



Is healthcare providers' value-neutrality depending on how controversial a medical intervention is? Analysis of 10 more or less controversial interventions

Niels Lynöe¹, Joar Björk^{1,2} and Niklas Juth¹

Abstract

Background: Swedish healthcare providers are supposed to be value-neutral when making clinical decisions. Recent conducted studies among Swedish physicians have indicated that the proportion of those whose personal values influence decision-making (the value-influenced) vary depending on the framing and the nature of the issue.

Objective: To examine whether the proportions of value-influenced and value-neutral participants vary depending on the extent to which the intervention is considered controversial.

Methods: To discriminate between value-neutral and value-influenced healthcare providers, we have used the same methods in six vignette based studies including 10 more or less controversial interventions. To be controversial was understood as being an intervention where conscientious objections in healthcare have been proposed or an intervention that is against law and regulations.

Results: End of life decisions and female reproduction issues are associated with conscientious objection and more or less against regulations, and also resulted in the highest proportions of value-influenced participants. Following routines, which is not in conflict with official values, were associated with one of the lowest proportion of value-influenced participants. The difference between the highest and lowest proportions of value-influenced participants among the 10 examined interventions was significant (81.8% (95% confidence interval: 78.1–85.5) versus 34.7% (95% confidence interval: 29.2–40.2)).

Conclusion: The study indicates that the proportions of value-neutral participants decrease the more controversial an issue is, and vice versa. In some cases, however, framing effects may potentiate or obscure this association. As a bold hypothesis, we suggest the proportion of value-neutral or value-influenced might indicate how controversial an issue is.

Keywords

Abortion, assisted suicide, bioethics and medical ethics, clinical ethics, legal aspects, moral and religious aspects, professional ethics, reproductive technologies, resource allocation

Introduction

In many European countries, healthcare staffs' rights to religious or philosophical freedom have been protected by so-called 'conscientious objections clauses'. Conscientious objection means that if a certain intervention is against the healthcare provider's religious or moral convictions, the healthcare provider is allowed to abstain from participating in the intervention in question. Conscientious objection is a way to try to solve conflicts between healthcare providers' personal values and official values as expressed in e.g. healthcare laws and regulations.^{1,2}

There is a number of publications in the international literature about 'conscientious objection in

medicine' (n = 104 searched on PubMed 27 May 2016). The main areas concerned end of life issues and female reproduction issues, which also reflect how controversial these issues are.^{3–7}

Sweden is considered a secular country and there is a long tradition for Swedish healthcare providers to be

¹Stockholm Centre for Healthcare Ethics (CHE), Karolinska Institutet, Sweden

²Department of Research and Development, Region Kronoberg

Corresponding author:

Niels Lynöe, Karolinska Institutet, Tomtebodavägen 18A, Stockholm, Solna 171 77, Sweden.

Email: niels.lynoe@ki.se

Table 1. The medical interventions studied.

-
1. Offering physician assisted suicide at the end of life¹²
 - 2a. Withdrawing life-sustaining treatment in a terminal case, along with providing alleviating drugs with the additional intention to hasten death¹⁵
 - 2b. Withdrawing life-sustaining treatment in a terminal case, but abstaining from alleviating drugs in order to avoid hastening death¹⁵
 - 3a. Performing hymen restoration in order to protect a young woman from honour related violence¹³
 - 3b. Writing a false virginity certificate in order to protect a young woman from honour related violence¹³
 4. Demanding smoking cessation prior to and after hip replacement surgery¹⁸
 - 5a. Offering a novel, expensive and moderately life prolonging treatment to a terminally ill lung cancer patient who is a smoker¹⁶
 - 5b. Offering a novel, expensive and moderately life prolonging treatment to a terminally ill lung cancer patient who has never smoked¹⁶
 - 6a. Offering an expensive, out-of-the ordinary treatment to a terminally ill cancer patient who has been posting critical internet blogs commenting her quality of care¹⁷
 - 6b. Sticking to routine care for the terminally ill cancer patient who has been posting critical internet blogs commenting her quality of care¹
-

