This is the Accepted Manuscript of an article published in [*Theoretical Medicine and Bioethics*]. Available online at https://link.springer.com/article/10.1007/s11017-016-9353-0

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Please cite as:

Mayes C, Blakley, B, Kerridge I, Komesaroff P, Olver, I, Lipworth W. On the fragility of medical virtue in a neoliberal context: the case of commercial conflicts of interest in reproductive medicine. *Theoretical Medicine and Bioethics.* 37(1):97-111. First online: 03 March 2016. Available at

On the fragility of medical virtue in a neoliberal context: the case of commercial conflicts of interest in reproductive medicine

Mayes C, Blakley, B, Kerridge I, Komesaroff P, Olver, I, Lipworth W. (2016)

Abstract

Social, political and economic environments play an active role in nurturing professional virtue. Yet, these environments can also lead to the erosion of virtue. As such, professional virtue is fragile and vulnerable to environmental shifts. While physicians are often considered to be among the most virtuous of professional groups, concern has also always existed about the impact of commercial arrangements on physicians' willingness and capacity to enact their professional virtues. This paper examines the ways commercial arrangements have been negotiated to secure medical virtue from, real or perceived, threats of erosion. In particular, we focus on the concern surrounding conflicts of interest arising from commercial arrangements that have developed as a result of neoliberal economic and social policies. The deregulation of medical markets and privatization of services have produced new commercial relationships that are often misunderstood by patients, publics and physicians themselves. "Conflicts of interest" policies have been introduced in an attempt to safeguard ethical conduct and medical practice. However, a number of virtue ethicists have critiqued these policies as inadequate for securing virtue. In this paper we examine the ways in which commercial arrangements have been seen to impact upon medical virtue, both historically and in the context of modern medicine (using the example of fertility services in Australia). We then describe and critique current efforts to restore clinical virtue through both conflict of interest policies and through virtue ethics. Finally, we suggest some possible ways of addressing the corrosive effects of neoliberalism on medical virtue.

Introduction

There is a vast literature concerned with the virtues of the contemporary physician [1-6]. These theories of virtue generally set out desirable characteristics of agents and how agents should act in specific situations. In their influential book, *The Virtues in Medical Practice,* Pellegrino and Thomasma outline the importance of virtues such as trustworthiness, compassion, integrity and self-effacement for

medical practice [3]. While they argue that these virtues are essential for ethical medical practice, Pellegrino and Thomasma (and others) note the dependence of these virtues on the social contexts in which medicine is practiced [3, 1, 2]. This dependence is partly due to the way in which human action is entangled with, and produced by, the social, political and economic environments in which actions take place. As such, virtue has a certain fragility that comes from dependence on a nurturing environment. In this paper, we focus on the relationship between physicians' virtues and the environments in which they practice, with a particular focus on the influence of neoliberal commercial arrangements on medical virtue.

While on one level there is a general acceptance that medicine is a lucrative industry for practitioners and investors, and that medicine exists in a commercial environment, there is also a belief that individuals and the profession as a whole should adhere to higher values. The values of trust, honesty and independence in medical practice have traditionally been considered inherently good and outside of market dynamics, which is seen as a space for the exchange of instrumental goods [7]. As such, neoliberal approaches to management, deregulation and privatization of health care services has raised concerns about the potential for commercial norms to undermine the ethical norms of medicine [8-11]. In response, a number of strategies have been proposed, including "conflict of interest" policies and virtue ethics approaches. While both approaches have their merits, neither fully engages with the broader social and economic arrangements of medical practice. This paper argues that these arrangements require careful attention when addressing the virtue of medical practice.

