

Peter Conrad: The Medicalisation of Society

Par Simon Williams et Jon Gabe

Janvier 2015

https://www.researchgate.net/publication/304803031_Peter_Conrad_The_Medicalisation_of_Society

**The Palgrave Handbook of Social Theory in Health,
Illness and Medicine (pp.615-627)**

Medicalisation has been a much debated issue since the 1970s, not simply within medical sociology but within medicine, popular culture and society at large. Peter Conrad has been and remains a key sociological figure in these developments and debates regarding the 'medicalisation of society'. This chapter therefore pays fitting tribute to Conrad's valuable sociological contributions to these developments and debates since the mid-1970s. It includes both a necessarily selective sketch of his many writings on these matters, and a critical appraisal of other recent contributions which seek to question if not go 'beyond' medicalisation in order to capture the changing dimensions and dynamics of health and biomedicine in these increasingly technoscientific and biopolitical times.

Biographical and Intellectual Context

Peter Conrad completed his doctorate at *Boston University* in 1976 on the identification of hyperactive children. The study was originally conceptualised as one about labelling hyperactive children but as it progressed, turned into a project about the medicalisation of deviance. As such, it represented Conrad's first attempt to develop his argument about medicalisation and was published in book form in the same year as he received his doctorate (and reprinted in an expanded form in 2006) (Conrad 1976, 2006). Conrad had already taken up a teaching position at *Drake University* at this point and went on to join the staff of *Brandeis University* as an assistant professor in 1981. He became the Harry Coplan Professor of Social Science in 1993, a position he still holds.

In 1980 Conrad co-authored with Joseph Schneider *Deviance and Medicalisation: From Badness to Deviance*. This seminal text won the Charles Horton Cooley Award from the Society for the Study of Symbolic Interaction for 'its outstanding contribution to the study of symbolic interaction', and was subsequently republished in an expanded form in 1992. As the title confirms, the authors saw medicalisation as a form of deviance. They took an avowedly interactionist position, in contrast to the predominant positivist approach which still held sway at the time, and asked how the definition of medicalisation as deviance was constructed, how deviant labels were attached to certain people and what were the consequences for the labelled and labellers? Unusually for interactionists, they placed the medicalisation of deviance in an historical context and tried to understand how deviancy labels developed over time. Thus, for example, they described how opium addiction was conceptualised as a disease in the 19th century, criminalised in the early twentieth century and re-medicalised in the 1950s. Conrad and Schneider were thus interested in problematising how medical knowledge was applied to social problems like mental illness and alcoholism and did not question the basis of medical knowledge like social constructionists.

Paralleling other early proponents of medicalisation such as Zola (1972) and Illich (1976), Conrad and Schneider gave particular attention to the ways in which medicine operates as an institution of social control, redefining aspects of everyday life as a medical matter. Marxists and Feminists have made a similar point although, in contrast to Conrad and Schneider, have attributed the actions of the medical profession more broadly to satisfying the interests of capitalism (Waitzkin 1979) and patriarchy (Oakley 1980) respectively.

Since *Deviance and Medicalisation* was published in 1980, Conrad has gone on to make a series of important observations about medicalisation, which have resulted in his being awarded the Leo G. Reeder Award for his 'distinguished contribution to medical sociology' by the American Sociological Association Medical Sociology Section in 2004. His 2007 book *The Medicalisation of Society* was also short listed for the C. Wright Mills Award by the Society for the Study of Social Problems in 2008. Below we explore his contribution to the debate about medicalisation in more detail.

What is Medicalisation?

Conrad's contributions on the medicalisation of society, as we have seen, are concerned with the creation, promotion and application of new medical categories, treatments and solutions to human conditions or problems and associated sociological questions of medical jurisdiction and social control. In order to develop our account of Conrad's work we now need to ask how he defines and delineates its characteristics and contours, drivers and dynamics, costs and consequences, and what cases he uses to illustrate these processes in practice? It is to these matters that we now turn.

Definition and Dimensions

Medicalisation, Conrad states, 'describes a process by which non-medical problems become defined and treated as medical problems, usually in terms of illness and disorders' (2007:4). The key to medicalisation therefore, Conrad stresses, is 'definition': a problem, that is to say, which is 'defined in medical terms, described using a medical language, understood through the adoption of a medical framework, or 'treated' with a medical intervention' (2007:5). To 'medicalise' something then, in short, is quite literally 'to make medical' (Conrad 2007:5).