society's loyal civil servants. This tradition has not allowed conscientious objections among health care staff.^{1,8} Swedish healthcare providers are supposed not to let their own values influence clinical decision-making and are, in this sense, expected to be value-neutral. Previously conducted studies have, however, indicated that Swedish physicians actually hold values that are in conflict with official values.^{9–18} By official values in health care, we mean the values expressed in health care law and regulations. However, personal values that are at odds with the official values are seldom openly declared by the physician. Instead they may influence clinical decision-making tacitly by impregnating factual claims, for instance when judging whether or not there is a medical indication for a certain treatment or estimating a patient's trustworthiness.^{9,14} Impregnation of factual aspects by values may mask the personal values for both the physicians and the patients.⁹ Henceforth, we will call this value impregnation of factual aspects. The simple idea is that the physician's personal values remain tacit while affecting factual judgements, so that the practical conclusion about what to do as a health care professional is informed by these values.^{9–19}

Value impregnation of factual aspects is not a phenomenon unique to Sweden or Swedish health care. In a Swiss study, Hermann et al. investigate physicians' decision-making process regarding assisted suicide, claiming that physicians' personal values enter 'through the back-door' as they colour the assessment of patients' decision-making capacity.²⁰ In an American setting, Mason Pope describes how physicians 'smuggle in' evaluative judgments and 'mask' hard paternalism as a sort of soft paternalism in their attempts to stop patients from smoking.²¹

In order to examine the influence of personal values in clinical decision-making, we have developed a method to distinguish between those healthcare providers who are value-neutral in respect to that

particular situation, and those whose personal values influence their judgments. The method has been applied in six different vignette-based studies including 10 more or less controversial health care interventions.^{10–18} The aim of the present article is to examine whether the proportions of value-influenced and value-neutral participants vary depending on how controversial the issue is.

Methods and participants

The six empirical studies concerned Swedish healthcare providers' attitudes towards the following 10 issues (see Table 1).

Common to all the studies was a question in the end of the questionnaire, asking how the healthcare providers' own trust in healthcare would be affected if the suggested intervention were to become standard procedure. The response-options were: my trust would decrease, not be influenced or increase. If one, as a responder, stated that one's own trust in health care would increase if the present intervention would be implemented in healthcare, it seems odd, to also say that one opposes the intervention in question. Correspondently, saying that one's own trust would decrease if an intervention were implemented seems tantamount to saying that one opposes it. Hence, we used the question of what would happen with one's own trust as a proxy for determining to what extent respondents considered the intervention in question desirable/right (= trust would increase) or undesirable/wrong (= trust would decrease). As support for this procedure, see Discussion/Strengths and limitations section.

Those whose trust was not influenced were classified as value-neutral respondents. We assumed that if a participant stated that his/her own trust would not be influenced, the implementation of the intervention was deemed neither good nor bad meaning that the participants' opinion was morally neutral. Being

Table 2. Legal aspects and degree of controversy.

<i>Interventions</i>	Law, regulation and ethical principles	Associated with conscientious objection	Degree of controversy
Hastening death (2a)	Against criminal law	Yes	Very high
Not providing alleviating drugs (2b)	Against healthcare law and ethical principles	No	High
Physician assisted suicide (1)	Against healthcare law	Yes	High
False virginity certificate (3b)	Against official regulation	Yes	High
Hymen restoration (3a)	Against unofficial regulation	Yes	High
Demand smoke cessation (4)	Against official regulation	No	Rather high
Expensive drug to critical blogger (6a)	Debatable	No	Rather low
Expensive drug to smoker (5a)	Debatable	No	Rather low
Expensive drug to non-smoker (5b)	Debatable	No	Rather low
Follow routines (6b)	Good clinical practice	No	Not at all

The official norms and legal regulation in a Swedish setting reflecting how controversial the 10 interventions might be considered. The issues were ranked from most controversial to least. The numbers after the interventions refer to case numbers in Table 1. The degree of controversy is a weighing between whether or not the intervention is against law, regulation and ethical principles and whether or not the intervention is associated with conscientious objection.

classified as value-neutral does, however, not mean that the healthcare providers do not embrace any values relative to the intervention. It simply means that the healthcare provider holds no personal values that are at odds with the official values in this particular situation. Thus, the physician's values will likely not influence his/her clinical decision-making in the particular situation as long as the intervention is in accordance with the official values reflected in current healthcare legislation and regulations. Being value-neutral likely also means having no very strong sympathies or antipathies towards an intervention; if one strongly opposes or strongly favours an intervention, one is likely to say that one's trust in health care would be affected if the intervention in question were to be implemented.