The paper has four sections. First, we provide a brief analysis of the way in which commercial arrangements were negotiated at the birth of Western medicine in order to secure virtue. This is not an exhaustive history, but serves to provide a context for contemporary debates about the relationship between commerce and medical virtue. Second, we examine the perceived fragility of virtue stemming from the shifting relationship between medicine and commerce today, using the example of fertility services in Australia. Third, we outline and critique two responses that have been proposed as means of addressing contemporary threats to medical virtue: "conflict of interest" policies and virtue ethics. Finally, we argue that a multilevel approach is needed in order to negotiate the neoliberal environment in which contemporary medical practice is situated in a way that protects medical virtue from the undue influence of commercial norms.

A brief historical perspective on money and medical virtue

The relationship between money and medicine, and the potential for this relationship to adversely affect the virtue of the physician, has been the source of concern for millennia. In Plato's *Republic,* Socrates asks Thrasymachus "Is a doctor in the precise sense…a money-maker or someone who treats the sick?" After the characteristic back-and-forth of a Socratic dialogue, they agree that a doctor is someone who treats the sick [12, 341c]. This brief dialogue from the 5th century BC demonstrates that concerns about the relationship between the purported goals of medicine to protect and heal the sick and the impact of financial interests of physicians are not new. Indeed, ancient medical ethics of Greek, Roman and Christian varieties all debated the place of money in medical practice and whether it erodes ideals of proper or virtuous behaviour [13, 3, 14, 15].

For the ancient Greeks and Romans, the role of money in medicine was the key factor determining whether medicine was conceived to be a servile craft akin to carpentry or shoemaking, or a liberal art, akin to mathematics, architecture or philosophy. This was an important distinction at the time, which corresponded to social and political status. Liberal arts in the Greco-Roman world were not performed for 'financial gain' [15, p. 448], as this would transform the good of the art from being an end-in-itself into an instrumental end dependent on, or in service to, others. As the names suggest, the servile crafts were associated with values of dependence and utility, while the liberal arts were associated with aristocratic values of independence and virtue [16, pp. 91-93]. Importantly, if a physician requested payment for his medical service, then this indicated that medicine was a servile craft, rather than a liberal art. As such, a physician who worked for wages in the Roman Empire was considered to be a 'craftsman' whose life and work was 'of inferior worth, actually a form of slavery' [14, p. 193]. While such a physician could amass wealth and gain social standing as an archiater (city or community physician), he would still not have the social or political status of a free citizen [17, 14]. Attempts were therefore made to establish medicine as liberal art by situating it in close relation to philosophy – then considered to be the premier liberal art [15].

The most explicit attempt to couple medicine with philosophy comes from the Roman physician Galen and his short treatise, *That the Best Physician is also a Philosopher*. Galen's point in this text was not that the best physician is a proto "Renaissance man" with expertise in medicine as well as philosophy, but that the best physician is an independent and virtuous practitioner of a liberal art. According to Galen, the philosopher-physician will use 'rational thought', and 'despise riches and exercise temperance' [18, p. 937]. In contrast, the 'poisoners' who are 'daily before our eyes' are 'lovers of money who abuse the Art [medicine] for ends that are opposed to its nature' [18, p. 937]. Galen claimed that the Hippocratic physician is able to heal and care for the sick in an honourable, virtuous and excellent manner. Importantly, the pursuit of money distorts and corrupts these ends. He wrote, 'it is not possible for a man who regards wealth as more worthy of honour than virtue, and the Art as something to be studied for profit rather than for the good of mankind, to seek its true ends' [18, p. 936].

According to the Hippocratic tradition, relationships based on commercial principles altered the type of practice that medicine was, and challenged the virtues attached to it, and thereby had the potential to undermine patient care. Hence there were injunctions not to burden the patient with worries about payment. The *Precepts,* a late text in the Hippocratic corpus, warned against discussing fees and advised that 'it is better to reproach a patient you have saved than to extort money from those who are at death's door' [14, p. 194]. The focus of the physician should be on healing the patient, and any reward or "payment" should be sought via *philanthropa* – the aristocratic exchange of benefaction for honor and political prestige. Rather than paying for service, the patient would give honor [14, p. 195]. Of course, not everyone was able to live on honor and prestige alone. As with philosophy, the social and economic conditions of liberal arts meant that only those of the aristocratic classes could practice them – 'the self-sufficient landowner who possessed wealth obtained through long-standing inheritance and who did not need to work for a living' [14, p. 193]. In this regard it is noteworthy that Galen himself was fortunate enough to be born the son of a wealthy architect.

