

Revisiting medicalization: ADHD and low SES in Australia

Brenton Prosser

University of Canberra

ABSTRACT:

Attention Deficit Hyperactivity Disorder (ADHD) is the most commonly diagnosed childhood mental disorder in the western world (Barkley, 2005; Berbatis et al., 2002). Diagnosis, intervention and support for ADHD in both these nations are based on the guidelines provided by the American Psychiatric Association. However, ADHD is more than just a medical phenomenon. Changing social expectations make certain behaviours problematic and see them defined as mental disorders. For this reason, ADHD is worthy of examination from sociological perspectives.

Past sociological considerations of ADHD have focussed on it as an example of medicalised social control or powerful medical discourses. Critique that is more recent suggests that there is scope for ADHD to be examined as a sociological entity in its own right. Such examination can consider the role of influences such as popular culture, ethnicity and economic inequality. This paper reviews past studies that link lower socio-economic status with greater ADHD diagnosis and psychostimulant treatment in Australia. This is a finding that contradicts the conventional view in the United States, namely that ADHD diagnosis and drug treatment is a middle class phenomenon. In response, the paper considers Conrad's (2007) revision of the medicalization thesis as a means to explain differences in the relationship between socio-economic status and ADHD in these two nations.

Revisiting medicalization: ADHD and low SES in Australia

As a mental disorder, Attention Deficit Hyperactivity Disorder (ADHD) is just as much a social as it is a medical phenomenon (Wakefield, 1992). However, the predominance of medical research has resulted in a neglect of perspectives that consider the role of social influences on the emergence of such disorders. Further, with theoretical origins that emphasise ADHD primarily as an example of the medicalization of western society (Conrad, 1976), there is a lack of available empirical evidence on ADHD as a social and cultural entity in its own right (Rafalovich, 2001). However, the discipline of sociology provides scope for ADHD to be examined from other social perspectives (Prosser, 2014). This paper takes socio-economic variation as its focus, and particularly the potential link between lower socio-economic status (SES) and higher ADHD drug treatment in Australia.

On the surface, the Australian conditions in relation to ADHD would seem to mirror those of the United States. From the 1950s, Australia increasingly identified with the US: first, strategically and then, culturally. This shift has had material effect, particularly in the areas of medicine, health and mental health. Since the 1970s, Australia has tended to follow the US in mental health directions, especially in its adoption of the American *Diagnostic and Statistical Manual for Mental Disorders* (DSM). As is well known, ADHD has held a constant place within the DSM, which has contributed to its growing place within Australian society. In fact, throughout the 1990s, Australia's growth in psychostimulant use for ADHD mirrored that of the US (Prosser and Reid, 1999). Since that time, there has been a prominence of medical responses to the disorder (Prosser, 2006) and a broader trend toward medicalization in western society (Roach-Anleu, 2009). Not surprisingly, Conrad's early work on medicalization in relation to hyperactivity (1976), deviance (1980) and social control (1992) have been highly influential in the Australian context. However, what has been less influential is Conrad's (2007) revision of the medicalization thesis. Either Australian academics continue to consider ADHD in terms of social control (Roach-Anleu, 2009; Slee, 2010) or dominant discourses (Graham, 2008). However, such approaches raise questions when comparing the relationship between ADHD and SES in Australia and the United

States.

If the medicalization of ADHD is primarily a process of applying a medical label to explain deviant behavior and gain education advantage within the upper middle classes (as has been noted in the United States), then why, in a context of globalization has Australia and the UK not also followed this trend? Meanwhile, if the medicalization of ADHD is primarily a process to legitimate social control of the lower classes through drug treatment (as has been the prevailing view in Australia and the UK), then why is there not more identification of a similar trend within the United States? What this apparent contradiction indicates is the importance of considering the specific social, cultural and policy conditions within and between different nations.

This paper takes as its focus a comparison between Australia and the United States. This is because the common diagnostic tools and drug treatment patterns provide a solid foundation for careful consideration of the apparent contradiction above. For instance, until recently, the United Kingdom relied on a different diagnostic tool and had much lower rates of diagnosis and treatment, and while this situation would appear to be changing, it adds a level of complexity beyond the scope of this paper. Further, because of the strong cultural links between Australia and the United States that have already been noted, it provides a clear point of comparison to consider specific differences in the outworking of medicalization in each nation.

