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Overdiagnosis and overtreatment: a sociological perspective on tackling a contemporary healthcare issue

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Abstract Overdiagnosis and overtreatment are increasingly discussed as a significant problem in contemporary healthcare but are yet to receive any significant sociological attention, over and above that which is arguably transferable from the medicalisation literature. Overdiagnosis and overtreatment are often constructed as problems best addressed by educating patients and clinicians, and improving the relationships between them. The emergence of tools seeking to support decision-making and to facilitate patients' asking questions about whether interventions are really necessary supports this conceptualisation. This article questions whether significant traction on overdiagnosis and overtreatment is possible through these means alone, arguing that even when professionals and patients may wish to do less rather than more, the system within which care is delivered and received can make this challenging to achieve. Drawing on Scott's (Sociology, 2018, 52, 3) 'sociology of nothing', the article demonstrates that a sociological perspective on overdiagnosis and overtreatment recasts them as issues that must be understood as a consequence of the organisational, financial and cultural attributes of the system, not just individual interactions, and advances a research agenda for the area.

Keywords: overdiagnosis, overtreatment, health care, medicalisation

Too much medicine

Attention is increasingly on the harms and avoidable waste of 'too much medicine' (British Medical Journal 2019) as a result of overdiagnosis and overtreatment, with a recent report by the OECD (2017) highlighting wasteful healthcare spending, including tests and interventions which have little or no benefit. The potential consequences are significant: psychological and behavioural effects of disease labelling; physical harms and side effects of unnecessary tests or treatments; negative impacts on quality of life; and wasted resources and opportunity costs to individuals and health systems (Heath 2014, Hicks 2015, Moynihan *et al.* 2012). Those within the overdiagnosis and overtreatment movement tend to agree that the problem is complex and multifaceted, and driven by factors including increasingly sensitive tests that identify indolent, non-progressive or regressive abnormalities; expanded disease definitions and lowered thresholds; creation of pseudo-diseases; public enthusiasm for screening or testing and the desire for reassurance; clinicians' fear of missing a diagnosis or of litigation; and financial incentives (Moynihan *et al.* 2014; Pathirana *et al.* 2017).

What exactly is meant by ‘too much medicine’ is not straightforward (Broderson *et al.* 2018). Broadly speaking though, and for this article, the terms overdiagnosis and overtreatment are generally used about instances in which a diagnosis is ‘correct’ according to current standards but the diagnosis or associated treatment has a low probability of benefitting the patient clinically, and may instead be harmful. I acknowledge that these are terms used largely within clinically focused work around overuse. A sociology of knowledge approach might ask how this emerged as an area of concern, what values are conveyed in the language used, and who decides what constitutes ‘too much’ medicine?

Overdiagnosis and overtreatment are yet to receive any significant sociological attention, beyond that arguably transferable from the medicalisation (Conrad 2007) and pharmaceuticalisation (Williams *et al.* 2011) literatures. The issues did, though, feature in an exchange on the continued relevance of medicalisation as a concept in this journal. Responding to Busfield’s (2017a) piece on whether medicalisation as a concept still has value, Williams *et al.* (2017) highlighted her lack of attention to issues similar to concerns about overdiagnosis and overtreatment. One of the interesting contrasts they highlighted between medicalisation and this newer concept (if we want to accord it that status) is the former’s descriptive value-neutral term and the latter’s clear status as a value-laden concept. Busfield’s response (2017b) was that while it had some interest, the concept did not have significant analytical value for sociologists.

In this article, I draw on Scott’s (2018) ‘sociology of nothing’ in order to show how a sociological perspective on overdiagnosis and overtreatment recasts them as issues that must be understood as a consequence of the organisational, financial and cultural attributes of health systems, not just individual interactions, and to advance a research agenda for the area.

Tackling overdiagnosis and overtreatment

Numerous approaches to tackling the issues are emerging, including decision aids about screening programmes (Hersch *et al.* 2015), shared decision-making (SDM) to ensure person-centred care (Berger *et al.* 2017), awareness campaigns and educational programmes (Choosing Wisely 2018), and changes to financial and other incentives embedded within healthcare systems (Pathirana *et al.* 2017). The problem is often constructed as one that can best be addressed by educating patients and clinicians, and improving the relationship between them. Approaches such as SDM are seen as a way to signal that doing nothing or pursuing a strategy of active surveillance rather than immediate intervention can be a deliberate or positive action (McCaffery *et al.* 2016). There are challenges to implementing SDM in practice, though – including factors relating to clinicians, patients and healthcare organisations (Joseph-Williams *et al.* 2017).