Despite the rhetoric surrounding money in the Hippocratic-Galenic tradition, money did in fact change hands from the patient to the (so-called) virtuous physician [15]. Galen himself, who claims to have never requested payment, did accept it when it was offered. The management of monetary exchange was, therefore, a problem for those wishing to practice medicine as a liberal art. Various rules and codes were instituted to enable the subtle transfer of money from patient to physician without implying a direct exchange for services rendered. The Roman lawyer Ulpian stated that for a philosopher to request payment would be dishonorable, but to accept it would be honorable [15, p. 457]. The exchange of money therefore took place under the veil of the honorarium in order to maintain the independence or liberality of the art and to secure virtue [17]. Through the honorarium, money became the material representation of virtue rather than a payment for services rendered. This, in turn, led to the idea of the honorarium 'as a compromise with the necessities of everyday life; later the *honorarium* could be requested and finally one could even sue for it in court' [15, p. 457]. The practice of honorarium thus allowed physicians to receive financial payment, while still maintaining the status of medicine as a liberal art, conducted by a virtuous practitioner.

This brief historical example illustrates the fragile relationship between clinicians' virtue and the social, political and economic environment that nurtures it. The idea that virtuous medical practice should be independent from commercial exchange is tied up with Greco-Roman ideas that valorize certain activities as free, excellent, and ends in themselves, and disdain other activities as slavish and instrumental. Thus, in the ancient world material gain and non-material values were perceived as incommensurable. To seek the former, would corrupt the later. Medicine and the associated virtues were produced and took form within this environment. Yet, as the environment has shifted the virtues and their potential vulnerability have also shifted. In late-modernity, as is discussed below, material gains and non-material values are not seen as incommensurable, but compatible to at least some extent. In this new and different social, political and economic environment, it is arguably anachronistic to expect doctors to disavow financial gain in order to protect virtues of honesty or trustworthiness. Nonetheless, concerns do still arise when money and medicine appear to be excessively intertwined. In the next section, we show how these ancient concerns are mirrored in contemporary medical practice, using the example of assisted reproductive technology services.

Medical virtue and commerce in the 21st Century: the case of assisted reproductive technology

Since the late 20th Century, neoliberal health policies have significantly altered the provision of health care in most Western democracies [19-22]. Corresponding to a reduction in public funding for health services, there has been active encouragement by governments for public institutions such as universities and hospitals to establish partnerships with private enterprises. There has also been the privatization of services formerly owned by the state and a welcoming of private organizations to provide services that the state once held a monopoly over. These changes have not only altered the regulatory mechanisms and funding structures of health care organisations, but they have also created lucrative new roles for physicians. An illustrative example of these changes is the development of assisted reproductive technologies (henceforth ARTs).

ARTs, and in particular *in vitro fertilisation* (IVF), have become a widely accepted form of reproduction since they emerged in the late 1970s [23]. It is estimated that over 5 million children have now been born worldwide as a result of ART treatments. IVF in Australia is provided through both public and private clinics (as well as some joint public-private entities) whose prices vary significantly. Since 2000, Australians have been able to receive partial reimbursement through Medicare (the Federal Government's program for subisdising medical services and procedures) for the costs associated with ART [24]. For example, the Medicare item 13200, relating to 'assisted reproductive technologies superovulated treatment cycle proceeding to oocyte retrieval', has a Medicare fee of $3,110.75. If patients have reached their total health expenditure threshold then they may be eligible for a reimbursement of up to 85% of their costs, or $3,032.35. There is currently no limit on the number of times ART treatments can be claimed [25]. There are 76 ART clinics accredited with Fertility Society of Australia [26]. The majority of these clinics fall under the umbrellas of three organisations: Monash IVF, Virtus IVF or Genea IVF. Broadly speaking, the commercial arrangements of ART clinics in Australia take two distinct commercial forms: Clinics owned by publicly listed companies that operate for shareholder profit; and independent private clinics operating on a not-for-profit basis.

