Social Science & Medicine 131 (2015) 193–198

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Introduction

Pharmaceuticals and society: Power, promises and prospects

1. Introduction

This special issue stems from a symposium organised by the authors at the University of Warwick, UK, in December 2011. The event brought together a range of researchers in medical sociology, Science and Technology Studies (STS) and cognate fields in order to take stock and critically examine, from a variety of different perspectives, the role of pharmaceuticals in society. More specifically, the aim was to consider the empirical and theoretical questions arising from recent trends in the development, regulation, marketing and use of pharmaceutical products.

Our starting point was a recognition that remarkably little sociological attention had been given to pharmaceuticals until recently. Early work was undertaken by only a few scholars and focused on particular types of medications such as minor tranquillisers (Cooperstock and Lennard, 1979; Helman, 1981; Gabe, 1990, 1991; Gabe and Lipshitz-Phillips, 1982, 1984) or specific drugs such as Opren or Halcion (e.g. Abraham, 1995; Abraham and Sheppard, 1999; Gabe and Bury, 1996). Occasionally the analysis within these studies was linked to wider social processes and sociological questions such as medicalization and social control (Koumjian, 1981; Gabe and Lipshitz-Phillips, 1984). Key contributors to the medicalization debate, nevertheless, tended to pay little attention to pharmaceuticals per se (e.g. Conrad and Schneider, 1992).

Times have changed since the millennium, however. Conrad (2007), for example, in his book *The Medicalization of Society* now recognises that pharmaceutical companies have become so important that they have displaced physicians as a main driver of the medicalization process. While Conrad believes that medicalization can incorporate such developments, others have argued that a new concept, pharmaceuticalization, is needed to capture the growing importance of pharmaceuticals as a specific form of medicine, within and beyond medicalization. This term was, to our knowledge, first introduced in anthropology by Nichter (1989, cited in Bell and Figert, 2012) and in sociology by Abraham (2007). In the last few years nevertheless its contours and meaning has been increasingly discussed and debated. According to Williams et al. (2011a:711), for example, pharmaceuticalization involves 'the transformation of human conditions, capabilities and capacities into opportunities for pharmaceutical intervention'. Abraham (2010: 604), however, argues that it is a 'process by which social, behavioural, or bodily conditions are treated or deemed to be in need of treatment, with medical drugs by doctors or patients'. One of the key points of difference between these definitions, therefore, is that the former is broader in that it recognises the role of pharmacological interventions for *non medical* as well as medical reasons (Williams et al., 2011b). In other words Williams et al. are suggesting that we should not just restrict ourselves to the use of pharmaceuticals by doctors or patients for treatment purposes but should also consider their use outside the realm of medical authority for lifestyle or enhancement reasons. This use of medicines for 'enhancement' in turn illustrates how one can have pharmaceuticalization without any significant degree of medicalization.

In addition, Williams et al. (2011a) suggest that pharmaceuticalization is a dynamic socio-technical process that is part of a 'pharmaceutical regime'. That is to say it can be understood as a network of institutions, organisations, actors and artefacts, alongside those cognitive structures and affective processes associated with the creation, production and use of therapeutics. It is the intention to explore this pharmaceutical regime in this special issue, taking account of both upstream level processes concerning the development, testing and regulation of pharmaceuticals and downstream level processes concerning the meaning and use of pharmaceuticals in medical practice and in everyday life.

The 'pharmaceuticalization' of society has proceeded apace in recent decades as markets for pharmaceuticals have expanded, new medical conditions have been identified for treatment and new drugs have been produced for new markets. While physicians remain the gatekeepers for many drugs, pharmaceutical companies are increasingly targeting members of the public alongside physicians in various direct and indirect ways. As a result, the reliance on and use of medicines has increased in some areas, thereby fuelling further debates not simply about expanding markets, but also about the 'appropriate/inappropriate' use of medicines, including both 'over' and 'under' use.

Consideration, at one and the same time, has also been given to the regulation of medicines (Abraham and Lewis, 2000; Davis and Abraham, 2012) and the policy issues raised (Davis 1997). More recently there have been attempts to develop a sociological analysis of the relationship between the macro level of the pharmaceutical industry and health care systems and the micro level of doctor patient relations (Britten, 2008), the reasons for 'expanding markets' and 'excessive use' (Busfield, 2010) and the risks involved in prescribed medicines (Light, 2010).

As Bell and Figert (2012:776) note, pharmaceuticalization also 'maps onto global patterns of wealth and poverty, and of power and inequality'. When considering the processes and politics of drug development, marketing and consumption, one might argue that the pharmaceutical industry is often Western centric in its efforts and intentions (see Fisher et al., 2015). However, while most sociological attention has been directed towards pharmaceuticalization in the West, anthropologists have focused on this process in low or middle-income countries where political and economic systems are typically post-colonial (Petryna et al., 2006). One particular focus here has been on how public health in these

http://dx.doi.org/10.1016/j.socscimed.2015.02.031

countries has been pharmaceuticalized, by linking the right to health with the right to treatment with pharmaceuticals, such as free anti-retrovirals for HIV/AIDS in Brazil (Biehl 2004, cited in Bell and Figert, 2012). Another example is the World Trade Organisation's Trade Related property Rights (TRIPS) agreement, which has helped global pharmaceutical companies to undertake clinical trials in countries such as India (see Sariola et al., 2015). Such considerations are important to understanding pharmaceuticalization as a concept and its dynamics on a global scale (Cloatre and Pickersgill, 2014).