Conrad makes a number of other equally important points in seeking to further define and delineate what exactly medicalisation is and is not. First, and perhaps most crucially of all given common misunderstandings, medicalisation simply 'describes a process' (Conrad 2007:5) and does not automatically assume or presume that any and all cases of medicalisation are cases of 'over-medicalisation'. Assumptions of 'over-medicalisation', in other words, are 'not a given in the perspective' (Conrad 2007:5). Medicalisation moreover is not necessarily a negative process. It may indeed bring benefits in terms of much needed medical recognition and validation of suffering and vital help in alleviating it: a case of the 'brighter' as well as the 'darker' sides of medicalisation, as Conrad (1975) noted long ago.

Second, medicalisation is not an all or nothing process or state of affairs. Rather it is matter of *degree*, whereby some conditions such as childbirth are more medicalised than others such as menopause, or

contested conditions like chronic fatigue syndrome (CFS), Gulf War syndrome or multiple chemical sensitivity. Medical categories moreover may expand or contract over time.

A third closely related point concerns the fact that medicalisation, despite the general trend towards expansion during the past century, is a *bidirectional* process, in the sense that there can be 'both medicalisation and de-medicalisation' over time (Conrad 2007:7). Masturbation and homosexuality perhaps are the most obvious cases of de-medicalisation over time, although re-medicalisation remains possible, as Conrad notes, following any such process of de-medicalisation. Indeed, Halfmann (2011) argues that medicalisation and de-medicalisation can occur simultaneously and that even when one of these processes seems to be dominant it is often incomplete.

This in turn alerts us to the fact that to medicalise something involves a number of steps or stages. The first stage, according to Conrad and Schneider, involves behaviour such as chronic drunkenness being defined as deviant, often before the emergence of a modern definition like alcoholism. At the second stage, the medical conception of deviant behaviour is proclaimed in medical journals. The next stage is crucial and requires claims-making about a new medical deviance category by medical and non-medical interest groups like self-help groups. The fourth stage involves the legitimation of the claim, with medicalisation occurring at stage five, when the medical deviance label is institutionalised. The latter is illustrated when a deviance designation is codified within a medical classification system. The value of this sequential model is that it highlights how attempts to define deviance as a medical problem are hotly disputed and the outcomes uncertain.

Fourth, medicalisation may occur simultaneously or separately at three distinct levels, namely, the conceptual, institutional and the interactional. Conceptually, a medical vocabulary may be used to define a problem; institutionally, organisations may adopt a medical approach to treat a problem in which they specialise; and interactionally a doctor and patient might interact to define a problem as medical and agree on a form of medical treatment. The process thus often involves a physician directly but this is not always the case. For example, in the case of alcoholism, the medical profession may be only marginally involved or not involved at all. Conrad and Schneider's typology can be

mapped onto the distinction between macro, meso and micro level actors, with macro level actors involving researchers and governments, meso level actors referring to local organisations and micro level actors focusing on doctors and patients. Halfmann (2011) suggests that a medical vocabulary, for example, may be employed by actors at all three of these levels (e.g., researchers, hospital managers and patients). He also notes that medicalisation at the micro level may include clinical workers other than doctors and non-medical actors like teachers and counsellors. And he argues that micro level medicalisation may occur through the identity construction of various actors, with doctors, for example, meeting cultural expectations to varying degrees about what 'being a doctor' involves.

A fifth equally important point, as Conrad emphasised early on in these debates, is that medicalisation cannot and should not be equated or conflated with charges of medical imperialism. To do so is to mistakenly bring questions of medical intent into debates about medicalisation. Medicalisation, in other words, may occur regardless of the intentions of doctors or the medical profession and should therefore be evaluated as such. Doctors, for example, in some cases, may be reluctant or resistant to medicalise a particular problem, even if it does eventually become defined and treated in these terms. The same goes for misplaced charges regarding sociology's own intentions, 'imperialist' or otherwise, in advancing arguments regarding the medicalisation of society; as Conrad and Schneider's (1980) rejoinder to Strong's (1979) critique, makes clear. Once again, any such claims of medicalisation need evaluating on a case-by-case basis, irrespective of the sociological intentions or imperialist ambitions of those who make them.

