

Productive aging, work engagement and participation of older workers. A triadic approach to health and safety in the workplace

Nicola Magnavita ⁽¹⁾

(1) Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy

CORRESPONDING AUTHOR: Nicola Magnavita, Sezione di Medicina del Lavoro dell'Istituto di Sanità Pubblica, Largo Gemelli 8, 00168 Roma, tel +390630154452, +393473300367. Mail: nicolamagnavita@gmail.com, nicola.magnavita@unicatt.it

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ABSTRACT

Background: Aging of the workforce poses a dramatic challenge for health and safety in all European countries.

Methods: Our study was based on a comprehensive review of the literature on productive aging, work engagement, and human engineering, with particular reference to older worker issues.

Results: Productive aging, work engagement, and participatory ergonomics appear to be the most promising areas of research in the field of worker aging. An analysis of intervention programs enabled us to identify three main approaches that could be used to tackle the problem. These include encouraging older adults to be involved in work activities, enhancing their work engagement, and sustaining their productive efforts through participatory changes in the working environment and the promotion of healthy lifestyles. Occupational health and safety services in the workplace must extend their activities of prevention to encompass not only traditional environmental risk factors, but also non-occupational risk factors, so that this holistic approach promotes good practices and positive attitudes.

Conclusions: A set of recommendations and policy briefs for supra-national, national and local authorities was formulated.

Key words: Aging, workplace, occupational health, human factors and ergonomics, worker engagement

The European Union is witnessing significant demographic changes due to a reduction in birth rates and an increase in life expectancy that has led to a consequent increase in the older population. Changes in the age structure of the general population have been particularly evident in the workforce, as retaining older workers in paid employment is essential for maintaining the current

pension system. Many governments are pursuing policies intended to encourage employment and extend working lives. Moreover, many European countries are introducing reforms aimed at postponing the age of eligibility for state pensions [1]. Therefore, in some cases, the increase in older age groups may be greater and more rapid among workers than among the general population.

This rapidly changing scenario calls for the implementation of specific policies and programs to address changes in age distribution and improve the occupational environment. These measures are necessary in order to take advantage of the experience and skills of older people without placing an undue burden on their physical resources [2], but they have not always been introduced. Consequently, it is now very important to develop policies that can enhance the health and safety of older people in the workplace.

This article indicates three complementary ways in which this goal can be achieved: productive aging, work engagement, and participation in the management of health and safety in the workplace. In fact the productive capacity of older individuals could benefit not only workers, but also companies and society as a whole.

PRODUCTIVE AGING

“Productive aging” means that the elderly can make an economic contribution to society through working, caregiving and volunteering. Theoretically productive engagement can lead to a number of positive outcomes that can contribute to the advancement of families and civil society, counterbalance fiscal strain caused by a larger older population, and maintain the health, safety, and economic security of older adults [3]. Sustainable employability is an important topic as it deals with the ability of employees to function adequately at work and in the labor market throughout their working lives [4, 5].

Productive engagement is a key element in successful aging. Recent studies have demonstrated that there is a longitudinal relationship between productive activities and functional health in later years. Chronic diseases in unemployed people were associated with higher rates of consequent functional limitations [6]. Not only does working directly affect health outcomes, it also acts as a moderating factor in the process of disablement by attenuating the way in which chronic conditions are translated into subsequent functional limitations. Individuals who are engaged in volunteering, or are working either full time or part time, exhibited a slower decline in functional health than inactive people. Significant associations have also been found between initial functional health and longitudinal changes in productive activity participation [7]. Moreover, occupational engagement is a central element of the recovery process for employees with long-term mental health problems: in fact occupational engagement promotes personal recovery [8].

Unfortunately, policies and programs rarely address ways of making profitable use of a greater engagement of older adults in caregiving, volunteering and the paid workforce. A growing number of studies indicate that promoting productive aging is beneficial for society. Studies from Germany show that population aging can

exert some positive and unexpected side effects that can be leveraged to address persistent environmental problems and issues of gender inequality and intergenerational ties [9]. A coordinated effort, both at supra-national and national level, should be directed not only toward providing more supportive services and financial assistance for older adults who volunteer, but also toward encouraging people to continue work activities after retirement, and toward the creation of flexible employment opportunities for older workers.