Publicly listed ART clinics

In 2014, two major players in the Australian IVF market, *Virtus* and *Monash IVF*, floated on the stock exchange. The financial sector viewed these events positively, with *Virtus* raising $338.7 million and *Monash IVF* $315.9 million at float (*Virtus* is now valued at over $600 million) [27]. The rising profits enjoyed by those who own or have shares in IVF services have, however, attracted critical media coverage, with several newspaper articles querying the ethics of the ART industry and the impact of its commercialisation on clinical virtues and patient care [28-34]. Commentary in the media suggests that health professionals who hold shares in IVF companies may have a conflict of interest that undermines their willingness and/or capacity to fulfill their professional duties. Medew, for example, argues:

> You could choose to sell the high-cost, high-profit item and not show your customer the other products which might be effective for their purposes…. Some of the fertility units now seem to have a strong emphasis on offering IVF rather than other effective forms of treatment including surgery, lifestyle modification and simpler drugs. [30]

The potential for conflict of interest to exist and to compromise clinical virtue and patient care is strongly denied by IVF clinicians, company directors and the Fertility Society of Australia. The Director of *Virtus* and *Melbourne IVF*, Dr Lyndon Hale, for example, firmly rejects the possibility of conflict of interest, despite acknowledging that he must prioritise both patient and shareholder interests [30, 31]. Whether these perceived conflicts of interest actually result in harms to patients or erode physician virtue is yet to be demonstrated. However, it does appear that most representatives of the IVF industry are currently unaware or unwilling to address the risks associated with actual or potential conflicts of interest, and that there is growing public unease about this state of affairs.

In this regard, it is noteworthy that the code of conduct policies for publicly-listed IVF clinics appear to reinforce rather than address the perceived tension between shareholder and patient interests.[1] For example, *Monash IVF,* which is one of the few clinics to have made its code of conduct policy public, lays out 'the standards of responsibility and ethical conduct expected' for directors, employees and doctors. Section 3.7 (c) of the policy states that directors, employees and doctors are expected to recognise that their 'primary responsibility is to the Company and its shareholders as a whole' [35]. This appears to confirm concerns over conflicts of interest, as it forces doctors and other health care professionals employed by *Monash IVF* to have the interests of *Monash IVF* and its shareholders, rather than patients as their primary concern. This tension is reflected on company websites. For example, alongside information advertising their success rates and their commitment to patient care, both *Monash IVF* and *Virtus IVF* have webpages containing additional information emphasizing their profitability [36, 37]. The *Monash IVF Group* follow its statements about their exceptional patient care with the statement: 'As we continue to expand both in scale and scope our partnership model will yield exceptional results and returns' and its "Investor Centre" section contains information from the Australian Securities Exchange (ASX) about the latest share prices, recent announcements on acquisitions and ownership as well as contacts for investment. These pages thus point a dual objective of commercial IVF that includes babies, families and clinicians, but also goes beyond them to emphasise profitability and stable investment.