A final, closely related point, which is equally important to stress, is that de-medicalisation and deprofessionalisation are also far from synonymous processes. Something may be de-medicalised for instance, without any deprofessionalisation of medicine. Deprofessionalisation, in contrast, may occur without any de-medicalisation of existing or future medical problems.

Drivers and Dynamics

If medicalisation simply describes a process, then this by definition means that medicalisation is not an explanation but itself needs explaining. What are the factors that account for or drive medicalisation and to what extent have they changed over time?

Conrad, once again, has been at the heart of these debates over decades, including what he terms the shifting engines or drivers of medicalisation over time.

'When I first began studying medicalisation in the 1970s', Conrad tells us, 'the most important forces behind medicalisation were physicians, social movements and interest groups, and various organisational and interprofessional activities' (2007:133). Significant changes in both medical knowledge and medical organisation nevertheless have taken place over the past three decades or so; changes which Conrad claims have 'engendered a shift in the engines that drive medicalisation in Western societies' (2007:133).

Three major changes in medical knowledge and organisation, in particular, are singled out by Conrad for further attention. First, the pharmaceutical and biotechnology industries, he claims, are now becoming 'major players in medicalisation'. Pharmaceutical companies for example, in the case of the US and New Zealand, can now advertise directly to the public through direct-to-consumer advertising on television. Such advertising is designed to create a market for drug company products by encouraging consumers to ask their doctor to prescribe the company's drug. Biotechnology companies are set to become more important with the prospect of genetic tests for particular diseases enabling patients to see themselves as 'potentially ill', and biomedical enhancements for bodily characteristics and mental and social abilities. Second, consumers have become major players in our changing medical and healthcare systems as health and healthcare has become commodified. The body has become a site for various degrees of 'makeover' with medicine as the vehicle, and patients have been turned into consumers who have allegedly become much more vocal about the kind of healthcare they want. A third and closely related factor, Conrad stresses, concerns the emergence of managed-care organisations, or their successors, which have now come to dominate

US healthcare delivery. Managed care requires that medical treatments are pre-approved and limits set on the type of care available. This has constrained the care offered by doctors and received by patients. In terms of medicalisation it is both an incentive and a constraint. In the case of mental health, it has reduced insurance cover for psychotherapy while encouraging the use of psychotropic medications in its place.

Cases, Counts and Costs

Numerous cases of medicalisation have now been extensively documented and detailed -- from childbirth to obesity, alcoholism to anorexia, baldness to erectile dysfunction, female sexual dysfunction to menopause, sleep problems to death and dying -- many by Conrad himself of course in collaboration with colleagues.

Three case studies nevertheless will suffice here for illustrative purposes. The first concerns the case of adult attention deficit/hyperactivity disorder (ADHD), which as Conrad (2007) comments, may have been an 'oxymoron' thirty years ago but now provides a clear case of how medicalised categories can 'expand' over time to include a wider range of troubles within their remit. The medicalisation of ADHD was primarily accomplished, he argues, by 'refocusing the diagnosis on inattention rather than hyperactivity' and by 'stretching the age criteria', which therefore allowed for the 'inclusion of an entire population of people (and their problems) who were excluded by the original concept of hyperactive children' (Conrad 2007:66). Lay groups and lay-professional alliances, exemplified by children and adults with attention deficit/hyperactivity disorder (CHADD), as well as media presentations, were key here too as Conrad shows; collaborations which contrast sharply with other more contested cases or conditions such as multiple chemical sensitivity and chronic fatigue syndrome, where medical backing and legitimacy have proved problematic. The case of adult ADHD therefore illustrates a process of expansion pertaining to what is now regarded as a 'discrete disorder that can be claimed and diagnosed' through a 'feedback loop among professionals, claims-makers, media and the public in terms of the creation, expansion and application of illness categories' (Conrad 2007:67)

The second case of human growth hormone (hGH), in contrast, takes us from medicalised matters of diagnostic expansion to the problems and prospects of biomedical enhancement. Whilst humans in this regard, as Conrad rightly notes, have always tried to improve or enhance themselves in various ways, and whilst the treatment-enhancement distinction is itself of course a socially constructed, changing and contested matter, the promises and prospects of biomedical enhancement now extend far and wide, from cosmetic surgery to performance enhancing drugs.

