





Heroic struggles, criminals and scientific breakthroughs: ADHD and the medicalization of child behaviour in Australian newsprint media 1999–2009

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ABSTRACT

There is a dearth of scholarly analysis and critique of the Australian newsprint media's role in the medicalization of child behaviour. To begin to redress this lack this paper analyses newsprint media's use of metaphors that re/describe and construct realities of ADHD with a medicalizing effect. The interdisciplinary team used the $\textit{Factiva}^{\text{TM}}$ database to locate and review 453 articles published in Australian national and metropolitan newspapers during the decade 1999-2009. Data analysis involved generating statistical descriptions of the dataset according to attributes such as: date, state, newspaper titles and author names. This was followed by inductive analysis of article content. Content analysis revealed pervasive and striking use of metaphor in newsprint media reporting of ADHD content, especially when describing health professionals, educators, parents and children. This collection of metaphors was striking, and while the metaphors deployed were varied, this diversity seemed underscored by a common functionality that increased the risk that child behaviour was explained using medicalized knowledge. We contend that these metaphors collectively and coherently functioned to simplify and delimit meanings of children's health and behaviour to favour depictions that medicalize problems of children and childhood.

ARTICLE HISTORY

Accepted 17 February 2017

KEYWORDS

ADHD; medicalization; child behaviour: newsprint media: metaphor

Attention deficit hyperactivity disorder (ADHD) can be understood as emblematic of the medicalization of child behaviour. Organic causes of ADHD are as yet unknown, with the DSM-V clearly stating there are no biological markers for the disorder (APA, 2013). The context of such etiological uncertainty has placed medical understandings of ADHD in dispute and generated longstanding and ongoing debates of medicalization. Destabilizing the psychopathology of ADHD is a task undertaken by many scholars, especially in the field of education (e.g. Adams, 2008; Graham, 2008; Harwood, 2006; Harwood & Allan, 2014; Ideus, 1994; Laurence, 2008; Laurence & McCallum, 1998; Prosser, 2008; Prosser, Reid, Shute, & Atkinson, 2002; Tait, 2003, 2005). Searight and McLaren (1998, p. 20), in their discussion of the medicalization of behaviour, called ADHD "a metaphoric expression for social anxieties". Contemporary observers might still hold this an apposite description, given the significant increases in diagnoses and medication (Whitely, 2012). The increased prevalence of ADHD has been accompanied by much debate, especially in relation to the use of psychostimulant medications for children (Graham, 2010; Harwood, 2012; Whitely, 2012). Escalation in diagnostic and prescription rates has raised questions about how children, and especially their behaviour,

might be medicalized and the negative impacts of this on children's bodies, lives and subjectivities.

Not surprisingly, ADHD is a topic often covered in the newsprint media (Gonon, Konsman, Cohen, & Boraud, 2012; Horton-Salway, 2011). As Horton-Salway (2011) describe in one of the few studies of this topic, ADHD has become increasingly common in UK newsprint media reports of child behaviour. This author points to ontological distinctions in UK newsprint media representations between the biological and the psychosocial (Horton-Salway, 2011, p. 36). While relatively little is available on ADHD, the issue of media and medicalization has been noted in a broader body of literature (Campbell, 2011; Seale, Boden, Williams, Lowe, & Steinberg, 2007). While acknowledging the scope to examine reportage in terms of biological and psychosocial distinctions, it was the use of words in media reports that came to our attention in our examination of Australian newsprint media representations. The aim of this article is to analyse newsprint media's use of words to construct metaphors that re/describe and construct realities of ADHD with a medicalizing effect.

The study discussed in this paper covers the dates 1999–2009, a period when the diagnosis of ADHD and the prescription of psychostimulant medications were

often in the public spotlight in Australia. This decade is noteworthy because it represents a historically significant increase in stimulant prescriptions for Australian children (e.g. Scheffler, Hinshaw, Modrek, & Levine, 2007; Stephenson, Karanges, & McGregor, 2013). In this context of markedly increased rates of diagnosis and medical treatment, new psychotropic drugs were being released on the Pharmaceuticals Benefits Scheme [a list of discounted medications for low income earners], state parliamentary inquiries into the "ADHD epidemic" were called, and National Health and Medical Research Council guidelines were reviewed and rewritten to better standardize diagnostic and treatment practices. The decade under study allowed us to examine Australian newsprint media reporting when questions were raised concerning this increasing usage of prescription drugs for ADHD, and particularly the extremely high rates in Western Australia (Berbatis, Sunderland, & Bulsara, 2002; Whitely, 2012). The case of Western Australia's spiralling rates has seen the Australian state referred to as an "ADHD hotspot", with Perth, its capital city, in the grip of an "ADHD epidemic" (Whitely, 2012). As Whitely outlines, between 1989–2003 the numbers of prescriptions for psychostimulants rose markedly in Western Australia, with the rate higher than the USA in 2000; in 2003 prescriptions for ADHD medication were "three and half times the Australian average" (Whitely, 2012). After this period, between 2003 and 2006 methylphenidate prescription rates in the USA increased to "six times greater than that of Australia" (Amaral, 2007, p. 1612). Such a high profile of ADHD in Australian media and politics in the decade 1999–2009 is the rationale for the focus and scope of this review.