An "independent" clinic

The potential threat that the commercialisation of IVF poses to clinical virtue is further underscored by the fact that the commercial model is explicitly rejected by a minority of IVF specialists precisely because of what they perceive to be the incompatibility of commercialisation and clinical virtue. At around the same time that *Monash IVF* floated on the stock market, *Westmead Fertility Centre* was given to *The University of Sydney* by Professor Brian Trudinger, who had been its custodian for the past 22 years [38]. Trudinger's justification for doing this was that he saw 'the University as the natural guardian of a fertility service with core values of quality, accessibility and scientific enquiry' [38]. Although universities are themselves increasingly operating with commercial values, Trudinger appeared to be explicitly attempting to distance *Westmead Fertility Centre* from the commercialisation of reproduction, and to ensure that its clinicians can act exclusively in the interests of the patient without the reality or appearance of financial gain. Like *Monash IVF* and *Virtus IVF, Westmead Fertility Centre* reassures potential patients of their state-of-the-art labs and techniques. However, equally prominent on their website are claims of being a more accessible service which is inclusive and 'has assisted people from all walks of life' [39]. They also explicitly mention that they are able to keep costs to a minimum because they 'do not need to maximise profits for a group of investors' and can therefore reinvest profits into improving patient services [40].

The conditions governing the priorities in physician decision-making are clearly different at the *Westmead Fertility Centre* in comparison to *Virtus* or *Monash IVF*. The former is not publicly listed and therefore does not create a scenario in which physicians are obliged to shareholders or owners who

[1] IVF Australia and Melbourne IVF (branches of Virtus IVF) were approached by the authors, but refused to supply their conflicts of interest policies for clinicians.

require a financial return on investment, nor can clinicians themselves own shares and derive financial benefit. Thus, *Westmead Fertility Centre* explicitly promotes itself on the grounds that it is free of the need to accommodate the potentially conflicting objectives of patient care and ensuring a profitable return for shareholders. The implication is that reproductive physicians at *Westmead Fertility Centre* are less likely to be influenced by forces that compromise the virtues such as trustworthiness, compassion, integrity and self-effacement that Pellegrino and Thomasma consider central to medical practice [3].

Two responses to threats to medical virtue: Conflict of interest policies and virtue ethics

Conflict of interest policies as a means of negotiating a commercialised environment

A predominant strategy used in contemporary biomedicine to ensure the preservation of ethical conduct in the face of commercial commitments is the use of "conflict of interest" (COI) policies and procedures. These strategies are not framed as securing virtue. Rather they are seen as necessary due to the likelihood of compromising or contaminating virtue through exposure to a commercialised health care environment. That is, COI policies are not concerned with the motivations or character of the physician, but rather with adherence to rules of conduct in relation to financial interests and incentives

In general terms, the goal of COI policies is to maintain a separation between moral discourses thought to be in tension. COI policies often proscribe particular activities (e.g. bestowing lavish gifts on doctors and their families). They also often involve strategies of declaration and transparency, whereby researchers and practitioners are required to publicly disclose any financial relationships they have that could conceivably alter their judgment or behaviour – the idea being that others can and come to their own conclusions as to whether professionals with COIs can be trusted. Not surprisingly, there is considerable debate surrounding COI policies in health and medicine. While some practitioners and ethicists believe they are inadequate to manage the spread of commercialized medicine (a concern that seems to be borne out by *Monash IVF's* approach to defining and managing conflict of interest), others consider them an unnecessary intrusion that obstructs medical research and practice [41, 42]. These two positions are clearly underpinned by different views about clinical virtue, and its ability to withstand commercialisation.

In a recent series of articles in the *New England Journal of Medicine,* for example, cardiologist Lisa Rosenbaum questioned the need, justification and extent of COI policies in health and medicine. Her focus was on relationships between physicians and the pharmaceutical industry that, like ownership of shares in IVF clinics, are believed by many to create commercial interests that cause physicians to stray from their primary responsibilities. According to Rosenbaum, the technical advancement of medicine depends on commercial relations with industry. Among Rosenbaum's arguments against strong COI policies was her view that clinicians are perfectly able to uphold their duties and behave virtuously when they receive support from the pharmaceutical industry. That is, she believes that material gain is compatible with non-material values, and therefore physician-industry relationships should not be cast as a 'moral issue' [43]. Rosenbaum suggests that some regulation of physicians' financial activities are needed, but argues that morally laden and oversimplified narratives of COI lead to misunderstandings of COI disclosures and transparency statements. Rosenbaum concludes that COI policies restrict the

advancement of medicine and encourage superficial judgment of physicians who have interactions with industry.