ADHD, medicalization and sociology

Between 1994 and 2000, psychostimulant treatment of ADHD grew by 12 percent per year in ten western nations (Berbatis et al., 2002). Like the United States, Australia experienced a 5-fold increase in medication use for ADHD during the 1990s (Hazell, McDowell and Walton, 1996). In Australia, new prescriptions for ADHD grew 26% per year between 1984 and 2000 (Berbatis et al., 2002) and by almost 73% between 2000 and 2011 (Paterson, 2013). Until recently, European nations had lower levels of drug treatment; however, there is evidence of this gap closing (Bailey, 2010; Lecendreux et al., 2011). Hence, it would seem that ADHD, once diagnosed mostly among

white North American young males, is reaching across international boundaries.

While there is an overwhelming body of clinical literature considering ADHD, not surprisingly the focus of these papers has been the use, prevalence and trends associated with psychostimulant treatment. Little has been published in the social sciences, while ADHD has had relatively limited consideration in sociology. A recent analysis of peer-reviewed publications in leading sociological journals (over the last 18 years) found 25 papers that referred to ADHD, of which only five took it as the central theme, and only one adopted a perspective other than medicalization (Prosser, 2014).

ADHD and the medicalization thesis

The leader in the sociological consideration of medicalization and ADHD is Peter Conrad. His early work traced the social and historical factors behind the growing interest in the hyperactive label in the United States (Conrad, 1976). The foundations of the medicalization thesis lie in the argument that once a medical means of social control exists then it is only a matter of time before a label emerges to justify its use as treatment for a social problem, before these labels then expand to claim other social problems. Hence, the initial focus of the medicalization thesis was the role of medical dominance in legitimising the labelling and social control of deviants through medical treatment.

These insights, and particularly the notion of medical dominance, have been highly influential amongst Australian social scientists. 'Medical dominance' is a term used to describe the power of the medical profession to control its work, to shape health policy and reify the knowledge that it creates about individuals. However, in recent years, a number of Australian scholars have questioned its prevailing influence in this nation. Some have argued that the medical role and authority is under challenge by other health professionals (Germov, 2009), others that medicine and psychiatry never had complete control over patients and resources (Roach-Anleu, 2009) and still others that the medical profession is not a unified force in society (Willis, 2006). Further, international critiques of medical dominance have pointed to the rapid growth in sources of information from outside the scope of medicine that challenge its authority (Broom, 2005), a point

most pertinent given the role of the internet in the development of ADHD in Australia (Prosser, 2006). Meanwhile, the perceived link between medical dominance and medicalization has been questioned by those who argue that while the former was always negative, there can also be constructive medicalization (Broom and Woodward, 1996). These critiques were taken up by Conrad (2007) in his revision of the medicalization thesis.

While Conrad (2007) noted the important contributions that are still to be made to the medicalization thesis by social constructionist considerations (of how new medical categories are created) and by post-structural considerations (of how subjects internalise medical discourses), he argued that there is also much to be gained by sociologists revisiting the medicalization thesis through the analytic lens of the market. This was because of a number of factors, including:

- the growth of markets for medical services (due to more corporatized health and consumer culture);
- the extension of medical advertising (through direct and television marketing);
- the greater freedom for pharmaceutical companies (due to the loosening of regulations around the prescription of medication); and
- the expanded power of pharmaceutical companies (to not only market drugs but to define and market new diseases).

Specifically, in the case of ADHD, he argued that these factors had contributed to a situation that contradicted the usual sociological approach to medicalization, which emphasises deviant labels as a form of social control that can reveal more about the labeller than the labelled.

Conrad (2007) claimed that what was unique about ADHD was that it was a case of medical popularism (rather than medical imperialism). By this, he meant that advocates and lay groups promoted the diagnostic category and, in many cases, patient consumers sought it out for endorsement by medical practitioners. He also noted strong links between advocates and pharmaceutical companies contributing to the expanded acceptance of ADHD as a medical category. Other factors that contributed to higher levels of diagnosis and medical treatment, in his

view, were the shift to managed care (which replaced psychiatric support with physician care), the role of health insurance (which replaced psychotherapy with prescription of drugs), and the support for the medicalization of ADHD in the media.

While the above insights are important, what they share is an emphasis on the expansion of ADHD in the United States – what they overlook is the place of ADHD within different national contexts. For instance, the revised medicalization approach focusses on the influential role of the pharmaceutical industry and particularly its support by the media, while it tends to assume that news and current affairs media have been largely uncritical of the medicalization of ADHD. This may have been the case in the United States, but Australian media reporting has been highly sceptical of the 'reality' of the disorder. In addition, there are not strong lay, advocacy or professional groups for ADHD in Australia who can exert a powerful public influence in conjunction with pharmaceutical companies.

