire usually at the age of 63–65 [1]. The value of old age security is 23 billion euros annually, and the Finnish National domestic product 207 billion euros. The retirement costs are funded by employers 34% (through insurance payments), government 28%, communities 19%, insured 11% and other 8%. In 2014, 70,000 people retired, of which the disability pension supported about 20,000 people.

Retiring people take away a great deal of silent and important knowledge from companies [8]-[11]. About 56% of companies agree to this view. About 17% of companies had hired retired persons. About 71% have not yet hired but are willing to use retired persons as a labor force. Only 12% of

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employers do not believe that retired persons could work in their company [10], [11]. Interest in hiring retired persons is increasing although economic depression and other threats make companies prioritize their other workers.

In 1987, children and old people were numbered 50 compared to 100 working age persons in Finland, in 2011 the number had increased to 53 [13]. This means that in the future, about one third of persons will not be at a working age [13]. This means that working age people will have harder job to support unemployed groups. The AON report concluded [14] that four concerns dominate the minds of EU employees when they think about retirement: Their state of health, whether they have saved enough into their pension schemes, the prospect of a fall in living standards, and the fear of inflation wiping out their savings. The relative weight of each of these four concerns varies widely between the EU countries surveyed.

The purpose of this work is to describe present and future views in social, economic, and physical environments as well as mental states of those in the retirement phase in Finland.

II. Materials and Methods

This work is based on limited interviews, statistics, and literature evaluation of Finland. We carried out a small qualitative interview with 10 recently retired people in Finland. These people represented various professions: assistant, military officer, construction entrepreneur, chief occupational health surgeon, metal worker, office worker, specialist in occupational safety, chief of office, and human relations director. We were looking for personal experiences, and the interviewed people were of different sexes, marital statuses, and from different regions.

We asked in freeform about the following: 1) the effect of the transition to retirement on health, finances, family; 2) the level of control the individual felt over this change and planning of retirement age; 3) mental well-being and change of status; 4) physical well-being and health now and future expectations of wellness; 5) financial balance; 6) possible problems in future life; 7) climate of society and possible guilt of being retired; and 8) the future in general.

III. Results and Discussion

A. Health and Mental Well-Being after Retirement

According to Finnish studies [2], [4], the performance of 80-year-old people is 40–80% of that of 30-year-olds.

Most often, balance, multitasking reaction time, and adaptation of vision in dim and darks areas are worsened. Slowing is one characteristic that is difficult to measure properly. Age-related hearing and reading vision are also problems with aged people. Likewise, many older people face memory problems. According to our interviews, the most important thing is try to determine ways to manage daily activities and symptoms of disease. Luckily, modern medicine is advancing rapidly, problems are often also on the economic side. In Finland, the Eira hospital has developed a senior clinic, where for the retired person there is a personal doctor and nurse available. Visits to hospital are done as needed, and membership does not tide the retired. Similar types of activities are also offered at other hospitals (Terveystalo, Diacor). An interviewed personal manager described that he knows many people who have died in 2–3 years after retirement.

The life expectation of a newborn baby was in previous centuries about 35–40 years, and it has increased steadily. In 2010 in Finland, it was 76 years for males and 83 years for females [12]. If the general life expectancy is around 80 years, this means that persons are retired for about 20 years. Many people plan their work career very carefully, but retirement is also worth planning. This planning means living, hobbies, and perhaps also problems with performance. At least some kind of 5-year plan would be useful. Fig. 1 shows some ideas that the interviewed persons proposed.

B. Work after Retirement

In Finland, entrepreneur retirement can be problematic. An entrepreneur should pay regularly to the insurance company to be able to receive compensation for retirement. This is neglected very often, and only at the retirement phase do some people find out that there is no retirement pension or that the pension is too modest. Then, these people have to work as long as they can. According to the Finnish entrepreneur statistics, the salaries vary greatly [11].

In 2012, entrepreneurial income was on average 45,000 euros. According to the Finnish Pension Centre [1], an entrepreneur paid on average 22,000 euros—about for half of their earned income—into their retirement. For wage-earning persons, retirement costs are compulsory; therefore, wage-earning persons are in a better situation in the retirement phase. Entrepreneurs paid 33% taxes from their income, and wage earners paid 26% [1].

According to interviewed people, many were involved in multiple information channels at work, which diminishes after retirement. Universities and other information producers should be encouraged to give information to retired people. This is not wasted work because retired people use information in many ways. For example, retired persons do care work for old people, which is estimated to be worth about 2.8 billion euros [15]. It is thought that retired people do child care work about the same amount; if so, then we are talking about 5 billion euros annually. These jobs have only small financial compensation. However, the average retirement pension in Finland is 1500 euros/month, and this means 27 billion euros annually for the Finnish national economy.

C. Technology to Help Performance

Now, there are many computer based aids o practice memory like computers, smart phones, and catalogues. Technology will provide more tools soon, like social robotics [16], which support the control of fine-motor movement. The simplest social robot is a smart phone, which gives navigation guidelines, helps calculations, compares prices, etc. Another new issue is applications in health technology [17], such as using the phone in measuring physical life functions, environmental measurements, control of balance, and sleep

quality. In addition to mental help, there are many physical performance aids, like electrical bikes and electrical wheelchairs [18], [19]. Figs. 2 and 3 show examples of the technology to help performance.

Fig. 1 An example on the plans of a retired person

Modern technology can also cause poblems [20]. In the group of people ≥ 50 years old, only 1.3 % reported mobile-phone-related accidents at leisure during the last 12 months, while only 3% of those aged < 50 had such accidents. In addition, 5.7% of people ≥ 50 years old had had close call situations at leisure while on a mobile phone, while in the group of people aged < 50, the percentage was 17.4%. However, the numbers are very low in people aged ≥ 50.

Fig. 2 Examples of the help technology

Fig. 3 Examples of the help structures

IV. Conclusion

There are many physical and mental things that have to be cared with senior persons. Luckily, also medicine and health technology are developed quickly if one is financially able to obtain such support.

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