In this paper we put forward the argument that ADHD is much more than the "expression of social anxieties". We propose that words used in media reportage of ADHD function in metaphoric ways and are a "tool of ideology" (Goatly, 2006, p. 25).1 This ideology, as we will argue, draws on depiction of "science as fix", with the term ADHD often functioning to medicalize child behaviour. Given that the term medicalization is relatively well known, it was surprising to discover that this rarely figured in Australian newsprint discussion of ADHD. Likewise, the extensive critical literature is omitted. For example, while medicalization was famously critiqued by Zola (1972), and four years later Conrad (2006) published the book *Identifying hyperactive children*: The medicalization of deviant behaviour, this literature is omitted from Australian newsprint media representations of ADHD.

In the sections that follow we report on the three the main metaphoric themes that we identified in the Australian newsprint media between 1999 and 2009. The productive power of these metaphoric themes was to re/describe medicalized realities of ADHD in terms of: stories of scientific breakthroughs; depictions of struggles; and allegations of faults, especially those of parents. We then discuss how the depictions in newsprint media articles situate ADHD as medicalizing child behaviour. We begin by outlining the theoretical framework and methodology.

Theoretical framework and methodology

A key argument of our paper is that, drawing on Goatly (2006), the metaphoric themes used by the newsprint media do more than animate newsprint media stories: they contribute to ADHD medicalizing children's behaviour, and this is done in pejoratively negative terms. This contention can be made, we suggest, because of the way metaphor can be associated with ideology. For example in Goatly's (2006) view changes from "disease as imbalance" (associated with medieval humoral theory) to contemporary depictions of "disease as invasion" reveals changes in ideology (for instance from humoral theory to bacteria and microbes). Changes such as these show how metaphor usage is linked to power and ideology. While not attempting to account for a longer time frame that could have included earlier reference to the term ADHD or even earlier accounts of hyperkinesis (Conrad, 2006), our analysis of newsprint media between 1999 and 2009 has enabled us to identify significant metaphoric themes that we maintain influence how the meaning of behaviour is communicated.

To theorize the connections between metaphor and power or ideology, we turn to Davidson's (2011) observation of the interplay between frameworks of intelligibility and the creation of objects of scientific observation. Drawing on Foucault (2008) Davidson (2011) argues:

When a regime of scientific veridiction provides the framework of intelligibility for conduct, this concept completely changes register, losing its ethical and political dimensions and becoming the object of scientific explanation. (p. 36)

By regimes of veridiction Foucault (2008) meant "the set of rules enabling one to establish which statements in a given discourse can be described as true or false" (p. 35). This point accentuates the effect that a scientific emphasis might have over and above other ways that the media represents interpretations of a child's behaviour. Emphasis in the newsprint media on ADHD promotes representations aligned with depictions of scientific veridiction much more so than those aligned with discussion of ethical or political dimensions of behaviour. In our view

problems with the medicalization of child behaviour in newsprint media arise when "ethical and political dimensions" of conduct are overcome by regimes of scientific explanations.²

Metaphor usage by the media is important to investigate since these are influential in communicating ideology. Mazanderani, Locock, and Powell (2012) point out that much of the work draws on Lakoff and Johnson (2003) and is based on "an understanding of metaphor as a particular form of figurative representation, albeit one with wider cultural, experiential and political significance" (Mazanderani et al., 2012, p. 6). Metaphor enables us to "... draw parallels between seemingly unrelated concepts and to make the novel or unfamiliar appear familiar [and is] therefore an important aspect of analysing media data" (Coveney, Nerlich, & Martin, 2009, p. 489). Metaphors "impose and order our reality insofar as they create meaning and value" (Shapiro, 1985/1986, p. 195) and have a "communicative function" and "connective function" (Valiverronen, 1998, p. 20). Taking into account the powerful ways metaphor can communicate meanings, it is important to also recognize how they can be productive in an ontological sense. This capacity is explained by Ricoeur (2006), for whom "metaphor is the rhetorical process by which discourse unleashes the power that certain fictions have to redescribe reality" (p. 5). Ricoeur's interpretation of metaphor as productive (Holmgren Caicedo, 2011) points to the possible ways that metaphor usage in the newsprint media can create new meanings which, as we discuss in the sections below, produced negative medicalized accounts of child behaviour.

The study involved collection and analysis of text from 453 newspaper articles, published in Australia during the years 1999 to 2009 (inclusive). During the period 1999 to 2009 there was an uneven distribution of articles over time (see Table I), newsprint publication formats and geography.

Articles were derived from a purposive selection of 19 different newspapers representing the key national and state papers in Australia; tabloid metropolitan papers (n = 13) outnumbering the national (n = 1)

Table I. Number of newsprint articles in dataset, by year and month.

