Aalborg Universitet

Whose motivation?

A conceptual and ethical analysis of nudges and incentives in physiotherapy treatment

Fystro, Joar; Thomsen, Simon

Published in:
Fysioterapeuten

Creative Commons License
CC BY-NC 4.0

Publication date:
2023

Document Version
Publisher's PDF, also known as Version of record

Link to publication from Aalborg University

Citation for published version (APA):
Fystro, J., & Thomsen, S. (2023). Whose motivation? A conceptual and ethical analysis of nudges and incentives in physiotherapy treatment. *Fysioterapeuten*, *90*(5), 82-86. https://www.fysioterapeuten.no/whose-motivation-a-conceptual-and-ethical-analysis-of-nudges-and-incentives-in-physiotherapy-treatment/150331

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy
If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from vbn.aau.dk on: May 18, 2024

Whose motivation? A conceptual and ethical analysis of nudges and incentives in physiotherapy treatment

Joar Røkke Fystro, PhD.-student, Department of Health Management and Health Economics, University of Oslo. j.r.fystro@medisin.uio.no.

Simon Thomsen, PhD.-student, Sport and Social Issues, Department of Health Science and Technology, Aalborg University.

Denne **fagartikkelen** er fagfellevurdert etter Fysioterapeutens retningslinjer, og ble akseptert 9. august 2023.
Ingen interessekonflikter oppgitt.

Artikkelen ble først publisert på www.fysioterapeuten.no.

Introduction

For the most part, the very effect of physiotherapy treatment depends on patients' adherence to the treatment plans. To promote such adherence, different techniques for affecting the behaviour of patients are available. Two of these techniques are so-called nudges and incentives. For example, imagine a patient struggling to exercise regularly. If the physiotherapist deliberately frames an exercise intervention as the default intervention and emphasises that most people with the same condition adhere to a similar programme, this counts as nudging. If a physiotherapist instead gives her patient a discount on the service price for participating in a series of group exercises, this counts as an incentive.

Both nudges and incentives appear to be present in many physiotherapy practices, underscoring the need for conceptual and ethical reflections concerning the use of these techniques. Thus, in this paper, we start by exploring the conceptual difference between nudges and incentives. Subsequently, we conduct an ethical analysis with the aim of pointing to different aspects that may be relevant for physiotherapists who consider employing nudges or incentives in treatment situations. By so doing, we hope this paper serves to stimulate ethical reflections and provide some practical guidance for clinicians in their encounters with patients.

Conceptual analysis

What are nudges?

Because we (as people) lack complete knowledge about all the conceivable options in each choice situation as well as the consequences associated with these options, and because we are, in many situations, unable to consider information consistently to make choices that fit our preferences, we cannot be deemed perfectly rational decision-makers (1). On the contrary, we are prone to be influenced by apparently irrelevant factors in the choice situation, such as how an option is framed and which option is presented as the default (2). For instance, whether the expected effect of an exercise intervention is framed in terms of the likelihood of clinical improvement or the likelihood of no clinical improvement might influence decisions as the former framing generally results in a more positive view of the intervention (2, p. 367). As another example, the order of a choice set can influence our decisions as we are more prone to choosing the options presented first and last (3, p. 18). Additionally, the power of social norms is invoked when we appeal to what 'most people do', which probably is one of the most effective ways to get people to do what we want them to do (4).

When we make use of such knowledge about 'shallow cognitive processes' in order to influence people's behaviour in a predictable way, we are nudging other people (3, 5, 6). The cognitive processes are shallow in the sense that they work automatically and nonvoluntarily by bypassing the conscious and reasoning self (2, 7). Because these shallow cognitive processes have predictable tendencies, they are sometimes referred to as cognitive biases. In one sense, almost every aspect of the environment in which a choice is made may influence us. The originators of the concept of

Abstract

Nudges and incentives can be – and are – used in physiotherapy treatment to alter and steer patients' behaviour. In this paper, we first investigate the conceptual difference between nudges and incentives. Thereafter, we conduct an ethical analysis of these two techniques for influencing behaviour, pointing to different aspects that may have ethical importance for physiotherapy practise. We conclude that while employing nudges and incentives in physiotherapy treatment raises distinct ethical issues in light of their conceptual differences, there is a common moral imperative for physiotherapists to provide and discuss the reasons for employing nudges and incentives with the public and/or the patients.
Keywords: bioethics, incentives, medical ethics, nudging, physiotherapy.

nudging, Richard H. Thaler and Cass R. Sunstein, call this the ‘choice architecture’ (8, p. 3). According to their line of thought, it is impossible not to nudge people, be it intentionally or not, and the best we can hope for is therefore to nudge well (8, p. 255). However, in an ethical sense, it seems meaningful to distinguish between intentional and inadvertent nudges, and to save the term ‘nudge’ for the intentional and deliberate use of insights into cognitive biases for achieving desired outcomes through influencing people’s behaviour in predictable ways (5, 9, 10).

