

Can External Interventions Crowd Out Intrinsic Motivation?  
A Randomized Field Experiment on Mandatory Accreditation of General Practice in Denmark

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## Abstract

Background: Traditional agency theory assumes that the principal's monitoring and control of the agent should motivate him/her to increase effort and reduce shirking in order to avoid being penalized (Laffont and Martimort 2002). However, a persistent claim in behavioural psychology and economics is that incentive systems risk running counter to their intended purposes (Bénabou and Tirole 2003). Instead of motivating agents, such interventions risk 'crowding out' intrinsic motivation when individual agents perceive the external interventions to be means of control (Frey 1997).

Researchers within health economics have studied the relationship between different incentives schemes and various treatment outcomes (e.g. Scott 2009, Iezzi 2014), but to our knowledge no studies have empirically investigated the relationship between the introduction of an external incentive scheme and the intrinsic motivation of health professionals. This is important as intrinsic motivation has been shown to be a good predictor of behaviour (Vallerand and Bissonnette 1992), and a recent theoretical contribution showed that motivated health workers provide more care compared to less motivated health professionals (Barigozzi & Burani 2016). Moreover, while studies from outside of health economics have attempted to link the health care providers' perception of the intervention as either controlling or supportive to the crowding out of intrinsic motivation (e.g., Jacobsen et al. 2014), concerns for endogeneity limit existing research in assessing its empirical validity. Hence, a critical question for policy makers in health is to consider whether external interventions can hold unintended consequences of leaving the GPs less motivated to exercise daily job tasks.

Objective: We seek to offer a rigorous empirical test of the (de)motivating effect of an external intervention and its contingency on the GPs' perception of the intervention.

Data and method: We use a randomised stepwise introduction of a nation-wide mandatory accreditation scheme in general practice in Denmark as our case, combined with a baseline survey on the GPs' a priori perception of the intervention as either controlling or supportive, and a follow up survey measuring their intrinsic motivation. The baseline survey was distributed in January 2015 to 3403 GPs. It showed that 83% of the GPs perceived accreditation as a tool for external control, while 42% perceived accreditation as a tool for quality improvement (Waldorff et al. 2016). The follow-up survey

on intrinsic motivation was distributed to the same GPs in January 2017. A balanced sample of 1146 GPs was obtained.

The effect of the accreditation scheme on intrinsic motivation is estimated as the difference in intrinsic motivation between GPs accredited in 2016, GPs in process (accreditation in 2017), and GPs who are awaiting accreditation (accreditation in 2018). The baseline measure of GPs' perception of the accreditation system as either supportive or controlling is exogenous to treatment and allows us to test whether the average treatment effect is indeed contingent on the GPs' perception of the external intervention as hypothesized by motivation crowding theory.

Results and conclusion: Analyses are ongoing