Further, the Australian context has additional 'checks and balances' in relation to prescription medications that are not present in the United States. These are important because they relate directly to some of the important influences for the expansion of ADHD identified by Conrad. First, there has been no loosening of who can diagnose or treat ADHD with managed care, rather this is tightly limited to a number of authorised child psychiatrists and paediatricians (NSW Ministry of Health, 2014). Second, granting authority to prescribe is regulated through centralised state control, which also monitors and reports on the changing the levels of prescription of ADHD medication (NH&MRC, 1997). Third, the direct or mainstream media marketing of prescription medications has been banned in Australia, which restricts the capacity of pharmaceutical companies to market diseases and as drug treatments (Medicines Australia, 2014). That said, other elements of Conrad's revision provide possible explanations for the expansion of ADHD in Australia, particularly in relation to psychostimulant treatment for ADHD in lower SES regions.

Lower SES and ADHD in Australia

In Australia, two studies from the early 2000s relied on parent surveys and found more drug use for ADHD according to low SES and social adversity (Graetz, 2001; Sawyer, 2002). Since that time, six Australian studies have been conducted (all based on federal or state government drug approval records), with the majority finding an association between psychostimulant treatment and low SES. Of these studies, two have considered a state with relatively high levels of prescription and found geographical (with possible SES) associations (Valentine et al., 1996; Calver et al., 2007). Another two were decade long studies from the same state and have identified an association between drug use and low SES regions (Prosser and Reid, 1999; Reid et al., 2002). There has also been one nationwide assessment of drug data by political electorate that identified an association with low SES (Harwood 2010). A further paper (Prosser and Reid, 2009) reported analysis of psychostimulant use to treat ADHD in South Australia (SA) between 1990 and 2006. It again found a correlation between lower SES and higher prescription rate per region.

Australian-American comparisons of ADHD and SES

While lower socio-economic status would seem to be related to ADHD diagnosis and drug treatment in this Australian case, the picture is less clear in the United States. Notably in the United States, levels of ADHD diagnosis and treatment are lower among low SES communities. This may be due to past limitations within Medicaid arrangements for ADHD (Zima et al., 2010), while health insurance is linked to stable employment, which may also be behind lower levels of access to ADHD diagnosis among lower socio-economic groups (Newacheck et al., 1996; Pastor and Reuben, 2008; Zito et al., 1998). Further, the large proportion of Afro-American and Latino families within low SES communities in the United States may also contribute to overall lower levels of ADHD diagnosis and treatment (Bailey et al., 2010; Eiraldi & Diaz, 2010). This may be due to negative associations with psychostimulants among Afro-American and Latino communities contributing to resistant parental attitudes toward medication (McLeod et al., 2008; Pham et al., 2010). Together,

these factors may nullify the potential to measure higher rates of ADHD in lower SES groups. However, what they do point to is the importance of exploring different social influences on ADHD diagnosis and treatment (including the structure of health and medical markets).

For instance, one of the largest challenges for the management of ADHD in Australia is that in practical terms the condition 'falls through the cracks' between state and federal health policy (Prosser et al., 2002). In most cases, state health or education services do not recognise ADHD as a category or grounds for additional support. This is because state equal opportunity legislation focusses on inclusion in relation to health or learning needs (it does not recognise medical labels or disability categories). As a result, if ADHD does receive support, it is for specific learning problems (such as literacy or numeracy) or as a co-morbidity with these problems (Al-Yagon et al., 2013). It is rare for ADHD to be acknowledged within state documentation, but when it is, it more likely to be in education department policies on behaviour management (Slee, 2010).

Meanwhile, under federal legislation, ADHD is recognised as a disability, and as a result, private and public bodies are expected to make 'reasonable adjustments' so that young persons are not disadvantaged. In practice, this has little impact on the states, while the complexity, time and cost associated with gaining a federal ruling (and using this as leverage to gain state services) makes it a path rarely pursued by families. Put simply, the federal government includes ADHD within the scope of its definition of disability, while the states structure their support on identified learning and other difficulties (which do not include ADHD). Hence, Australian families face a situation where they are theoretically eligible for funded support for ADHD, but have limited means by which to secure that support.