Importantly, nudges are usually viewed as ‘soft’ interventions, because they should, per definition, operate ‘[…] without forbidding any options or significantly changing [patients’] economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid’ (8, p. 6). According to Thaler and Sunstein, this means that, if a person has strong preferences for an option or a certain behaviour, they are still entirely free to choose against following the decision that the nudge is designed to promote. However, because of phenomena such as inertia, procrastination, indifference and social conformity, many people are influenced in predictable ways by how options are framed (11, pp. 20–1). Since a plethora of different cognitive biases have been described in psychology and behavioural

© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions (https://creativecommons.org/licenses/by-nc/4.0/). Published by Fysioterapeuten.

Kort sagt

- Nudges and incentives appear to be prevalent in current physiotherapy practices. In this study, we hope to help practitioners in considering why and how they apply nudges or incentives in treatment situations, and in determining when they might (not) be appropriate. The motivation behind this paper is not to have individual physiotherapists radically change their practices but rather to spark debate about the appropriateness of nudges and incentives in certain situations.

How is a physiotherapist's clinical knowledge of treatment appropriately balanced with other aspects of the lives of patients?

economics (12), various conceptual types of nudges exist. Consequently, there are various ethical considerations associated with the different types of nudges. However, in what follows, our focus is on raising some general ethical issues associated with leveraging insights into cognitive biases to influence other people's behaviour in predictable ways.

What are incentives?

In contrast to nudges, incentives appeal to the conscious and reasoning processes of the human mind. Most basically, an incentive is a proposed transaction, where a price has been put on a particular behaviour (13, 14). An incentive entails that a person is offered an extrinsic benefit for behaving in a particular way, and that the person is free to take the offer or leave it (15). The extrinsic benefit may be both monetary and nonmonetary. For example, a physiotherapist offering discounts on service prices if patients attend a series of group exercises, or a physiotherapist offering t-shirts to patients who adhere to an exercise programme both count as incentives. Accordingly, an incentive functions in the sense that it gives extrinsic reasons to perform a particular action or behave in a particular way, meaning reasons unrelated to the values ascribed to the particular behaviour itself (16, p. 113; 17, pp. 75–6).

Like nudges, incentives are generally considered noncoercive and 'soft' interventions, where the intended receiver can freely choose to accept the incentive and comply with the requirements for receiving it, or instead refuse the offer and not end up worse off than before the offer was made (16, pp. 77–8). However, proponents of nudging might see incentives as more intrusive interventions, as they consist of changing people's economic conditions, which, by definition, nudges do not do (note that 'economic' here may be interpreted narrowly as alluding to money, as some do (9, p. 125), or more broadly as including every form of utility calculation in human reasoning, concerning money or not (18)). In contrast to nudges that work through changing the choice architecture, incentives add more options to the situation without altering the other options already available or the environment surrounding them, which might be considered a desirable feature of employing incentives (16, p. 42).

Since techniques such as nudges and incentives are employed in many physiotherapy clinics, and since we firmly believe it is necessary to discuss the appropriateness of employing such means of promoting certain behaviours, we now turn to an ethical analysis of these concepts.

Ethical analysis

The purpose of the following analysis is to point at (some) ethical aspects that may have importance for the use of nudges and incentives in physiotherapy practice. Such aspects include the concepts of transparency, manipulation, coercion and motivation. By highlighting these ethical aspects, we hope to help practitioners in considering why and how they apply nudges or incentives in treatment situations, and in determining when they might (not) be appropriate.

Transparency

As a basic principle, fellow humans should be treated as our equals, and thus as competent grown-ups capable of making informed and appropriate decisions. Making such decisions relies on having a proper understanding of the choice situation (19). Notably, nudges are a type of nonargumentative influence that bypasses the realm of reasoning to instead leverage cognitive biases, which is to say that many nudges are not transparent for the patient (3, pp. 118–22). As such, the patient might be deprived of the opportunity for partaking in processes of making informed choices as they do not know that they are being influenced by specific techniques designed to affect their behaviour in a certain direction. Nudges in the shape of the framing of a choice, or in how the order of the alternatives in a choice set are arranged, are examples of nontransparent influence, whereas nudges in the shape of defaults may be understood as recommendations and therefore influence the patient more transparently (11, pp. 93–4). If, for instance, a physiotherapist organising an exercise class asks participants to give notice if they do not show up rather than if they do show up, because she believes changing the default makes more participants show up, this constitutes a kind of nudging that is easier to see through.