A useful example of efforts to tackle overdiagnosis and overtreatment is Choosing Wisely UK (2019), hosted by the Academy of Medical Royal Colleges and aligned to efforts internationally challenging the idea that more medical intervention is necessarily better (Malhotra *et al.* 2015). Choosing Wisely UK includes: (i) recommendations to clinicians of things not to do; (ii) information and resources on SDM for clinicians; and (iii) questions for patients to ask their clinicians. This last element encourages patients to question whether tests and treatments are necessary, possible risks and benefits, possible alternatives, and what would happen if they opted to do nothing – thereby demonstrating a desire to involve patients and the public (Born *et al.* 2017) not dissimilar to a social movement (Crossley 2002).

But those within Choosing Wisely also recognise the need to be cognisant of the complex contexts within which healthcare is organised and delivered (Born *et al.* 2019). A conceptual

focus on the diagnostic, prescribing and treatment behaviours of individuals marginalises the social practice of medicine, as issues of responsibility and agency inevitably centre on individuals and fail to take account of the complexity underpinning the social practice of clinical care (Pilnick and Dingwall 2011). Even when professionals and patients may wish to do less rather than more, the system within which care is delivered can make this challenging. While there is starting to be work mapping the wider drivers of overdiagnosis and overtreatment and linking them to potential solutions (Pathirana 2017), a detailed analysis of the issues and potential solutions is lacking.

Ensuring high-quality care

Overdiagnosis and overtreatment are compounded by the way many attempts to improve care quality (e.g. diagnostic targets, disease registers, guidelines) tend to encourage doing more rather than less, and the standardisation of care (Timmermans and Berg 1997). There is concern, for example, that guidelines intended to reduce variation have encouraged neglect of respect for patients' preferences (McCartney 2014).

Overdiagnosis and overtreatment intersect with evidence-based medicine, proposed as a solution to practice variation and underpinned by the notion that providing clinicians with the best available evidence will ensure they deliver optimal care. The issue, of course, is effectively managing the potential gulf between the population-based evidence available and the individual patient. Greenhalgh *et al.* (2014) have argued that although evidence-based medicine has had many benefits, it has also had negative unintended consequences. Offering an agenda for the movement's renaissance, they focus on useable evidence that can be combined with context and professional expertise so that individual patients get optimal treatment.

In such a framing, clinicians could be understood as operating in what Freidson has characterised as the 'zone of discretion' (Freidson 1994: 42). Sociological analysis of the professions has long paid attention to the exercise of autonomy or discretion as a key element characterising the work of professionals. This space for discretion is on the face of it quite promising and appears compatible with the ethos underpinning things like SDM in which preferences are shared and ways forward mutually agreed.

However, the growth of the 'audit society' (Power 1997) is argued to have led to the development of regulatory cultures and new forms of bureaucracy within medicine which prioritise codified knowledge such that being a doctor relies more on the production and use of encoded and formal knowledge than more tacit knowledge acquired through experience and a 'feel for the game' – arguably that most useful in seeking to mitigate overdiagnosis and overtreatment. Research has shown that doctors are increasingly aware of the potential for complaints from patients and the risk of litigation, meaning their practice is often more cautious and defensive (Nettleton *et al.* 2008). In the context of overdiagnosis and overtreatment, this may manifest as ordering more tests and treatments 'just to be safe' (Armstrong and Hilton 2014).