The development and myriad uses of synthetic hGH since 1985 is a particularly good example of different types of biomedical enhancement and the social dilemmas with which they are associated. Initially approved as a medical treatment for growth hormone deficiency, other possible off-label medical uses now include hGH as a treatment for children with 'idiopathic short stature' and as an 'anti-ageing' therapy. A third use, whilst not medically approved or sanctioned, is also supposedly common, namely to enhance athletic performance.

Here we glimpse, then, the way in which social problems, such as shortness, ageing and performance edge, become amenable to biomedical solutions. We also, of course, glimpse what Conrad terms the different 'faces of biomedical enhancement' (2007:86). Thus the treatment of idiopathic short stature perfectly illustrates the use of biomedical enhancements to 'bring the body into line' with what doctors or patients deem to be the 'normal' or 'socially expected standard; what Conrad terms 'normalisation' or 'standardisation' (2007:87). Resort to hGH in order to relieve some of the effects of ageing, in contrast, is more a matter of repair than normalisation; an attempt, that is to say, to use biomedical interventions to 'rejuvenate the body or restore it to a previous condition' (Conrad 2007:87). Finally, resort to hGH as a biomedical enhancement in the sporting arena in order to improve athletic performance, is neither a case of normalisation nor of repair or rejuvenation of the body, but of what Conrad terms 'augmentation' or 'performance edge': the use of a prescription only drug, beyond its licensed medical purposes, as a way to improve life performance (2007:88). This example in turn underlines another critically important sociological point, namely, that in many if not most such cases, context is crucial, given 'enhancement inheres not

in the biomedical composition of the intervention but in when and how it is used' (Conrad 2007:89).

Moving on from cases of medicalisation, we turn next to consider how medicalisation is to be measured, including the degree or extent as well as the costs and consequences of medicalisation for society. If claims are to be made about the increasing medicalisation of society, then it is surely incumbent on those making them, as Conrad rightly remarks, to quantify them in some way in order to substantiate them.

Conrad, for example, examines hormone replacement therapy, breast implants, prescriptions of psychotropic medications for adolescents and the National Comorbidity Survey (a once-a-decade nationally representative survey of the state of American's mental health), concluding that: 'Clearly, by all standards, categories, treatment rates and measures of pathology, medicalisation is continuing to increase' (2007:132). The *National Comorbidity Survey* for example, Conrad notes, suggests that nearly half of all Americans will become mentally ill with a diagnosable mental disorder at some point in the lives -- thereby illustrating, he claims, 'how psychiatric research itself can potentially medicalise more of life's problems' (2007:132). Such findings indeed, Conrad continues, 'could spur an actual increase in medical treatments for minor life difficulties and serve as a rationale for extending psychotropic treatments to larger portions of the population', including new DTC advertisements to this effect, through a 'medicalisation-amplifying feedback loop' (2007:132).

As for the costs and consequences of medicalisation for society, another recent paper by Conrad and colleagues (2010) estimates the direct US medical spending on twelve medicalised conditions -- anxiety and behavioural disorders, body image, erectile dysfunction, infertility, male pattern baldness, menopause, normal pregnancy and/or delivery, normal sadness, obesity, sleep disorders and substance related disorders. Direct US medical costs for these 12 medicalised conditions, they report, amount to around \$77 billion in 2005 or 3.9% of total domestic healthcare expenditures. Whilst this of course, as Conrad et al readily acknowledge, still leaves open the question as to whether this spending is 'appropriate' or not, it nevertheless sheds new light on the economic impact of medicalisation on healthcare, particularly when

comparisons are struck with other dollar spends on conditions such as heart disease (\$56.7) and cancer (\$39.9 billion) in the US in 2000.

Beyond Medicalisation?

For all the decades of developments and debates regarding the medicalisation of society, a critical question has increasingly been raised, namely, whether or not medicalisation has outlived its usefulness as a sociological concept, if not become a victim of its own success, within and beyond sociology (Clarke et al 2003; Rose 2007a,b; Bell and Figert 2012; Williams et al 2012).