In contrast to nudges that might be more or less transparent, incentives work by extending offers of benefits to patients and are thus transparent by their very nature. It is worth noting that while nudges are generally viewed as less problematic than incentives, when it comes to transparency, the asymmetry favours incentives over at least some types of nudges.

While the above deals with a side of transparency we might call transparency of the means (the nudging itself), another aspect is the transparency of the reasons for employing such means, i.e. the ends being promoted (3, p. 121). That it is clear to patients what is being done to affect their behaviour, does not necessarily entail that it is clear to them why it is being done. It is conceivable that a physiotherapist employs a nudge or an incentive that is transparent for the patient, but that the reasons for doing so are hidden.

It is our understanding, that it is generally rather trans-

parent which overall ends physiotherapeutic practices are designed to promote. However, being transparent when employing techniques such as nudges and incentives entails communicating to the patients how the techniques are being used and to what end, thus inviting them to partake in processes of making informed choices that align with their values and preferences. If nudges or incentives are designed to influence behaviour more broadly at the population level, we maintain that the physiotherapist should, as a minimum, be willing and able to defend publicly both the reasons for using such techniques and the perceived necessity of employing them (8, pp. 247–8).

Manipulation

In one account, when a technique for influencing behaviour '[…] does not engage or appeal to people's capacity for reflective and deliberative choice' (11, p. 88), it counts as manipulative influence. Per definition, many nudges thus seem to be a manipulative influence, as they draw on shallow cognitive processes that bypass the reasoning and deliberative faculties of our minds. At the same time, this definition of manipulation is so broad that many aspects of normal human interaction, for example smiling and using a cheerful voice when talking to someone out of a desire to cheer them up, would count as manipulation, although, intuitively, it seems much more appropriate than explicitly offering them an incentive to cheer up. Consequently, whether a physiotherapist should employ nudges or incentives in treatment situations does not appear to hinge on whether they are viewed as manipulation or not, strictly speaking (3, p. 126).

Rather, the issue at hand seems to be whether the reasons for nudging or incentivising the treatment in a particular direction are discussed adequately and whether the manipulation is of the good kind. Now, what amounts to adequate discussion and good manipulation ought to be our topic of discussion. Thaler and Sunstein argue that being able to publicly defend the reasons for nudging is one of the key elements to satisfy the imperative to nudge well (8, pp. 246–9). On the other hand, one might question whether it is enough that nudges (or incentives) are defendable in public as contributing to a general, public good. After all, some generalised treatment goals might not align with the values and preferences of individual patients who are subjected to the techniques. Thus, it might be discussed whether the use of a particular nudge or incentive should also be articulated to—or negotiated with—the patient.

Such articulation or negotiation might be difficult, particularly when it comes to nudging, as some nudges might be ineffective when revealed. Others might, however, be fully open and still be effective in triggering cognitive biases in the patient (11, p. 104), and it is fair to wonder whether they should be made visible to patients if that is the case. Whereas incentives as a behaviour changing technique are transparent for the patient, they might still manipulate illegitimately if the reasons for using them are held back or misleadingly presented to the patient.

The discussion of nudges and incentives seems principally tied to a discussion of the general role of healthcare professionals. Are they supposed to offer treatment advice to patients who can apply such in accordance with their own better judgement, or are they supposed to affect patients in a certain direction even if it means that patient's capacities for reasoning and deliberation are bypassed?

Coercion

According to an influential bioethical analysis, offers cannot coerce because coercion requires that there is a threat of making another person worse off or violating their rights while leaving the person with no reasonable alternatives to succumbing to the threat (20). Conversely, if someone rejects an offer, the person will not be worse off than she was before the offer was made; the offer only expands the viable options in the situation (16, pp. 77–8). It follows that an incentive—for instance in the shape of a monetary benefit—cannot be coercive. Nudges seem similarly noncoercive, vindicated by their preservation of liberty. The person targeted by the nudge is deemed free to act in ways that are not in accordance with what the nudge promotes as none of the options within the choice architecture are altered or forbidden (8). Consequently, the issue of coercion does not seem, on the surface, to be ethically problematic for a physiotherapist considering employing nudges or incentives in treatment.