While there is considerable evidence to support the claim that pharmaceuticalization is developing rapidly, it nevertheless needs to be acknowledged that: (i) pharmaceuticals play a vital role in the alleviation of human suffering and the extension of life itself; (ii) pharmaceuticalization, as such, is a descriptive, value neutral concept - unlike other recent terms such as 'disease mongering' (Moynihan, 2002) which imply an in-built element of social critique - the costs and benefits, gains and losses of which need to be judged on a case-by-case basis; (iii) pharmaceuticalization can be a bi-directional process where de-pharmaceuticalization is also possible. Whilst none of the papers in this special issue, admittedly, address this last point about depharmaceuticalization, and whilst it is more likely in practice that a new generation of drugs will replace a previous generation rather than being phased out as an area of intervention altogether, the latter remains a possibility. So, of course, do various forms of social resistance to pharmaceuticals amongst lay people and or experts, alongside others advocating expansion of such uses in existing or new areas. Finally, we should also remember, of course, that pharmaceuticals constitute just one part, albeit a critical and contested part, of the contemporary therapeutic and enhancement landscapes that stretch before us in the twenty-first century. As such they co-exist and or compete with other forms medical care, self-management or optimisation.

As yet, however, no one has attempted to explore in a sustained way the broad process of pharmaceuticalization and its consequences for individuals and society. This special issue aims to do just that, drawing on medical sociology, STS and cognate disciplines. The special issue is divided into five themes which capture different dimensions of pharmaceuticalization: markets for medicines; regulatory agencies and the state; patients, consumers, lifestyles; from treatment to enhancement: the use of drugs for non-medical purposes; and pharmaceutical futures in the making.

1.1. Markets for medicines

The first paper, by Joan Busfield, aims to contribute to understanding overtreatment by exploring the ways in which it is possible to identify when and to what extent medicines such as antibiotics, antidepressants and antihypertensives are overused, a topic which she argues has so far been given little attention by scholars interested in pharmaceuticalization. She considers the World Health Organisation's criteria for the 'rational' use of medicines, pointing to some of the issues they raise. She then develops a typology of over and under use derived from these criteria. This provides the basis for a framework for assessing overuse, paying particular attention to those medicines for which there is little evidence of effectiveness for the conditions for which they are being prescribed (e.g. antibiotics), and those where the issue of clinical need is in doubt (e.g. psychoactive drugs). Factors that encourage overuse, such as doctors' preference for risk avoidance leading to continuing prescribing for longer than is necessary and the activities of pharmaceutical companies in producing and reporting clinical trials that underpin their production, are also considered.

This theme of overuse is also picked up by Courtney Davis who explores the drivers and impacts of expanding pharmaceutical use in the treatment of patients with advanced, incurable cancer. While some of this growth can be seen as addressing previously unmet need, she suggests that a major part of it is due to 'inappropriate and overly aggressive' use of drugs. She acknowledges the role of physician and patient expectations in the use of these medicines but suggests that the pharmaceutical companies' control over the organisation and funding of research and its ability to shape the information landscape is a key factor. On this basis she argues that pharmaceuticalization should not just be restricted to cases involving a re-designation of a condition as suitable for pharmaceutical intervention with a new or existing drug, as implied in the literature (Abraham, 2009; Williams et al., 2011a). Rather it should encompass any instance of medicines expansion in use, including the increasing application of existing drugs to meet the established need of an existing patient population.

In a rejoinder Abraham acknowledges that Davis has advanced pharmaceuticalization studies by showing systematically how poor quality industry-dominated information about cancer therapies can give rise to patient expectations that facilitate overtreatment. However he argues that Davis' argument fits with his analytic framework (2010) which recognises explicitly 'that pharmaceuticalization can grow without expansion of medicalization because some drugs are increasingly used to treat an established medical condition involving no transformation of a non-medical problem into a medical one' (Abraham, 2010: 605). Davis responds to Abraham by rejecting his claim that she has misrepresented his work and goes on to make some wider points about whether an increase in drug innovations offering therapeutic advance can alone explain *overall* growth in medicines consumption, as she claims Abraham argues, even if he develops a more nuanced argument in relation to specific drug products and diseases.

The third paper in this section, by Pollock and Jones, offers a cautionary note about claims of excessive drug use and whether such pharmaceuticalization is a good or bad thing. They focus on coronary artery disease (CAD) in the United States and argue that claims about excessive drug treatment need to be placed in a therapeutic landscape involving four intersecting elements: pharmaceuticals, surgery, lifestyle change and inaction. Furthermore, treatment options need to be considered in terms of stratification as there may be over-treatment in some populations and under-treatment in others. For example, they argue that people at risk of CAD face a racialized terrain with unequal access to care. African Americans are less likely to be prescribed medication for CAD than their white counterparts and are also less likely to be given bypass surgery or angioplasty. Their paper illustrates how structural factors and health inequalities (including access to different therapeutic regimes) can act to shape patterns of pharmaceuticalization within and between different social groups. Whether such patterns of pharmaceuticalization can be interpreted as undertreatment/overtreatment, appropriate or inappropriate and the consequences of this, is then context specific or case dependent. Pollock and Jones conclude that analyses of pharmaceuticalization must pay attention to the specificity of the particular pharmaceutical and the constraints surrounding its use, especially uneven access and alternative solutions.

In the last paper in this section Collin and Otero consider the role of media in marketing anxiety-depressive disorders to family doctors in Canada to promote their (over) prescribing of psychotropic drugs. They frame their study in terms of a pharmaceutical regime made up of networks of actors, institutions and artefacts together with the cognitive structures or socially and culturally accepted classifications that underlie the promotion and use of medications. They argue that their paper explores the linkages between different components of this pharmaceutical regime.