Rosenbaum's articles have attracted a number of critical responses [44, 45]. A relevant point for this paper was that these responses included debate about the moral status of COI. While Rosenbaum argued that COI policies and rhetoric impute moral motives and judgments on physicians with industry relations, Fiona Godlee (current editor in chief of the *British Medical Journal)* and others emphasise that COI are not 'a moral but a practical issue' [45]. That is, Rosenbaum considers COI rhetoric and policies as making implicit judgments about the internal moral character of physicians. Godlee on the other hand, maintains that COI policies provide external safeguards that make no assumptions about the moral character or motives of the physician. While Rosenbaum and Godlee disagree sharply about the role of COI policies, they both contend that physician-industry interactions should be governed as a practical rather than a moral matter. Furthermore, unlike Galen and the ancient environment, they both maintain that material gain and non-material values are compatible if appropriately regulated.

Virtue ethics as a means of promoting clinical virtue in a commercialised environment

It is not only practicing health professionals who have concerns about the adequacy of conflict of interest policies as a means of protecting against the commercial erosion of medical virtue. Medical ethicists working in the virtue tradition, for example, consider physician-industry relation to be moral as well as practical. Rather than debating whether COI policies go far enough or are too intrusive, virtue ethicists consider them to be an ineffective and minimalist approach to ethical conduct. James DuBois *et al* contend that external COI regulations, such as those debated in the recent *New England Journal of Medicine* series, inappropriately ignore the possibility of using physician virtue as a safeguard against intrusive commercial influences [6]. They also see such policy-based approaches as being vulnerable to deceitful motives of physicians – 'loopholes are inevitably found' [6]. Instead of relying on policies (or willpower), they argue that physicians should cultivate a virtuous character that is able to respond appropriately in situations where financial incentives could influence their conduct.

Like DuBois et al, Justin Oakley uses a virtue ethics approach to argue that disclosure by physicians of their financial relations and interests is, on its own, an ineffective measure to deal with COI. One justification for this view is that the core problem of COI is not secrecy but undue influence. While full disclosure would deal with the problem of secrecy, it does not deal with the problem of undue influence. Oakley contends that a physician's character is revealed by 'what they are disposed to *prioritise* in their clinical decision-making' [46, p. 674]. If a physician's priorities in prescribing medicines are influenced by financial incentives rather than the patient's interests, then it is likely that the physician is self-interested. He is not suggesting that the physician should be free from all influences (an impossible goal), but that the ethical acceptability of any influence 'is determined by reference to what interest should, according to the proper goals of this person's role, be guiding them in this context' [46, p. 672 The virtue ethicists are thus concerned that COI strategies treat physician-industry interactions as merely practical relations, rather than moral relations that promote or delimit the cultivation of a virtuous character. Like Galen, they contend that material gain can clash with and erode non-material values. Virtue ethicists also argue that COI-policy approaches such as codes of conduct and disclosure

forms, often lack the flexibility or nuance to adequately address the plurality of environments in which contemporary medicine is practiced. Oakley, for example, asks: what sorts of persons do doctors show themselves to be when they act under undue influence, and concludes that 'transparency measures fail to address the priorities that should be guiding physicians' prescribing decisions in the first place' {Oakley, 2014 #1699, p. 672].

