



The Effectiveness of Nudge Interventions in Promoting Hand Hygiene: A Real-Life Social Experiment in an Industrial Plant

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Abstract

The world had been suffering from the COVID-19 pandemic due to the spread of a new coronavirus (SARS-Cov2), causing an acute respiratory syndrome (COVID-19) in humans. This study aims to investigate nudging of non-pharmaceutical interventions that may counteract the rapid surging infection rates during the coronavirus pandemic. More specifically, a large field experiment (N=890) was conducted at the sites of ArcelorMittal Belgium (AMB), a leading multinational steel manufacturer, to investigate the effectiveness of nudge interventions promoting hand hygiene in an industrial plant. We manipulated the placement of the alcohol gel dispenser, the presence of social norms messages and footprints placed on the ground. All interventions contributed significantly to an increase in the usage of the alcohol gel dispensers, with the placement and social norm message combination providing the greatest results (i.e. absolute increase of 47%).

In addition, this study investigated the impact of social influences on the use of the hand sanitizers. The results show that people passing by in group had a much higher probability of using the alcohol gel than when they passed by individually. This effect appears to be solely mediated by the leading example of the first person in the group using the dispenser. The effective nudge applications and the associated insights in the social dynamics provide guidance to promote health and safety compliance within organizations, which is essential to combat surging infection rates related to the coronavirus and beyond.

Keywords: Decision-making, Social norms, Group behaviour, Nudging, Public health