In part this has taken the form of claims regarding other more appropriate or specific concepts that better capture these dynamics and developments today: positions which we might, for short-hand purposes, term the 'supplementary' agenda. We see this clearly, for example, in the case of writers such as Moynihan and colleagues (Moynihan 2002; Moynihan and Cassels 2005; Moynihan and Henry 2006), who claim that many instances of so-called 'medicalisation' are better seen as cases of outright 'disease mongering' given the huge profits to be made from convincing 'healthy' people they are 'sick': a case of 'selling sickness', in the words of Moynihan et al. We also see this clearly in the development of other distinct yet related sociological concepts such as geneticisation (Martin and Dingwall 2009) and pharmaceuticalisation (Williams et al 2011; Abraham 2010) over the past decade or so, each of which has a complex and contingent relationship to medicalisation. Geneticisation for example, as Conrad and colleagues (Shostak, Conrad and Horwitz 2008) have themselves demonstrated, may or may not result in medicalisation, whilst medicalisation may or may not involve pharmaceuticalisation. Pharmaceuticalisation in turn, however, may arguably extend 'beyond' medicalisation, where drugs are used for non-medical 'enhancement' or 'lifestyle' purposes.

Consider sleep for example, which at most is a partially medicalised matter, depending on the problem or issue in question. Insomnia, for instance, is a prime case in point, particularly in the UK where psychological interventions such as cognitive behaviour therapy (CBT) are now increasingly recommended, resources permitting, as a first line, cost-effective treatment of choice. Here, moreover, we see the way in which other more specific sociological concepts like pharmaceuticalisation

and de-pharmaceuticalisation may better capture some of these dimensions and dynamics, given the long-standing history of prescription hypnotics in the UK and elsewhere on the one hand, and recent attempts along the aforementioned lines to encourage other non-pharmacological forms of intervention.

In part however, these developments have also taken the form of attempts not simply to supplement medicalisation through related concepts of this kind, but to go 'beyond' medicalisation in a more concerted or sustained fashion: positions which we might, for short-hand purposes, term the 'alternative' agenda.

Clarke and colleagues (2003; 2010), for example, from a more postmodern stance, argue that developments in technoscience have ushered in a new era of what they term 'biomedicalisation'; a multi-stranded, multi-sited technological and scientific process focused on health and the 'elaboration of risk and surveillance biomedicines', which is no longer simply about the 'control' but the 'transformation' of bodies through new 'individual and collective technoscientific identities' (2003:161). Whilst processes of medicalisation continue therefore, they stress, they are now increasingly eclipsed if not replaced by this new more technoscientific phase of biomedicalisation.

Rose (2007a) too, in similar and different ways, makes a number of critical points in his call to go 'beyond' medicalisation. For Rose (2007a) it seems, medicalisation has become something of a 'cliché' which fails to adequately capture or convey the multiple ways in which medicine, both past and present, has made us who we are, or the kinds of persons we take ourselves or wish to be. Hence the need, in Rose's view, to go 'beyond' medicalisation and to think more broadly in terms of biomedicine's own morphing and mutating ('molecular') thought styles, and its multiple roles in the governance or biopolitics of life itself in the twenty-first century (2007b): a vital politics in short, including new more biosocial relations and forms of personhood and citizenship.

Conrad, in response, remains critical of biomedicalisation as being too broad a concept, and whilst he would also no doubt see many of Rose's wider biosocial and biopolitical points as indeed 'beyond' medicalisation, these recent debates do nevertheless represent a significant series of challenges to conventional or orthodox sociological stances on

medicalisation. They are therefore best viewed perhaps as part and parcel of an evolving series of developments within and beyond sociology, regarding the changing dimensions and dynamics of biomedicine, health and society and the place of medicalisation within them.

