

## New Ways to Promote Physical Activity in Residential Care

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### Short Communication

Most researchers in the area of physical activity in older people know how hard it is to actual changing behavior of people in the desired direction. My own experience after 30 years of research is that the we have an enough knowledge about the benefits of physical activity in older people, but that knowledge about changing behaviour is still far from complete. It is known that the older population (65 years and more) and especially older people in nursing homes, are extremely physically inactive [1]. In a classic article published Chodzko-Zajko et al. [2], it is described what the benefits of physical activity in these kinds of populations could be. However, since that time physical inactivity is still a challenge in (older) populations [3].

When designing new interventions, researchers and developers mostly depend on theoretical models for changing behaviors. The Theory of Planned Behavior is one of the most frequently used theoretical frameworks to help design behavioral change interventions [4]. Unfortunately, this model showed very limited capabilities to explain the actual change in physical activity behavior after an intervention in inactive older people [5].

Therefore, my former research group and I designed an alternative intervention in a group of inactive older people in residential care. We published the results of a small pilot in BMC Geriatrics in 2017 [6]. In our article, we describe how to influence the actual physical activity behavior of residents in a care setting, using so-called 'automatic processes. Research on automatic processes underlying physical activity behavior in inactive older adults was till we started our efforts non-existing. Since people are unconsciously influenced by people around them (i.e. by 'social norms') automatic processes could be used to promote physical activity. We developed a method to assess the effects of automatically processed (implicit) descriptive social norms ('What most people do') on behavioral intention and participation in actual organized physical activities offered in a local residential care setting.

Forty-seven care clients met our inclusion criteria. Participants (response 45%; unaware of the intention of the research) were randomly assigned to an experimental (N=10) and a control group (N=11). The experimental group was exposed to photos and text heading on active peers (physically active implicit descriptive norm) using a draft newsletter article they were asked to comment on, whereas the control group was exposed to a newsletter with photos and text heading of inactive peers (physically inactive implicit descriptive norm). Subsequently, we tested whether this unaware exposure predicted intention (implicit and explicit) to participate in physical activities offered and organized by the care center (e.g. walking,

gymnastics) and self-reported participation in organized physical activities at three months' follow-up. Participants were debriefed later.

Our results were as follows: mean age was 87 yrs. (SD=3.6; range 80-95) and 53% of the participants were male. At baseline, there were no significant differences in self-rated health and physical activities between the experimental and control group. The results showed that implicit descriptive norm information was indeed associated with implicit physical activity intention ( $p=0.056$ , Fisher's exact test). No significant effects were found on explicit intention. At 3 months' follow-up, the experimental group self-reported 80% participation in organized physical activities versus 22% in the control group (Fisher's exact test  $p=0.027$ ).

From our pilot study, we concluded that implicit descriptive social norm information could be a potentially effective way to encourage inactive older adults in residential care to engage in organized physical activities.

I hope that other research groups will uses these promising results to design similar interventions in care for older adults. In fact, it is a cheap and easy way to counteract physical inactivity by exposing people to photos and messages of active peers.

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