However, the virtue ethics approach put forward by Dubois and Oakley is arguably too critical of physicians' motives. By equating undue influence with immorality, it fails to take into account plurality of roles undertaken by contemporary physicians, some of which involve the support of financial objectives in a non-self-interested way (e.g. managing budgets of a modern hospital). It is also arguably too detached from the commercial reality of decision making in the contemporary context and therefore fails to provide any regulatory purchase. Other ethicists question the capacity for virtue ethics to overcome the corrupting effects of commercial entanglements. Alastair Campbell, for example, does not believe that virtue ethics is 'tough enough' to promote virtuous behaviour and notes the need for '*real* controls' [47, p. 695]. Campbell believes that Oakley's attempt to use virtue ethics to regulate financial COI is weak and fragile, not only because of the inadequacies of Oakley's model but also because of the fragility of virtue itself [47]. According to this view, virtue is contingent on personal, cultural and psychological variables, and interacts with social, economic and institutional contexts [48]. To institute a sufficiently strong regulatory approach would involve attempting to express virtues in laws and codes of conduct and to differentiate them from value contexts that are considered to be inappropriate or unconscionable. However such an approach both runs counter to the virtue tradition that is suspicious of agent-neutral and universal codes to govern conduct requires a renunciation of the dependence of virtue ethics on abstract categories such as "self-interest" in favour of a more specific and detailed analysis of the moral implications of commercial transactions.

A multifaceted approach to promoting virtue in a neoliberal environment

We agree with Campbell that a virtue ethics approach is, on its own, insufficient to manage the erosive effects of commerce on medical virtue. But we contend that a one-dimensional approach, focused exclusively on either promoting virtue or managing its lack through policy is insufficient. Rather there needs to be a combination of external regulation and virtue-building through education and other virtue cultivation strategies, such as 'ethical timeouts' for self-reflection or the creation of 'personal policies' [6]. Even this, however, will be insufficient unless significant attention is paid to the environment that shapes and either nurtures or erodes physician virtue. In particular, greater attention needs to be given to the impacts of neoliberal rationality of governance on health and medicine. Neoliberal ideas have opened up space for commercial norms to influence almost every area of public life, and their influence therefore needs to be addressed on at least three levels: societal, institutional and individual.

First, the broader societal norms guiding the environment in which medicine is practiced need to be addressed and acknowledged. Success in finance and business has become regarded as a high value and a mark of character and virtue in many societies. This is seen, for example, in the way politicians appeal to past success in business as evidence of their capacity to govern and lead. Yet, despite societal valorization of commercial success, there is general concern that areas such as education or health care

should be external to the values of commerce and logics of the market [7]. As evident in the debates about IVF in Australia and in the *New England Journal of Medicine* series, concerns are strong about the effect of decision making criteria based on financial variables, including those arising from physician ownership of health care services; about financial incentives given to physicians to encourage prescription of certain medicines or use of certain medical devices; and about other intrusions of the market into clinical practice. It is important to note that the problems associated with commericalisation of medicine are not reducible to personal gain, but part of a wider neoliberal system of governance and regulation that has wide ranging effects.

The increased commericalisation of health care in general, and fertility services in particular, thus raise urgent questions about the societal values underlying medical practice. In this regard we agree with Campbell and others who see the solution to the erosion of medical virtue to lie beyond the context of medicine itself. We also agree with Pellegrino and Thomasma, who stress that 'virtues acquire their standing within a moral community' [3, p. 51]. This means that, if medicine is to change, then underlying societal values also need to change. Entrepreneurial innovation and economic growth have become dominant societal values and permeate medicine as much as they permeate other professions and social spheres. Calling on clinicians to be virtuous in a context in which virtue is not possible, or at least where it is deeply compromised and even discouraged, runs the risk of producing a cynical response to the idea of physician virtue or the use of virtue as a mere veneer and marketing tool.[2] Further, to appeal to ancient virtues as a response to the influence of commercial norms in current medical practice, such as IVF, ignores the significant shifts in the social, economic and political landscape that have occurred over time.

