



EFN POSITION PAPER ON PUBLIC HEALTH VIRTUAL COACHING

Social determinants and personal behaviour are key elements that influence people's health. Research from the World Bank and WHO demonstrates that nursing interventions can influence people's and patients' behaviour. Vulnerable groups need specific interventions and the intervention of nurses in general, and of public health nurses in particular, have proven to be very useful in improving the health literacy of the general population, as well as of specific patient-groups or particularly vulnerable persons.

The [social determinants of health](#) (SDH) are the conditions in which people are born, grow up, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.

According to the [World Bank](#), poverty is a major cause of ill health and a barrier to accessing healthcare when needed. This reasons for this are mainly financial: the poor cannot afford to purchase those things that are needed for good health, including sufficient quantities of quality food and healthcare. Other factors relate to lack of information on appropriate health-promoting practices or lack of voice needed to make social services work for them.

Health 2020, the policy framework for health and well-being in the WHO European Region, highlights nurses as having increasingly important roles to play in society's efforts to tackle the public health challenges of our time, ensure the continuity of care and address people's rights and changing health needs. Nurses comprise the majority of healthcare professionals in Europe. As frontline health workers, they have close contact with many people, and therefore they should be competent in the principles and practices of public health, so that they can use every opportunity to influence health outcomes, social determinants of health, and policies necessary to achieve change.

Nurses are key players in empowering individuals and families as well as in promoting health literacy and changes in health behaviour throughout the life-course of people. Tailored lifestyle coaching services offer individual users access to web portals where they can communicate about a growing number of ingredients of everyday life concern: physical activity, nutrition, medication, mood, sleep. Mobile technology in combination with body worn sensors support user's awareness of their physical condition and lifestyle. However, despite the large number of available lifestyle interventions and pilot trials, only very few are successfully transferred into the real health care practice. To support good health through a life-course approach, nurses can lead the deployment of new health promotion strategies through primary health care, community-based and home-based services. Nurses are key players in supporting healthy ageing and independent living by assessing care needs, providing care counselling and new forms of services to older people that support independence and well-being.

As today most individuals and communities are users of social networking and more generally of internet media, access to their behaviours, and change in their behaviours, can be achieved through community participation in online platform strengthening health information levels, allowing the implementation of public health interventions and as such improving indicators of well-being.

Nurses therefore need to engage with the design and deployment of virtual coaching ecosystems as these tools (serious gaming and avatars) can tackle personal issues at any moment the individual requests support and wishes to change their behaviour, complementary to the coaching received through the face-to-face contact with the nurse. Nurses active in public health will perceive

the virtual coach as a support, as the virtual coach will understand and learn about the individual and provide behavioural coaching in near real-time. There will be completely personalised coaching and prompt reactions to the person with new behaviours that break their negative habits and expand their behavioural flexibility. Public Health Virtual Coaching can stimulate/motivate people to change more rapidly the way people live their lives in real time in real life.

The modifiable risk factors, the virtual coach, and the public health coach can collectively target the behavioural habits that have been shown to have direct or indirect effects on chronic disease parameters by:

1. reducing tobacco-use;
2. improving diet and eating habits;
3. Reducing alcohol consumption;
4. increasing physical activity levels;
5. reducing loneliness in society;
6. engaging the brain's cognitive and central executive functions; and,
7. developing healthier sleeping patterns.

The primary objective of Nurses Virtual Coaching is to support people in their adoption of healthier and better lifestyles. An innovative open-ended system allows users to select their own habit goals and desired technologies, that help them change old habits and create healthy new ones in an engaging and enjoyable way. The advanced roles in nursing using virtual coaching technologies will therefore be crucial to prevent and combat major societal challenges and conditions. Prevention must be our focus, as opposed to merely focussing on screening an entire population. However, the virtual coaching can contribute to health promotion for healthy people as well as people that manifest risk factors or people already chronically ill. Depending on the target group, the virtual health promotion and counselling done by nurses contributes to preventing diseases for the healthy; to early case-finding for people with risk factors, as well as a better quality of life through self-management for people living with a chronic non-communicable (e.g. diabetes) or communicable (e.g. hepatitis C or HIV) diseases. Additionally, coaching an individual or population group in person, specialised nurses can contribute to the development and back up of virtual coaches.

The integrated virtual coaching ecosystem encourages people to change their actual behaviours in small steps, over time, via their phone or other portable gateway, supports them in the process and provides a social context for change. The changes in actual behaviours are used as the underlying lever to improve health literacy, autonomy, capacity of self-care, resilience and quality of life.

The virtual coaching ecosystem needs to become integrated with the public health workforce so that it is available as an adjunct to normal care-plans and can provide additional data on clinically relevant outcomes from real-time monitoring of clinical indicators via disease-care-specific wearables. Changes in the health-related behavioural risks need to be used to measure the success of Virtual Coaching.

The EFN therefore:

- Encourages governments to invest in health-promotion/primary prevention, and use the competences of the nursing workforce, including their competences in the development and back-up of virtual coaching tools. Stopping with smoking, for example, will only be possible if multiple factors influencing negative behaviour will be coached simultaneously. The face to face coaching is key, but need support from the virtual coach to have more impact on change;
- Perceives multidisciplinary coaching in health and social care ecosystems as key to achieve integrated care and use continuity of care as the key driver to be fully informed and as such

make informed decisions. Interprofessional ePlatforms and Patient Management Systems are key for effectively operating between sectors and disciplines and the fundamental for effective national health systems;

- Builds on a holistic approach to public health and health care, in which nurses can play a central role in managing systems, conditions and diseases. The skills needed to integrate sectors, to deploy virtual coaching will need to be developed, preferable with SMEs developing the tools. Creating a win-win business case, based on the EU values and principles the nursing profession signed up to, empowers a holistic approach supporting nurses in their daily work;
- Considers gender and health inequities as cross-cutting themes when designing Virtual Coaching methodologies. The algorithms designed need to be gender sensitive as does the artificial intelligence created. This will be a huge challenge but the nursing profession counts on the Industry, SMEs and Start-Ups to make entrepreneurship gender sensitive;
- Expects Virtual Coaching to contribute to increasing health literacy and autonomy and resilience, for the entire population to increased informed decision making and support mechanism are needed to reach successful outcomes.

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