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Editorial

Virtual Tools, Covid-19 and Return to Work After Stroke

Marco Iosa[1,2]*

[1]*Department of Psychology, Sapienza University of Rome, Italy*
[2]*IRCCS Fondazione Santa Lucia, Rome, Italy*

***Corresponding Author:** Marco Iosa, Department of Psychology, Sapienza University of Rome, Italy.

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The outbreak of coronavirus disease-19 (COVID-19) has been a public health emergency of international concern that limited the mobility of people, favouring the working from home [1]. In fact, a significant portion of workers have been forced to reorganize their daily activities to accommodate the needs of home, agile and/or smart working [2].

Psychologists highlighted the problems related to feeling of fatigue and discomfort during smart working, often linked to the numerous videoconferencing sessions that represent the main communicative tool used, and due to the connection problems and technological tools sometimes not working optimally [2]. On the other hand, the lockdown caused by the pandemic reduced the moving and hence the traffic (in United Kingdom the overall reduction was assessed in about 69%, 74% in terms of light and 35% of heavy vehicles) [3].

Within the list of the possible advantages and disadvantages of teleworking that could become permanent also after the hoped end of health emergency, there is the possible facilitation that home working can provide to people with a reduced autonomy in the mobility out of home. The reduced independence in mobility is one of the most important problem affecting the possibility of returning to work in people who suffered of a stroke in working age. For example, in Italy, it has been estimated that only 19% of people after a stroke get back to work activity [4].

The return to work should be the highest point of the person's reintegration process, with positive consequences for the patient's health and well-being [5,6]. It is a very delicate process, requiring individualized compliance of the work activity in its organizational, structural and ergonomic aspects for this complex type of patients [5]. For this reason, home working could be a fundamental opportunity to warranty a return to working activities also in people with mobility problems.

Before the Covid-19 outbreak, in Italy, the Italian National Institute for Insurance against Accidents at Work (INAIL) financed the project STAR, about "Innovative strategies, and approaches for the motor and functional rehabilitation of subjects with neurovascular adverse event outcomes for reintegration into work". Among the results of this project there was that the quality of life after stroke is strongly influenced by the possibility of returning to work in the same mansion and for the same hours as before stroke [7]. This aspect mainly depends on the independence achieved by patients in activities of daily living, that did not result in general superior if neurorehabilitation was or not assisted by technological devices, but it might depend on the personalization of rehabilitative treatments focused on the characteristics and needs of each patient, as well as by the personalization of the workplaces, with the need of specific accommodations, without reducing working duties or working time [7].

However, there are several factors to take into account because potentially affecting the return to work post stroke, including factors related to the person (impairments, coping, adaptation, significance of work, return to work motivation), workplace (job demands, work adaptations, disability management, work climate, social support), rehabilitation services (availability, accessibility, appropriateness), other factors (work capacity, performance and capability, and initial return to work experiences) [8]. Obviously, the return to work of patients with stroke depends also on the type of job done before stroke, with previous Japanese studies reporting, for example, that blue-collar workers were less likely than white-collar workers to return to work [9,10].

The wide and progressive diffusion of web technologies and virtual tools may facilitate some people in working from homes, especially those involved in jobs related to the field of information and communication technology. This is an important opportunity for patients with stroke having mobility problems.

Neurorehabilitation and occupational therapy have been highlighted as fundamental for favouring the return to work of these people [8]. The increasing use of technological devices also during neurorehabilitation may favour this reintegration if integrated into specific personalized therapy programs [7]. In fact, virtual reality [11], serious exergames [12], video-acoustic tools [13], telemeetings [14] are becoming frequently used in neurorehabilitation and it could be preparatory for the return to work.

The end of health emergency related to pandemic should not turn off the possible advantages introduced by home working. This job modality may increase the possibility to return to work of people after stroke, improving their psychological and economic wellness. At the same time, the home working need specific home adaptations and could expose people to the risk of social isolation, depression and stress [15].

The new challenge for psychologists, physiatrists, physical and occupational therapists, caregivers, employers, insurances and public entities is to take all the possible advantages introduced by home working, reducing the related risks, for favouring the return to work of people after stroke, in office or at home, or alternating these solutions, for increasing their quality of life.

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