The proportions of value-neutral or value-influenced healthcare providers were compared to how controversial the specific issues were considered to be. The degree of controversy of a particular intervention, for the purpose of this article, was assessed by its standing in relation to two external factors: law and conscientious objection. Thus, an intervention was regarded more controversial if it was against Swedish health care law and regulation and/or if rights of conscientious objection to the intervention have been proposed or implemented somewhere in Europe. Conversely, interventions that are in accordance with Swedish health care law and regulation, as well as not covered by actual or proposed rights of conscientious objections, were regarded as less controversial. For controversy assessments, see Table 2.

The results have been presented as proportions and Odds Ratios with 95% confidence intervals (CI).

Intervals not overlapping each others are supposed to be significant ($p < 0.05$) as if a hypothesis test had been performed.

Results

The highest proportion of value-influenced respondents was observed regarding end of life issues such as offering physician assisted suicide and abstaining from alleviating drugs in order to avoid hastening death (81.8% (95%CI: 78.1–85.5)). On the other hand, priority-setting issues such as offering a novel treatment to a lung cancer patient who has never smoked (34.3% (95%CI: 28.7–39.9)) and sticking to routine care were associated with the lowest proportions of value-influenced respondents – see Table 3. The proportion of value-neutral and value-influenced respondents participants are inverse; thus when one proportion is increased the other is decreased and vice versa.

Regarding most interventions, the majority of those who were classified as value-influenced respondents considered it undesirable, rather than desirable, to make the proposed interventions standard procedure. (Recall that value-influenced respondents are those that deem the proposed intervention either desirable or undesirable). However, the response patterns to four of the proposed interventions differed in this respect. A large majority found it desirable to demand smoking cessation prior to and after hip replacement surgery (intervention 4), the difference in proportions (desirable-undesirable) was 59.9% (CI: 54.5–65.3) versus 9.7% (CI: 6.4–13.0) – see Table 3. In the case – offering a novel treatment to a lung cancer patient who is a

Table 3. Proportion of value-influenced respondents.

	Proportions of		
	Value-influenced	Bad	Good
Not providing alleviating drugs (n = 417)	81.8% (78.1–85.5)	81.1%	0.7%
Physician assisted suicide (n = 626)	76.4% (63.2–69.6)	60.5%	15.9%
Expensive drug to critical blogger (n = 312)	71.2% (66.2–76.2)	69.2%	2.0%
Demand smoke-cessation (n = 451)	69.6% (65.5–73.7)	9.7%	59.9%
Hastening death (n = 418)	68.2% (63.7–72.7)	61.5%	6.7%
False virginity certificate (n = 489)	67.9% (63.8–72.0)	64.0%	3.9%
Hymen-restoration (n = 493)	60.0% (55.7–64.3)	56.6%	3.4%
Follow routines (n = 304)	38.8% (33.3–44.3)	8.6%	30.2%
Expensive drug to smoker (n = 286)	36.4% (30.8–42.0)	15.8%	20.6%
Expensive drug to non-smoker (n = 286)	34.3% (28.7–39.9)	7.0%	27.3%

The proportions of respondents who stated that if the intervention was made standard procedure, their own trust in healthcare would be influenced (classified as value-influenced), subdivided in those whose trust would decrease – understood as something *bad*, or their trust would increase – understood as something *good*. Those whose trust would not be influenced were understood as value-neutral and can be calculated (100% minus the proportion of the value-influenced). The proportions of value-influenced responders have been presented with 95% confidence intervals (in brackets).

