

## Total Worker Health strategies in Italy: New challenges and opportunities for occupational health and safety practice

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In the global context of a growing incidence of chronic-degenerative illnesses (e.g., cardiovascular, musculoskeletal, and oncological diseases), particular attention was drawn to the recent transformations of the world of work (e.g., aging workforce, changes in the organization of work and psychosocial issues, as well as new technologies such as digitization, robotics, and nanotechnology, and issues related to climate change) [1]. It is well-known that individual wellbeing of workers may have direct and indirect impact on many organizational outcomes and economic issues, including absenteeism, personnel turnover, transfer requests, work engagement and commitment, restrictions on fitness for work, occupational injuries and diseases, and labour law disputes [2]. Although the improvement in working conditions has reduced, especially in high-income countries, the incidence of diseases directly caused by work (the so-called

'occupational diseases'), they have by no means disappeared, as evidenced by recent observations [3–5]. Moreover, many other diseases, which are caused by non-occupational etiological factors, may interfere with the ability to work and can be worsened by the exposure to occupational hazards: these so-called 'work-related diseases' encompass almost all chronic degenerative diseases. It was estimated that over one billion of people (approximately 15% of the world population) are affected from some type of disability, and about 80% of them belong to the working age [6]. Disabilities at work are mostly due to ergonomic problems and psychosocial risks, which lead to musculoskeletal diseases and work discomfort [7]. Work environment has been recognized as an unexpected trigger for latent pathologies (especially psychological disorders), and not simply the place where diseases/injuries occur causing long-term

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sickness absence [8]. The composite milieu of work setting is shaped by multiple determinants, including physical, organizational, social, and economic domains [9]. These factors dynamically play together and may create unbalanced conditions resulting in health disturbances for workers.

Almost a half of our lives is spent at work (although recent data showed a slight decline during 2020 [10]), therefore, workplaces may be the ideal setting for health promotion activities. The main reason lies in the occupational health surveillance (OHS), which is a mandatory system of ongoing health checks carried out by occupational physicians on employees with the aim to detect ill-health effects at an early stage and prevent the onset of occupational and work-related diseases, as required by the Italian law (Legislative Decree no. 81/2008) [11]. Furthermore, occupational health surveillance may be useful by improving workers' well-being through voluntary workplace health promotion (WHP) programs [12]. Occupational physicians may play a decisive role in this process, because OHS is aimed to protect the health of the individual worker and improve the health of the group by epidemiological analyses. Thus, the integration of workers' health protection and health promotion implies a holistic approach, named Total Worker Health™ (TWH™), which is an expression coined by the U.S. Centers for Disease Control and Prevention's National Institute for Occupational Safety and Health (CDC/NIOSH) in June 2011 [13]. In the United States, TWH™ programs were launched through specific policies and

good practices, which go beyond traditional workplace-related issues (mandatory protection of workers' health and safety by law) and focus on a well-rounded take charge of the worker (for example, regarding also employment-topics for preserving human resources as well) [13].

TWH strategies imply a keen eye on workers' physical and mental health, for improving their quality of life and increasing their productivity at work. The TWH concept is that each worker is perceived as an essential piece for the jigsaw of the working organizations and, thus, benefits are for workers as well as for employers and the whole community. Going back twenty years, first steps were made since the beginning of the 21st century, when organizational health promotion had been recognised to be the keystone for a joint improvement of life in workplaces, and a key tool to find an agreement between the usually conflicting interests of the workforce and the top management. It was clearly understood that an optimization of the quality of work life within the organization could lead to a maximization of human capital in terms of productivity [14]. For the common goal of improving work wellbeing, WHP represents an inclusive expression of the TWH perspective, as long as all actors play their part in a broad body of initiatives defined as "the combined efforts of employers, employees and society to improve the health and wellbeing of people at work" [15]. Examples of WHP plans are screenings for chronic diseases (e.g., cardiovascular diseases), projects on good practices and healthy lifestyles (e.g.,

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food education, sleep hygiene), as well as psychological support paths (e.g., ergonomics participatory groups - “Gruppo di Ergonomia Partecipativa”, GEP© - and help point desk [16–20]. The WHP comprehensive approach is encouraged by the World Health Organization, which notes that the “future success in a globalizing marketplace can only be achieved with a healthy, qualified and motivated workforce” [21]. The latter characteristic is well expressed by the feeling of work engagement, which represents the tendency of workers to be fully present in the organization, their willing action to follow organization interests because of a positive mental state of vigor, dedication and immersion, all ingredients for the recipe of job satisfaction [22, 23]. From the global economic viewpoint, WHPs can promote a sustainable social and economic development for workers, employers, and the entire community [24].