A key difference with the United States in relation to this is that there is no 'child-find' provision within Australia. Within the US, both the Education for the Handicapped Act and Section 504 of the Vocational and Rehabilitation Act include a provision mandating that bodies in receipt of federal funding make pro-active efforts to identify and serve all children with disabilities. Moreover, these laws require that assessment, accommodations and individualised educational plans be provided at

no cost to parents. As a result, there is a provision (at least in theory) for governments to provide support for ADHD in the United States that is not present in Australia. Further, the Australian gap between federal and state recognition of ADHD (when combined with other federal health policy), facilitates a situation where the most accessible responses to ADHD are the clinical and the medical. To be clear, the provision of healthcare in Australia is a joint government and private sector responsibility, where the Commonwealth subsidises private medical services through the publicly funded Medicare Benefits Scheme (MBS). Under Medicare, citizens purchase approved services from authorised medical practitioners and are then paid a rebate as a subsidy, while (until recently) welfare status on the part of the service user guaranteed a 'free' consultation. In practice, this system provides universal access to medical services within Australia. What this means in relation to ADHD diagnosis and treatment, is that the MBS has provided a cheap and effective mechanism for referrals from medical practitioners to specialists, as well as a number of 'free' or subsidised consultations with those specialists. Further, the Pharmaceutical Benefits Scheme (PBS) provides subsidies for the purchase of medications (including psychostimulants for ADHD) to all Australians who hold a Medicare Benefits Card. Notably, the rapid growth in psychostimulant use in Australia throughout the 1990s was primarily due to dexamphetamine (which was included in the PBS), unlike the United States where methylphenidate use expanded rapidly (which was not included on the PBS until 2005). Together, the above suggests a situation where psychostimulants are potentially the most accessible treatment for ADHD in Australia, which if considered in market terms can be seen as the absence of direct public support creating a demand, while the indirect public support for private medical services ensures supply. Further, when considering the cost of other health and professional supports (which are not usually subsidised), it is reasonable to contend that medical diagnosis and treatment of ADHD is the most accessible means of response by poorer Australian families. What can be seen here is a situation that mirrors Conrad's observed shift from psychotherapy to drug prescription in the United States.

However, in the original form of the medicalisation thesis, the experiences of children, the

perspectives of parents and the influence of teachers are marginalised by an all-powerful medical profession. However, in Conrad's revised form, the views of children and teachers are again overlooked as parents are seen to embrace a media and marketplace based medical populism. Meanwhile, post-structuralist renderings of ADHD, which have been more influential in the UK, describe the subjectivity of children, parents and teachers to be dominated by medical discourses, leaving little consideration of agency and resistance, or room for practical action. It is as though, despite all the efforts by academics and professionals to define what is or should be happening with ADHD, few have thought to include the views of those being labelled and medicated, nor of the teaching professionals who spend most time each day with them.

Increasingly, as I have looked at the policy conditions around ADHD, I have noted the similarities between the development of new governance theory in public policy and medicalisation theory in sociology. Traditional governance emphasizes hierarchical authority in the form of the power of ministers and government departments. Meanwhile, new public administration, which emerged out of the New Right in the 1990s, placed far more emphasis of the role of market forces. More recently, network governance has emerged to emphasize that a broad range of policy stakeholders need to be considered, including at the local level, and that governments can no longer control, while they can at best steer, public policy. What struck me when I applied these insights to medicalisation theory is that Conrad's work has adopted hierarchical and market forms, but it had not taken the next step to consider networks.

As a consequence, I am considering network perspectives to look into local interaction, and to understand how the beliefs, reflections and actions of micro-level actors (such as parents, teachers and the children themselves) are involved in expanding and changing patterns in ADHD diagnosis and drug treatment. What I am seeking is to unpack at the local level the factors behind different international, national and regional variations by gender, class and ethnicity.

Concluding remarks

Due to the link between ADHD and low SES in Australia, it is not surprising that Australian sociologists have tended toward renditions of the medicalization thesis that stress the pharmaceutical control of less powerful groups or the coercive power of medical discourses. However, there are at least two factors to consider when adopting such approaches. First, Australian sociologists have identified a number of changes to medical dominance which have implications for medicalization processes. Second, it would appear that a combination of policy settings and health market arrangements sees ADHD 'falling through the cracks' and into the hands of medical specialists. And although the specific nature of markets differ with the United States, this would seem to align with Conrad's (2007) argument that the structure of health and medical markets are vital to the expansion of ADHD. For this reason alone, Conrad's market-based revision of the medicalization thesis is worthy of closer examination by Australian scholars. However, as I have argued in this paper, there would seem to be an opportunity to explore the role of networks in medicalization and particularly a renewed place for local agency within sociological theories on ADHD.