smoker – the proportions of respondents who found this undesirable and desirable, respectively, were almost similar (15.7% (CI: 8.7–22.7) versus 20.4% (CI: 12.7–28.1)). In the modified vignette – offering a novel treatment to a lung cancer patient who has never smoked, significantly fewer participants estimated it as undesirable if the patient was offered the new treatment (7% (CI: 1.9–12.1) versus 27.3% (CI: 18.5–36.1)). In regards to sticking to routine care, most of the value-influenced respondents found this desirable (30.2% (CI: 22.0–38.9) versus 8.6% (CI: 3.5–13.7)).

For the assessment of controversiality among the discussed interventions – see Table 2.

Discussion

Generally the results indicate that the more controversial an intervention is (with special reference to conscientious objection and legal aspects), the higher the proportion of value-influenced healthcare providers. The proportions of value-influenced participants were highest regarding some end of life issues and lowest regarding some priority-settings issues, which are not associated with conscientious objections or against law and regulation. Particularly sticking to routine care (intervention 6b) appears to be entirely in accordance with official values and thus fully uncontroversial among clinical teams who have adopted the routines. We found that the proportion of those who were classified as value-influenced decreased 8.6 times as the medical interventions went from controversial to uncontroversial (and vice versa for the proportions of value-neutral). In light of this, we suggest as a bold hypothesis that the proportions of value-influenced – or

value-neutral – respondents might indicate how controversial/uncontroversial an intervention is.

If the above finding holds up to further scrutiny, this provides insights into the phenomenon of value-impregnation of factual aspects. It is not surprising to see low proportions of value-influenced respondents when the intervention discussed is in line with current law and regulations. Presumably, the low occurrence of value-influence in these settings mirrors a general alignment between Swedish physicians and Swedish health care law and regulations. However, the same overall alignment will predictably cause stir among physicians when contemplating interventions that go against current law and regulations. Some physicians will favour the interventions (and favour making such interventions part of standard practice), whereas others will oppose them, favouring instead the current situation. These situations mark, as it were, the possible battle lines of Swedish health care. As for areas covered by physicians' rights of conscientious objection in other countries, such areas are arguably inherently morally controversial – discussions of conscientious objection arise precisely because physicians harbour private/personal values that may be in conflict with official value, and conscientious objection rights are an attempt to negotiate this conflict. Presumably, what is morally controversial in other countries is likely so in Sweden too, at least to a certain extent. Furthermore, Table 2 shows that among the areas covered by physicians' rights of conscientious objection, many are unlawful in Sweden anyways. Thus, it can be said that this group of interventions may be doubly controversial. Such issues seem a good vantage point from which to study the mechanisms of value impregnation.

Some interventions, however, belied the overall pattern described above. Some issues were assessed as controversial (hastening death), but nevertheless had rather low proportions of value-influenced respondents. Conversely, we also found some less controversial (priority-setting) interventions which showed a surprisingly high proportion of value influenced respondents (such as doing something extra and demanding smoke-cessation). Thus, we will devote the following section to discuss whether this indicates that our understanding of value impregnation is mistaken, or whether we are mistaken about the association between controversiality and value influence, or whether in fact other factors cloud the picture in the above cases. We will argue for the latter, and suggest that the framing of some of the cases might explain the results and in other cases there might be other explanations.

End of life treatment

Apart from palliative sedation and, of course, withholding or withdrawing life-sustaining treatment, all forms of physician assisted dying are currently unlawful in Sweden, although there is a debate about whether to change this.²² Thus, under our proposed assessment scheme for ‘controversiality’, it would be highly controversial to argue for any kind of physician assisted death. And indeed, the two case presentations that deal with physicians intentionally causing death (interventions 1 and 2) are those where we found the highest proportion of value-influenced respondents. These were also among the areas where the highest proportion of the value influenced found the proposed intervention undesirable.