At the very least we suggest, medicalisation remains a useful sociological concept to think both 'with' and 'beyond' in the twenty-first century. Future sociological work in this regard, building on Conrad's own recent efforts along these sorts of lines, might further profitably develop a more fully-fledged 'integrated' approach to the medicalisation of society. An approach, that is to say, which: (i) spans different micro, meso and macro levels of medicalisation, including implications for citizenship, governance, selfhood and social relations; (ii) is explanatory rather than descriptive; (iii) further explores relations between medicalisation, disease mongering, geneticisation and pharmaceuticalisation; iv) traces and tracks forms of ambivalence or resistance to medicalisation and (simultaneous) processes of de-medicalisation or re-medicalisation over time; (v) estimates the costs and consequences of (de-)medicalisation through more quantitative as well as qualitative work; and, (vi) relates all these foregoing issues to changes in medical knowledge, organisation, practice and trust relations in the twenty-first century.

Two further important dimensions and dynamics of medicalisation may also be mentioned in this regard as worthy of future sociological research in the coming decades.

First, whilst there has already of course been much sociological discussion and debate about the role of the media in processes of medicalisation, both old and new, greater sociological attention clearly needs to be paid in future to the role of *new information and communication technologies* as both *cause* and *consequence* of these processes. To what extent, for example, are we witnessing the dawn of a new phase of medicalisation in the digital information age? Consider for instance developments in the new so-called m-Health arena. The 'm' in question stands for 'mobile', as in new mobile digital apps for our smartphones, tablets and the like, to help monitor and manage our bodies and our health ourselves. Use of these apps provide opportunities to share this information with healthcare professionals as

well as family, friends and others with similar health interests or concerns, through interactive web 2.0 platforms and social media sites such as Facebook or Twitter. Already there is much discussion and debate if not 'hype', within medical and public health arenas, about the power and promise of these digital developments to 'transform' or 'revolutionise' medicine and healthcare in the twenty-first century, including the launch in the UK of a new National Health Service (NHS) 'health apps library' of officially approved and rated health apps. Whilst these developments therefore raise a host of critical sociological issues 'beyond' medicalisation (see Lupton 2013, 2012, for example), they also raise an equally important series of sociological questions regarding their power or potential to re-configure processes of medicalisation in more or less significant ways in the decades to come: the dawn of something akin to '*medicalisation 2.0*' and/or another significant manifestation of so-called '*e-scaped medicine*' (Nettleton 2004) in the information age perhaps?

Second, whilst a sizeable and significant corpus of sociological work now exists on the medicalisation of society, old and new, there is clearly a need to go beyond existing studies – many of which are North American in focus -- in order to explore more fully the *global* dimensions and dynamics of these processes today in the global 'south' as well as the global 'north': part and parcel of what Turner (2004) terms a 'new' medical sociology for the twenty-first century perhaps, given the changing forms of biomedicine, health and illness today in the global era. A similar point has been made by Bell and Figert (2012), who suggest that while pharmaceuticalisation has been most useful in understanding developments in the West it has as yet not been applied to resource poor societies of the global south. They suggest that anthropologists have provided a useful way forward by focusing on the 'pharmaceuticalisation of public health'. This approach has generated case studies of pharmaceuticals that connect global dynamics between states, non-governmental organisations and pharmaceutical companies with local communities.

Conclusions

Three main conclusions may be drawn here in this short chapter on a key concept and a central figure in medical sociology since the 1970s.

First and foremost, as we have seen, Conrad has been and remains a central sociological figure in medicalisation developments and debates over the past four decades. Since his early forays into the area in 1976, his contributions have been critical to these sociological discussions on the medicalisation of society. His seminal text with Joseph Schneider in 1980, linking medicalisation to deviance, through to his 2007 book which explores the new drivers of medicalisation, have made path-breaking contributions and along with his other writings have established him as a world leader in the field.

Second, whilst many criticisms of medicalisation are well made, others are partial or problematic, given the evolving complexities and sophistication of sociological approaches to medicalisation today. Medicalisation in this regard, remains a delimited yet useful sociological concept to think both 'with' and 'beyond' in the twenty-first century. It is able to capture the changing nature of medical knowledge and power and to take account of the growing influence of pharmaceutical and biotechnology companies and consumers as drivers of medicalisation independent of the medical profession. At the same time we have seen that medicalisation's relationship with pharmaceuticalisation and geneticisation has become increasingly contingent, so that these processes may occur without medicalisation necessarily taking place. In this way it is possible to go 'beyond' medicalisation and fashion an 'alterative agenda' as we have noted.