References

- Al-Yagon, M., Cavendish, C.C., Fawcett, A.J., Grunke, M., Hung, L., Jimenez, J.E. et al. (2013). 'The Proposed Changes for *DSM-5* for SLD and ADHD: International Perspectives – Australia, Germany, Greece, India, Israel, Italy, Spain, Taiwan, United Kingdom, and United States', *Journal of Learning Disabilities* 46(1): 58-72.
- Bailey, R.K., S. Ali, S. Jabeen, H. Akpudo, J.U. Avenido, T. Bailey et al. (2010) 'Attention- deficit /Hyperactivity Disorder in African American Youth', *Current Psychiatry Reports* 12(5): 396–402.
- Bailey, S. (2010) 'The DSM and the Dangerous School Child', *International Journal of Inclusive Education* 14(6): 581–92.
- Barkley, R.A. (2005). *ADHD: a handbook for diagnosis and treatment*. Third edition, Guilford Press, New York.
- Berbatis, C.G., V.B. Sunderland and M. Bulsara (2002) 'Licit Psychostimulant Consumption in Australia, 1984–2000: International and Jurisdictional Comparisons', *Medical Journal of Australia* 177(10): 539–43.
- Broom, D.H. And R.V. Harwood (1996) 'Medicalization Reconsidered: towards a collaborative approach to care', *Sociology of Health and Illness* 18(3): 357-378.
- Broom, A. (2005) 'Medical Specialists' Accounts of the Impact of the Internet on the Doctor/Patient Relationship', *Health* 9(3): 319–38.
- Calver, J., Preen, D.B., Bulsara, M., Sanfilippo, F.M. and C D'Arcy J Holman (2007). 'Prescribing for the treatment of ADHD in Western Australia: socioeconomic and remoteness difference', *Medical Journal of Australia* 186(6): 124-127.
- Conrad, P. (1976) *Identifying Hyperactive Children: The Medicalization of Deviant Behavior*. USA: D.C. Heath and Co.
- Conrad, P. (1992) 'Medicalization and Social Control', *Annual Review of Sociology* 18(1): 209-232.
- Conrad, P. and J.W. Schneider (1980) *Deviance and Medicalization: from badness to sickness*.

Philadelphia: Temple Uni Press.

Conrad, P. (2007) 'From Hyperactive Children to Adult ADHD', pp. 46–69 in *The Medicalization of Society*. Baltimore, MD: Johns Hopkins University Press.

Eiraldi, R. and Y. Diaz (2010) 'Use of Treatment Services for Attention-Deficit/Hyperactivity Disorder in Latino Children', *Current Psychiatry Reports* 12(5): 403–8.

Germov, J. (2009) 'Challenges to Medical Dominance', pp. 392–415 in J. Germov (ed.) *Second Opinion: An Introduction to Health Sociology* (4th edn). South Melbourne: Oxford University Press.

Graetz, B.W., Sawyer, M.G., Hazell, P.L., Arney, F. and Peter Baghurst (2001). 'Validity of DSM-IV ADHD Subtypes in a Nationally Representative Sample of Australian Children and Adolescents', *Journal of the American Academy of Child & Adolescent Psychiatry* 40(12): 1410-1417.

Graham, L.J. (2008). 'From ABCs to ADHD: the role of schooling in the construction of behaviour disorder and production of disorderly objects', *International Journal of Inclusive Education* 12(1): 7-33.

Harwood, V. (2010) 'The new outsiders: ADHD and disadvantage' in L. Graham (Ed), *(De)constructing ADHD*, Vol. 9. (pp. 119-142). New York: Peter Lang Publishing.

Hazell, P.L., McDowell, M.J. and J.M. Walton (1996). 'Management of children prescribed psychostimulant medication for attention deficit hyperactivity disorder in the Hunter region of NSW', *Medical Journal of Australia* 165(9): 477-480.

Lecendreux, M., E. Konofal and S.V. Faraone (2011) 'Prevalence of Attention Deficit Hyperactivity Disorder and Associated Features Among Children in France', *Journal of Attention Disorder* 15(6): 515–24.