Interestingly, one of the end of life scenarios deviated slightly from the expected current pattern. This was intervention 2a (providing alleviating drugs with the additional intention to hasten death). On the face of it, intentionally hastening death would seem to be the most controversial intervention as it is actually against the penal code. However, the vignette description clearly pointed out that the physician had double intentions: to hasten death *and* to alleviate symptoms when life-sustaining-treatment was withdrawn. The latter intention, unsurprisingly, is not illegal, and this factor together with the ‘soft’ framing of the vignette – avoiding triggering words such as e.g. euthanasia – might have influenced the participants’ understanding of the intervention. The fact that withdrawing life-sustaining treatment (e.g. ventilators) is an everyday event in a critical care unit might also have made the act less controversial. Some might also have understood the issue as rather academic – the patient was described as being imminently dying and therefore it might be considered that the life-shortening aspect had limited

clinical relevance. Taken together, this may explain why intervention 2a (providing alleviating drugs with the additional intention to hasten death) was not associated with an even higher proportion of value-influenced respondents.

Female reproductive interventions

From an international perspective, female reproductive health and sexual freedom are typically associated with healthcare providers’ rights to conscientious objection, particularly regarding abortion.^{2-4,6} Before 1975, sterilisation and abortion in Sweden were a rather controversial issue, but after free abortion and right to sterilisation were legalised this year, these issues eventually became rather uncontroversial in a Swedish setting.^{1,9} However, certain other issues particularly associated with female reproduction and sexual freedom have been considered more or less controversial in Sweden.^{13,23}

In intervention 3b (writing a false virginity certificate), the physician had previously prescribed birth control pills to the patient, and thus knew that she had been sexual active. To write what one knows to be a false certificate is against the current healthcare law and regulation – and thus controversial under the proposed assessment scheme. As expected, a large proportion of respondents were value-influenced. However, this proportion was lower in intervention 3a (performing hymen restoration). The reason for this may be that this procedure is not illegal – although merely tolerated rather than endorsed.²³ This difference in the legal status of the two interventions would lead us to expect that the latter situation would generate fewer value influences respondents, as was indeed the case.

Priority-setting issues

In 1996, the Swedish parliament adopted an ethical platform for priority setting that is well known among healthcare providers. The ethical platform includes three principles, which are also adopted in healthcare law.²⁴⁻²⁶ This platform stipulates first of all that ‘equal cases should be treated equally’ and, second, that need (and not, for instance, the patient’s financial status or ability to make herself heard) should determine whether or not the patient is offered treatment.²⁴ Finally, only after the two first principles have been considered, cost-benefit aspects should be applied.

Sticking to routine care (as in 6b) is obviously in accordance with what we might expect healthcare providers to do. The routines are supposed to be based on official healthcare values as well as best medical evidence and, as expected, most of those who were

value-influenced stated that it was desirable if following routines was made standard procedure in a case such as this. (Of course, this is a kind of tautology – if sticking to routines is not standard procedure, then something is clearly amiss and this might have had a certain framing-effect.) As this option appears uncontroversial, we are not surprised to find that the proportion of value-influenced is low in this case. Instead, 6a (offering out-of-the ordinary treatment to a patient who has been posting critical blogs and pointing out individual members of the clinical team which might have had a certain framing-effect) is the controversial option. It is clearly against the ethical platform for priority setting.²⁴ Unsurprisingly, there was a large proportion of value-influenced respondents in this scenario.

Another priority-setting issue was intervention 4 (demanding smoking cessation prior to and after hip replacement surgery).¹⁸ Smoking cessation has been established as a condition for surgery at several Swedish orthopaedic clinics. However, this has not been unconditionally lauded, and our recent study showed that whereas most respondents agreed with such policy, they felt that if the patient was unable to quit smoking he/she should nonetheless be accepted for surgery. Thus, it is really an open question whether the demand for smoking cessation is controversial or not (see Table 2), and this may explain why the majority of respondents were value-influenced (as opposed to what would have been expected from the ratings in Table 2). Another possible explanation for this phenomenon may be that respondents are ‘passionately anti-smoking’ indicating that it is not a framing-effect. It is interesting to note that this was the only intervention where the majority was value-influenced and also a majority of these respondents deemed the intervention desirable rather than the opposite. There are many reasons for this ‘passion against smoking’. First, only 0.9% of the participating physicians stated that they were currently smokers themselves.¹⁸ Second, the response patterns in the study indicate that many respondents were won over by the possible long-term health gains associated with smoking cessation (outside of effects on the outcomes of the surgical procedure at hand). Thus, one may observe in the vein of Mason Pope: this could be hard paternalism masked as soft paternalism, or unspecified paternalism masked as exaggerated risk-estimation.²¹

