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### Work Ability

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#### Effects of Age and Work Environment on Hospitals Nurses in Belgium and Neighbouring Countries

**In recent years, all hospitals in Europe have suffered from nurse shortages. It is widely agreed that there are two main reasons for this: global demographic ageing and poor working conditions in the nursing profession. But what consequences do these factors have for work ability?**

The nursing workforce is affected by demographic ageing in two ways: on the one hand, it will have to assure adequate healthcare provision for the increasing number of older people, and at the same time, the nurses are ageing as well. This double burden indicates that there is going to be a heavier requirement of healthcare from society while the active nursing workforce is decreased. It is also clear that poor working conditions, such as high job demands, low job control, conflicted interpersonal relations, work family conflict, and so on, can drive nurses to leave the institution or their profession prematurely.

Therefore it is important to consider the 'Work Ability' of the nursing workforce. Work ability has been introduced by Finnish researchers since 1980s, which is regarded as a concept combining both the individual's resources and work characteristics. Some findings indicated that work ability could be changed by individual factors and work factors. However, to our knowledge, few studies reported the effects of age and work environment on work ability in hospital nurses.

To date, the European Nurses' Early Exit Study (NEXT) provides us with the opportunity to explore the following questions:

1. What is the work ability of nurses according to age and country?
2. To what extent does work environment contribute to work ability?

#### Methods

The NEXT-Study investigated work, health, and professional turnover behaviours of nursing staff across Europe in 10 countries, in three different healthcare settings. In this article, we analysed the NEXT data from Belgium and neighbouring countries including Germany, France, and the Netherlands. We focused on the registered nurses (RNs) working in hospitals in these four countries. All in all, our analyses were based on the data from 3,146 nurses (Belgium 529, Germany 1,340, France 572, and the Netherlands 705).

Work ability was measured by the standardised instrument in terms of 'Work Ability Index (WAI)', which has been used worldwide. The score of WAI ranges from 7 to 49, high scores indicate good work ability. The nurses were dichotomised as younger nurses (under 45 years) and older nurses (over 45 years) to examine the age effect. The work environment in this study consisted of three dimensions: Work Content (including quantitative demands, emotional demands, and lifting & bending), Work Organisation (including possibilities for development, influence at work, and work family conflict), and Social Work Environment (including quality of leadership, social support from colleagues, and interpersonal relations).

#### Results

##### Work Ability by Age

The proportion of older nurses ( $\geq 45$  years) among the four countries was striking. More older nurses were found in France and the Netherlands whereas the percentages of older nurses in Belgium and Germany were relatively lower. On average the work ability of Dutch nursing staff was the most favourable (41.91) and German nurses reported the lowest work ability (38.30). Figure 1 shows that older nurses reported lower work ability than younger nurses in all countries.

##### Predictors of Work Ability

Based on the findings of linear regression modelling (see Figure 2), it is very clear that work family conflict is the biggest reason for decreased work ability among all nurses in all countries. But the other patterns of predictors are very different in each country. In Belgium, for young nurses, good interpersonal relations can improve work ability significantly; but high emotional demands predict low work ability in older nurses. In Germany, both good interpersonal relations and strong possibilities for development are important factors in improving work ability, whereas high quantitative and emotional demands are significant risk factors to decrease the work ability in younger nurses. For German older nurses, strong possibilities for development can improve work ability while high quantitative and emotional demands are also the risk factors to decrease work ability.

In France, strong possibilities for development and good interpersonal relations are important factors to enhance the work ability, meanwhile high quantitative demands are also the risk factors to decrease work ability in younger nurses. The picture in the Netherlands is quite unique, for both age groups, we only find the work family conflict as a risk factor that influences work ability.

## Conclusions

Work ability is of high relevance for nurses and for hospitals. According to the Finnish researcher Ilmarinen, work ability may be understood as 'how good is the worker at present, in the near future, and how able is the worker to do his/her work with respect to the work demands, health and mental resources'.

The worker contributes to work ability via age and functional abilities, with knowledge, skills, attitudes and motivation. The workplace influences the work ability through work environment – by work content, work organisation, and social work environment. Given the increasing necessity for older nurses to participate in the nursing workforce, the decreasing possibilities for premature departure from working life and also the declining satisfaction due to unfavourable work environment among nurses, work ability becomes a more and more relevant concept in hospitals in Europe.

Looking at our results, the nurses of the Netherlands had the highest mean WAI scores, usually they reported better working conditions than the nurses from the other countries. This observation cannot be explained by the substantially lower working hours of nurses in the Netherlands, but is likely to reflect better working conditions, possibly due to an especially tight labour market for nurses and increased attention to working conditions. In contrast, the low mean scores for WAI in Germany and France are surprising, they are significantly decreased in older nurses. It is likely that they reflect a mismatch between perceived working conditions and own abilities.

In Germany and France, the low WAI scores can to a large degree be explained by the perception of one's own work ability in relation to adverse working conditions. Another explanation is that German and French nurses tend to report worse working conditions when they are not satisfied with their jobs (so called negative affectivity). Among Belgian nurses, interestingly, the mean scores of WAI in younger and older nurses are at a middle level compared nurses from the other countries. The healthy worker effect and the effect of (former) early retirement programmes are being reflected.

Concerning the contribution of work factors to work ability, there is no doubt that work family conflict is the main risk in predicting low work ability for all nurses in the four countries. It has been reported that work family conflict is one of the main characteristics that influence quality of working life. The hospital management should pay more attention to the balance between work and family among nurses, such as more flexible and individual work schedules and the provision of a supportive atmosphere.

In Belgium, Germany, and France, interpersonal relations seem to be important to younger nurses, indicating that younger nurses might need more consultation on how to handle the relations among colleagues, supervisors, physicians, and patients. In Germany and France, possibilities for development are also another major factor to younger nurses. However, job demands are found to be harmful to work ability in Belgian older nurses, French younger nurses, and German nurses at all ages. It is easily understood that nurses' workloads are usually higher than other occupations, and nurse shortages increase the workloads of existing nursing staff.

There is no way of avoiding the nature of the nursing profession, such as dealing with death, human suffering, and aggressive/troublesome patients in their work, which would increase emotional demands among the nurses. The hospital management should recognise the importance of both visible and invisible workload of nurses in all age groups.

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Figure 2. Predictors of work ability in younger an

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