In June 2021, after a year off due to the COVID-19 pandemic, the 3rd edition of the ‘Summer School on Total Worker Health’ took place in Pugnochiuso, a landscaped location in the Apulia Region of Italy. The event was promoted by the Occupational Medicine Service (OMS) of the *Bambino Gesù Children’s Hospital* with the sponsorship of the *European Network for Workplace Health Promotion* (ENWHP), the *Italian Society of Occupational Medicine*, and the Apulia region, and was addressed to occupational physicians from all over the nation. The annual event moved forward from the co-operation between the OMS and the local health company in Foggia, issued in a three-year Workplace Health Promotion (WHP) project aimed to endorse best practices for improving workers’ health in healthcare settings recognized at European level.

During the Summer School, eight experts from the *Italian National Institute for Occupational Accident Insurance* (INAIL), the National Institute of Health, and Italian universities and national health companies discussed current approaches and future perspectives on WHP hot topics, such as disability management, personalized health promotion

and prevention, and work wellbeing. Good practices and national and international experiences in the workplaces were shared, with a specific insight on changes due to the current COVID-19 pandemic. Some relevant issues were highlighted.

The chief argument of the Summer School was represented by disability management before and after COVID-19 pandemic. In the last decades many efforts have been made to face up to the growing slice of the disabled workforce [7]. Workplace disability management programs (WDMPs) were found to be an effective tool to deal with incoming temporary/permanent disabilities in numerous fields of human health, aiming to preserve working ability, prevent disability, and promote a safe and timely return to work in case of injuries or arisen illnesses [17, 25, 26]. Only a systematic and constructive process shared by the stakeholders (with the engagement of the Human Resource Department) could truly give direct support to the involved employee and ensure a successful job-retention and job-reintegration in competitive employment [17]. This multidisciplinary method, tailored on the worker’s individual features, was applied in the pandemic context during the past year. Specific intervention was made necessary to confine SARS-CoV-2 risk of contagion for workers as well as for users in the Italian hospitals (in terms of contact tracing and protective actions), as happened around the world. Infected workers needed a specific management protocol based on national and international legislation. Moreover, experiences from anti-COVID-19 vaccinations showed the persistent problem of vaccine hesitancy among healthcare workers [27], which was successfully counteracted through a one-to-one open dialogue with their occupational physicians. Furthermore, vaccination has been showed to be a cost-saving measure for healthcare workers in terms of reduced sickness absence burden during flu seasons [28, 29]. The economical effectiveness for WDMPs and psychological support desk has been reported through an econometric assessment related to a considerable reduction

of sickness absence days (at least 60% of the pre-intervention level) for the enrolled workers [17, 19].

Considering the incoming psychiatric sequelae of COVID-19 pandemic [30], especially affecting frontline healthcare professionals, a theoretical and practical session on de-escalation methods and relaxation techniques was provided too [31]. In view of past TWH™ evidence, which showed that work-life stress is related to poor health behaviours (e.g., smoking, junk food intake, low levels of physical exercise, decreased sleep time) [32], urgent interventions are needed in the next future to tackle the additional effects of COVID-19-related distress on mental health. These actions should be comprehensively arranged with the support of TWH™ and occupational health psychology [33].

Overseas, forthcoming developments of TWH™ regard advanced integration between occupational safety and health and related disciplines (such as human resources) to bring awareness on new emerging risks and corresponding solving programs and gain dissemination of information to the community [34, 35]. An imperative action is also required to fill the gap on evaluation of TWH™ programs using the same objective indicators and guidelines as well [34, 36]. At this regard, specific metrics to define integration for TWH™ programs were recently proposed to

help TWH™ to find standardization criteria [37].

In Italy, the TWH method has been introduced into the National prevention plan 2020-2025 that was adopted in August 2020, as a strategic approach to strengthen the global health of workers for 'health promoting workplaces'. Its application is encouraged as the basis for single-issue technical committees which primarily cover several occupational sectors (e.g., construction, agriculture) and risks (e.g., carcinogenic, musculoskeletal, work-related stress) with a common challenging focus on occupational disease prevention and demographic change of the workforce [38].

To sum up, TWH is a new 'philosophy' of conceiving workplaces as crucial setting able to enhance health, which certainly represents the main endpoint of the occupational medicine of the new millennium imbedded in the public health scenario. The most relevant take-home message from the Summer School is that prevention and promotion of health in the workplace is one of the most cost-effective investments ever. This annual date would fit in the occupational health's renewal request as an idea factory by promoting bubbling open discussion moments on future challenges among senior and junior occupational physicians towards the common horizon of occupational salutogenesis.

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