Cases 5a and 5b (offering a novel treatment to a lung cancer patient) were identical but for the fact that the patient in 5a was a smoker and the patient in 5b had never smoked. Thus the only difference between the two cases was the patients’ smoking behaviours and potential responsibility for the cancer. However, each individual respondent only received one of the two cases 5a and 5b, and thus never got to prioritize between the smoking and the non-smoking patient. This would

have been strongly controversial, as discrimination on the basis of smoking status is illegal according to Swedish healthcare law and regulations. The cases however contained another potentially somewhat controversial issue: the question of offering a treatment which is novel, expensive and moderately life prolonging to a terminally ill patient. Whether this is in accordance with Swedish health care law and regulations is a matter of debate (the ethical platform for priority setting contains a cost–benefit clause but it gives rather imprecise guidance in cases such as this.) All in all, therefore, we expected that the proportions of value-influenced and value-neutral participants would be similar in the two cases – and so they were. If there was a framing effect, we estimate that it became neutralised when comparing the two vignettes.

Strengths and limitations

One point of departure for the conducted studies is the assumption that Swedish healthcare providers do not openly declare their own personal values and would probably deny that such values influence clinical decision-making. This was also the reason why we developed the presented proxy method to discriminate value-neutral healthcare providers from value-influenced. An indication that the method is a valid way of identifying value-influenced respondents is the fact that we found a strong association (Odds Ratio) between on one hand ‘right to do so and trust increase’ and on the other hand ‘wrong to do so and trust decrease’ (OR: 192 (95% CI: 56.6–708.7)) in the study about smoking cessation.¹⁸

Even though the method does not include a classical blinding procedure, asking about trust instead of personal values might be considered as a proxy blinding procedure. One part of our results were not quite in accordance with what we might have expected, as pointed out in Table 2, compared to the observations presented in Table 3 (particular the hastening death vignette, doing something extra for the critical blogging patient). However, in these cases, we believe that this was mainly due to framing effects. Further analysis of the associations between controversiality and value influencing are needed to corroborate this hypothesis.

Another interesting way of pushing this question further would be to work with other constructs of controversiality. For instance, focus group methodology in the target populations could be used to generate relative levels of controversiality, which could then be tested in regards to proportions of value influencing.

Conclusion

The study indicates that the proportions of value-influenced participants increase the more controversial

an issue is and vice versa. In some cases framing effects may, however, influence or overshadow this association. As a bold hypothesis, we therefore suggest that an analysis of the proportions of value-neutral to value-influenced respondents may give an indication of how controversial an issue is.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Financial support from the Swedish Research Council and from the Swedish Research Council for Health, Working Life and Welfare is gratefully acknowledged (2014-4024).