However, there are two complicating factors that physiotherapists should be aware of. First, although nudges and incentives cannot be coercive by the definition of coercion given above, they can nonetheless influence a person unduly. Undue influence occurs when a behaviour changing technique influences someone to do something against their better judgement or principles (21). The physiotherapist should take measures to avoid influencing patients unduly, which requires knowledge and respect for the patient's own goals and preferences.

Second, if we broaden the concept of incentives to include negative incentives—also called disincentives—that impose a potential cost on a particular behaviour rather than a potential benefit (a positive incentive), then a person can be left worse off than she was before facing the incentive. Accordingly, negative incentives may be seen as a threat of being worse off if the person acts contrary to the behaviour that the incentive is designed to motivate. As a result, negative incentives can be viewed as coercive, at least if there is no reasonable way to avoid being faced with the incentive in the first place (20). On the other hand, though a negative incentive does force a person to bear the cost of behaving in a particular way, another question is whether that constitutes coercion in a strict sense. If an incentive does not impose exorbitant costs on the targeted person, she may still accept the costs and behave as she wants, and thus, acceptable alternatives to behaving as encouraged by the incentive might remain available (22). Of course, what amounts to exorbitant costs varies between situations and, importantly, between people. Nonetheless, the discussion can be taken as an indication that negative incentives employed in clinical practice are subject to an additional justificatory burden.

(Whose) motivation?

An apparent feature of incentives is that they are techniques aimed at motivating the patient to act differently than she would have done in its absence (15). Nudges, on the

other hand, do not target people's motivation as such, but influence instead through adjusting the choice architecture inherent in the situation, without necessarily influencing the conscious motivation of the patient.

Whether techniques are employed to affect behaviour subconsciously or to change the conscious motivations of patients, their use seems to invite certain questions, namely: Whose motivation do they serve? Are nudges and incentives mere instruments designed to affect people's behaviour in accordance with state-sanctioned health imperatives, or are they ways of helping patients act within their own best interest? How is a physiotherapist's clinical knowledge of treatment appropriately balanced with other aspects of the lives of patients? Do nudges and incentives promote health at the expense of such balance? If so, is it worth it?

Answering these questions once and for all seems impossible as they relate to deeply rooted philosophical and sociological debates regarding the relationship between patient and professional, individual and society.

Practical disclaimer

Generally, the present paper has not investigated or elaborated on any legal constraints for using nudges or incentives in physiotherapy treatment. Nudges, as defined in this paper, are surely a part of many current physiotherapy practices and must of course be applied in accordance with the obligation to ensure that patients receive professionally sound healthcare. Regarding incentives, there may be differences in the scope of action for privately practising physiotherapists without an agreement with a municipality and physiotherapists working directly or indirectly in the public health services. However, negative incentives in the shape of nonattendance fees that patients must pay if they do not attend their outpatient appointments—including those with physiotherapists—are for instance widely implemented in the public health services in Norway (23).

The motivation behind this paper is not to have individual physiotherapists radically change their practices but rather to spark debate about the appropriateness of nudges and incentives in certain situations, and thus to contribute to the development of well-thought-out guidelines for their use that consider other (ethical) aspects than the mere effectiveness of the techniques in eliciting desired behavioural outcomes.

Conclusion

While there are distinct ethical issues related to the use of nudges and incentives, among them the nontransparent character of many nudges and the potential coercive nature of negative incentives, there is a common moral imperative for physiotherapists to provide and discuss with the public and/or the patients the reasons for employing such techniques. Since both nudges and (at least negative) incentives appear to be prevalent in current physiotherapy practices, and are ripe with potential ethical issues, the need for conceptual and ethical reflections concerning their use is obvious.