In many European countries working after retirement age is still discouraged; older workers are forced to exit the workforce, and workers who wish to stay active witness a reduction in or loss of their economic benefits. This is contrary not only to the interests of older workers, but also to those of the economy. In recent decades, the health and education of older adults have improved significantly. An increase of educational attainment in the general population can promote economic growth. A prolonged life expectancy has increased the capacity of the elderly to extend their productive activities. Most of the highly developed European nations are already facing shortages of qualified workers in some critical productive sectors where there is a growing demand for high-level professional skills. Some companies have a vested interest in keeping older workers active (BMW is a well known example), while many workers prefer to remain employed and stay actively engaged in the work they enjoy. While pursuing the productive engagement of older adults, we must be realistic with regard to workers with reduced ability and limited resources [10]. Opportunities must be created for continuing the engagement of those who choose this route and we must remove barriers that preclude active participation. In most countries, increased life expectancy offers up to 20 years of healthy living beyond the usual retirement age of 65. Productive aging offers workers the possibility of maintaining economic security, social ties, and purpose during those extended years of life—a positive and sensible response to the prevailing problem-oriented views about an aging Europe [11].

Besides paid work, older people could be involved in a wide range of activities such as caregiving and volunteering, and in social activities such as clubs and associations that can offer meaningful and rewarding roles that enhance well-being [12-14]. Longitudinal data from the Survey of Health, Aging, and Retirement in Europe (SHARE) have demonstrated that the probability of starting active participation in voluntary associations or other kinds of clubs is highest in the immediate post-retirement period [15, 16]. However, retirement was not associated with starting new activities after retirement. A recent study of Di Gessa & Grundy [17], that compared longitudinal data from Denmark, France, Italy, and England, showed that the strongest predictor of formal and informal productive engagement of older people at follow-up was baseline engagement. This means that productive aging and the

tendency to remain active must be stimulated before the worker adopts an idle lifestyle.

Unfortunately, there are many barriers to productive ageing. The economic slump that followed the 2008 crisis has significantly reduced labor demand. Social structure and ageism limit the participation of older workers in the labor market and often discourage them from seeking paid or unpaid work [3, 18]. Ageist attitudes result in a failure to see the valuable contribution that older adults can make [19]. Some critics believe that older people have already had too much and that resources should be directed primarily towards the young. However, the idea that older workers displace younger workers is a misconception emerging from the "lump of labor" fallacy [20]. European governments should definitely adopt an intergenerational perspective and not set one generation against another. There is undoubtedly a need for programs and policies that encourage and support older adults who continue working or perform social activities.

Older workers need flexible work arrangements and ergonomic changes in the working environment to facilitate their prolonged working lives. However, even in more developed countries, less than one-third of companies offer some form of flexible working arrangement, due to concerns about costs, productivity, and fairness [21].

European governments should promote such workplace policies, so that employers see the profitable results of flexible arrangements for older workers. Furthermore they should support educational efforts aimed at changing ageist attitudes. They should also introduce more tax incentives for retaining older workers and lift taxation on health promotion programs designed to increase productive aging.

WORK ENGAGEMENT

Work engagement is an important factor in well-being and job satisfaction. Employee engagement involving a positive, work-related mentality characterized by vigor, dedication, and absorption [22] has been reported to be associated with important health outcomes, safety attitudes and behaviors [23]. This positive mindset, which is associated with job performance and also, negatively, with absenteeism [24-26] and presenteeism [27], has been found to predict job satisfaction [28] and may protect against burnout [22]. Moreover, work-engaged employees have lower levels of turnover intentions than non-engaged employees [29].

Work engagement is negatively associated with work-related stress. Longitudinal studies have shown that workers with higher work engagement at baseline have better mental and physical health than controls at follow-up [30]. Good interpersonal relationships in the workplace (perceived organizational support, positive supervisor-employee relationships and teamwork) are

directly associated with the engagement, well-being, and organizational commitment of workers [31]. Social capital (i.e. the degree of a feeling of closeness to colleagues at work, trust in colleagues at work, getting help from colleagues at work, goal congruence and personal social interaction between employees and their supervisors, and a perceived sense of caring for each other at work) has been shown to exert a positive contextual effect on the work engagement of employees [32]. Work-related procedural justice and interactional justice are also significantly and positively associated with work engagement [33]. In particular, the role that each worker plays in the organization is significantly associated with engagement [34]. Active workers, i.e. those who have higher psychological demands and decision latitude at baseline, had a significantly greater work engagement at follow-up [35]. A recent meta-analysis showed that job resources (such as knowledge, autonomy, and a supportive environment) motivate employees and are positively related to engagement [36]. In a work context in which both cognitive demands and cognitive resources were high, a strong leadership optimized engagement [37]. However, job demands that employees tend to perceive as hindrances are negatively associated with engagement, while only demands that employees consider to be challenges are positively associated with engagement [38].