Medicines Australia (2014) *Code of Conduct*. 30 September. Available from: <http://medicinesaustralia.com.au/code-of-conduct/>

McLeod, J.D., D.L. Fettes, P.S. Jensen, B.A. Pescosoldio and J.K. Martin (2008) 'Public

- Knowledge, Beliefs, and Treatment Preferences Concerning Attention Deficit Hyperactivity Disorder', *Psychiatric Services* 58(5): 626–31.
- National Health and Medical Research Council (NHMRC). 1997. *Attention Deficit Hyperactivity Disorder*. Canberra: Australian Government Publishing Service.
- New South Wales Ministry of Health (MoH) 2014. *Prescribe a psychostimulant*. May 22. Available from: <http://www.health.nsw.gov.au/pharmaceutical/doctors/Pages/prescribe-psychostimulant.aspx>.
- Newacheck, P.W., D.C. Hughes and J.J. Stoddard (1996) 'Children's Access to Primary Care: Differences by Race, Income, and Insurance Status', *Pediatrics* 97(1): 26–32.
- Pastor, P.N. and C.A. Reuben (2008) 'Diagnosed Attention Deficit Hyperactivity Disorder and Learning Disability: United States, 2004–2006', National Center for Health Statistics. *Vital Health Statistics* 10(206): 237.
- Paterson, R. (2013). 'The ADHD debate: to bury national guidelines or to praise them', *Australian New Zealand Journal of Psychiatry* 47(10): 959-960.
- Pham, A.V., J.S. Carlson and J.F. Kosciulek (2009) 'Ethnic Difference in Parental Beliefs of Attention-Deficit/Hyperactivity Disorder and Treatment', *Journal of Attention Disorders* 13(6): 584–91.
- Prosser, B. (2006) *ADHD: Who's Failing Who?* Sydney: Finch Publishing.
- Prosser, B. (2014) 'Attention Deficit Hyperactivity Disorder in Australia: perspectives from the sociology of deviance', *Sociology* (in press).
- Prosser, B. and R. Reid (1999) 'Psychostimulant Use for Children with Attention Deficit Hyperactivity Disorder in Australia', *Journal of Emotional and Behavioral Disorders* 7(2): 110-117
- Prosser, B. and R. Reid (2009) 'Changes in Use of Psychostimulant Medication for ADHD in South Australia (1990–2006)', *Australian and New Zealand Journal of Psychiatry* 43(4): 340–7.
- Prosser, B., R. Reid, R.H. Shute and I. Atkinson (2002) 'Attention Deficit Hyperactivity Disorder:

- Special Education Policy and Practice in Australia', *Australian Journal of Education* 46(1): 65–78.
- Rafalovich, A. (2001) 'The Conceptual History of Attention Deficit Hyperactivity Disorder: Idiocy, Imbecility, Encephalitis and the Child Deviant, 1877–1929', *Deviant Behavior* 22(1): 93–115.
- Reid, R., Hakendorf, P. and B. Prosser (2002). 'Use of psychostimulant medication for ADHD in South Australia', *Journal of the American Academy of Child and Adolescent Psychiatry* 41(8): 1-8.
- Roach-Anleu, S.L. (2009) 'The Medicalization of Deviance', pp. 242–68 in J. Germov (ed.) *Second Opinion: An Introduction to Health Sociology* (4th edn). South Melbourne: Oxford University Press.
- Sawyer, M.G., Rey, J.M., Graetz, B.M., Clark, J.J. and P.A. Baghurst (2002). 'Use of medication by young people with attention deficit/hyperactivity disorder,' *Medical Journal of Australia* 177(1): 21-25.
- Slee, R. (2010) 'Bad Behaviour' in L.J. Graham (Ed.) (*De*)*Constructing ADHD*, Vol. 9 (pp. 41-62). New York: Peter Lang.
- Valentine, J., Zubrick, S and P. Sly (1996). 'National trends in the use of stimulant medication for attention deficit hyperactivity disorder,' *Journal of Pediatric Child Health* 32(3): 223-227.
- Wakefield, J. (1992). The Concept of Mental Disorder: on the boundary between biological facts and social values. *American Psychologist*, 47(3), 373-388.
- Willis, E. (2006) 'Introduction: Taking Stock of Medical Dominance', *Health Sociology Review* 15(5): 421–31.
- Zima, B.T., Bussing, R., Tang, L., Zhang, L., Ettner, S. et al. (2010). 'Quality of Care for Childhood Attention-Deficit/Hyperactivity Disorder in a Managed Care Medicaid Program', *Journal of the American Academy of Child and Adolescent Psychiatry* 49(12): 1225-1237.
- Zito, J.M., D.J. Safer, S. Dosreis and M.A. Riddle (1998) 'Racial Disparity in Psychotropic Medications Prescribed for Youths with Medicaid Insurance in Maryland', *Journal of the*

American Academy of Child and Adolescent Psychiatry 37(2): 179–84.