Finally, as far as the future of sociological work on medicalisation is concerned, there is a need, building on Conrad, for the development of a more integrated approach in the decades to come, including both its *digital* and *global* dimensions and dynamics. In this way medicalisation will retain its value as a key sociological concept and vital human issue in the twenty-first century.

References

Bell, S. and Figert, A. (2012) Medicalization and pharmaceuticalization at the intersections: Looking backward, sideways and forward, *Social Science and Medicine* 75: 775-83.

Clarke, A. Mamo, L., Fishman, J., Shim, J.K. and Fosket J.F. (2003) Biomedicalization: technoscientific transformations of health, illness and US biomedicine. *American Sociological Review*. 68 (April): 161-94.

Clarke, A. Mamo, L., Fosket, J.F., Fishman, J., Shim, J.K. (2010) *Biomedicalization: Technoscience, Health and Illness in the US*. Durham: Duke University Press.

Conrad, P. (1976) *Identifying Hyperactive Children: The Medicalization of Deviant Behaviour*. Lexington MA: D.C.Heath.

Conrad, P. (2006) *Identifying Hyperactive Children: The Medicalization of Deviant Behaviour*. Expanded Edition. Aldershot: Ashgate.

Conrad, P. (2007) *The Medicalization of Society*. Johns Hopkins University Press.

Conrad, P. and Schneider, J.W. (1981) *Deviance and Medicalization: From Badness to Sickness*. St Louis: C.V. Mosby.

Conrad, P. and Scheider, J.W. (1992) *Deviance and Medicalization: From Badness to Sickness*. Expanded Edition. Philadelphia: Temple University Press.

Conrad, P., Mackie, T and Mehrota, A. (2010) Estimating the costs of Medicalization. *Social Science and Medicine*. 70: 1943-47.

Halfmann, D. (2011) Recognizing medicalization and demedicalization: discourses practices and identities, *Health*. 16: 186-207.

Illich, I., (1975) *Medical Nemesis*. London: Calder and Boyars.

Lupton, D. (2013) The digitally engaged patient: self-monitoring and self-care in the digital health era. *Social Theory and Health*. 11, 3: 256-70.

Lupton, D. (2012) m-Health and health promotion: the digital cyborg and surveillance society. *Social Theory and Health*. 10, 3: 229-44.

Moynihan, R. (2002) Disease-mongering: how doctors, drug companies and insurers are making you feel sick, *British Medical Journal*, 324: 923.

Moynihan, R. and Cassels, A. (2005) *Selling Sickness*. New York: Nation Books.

Moynihan, R. and Henry, D. (2006) The fight against disease mongering: generating knowledge for action, *Public Library of Science*, 3e, 191.

Nettleton, S. (2004) The emergence of e-scaped medicine, *Sociology*, 38: 661-79.

Oakley, A. (1984) *The Captured Womb: A History of Medical Care of Pregnant Women*. Oxford: Blackwell.

Rose, N. (2007a) Beyond medicalization. *Lancet*. 369 (Feb 24th): 700-702.

Rose, N. (2007b) *The Politics of Life Itself: Biomedicine, Power and Subjectivity in the Twenty-First Century*. Princeton: Princeton University Press.

Shostak, S., Conrad, P. and Horwitz, A. (2008) Sequencing and its consequences: Path dependence and the relationships between genetics and medicalization, *American Journal of Sociology* 114 Suppl. S287-S316.

Turner, B.S. (2004) *The New Medical Sociology. Social Forms of Health and Illness*. New York/London: WW Norton & Co.

Waitzkin, H. (1983) *The Second Sickness: The Contradictions of Capitalist Healthcare*. New York: Free Press.

Williams, S., Gabe, J. and Martin, P. (2012) Medicalization and pharmaceuticalization at the intersections: A commentary on Bell and Figert (2012). *Social Science and Medicine* Vol. 75, 2129-2130.

Williams, S.J. Gabe, J. and Martin, P. (2011) The pharmaceuticalisation of society? An analytical framework. *Sociology of Health & Illness*. 33, 5: 710-25.

Zola, I.K. (1972) 'Medicine as an Institution of Social Control', *Sociological Review* 20: 487-504.