Quality measurement that focuses on important processes and outcomes is often seen as an essential feature of well-functioning healthcare systems. So what might be necessary to re-orient systems to be able to better support clinicians and their patients to do less rather than more? Acknowledging that a commonly cited driver is professionals' fear of litigation and their subsequent defensive practice, we may, for example, need to think about how SDM can be captured effectively and translated into the different kinds of artefact needed to service the various organisational logics (Goodrick and Reay 2011) that might be impacted, not least because such discussions are likely to be highly variable and personalised to patients' specific contexts. It may be necessary, for example, to ensure that other healthcare professionals who

may provide care can see that discussions have taken place and a way forward been agreed. The capturing of decisions and the reasons behind these may also need to be in a form sufficiently robust to withstand external scrutiny. This is likely to be particularly important when SDM results in decisions to do something (perhaps nothing) that appears to run counter to good clinical practice and/or specific guidelines. While NICE guidelines are intended to be ‘guidelines not tramlines’ (McCartney 2014), healthcare professionals may find it difficult in practice to deviate from these (Cupit *et al.* 2020) and a particular problem highlighted in general practice is that processes for SDM could come into conflict with financial incentives, such as those embedded within the Quality and Outcomes Framework (Joseph-Williams *et al.* 2017).

Doing nothing – a sociological research agenda

In her development of a ‘sociology of nothing’, Scott highlights how ‘in social life...nothing is not just a passively endured condition, but a reflexively managed mode of experience’ (2018: 4). The accomplishment of ‘doing nothing’ is of particular relevance to the sorts of calls for patients and healthcare professionals to be more questioning and to consider doing less rather than more outlined above. Scott argues ‘doing nothing’ can be understood as a form of Weberian social action (Weber 1949) as it fits the two criteria of (i) being meaningful to the actor and (ii) taking into account others – social objects such as people, institutions or discourses – and being thereby oriented in its course.

Scott makes the important distinction between doing nothing as a deliberate act of commission or as unintentional omission. One of the examples Scott uses for acts of commission is the refusal of medical treatment, but that could be extended to preventative interventions and investigatory tests and procedures too. In Scott’s words (2018: 5), ‘when demonstrably “doing nothing”, the actor considers but rejects a normatively expected action for its negative associational meanings. They may need to skilfully manage social reactions to this as deviance in everyday life’. In decisions not to, the actor makes a deliberate choice to eschew a potential line of action (Goffman 1967) that might otherwise have been significant and may be normatively expected, rendering themselves socially conspicuous.

Distinguishing between acts of commission and unintentional omission may not always be straightforward, though. For example, in relation to an intervention like population-based screening and those who do not take up the offer. Given the possible harms and benefits of screening, participation is increasingly positioned as an informed choice based on consideration of the best available evidence (Armstrong 2019). But there are important questions about how we balance seeking to give people every opportunity to attend with respecting that they have thus far not done so. How we can distinguish between doing nothing that is intentional and thought through, and that which might suggest a lack of awareness, or sub-standard or inaccessible care? Do we need some display of commission, such as the formal declining of an invitation, before we stop seeing people as ‘fair game’?

Understanding the doing of nothing as a form of situated social action suggests a range of research questions. For example, as well as developing and refining models for how to do SDM well, we could explore how to document it well and what this might look like in practice. What were the different types of expertise that all parties brought to the encounter, and how were these combined? How can we think about monitoring care quality in this context? Are there appropriate tolerances, and how would we define and operationalise these?

More broadly, many of the factors that are presented as important drivers of overdiagnosis and overtreatment are unlikely to be resolved by an emphasis on SDM alone. Even addressing

the inherent complexities of SDM is insufficient unless the broader social and system factors that drive overdiagnosis and overtreatment are also addressed. For both patients and clinicians, the things that happen within healthcare settings are not necessarily the result of discrete decisions – even when these are consciously and carefully made – but often result from all kinds of norms and expectations that are socially embedded. Efforts to tackle overdiagnosis and overtreatment may be complicated by the way in which many attempts to improve care quality (e.g. diagnostic targets, disease registers, guidelines and audits) tend to encourage doing more rather than less. Mechanisms for ‘opting out’ are not always simple; removing patients from pay-for-performance schemes is complex (Roland 2016) and how to account within audits for those declining tests or treatments (rather than not being offered them) is not clear.

A sociological perspective on overdiagnosis and overtreatment recasts them as issues that must be understood as a consequence of the organisational, financial and cultural attributes of healthcare systems, not just individual interactions. Studies show, for example, that clinicians may err on the side of caution and proceed with interventions of unclear utility in an effort to fit in with local practice and customs and offer a means of defending themselves should questions be asked about their practice (Armstrong and Hilton 2014). Social theory exploring accountability, governance and regulation can enhance our thinking about how features of the health system may make it challenging for clinicians and patients to do less rather than more, not least because of concerns that doing so might be considered deviant.

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