The concept of engagement should not be confused with that of workaholism. The latter has negative consequences such as increased psychological distress, physical complaints, work/family conflict and decreased life satisfaction [39-41]. Hence, workaholism should be prevented and work engagement should be promoted.

Many companies are trying to achieve a higher degree of employee engagement through intervention programs aimed at enhancing organizational performance and profitability. Efforts to improve worker productivity should adopt a holistic approach that encompasses employee health improvement and engagement strategies. These efforts must be encouraged, and companies must be given know-how and support.

PARTICIPATORY ERGONOMICS

The practical application of productive engagement and work engagement concepts in the workplace calls for a new approach on the part of Occupational Health and Safety (OHS) services. European OHS services still focus mainly on the prevention of chemical, physical and biological risks in the work environment rather than on promoting individual employee health, mental health protection and positive attitudes [42].

Modern OHS acknowledges that health is determined not only by environmental factors, but also by the condition, motivation and behavior of individual workers.

Factors such as energy, vitality and well-being are considered to be essential elements of working life. In this perspective, the definition of occupational health no longer refers to an ideal and probably unattainable level of full well-being, but to the individual's ability to advantageously cope with the work environment, despite having his/her own burden of age, expectations, necessities, and medical conditions. The "salutogenesis" concept focuses on the resources that help a person cope and that are effective in avoiding or combating a range of psychosocial stressors [43]. The different approaches of occupational medicine and occupational health, i.e. a biomedical risk-based approach focused on the individual rather than a psychosocial approach focused on the working environment, are given varying degrees of importance by different countries or regions. The old saying that 'work affects health' must now be integrated by adding that 'health affects work'.

One of the greatest barriers to integrating older workers into productive activities is the fear of presenteeism. Presenteeism refers to the loss of work productivity among workers who are present at work, but whose job performance is in some way limited by a health problem [44]. Aging involves some physical changes: muscular strength and joint movement and the ability to maintain good posture and balance and to regulate sleep all diminish, as do vision and hearing [45]. In addition, aged workers experience an increased prevalence of medical conditions such as metabolic syndrome, cardiovascular disease, depression, arthritis, and back pain. Many will have multiple health problems that impact on their quality of life and ability to perform on the job [44, 46,47]. Presenteeism is often a hidden cost, as workers are physically present but unable to perform at peak levels due to their state of health. Presenteeism-related costs may be greater than direct health costs [48].

Sustainable employability refers to an employee's capacity to function at work throughout his/her occupational life. It is a multidimensional concept that acknowledges the essential contribution of both employee and work characteristics. As participation in work is vital for individuals, organizations, and society as a whole, an individual's ability to function in the workplace is of prime importance. This requires, on the one hand, a work environment that offers occupational activities for older workers and, on the other, motivation and willingness on the part of older workers to exploit these opportunities [4].

The final target of OHS is to improve workers' health. The occupational health physician must assume a proactive role, focused mainly on promoting positive health. The A.S.I.A. © method of risk management [49, 50] requires the physician to adopt an active role in promoting a systematic sequence of assessment, surveillance, information, and auditing of health and safety issues in the workplace. The efforts of managers, employees and technicians must be coordinated and directed toward

the continual improvement of working life, and must include psychosocial risk management. In this way it would be possible to implement good practices, including the engagement of all stakeholders and representatives, science-driven practice, the dissemination of knowledge, continual improvement and evaluation.

Participatory ergonomics, i.e. the continual involvement of employees in the detection and analysis of environmental problems and in the development of solutions, play a key role in improving working life [51]. Participatory ergonomics groups (GEP ©) are made up of a set of workers who contribute to the performance of a specific work task. The systematic and global use of stakeholder involvement helps to tailor interventions/programs to suit the needs of a specific occupational population. Workers are asked to describe their work, identify any critical aspects, and make a thorough evaluation of the working activity. They are then urged to seek and discuss solutions to the problem and to choose the one that is deemed to be the simplest, most economical and practically applicable. This solution is then formally presented to the management for analysis and, if valid, is implemented. The effectiveness of this group work depends on the ability of its members to interact with each other. The work of GEP©s has both a diagnostic function (because it enables management to identify the groups that have more difficulty in producing shared solutions) and a therapeutic function (because it increases collaborative ability within the group). The participatory ergonomics method significantly increases work engagement in many practical situations [52-58].