To simply assert the importance of certain behaviors or characteristics in the absence of a moral community that is fully committed to them, or that values other behaviours and characteristics such as entrepreneurialism does not provide a sufficient foundation for contemporary medical care. To adequately address the real or potential commercial threats to medical virtue there needs to be critical attention to the social and political environment that upholds the values of the market in the medical sphere. That is, in addition to ethics, there needs to be politics of medical practice and research.

Second, greater attention needs to be paid to governing institutions and their role in resisting and establishing certain norms [49]. Laurence McCullough, a medical ethicist and educator, outlines three commitments necessary for medicine to be an ethical profession: a commitment to being scientifically and clinically competent in patient care; a commitment to protecting and promoting the health-related interests of the patient; and a commitment to maintaining the strength of medicine as a public trust [50]. McCullogh argues that these commitments, which can also be viewed as virtues, are especially vulnerable to the influence of commercial interests, which can undermine medical professionalism and erode public trust. Echoing the virtue ethicists described above, McCullough calls to reform medical

[2] Virtus IVF is an example of the latter, taking their very name from the Roman conception of virtue—an interesting choice for an IVF company considering that virtus had a strong emphasis on manliness in the public domain and was rarely used to describe women.

education to ensure doctors are trained to 'embody the character qualities required of good doctoring in today's society' [50].

We believe that education is important, but needs to be accompanied by meaningful changes in the institutions governing healthcare if it is to have any real traction. One example of such institutional change is the American Medical Students Association's (AMSA) "Scorecard". The Scorecard grades medical schools on the 'presence or absence of a policy regulating the interactions between their students and faculty and the pharmaceutical and device industries' [51]. The rationale behind the Scorecard is that 'Medical schools and academic medical centers have played a powerful leadership role in setting new standards for the profession' and as such are able to nurture certain norms, behaviours and values [51]. However, there is a danger of the association or society itself being captured by neoliberal logics that regards commercial norms as beneficent and appropriate [52].

Finally, at the level of the individual practitioner, it is important to recognize the extent to which the neoliberal medical environment fragments practice and the roles of physicians [53, 54]. Much of the debate over COI and policies assumes that physicians have a single and unambiguous objective – the patient. However, this is not an accurate depiction of contemporary practice, where even the most virtuous physicians work both in and between organisations and have a plurality of roles and commitments. While the Hippocratic-Galenic physician *may* have had the unambiguous role of caring for the sick, today 'one can be – simultaneously – a physician, a researcher, a teacher, a university administrator, a member of a government committee or a drug company advisory board, an active member of an ethnic community or religious group, a parent, a partner, a political activist, a citizen, and many other things' [53, p. 31]. Each of these roles have different values attached to them and are regulated by different norms and policies. The roles, values and commitments can be negotiated harmoniously or, depending on the environment or situation, they can result in conflicts that erode certain values and commitments. Just as the nurturing environment is under-acknowledged in the literature, so too is the plurality of roles and commitments of the contemporary physician. This needs to be addressed if individual clinicians are to be able to relate to efforts to promote medical virtue.

The importance of the environmental setup and diverse roles of physicians is evident in the case of the two different commercial arrangements of IVF clinics. In clinics owned by publicly listed companies, physicians practice in an environment where they are explicitly (through contracts or codes of conduct) or implicitly (through institutional norms and culture) obligated to shareholders. In independent not-for-profit clinics, physicians practice in an environment without an obligation to shareholders. Working in a company that seeks to maximise shareholder returns is not inherently wrong. Likewise, working in a not-for-profit is not inherently virtuous. However, in the medical context these differing commercial arrangements introduce or exclude certain relationships and roles that nurture or neglect virtues traditionally associated with medical practice. By articulating these effects and relationships at different levels, we contend that there will be a greater understanding of the relationship between virtue and nurturing or eroding environments. There will also be a greater capacity for physicians to negotiate the conditions and environments that nurture or neglect virtue. That is, it might create greater space for voluntary action – including virtuous action – that is not overdetermined by societal, institutional and professional environments.

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