References

1. Simon HA. Human nature in politics: the dialogue of psychology with political science. Am Polit Sci Rev 1985; 79(2): 293–304. https://doi.org/10.2307/1956650
2. Kahneman D. Thinking, fast and slow. London: Penguin Books, 2012.
3. Blumenthal-Barby JS. Good ethics and bad choices: the relevance of behavioral economics for medical ethics. Cambridge, Massachusetts: MIT Press, 2021.
4. Blumenthal-Barby JS, Burroughs H. Seeking better health care outcomes: the ethics of using the «nudge». Am J Bioeth 2012; 12(2): 1–10. https://doi.org/10.1080/15265161.2011.634481
5. Soled D. Public health nudges: weighing individual liberty and population health benefits. J Med Ethics 2021; 47(11): 756–60. https://doi.org/10.1136/medethics-2020-106077
6. Saghai Y. Salvaging the concept of nudge. J Med Ethics 2013; 39(8): 487–93. https://doi.org/10.1136/medethics-2012-100727
7. Stanovich KE, West RF. Individual differences in reasoning: implications for the rationality debate? Behav Brain Sci 2000; 23(5): 645–65. https://doi.org/10.1017/s0140525x00003435
8. Thaler RH, Sunstein CR. Nudge: improving decisions about health, wealth, and happiness. New York: Penguin Books, 2009.
9. Hausman DM, Welch B. Debate: to nudge or not to nudge. J Political Philos 2010; 18(1): 123–36. https://doi.org/10.1111/j.1467-9760.2009.00351.x
10. Hansen PG, Jespersen AM. Nudge and the manipulation of choice: a framework for the responsible use of the nudge approach to behaviour change in public policy. Eur J Risk Regul 2013; 4(1): 3–28.
11. Sunstein CR. The ethics of influence: government in the age of behavioral science. New York: Cambridge University Press, 2016. https://doi.org/10.1017/CBO9781316493021
12. Hofmann B. Biases in bioethics: a narrative review. BMC Med Ethics 2023; 24(1): 17. https://doi.org/10.1186/s12910-023-00894-0
13. Grant RW. Ethics and incentives: a political approach. Am Polit Sci Rev 2006; 100(1): 29–39. https://doi.org/10.1017/S0003055406061983
14. Bowles S. The moral economy: why good incentives are no substitute for good citizens. New Haven: Yale University Press, 2016.
15. Grant RW. Rethinking the ethics of incentives. J Econ Methodol 2015; 22(3): 354–72. https://doi.org/10.1080/1350178X.2015.1071506.
16. Grant RW. Strings attached: untangling the ethics of incentives. Princeton, NJ: Princeton University Press, 2012.
17. Pink DH. Drive: the surprising truth about what motivates us. New York: Riverhood Books, 2009.
18. Fystro JR. Fra samstemt altruisme til motstridende feminisme: en analyse av høringen om kompensasjon for eggdonasjon. Etikk i praksis – Nord J Appl Ethics. [In press 2023]. [From harmonious altruism to conflicting feminism: an analysis of the consultation about compensation for egg donation]
19. Pedersen R, Hofmann B, Mangset M. Patient autonomy and informed consent in clinical practice. Tidsskr Nor Legeforen 2007; 127(12): 1644–7.
20. Wertheimer A, Miller FG. Payment for research participation: a coercive offer? J Med Ethics 2008; 34(5): 389–92. https://doi.org/10.1136/jme.2007.021857
21. Grant RW, Sugarman J. Ethics in human subjects research: do incentives matter? J Med Philos 2004; 29(6): 717–38. https://doi.org/10.1080/03605310490883046.
22. Dawson AJ. Snakes and ladders: state interventions and the place of liberty in public health policy. J Med Ethics 2016; 42(8): 510–3. https://doi.org/10.1136/medethics-2016-103502
23. Fystro JR, Feiring E. Mapping out the arguments for and against patient non-attendance fees in healthcare: an analysis of public consultation documents. J Med Ethics 2023; 49: medethics-2022-108856. https://doi.org/10.1136/jme-2022-108856

Hvem sin motivasjon? En konseptuell og etisk analyse av dulter og insentiver i fysioterapibehandling

Sammendrag

Dulter og insentiver kan brukes – og blir brukt – for å endre og styre atferden til pasienter i fysioterapibehandling. I denne artikkelen undersøker vi først den konseptuelle forskjellen mellom dulter og insentiver. Deretter gjennomfører vi en etisk analyse av disse to teknikkene for å påvirke atferd, hvor vi peker på forskjellige aspekter som kan ha etisk betydning for fysioterapipraksis. Vi konkluderer med at selv om bruken av dulter og insentiver i fysioterapibehandling reiser ulike etiske problemstillinger på grunn av konseptuelle forskjeller mellom dem, eksisterer det et felles moralsk imperativ for fysioterapeuter til å meddele og diskutere grunnene til å bruke dulter og insentiver med offentligheten og/eller pasientene.

Nøkkelord: bioetikk, dulting, insentiver, fysioterapi, medisinsk etikk.