The ergonomic process most frequently applied by OHS services is based on a four-phase protocol: 1) identification of the physical, physiological and psychological work demands; 2) an evaluation of the physical, physiological and psychological characteristics of the worker; 3) detection of discrepancies between requirements and resources; 4) reduction and control of discrepancies by applying tools, machines and models of work organization and by providing training and information for workers.

Participatory ergonomics enable us to give the workplace a more human dimension. The application of this strategy may enable the employer and employees to gradually modify production workplaces so as to adapt them to the changing characteristics of the labor force.

An improvement in employee health can only be achieved in a sustainable manner by integrating all health-related services within a company and by addressing psychosocial and organizational factors as well as individual health issues [59].

Naturally the individual worker cannot be expected to succeed in adopting a healthier lifestyle without professional assistance. Advice from the occupational physician could be a first step in this direction, but it is not enough [60]. The employee needs to take responsibility for his or her own health and should be repeatedly stimulated

by the employer. Besides a good working environment, the employer, and society at large, should provide information, resources, and policies to enable the worker to change his/her behavior. Workers will usually welcome assistance and guidance for improving their lifestyles as they obtain direct benefit from this, also in their personal life.

Changing the way OHS is currently managed involves removing some barriers, but extending OHS to include an analysis of non-occupational aspects of life may entail a number of problems. Personal employee data must be handled in a very sensitive way, otherwise it will be very difficult to engage employees and their representatives on such a personal issue. Employees may be troubled about "giving away" personal health data if data privacy is not fully guaranteed and data are properly communicated. This issue will present a crucial challenge for workplace OHS in the near future.

Another important question concerns the need for activities to be carefully coordinated. Health management involves data collection and the delivery of services in a number of different company departments. The A.S.I.A. © method requires the occupational health service, the hygiene and safety service, human resources, auditing and control, and worker and manager training departments to work together in a coordinated framework.

Lastly, to obtain effective worker participation there must be a strong commitment on the part of the employer and management and a real willingness to cooperate not only formally, but in a practical manner.

Workplace-based health and wellness programs may be a useful strategy for promoting positive health-related behaviors among older workers and for increasing their ability to continue to work. Participation in these programs may improve the state of health of older workers and reduce healthcare costs. Many companies have undertaken intervention programs that have yielded promising results on engagement, absenteeism and presenteeism [61], even if some outcomes have not always been as successful as expected [62]. The introduction of policies aimed at promoting the sustainable employability of older workers is often preceded by a low level of work ability [63], and this may shift resources from health promotion to disability management, that is, from prevention to therapy. Presenteeism has also led to many initiatives on account of its significant economic implications. As organizations and employers become more aware of this problem, they are considering adopting workplace health promotion and wellness programs aimed specifically at presenteeism [64]. A recent systematic review of workplace health promotion and wellness programs specifically addressed to older workers showed that they vary considerably in size and composition [65]. Many of the programs have a comprehensive approach that aims simultaneously at providing health education, links to external health and social services, supportive physical and social

environments for health improvement, integration of health promotion into company culture, and employee screening with adequate treatment and follow up [64-66]. However exactly how best to design, integrate, adapt and deliver programs of workplace health promotion for older workers is still uncharted territory.

These observations suggest that future research should apply successful aging models to health processes as well as health outcomes and that policymakers should support social institutions that foster late-life productive engagement. Furthermore, there is an urgent need to take action in order to provide a basis for policies/legislation, promote awareness of psychosocial risks, and produce stronger evidence for combining social and physical environmental intervention studies that can effectively improve employee engagement. Promoting good health is a fundamental part of the smart, inclusive growth objectives of Europe 2020 - Europe's growth strategy: keeping people healthy and active for longer has a positive impact on productivity and competitiveness. It appears clear that health quality and safety in the workplace play a key role for smart, sustainable, and inclusive growth in Western countries [67].

Occupational health activities in the workplace must focus more on a proactive search for positive health determinants; working environments must be adapted to the capabilities of an aging workforce, and the psychosocial and motivational substrate of workers must be carefully cultivated in a perspective of continued participation in the productive and cultural needs of society.



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