References

- Zillen K. *Health care professionals' freedom of religion and conscience. A legal study about conscientious refusal and the requirement to provide good care*. PhD Thesis, Department of Law, Uppsala University, Uppsala, 2016.
- Schuklenk U. Conscientious objection in medicine: Private ideological convictions must not supercede public service obligation. *Bioethics* 2015; 29: ii–iii.
- Savulescu J and Schuklenk U. Doctors have no right to refuse medical assistance in dying, abortion or contraception. *Bioethics* 2017; 31: 162–170.
- Savulescu J. Conscientious objection in medicine. *BMJ* 2006; 332: 294–297.
- Orentlicher D. The Supreme Court and terminal sedation: Rejecting assisted suicide, Embracing Euthanasia. *Hast Constitut Law Q* 2012; 24: 947.
- Cindoglu D. Virginity test and artificial virginity in modern Turkish medicine. *Women's Stud Int Forum* 1997; 20: 523–561.
- Curlin FA, Lawrence RE, Chin MH, et al. Religion, conscience, and controversial clinical practices. *N Engl J Med* 2007; 356: 593–600.
- Svennerlind C. Tillräknelighet i svensk rätt. [Accountability in Swedish Law.] In: Radovic S and Anckarsäter H (eds) *Tillräknelighet [Accountability]*. Lund: Studentlitteratur, 2009.
- Lynøe N. Physicians' practices when frustrating patients' need – a comparative study of restrictiveness offering abortion and sedation therapy. *J Med Ethics* 2014; 40: 306–309.
- Juth N and Lynøe N. Do strong values influence estimations of future events? *J Med Ethics* 2010; 36: 255–256.
- Helgesson G, Lynøe N and Juth N. Value-impregnated factual claims and slippery-slope arguments. *Med Health Care Philos* 2017; 20: 147–150.
- Lindblad A, Löfmark R and Lynøe N. Physician-assisted suicide: a survey of attitudes among Swedish physicians. *Scand J Public Health* 2008; 36: 720–727.
- Juth N and Lynøe N. Are estimations of female patients' need of hymen restoration and virginity certificate value-impregnated? Empirical study of physicians' attitudes. *Woman – Psychosom Gynaecol Obstetr* 2014; 1: 24–29.
- Björk J, Lynøe N and Juth N. Empirical and philosophical analysis of physicians' judgments of medical indications. *Clin Ethics* 2016; 11: 190–199.
- Rydvall A, Juth N, Sandlund M, et al. Are physicians' estimations of future events value-impregnated? Empirical study of double intentions when providing treatment that shorten a dying patient's life. *Med Health Care Philos* 2014; 17: 397–402.
- Björk J, Lynøe N and Juth N. Are smokers less deserving of expensive treatment? A randomised controlled trial that goes beyond official values. *BMC Med Ethics* 2015; 16: 28. doi: 0.1186/s12910-015-0019-7.
- Lynøe N, NattochDag S, Lindskog M, et al. Heed or disregard a cancer patient's critical blogging? An experimental study of two different framing strategies. *BMC Med Ethics* 2016; 17: 30. doi: 10.1186/s12910-016-0115-3.
- Björk J, Lynøe N and Juth N. Right to recommend – wrong to demand smoke cessation before surgery. Experimental study of physicians and the general public's attitudes. Submitted manuscript.
- Lynøe N, Helgesson G and Juth N. Examination of a phenomenon that might undermine shared decision-making and make patients feeling wronged. Submitted Manuscript.
- Hermann H, Trachsel M, Mitchell C, et al. Physicians' personal values in determining medical decision-making capacity: a survey study. *J Med Ethics* 2015; 0: 1–6.
- Mason Pope T. Balancing public health against individual liberty: The ethics of smoking regulations. *Univ Pittsburgh Law Rev* 2000; 61: 419–498.
- Lindblad A. *End-of-life decisions: Studies of attitudes and reasoning*. Thesis, Karolinska Institutet, Stockholm, 2013.
- Juth N, Hansson SO, Tännjö T, et al. Honour-related threats and human rights: A qualitative of study Swedish healthcare providers' attitudes towards young women requesting virginity certificates or hymen reconstruction. *Eur J Contracept Reprod Health Care* 2013; Early Online: 1–9.
- Official Governmental Inquiry (SOU) 1995:5. *The difficult choices of health care*. (In Swedish: Vårdens svåra val.). Stockholm: Allmänna förlaget, 1995.
- Swedish Government Bill Prop. (1996/97:60). *Prioritizations within health care (Prioriteringar inom hälso-och sjukvården)*. Stockholm: Department of Health and Welfare.
- National Centre of Priority Setting in Health Care report 2007:2. *The all too difficult choices of health care* (In Swedish: Vårdens alltför svåra val?). Linköping: PrioriteringsCentrum, Landstinget i Östergötland, 2007.