Jan 1 3 6 6 7 2 Feb 6 6 4 6 5 0 Mar 1 11 7 11 22 1 Apr 0 5 6 3 40 3 May 7 2 4 1 10 5 Jun 3 16 2 6 7 4 Jul 5 2 0 7 4 1 Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6								
Feb 6 6 4 6 5 0 Mar 1 11 7 11 22 1 Apr 0 5 6 3 40 3 May 7 2 4 1 10 5 Jun 3 16 2 6 7 4 Jul 5 2 0 7 4 1 Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6		1999	2001	2003	2005	2007	2009	Totals
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Apr 0 5 6 3 40 3 May 7 2 4 1 10 5 Jun 3 16 2 6 7 4 Jul 5 2 0 7 4 1 Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Feb	6	6	4	6	5	0	27
May 7 2 4 1 10 5 Jun 3 16 2 6 7 4 Jul 5 2 0 7 4 1 Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Mar	1	11	7	11	22	1	53
Jun 3 16 2 6 7 4 Jul 5 2 0 7 4 1 Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Apr	0	5	6	3	40	3	57
Jul 5 2 0 7 4 1 Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	May	7	2	4	1	10	5	29
Aug 9 9 7 22 6 6 Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Jun	3	16	2	6	7	4	38
Sep 3 10 2 12 9 4 Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Jul	5	2	0	7	4	1	19
Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Aug	9	9	7	22	6	6	59
Oct 1 0 0 15 5 6 Nov 4 7 5 13 10 8 Dec 4 6 2 5 9 6	Sep	3	10	2	12	9	4	40
Dec 4 6 2 5 9 6		1	0	0	15	5	6	27
	Nov	4	7	5	13	10	8	47
Totals 44 77 45 107 134 46	Dec	4	6	2	5	9	6	32
	Totals	44	77	45	107	134	46	453

and metropolitan (n = 4) broadsheet publication titles. Identification of the 453 newspaper articles was achieved searching the Factiva™ database and featured several rules of delimitation. Although the focus of our research was the medicalization of child behaviour, generally, search terms such as "behaviour" yielded an impractically large dataset. Focusing on one behaviour disorder was the most manageable in-road. Accordingly, the search parameters were narrowed to select articles featuring the terms "attention deficit disorder", "ADHD", and "hyperactivity". To further cull the still generous dataset it was decided: regional publications would be excluded and, sampling every second year of the decade (that is, 1999, 2001, 2003, 2005, 2007 and 2009) would be representative of the articles published during the timeframe studied. Each of the 453 articles in the finalized dataset was uploaded into NVivo™ (QSR International, <qsrinternational.com>)for analysis.

A total of 422 articles were derived from metropolitan newspapers and 31 were from the Australian national newspaper. Whilst newsprint publications from all Australian states and territories were represented in the data, New South Wales and Western Australia demonstrated far greater editorial interest in the topic of ADHD. This is likely to reflect the surge in interest in ADHD regarding the high rates of diagnosis in Western Australia. It is more difficult to explain the higher number of articles in NSW, and this could be partly due to the higher rates of prescription in NSW. A report released in 2010, outside of the date of our study, by the Australian Pharmaceutical Benefit Scheme found that NSW now has the highest rates, numbers in Western Australia considerably.3 A geographical distribution of the articles by print format is offered at Table II.

Phase one attended to quantitative analysis of the dataset. This involved assigning attributes to each newsprint article so that some descriptive statistics could be generated regarding the characteristics of the dataset as a whole. These attributes assigned discreet values to each article based on criteria such: as month, year, state, format, and demographic of publication; also, newspaper titles and author names. Phase two involved inductive, thematic coding of article content. The authoring team initially read a quarter of the dataset then met to discuss their impressions of the data. At this point there was consensus that several metaphors were identified as frequently used a within each sample and so worth coding across the entire dataset. The fourth author then coded the entire

Table II. Geographical spread of newsprint articles reviewed, by print format.

	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	Totals
Broadsheet	18		0	27	0	0	21	0	125
Tabloid	0	99	9	22	52	28	31	87	328
Totals	18		9	49	52	28	52	87	453

Table III. Frequency of sub-topics within metaphoric theme category.

	n
The metaphoric theme of struggle (n = 94)	
General	2
Struggles for rights	27
Rescue/escape narratives	
Struggle from/against the malign influence of the drug	15
Struggle from/against the malign influence of ADHD	50
The metaphoric theme of fault ($n = 204$)	
General	12
Good guy/bad guy	1
Drugs relating to crime	28
Fault of doctor	52
Fault of teacher	54
Faults of parents	8
Faults of pharmaceutical companies	32
ADHD drug traffickers as criminals	17
The metaphoric theme of scientific breakthrough ($n = 123$)	
General	14
New wonder cures	34
Pseudo-scientific jargon used	8
Talks of tests/scans/chemical names	36
Magic bullet promised	31

dataset against these predecided themes and then samples were cross checked by the first three authors. Table III indicates the metaphors emergent from the dataset by the number of excerpts coded at each.

As Table I indicates, there was a pronounced increase in newsprint media coverage of the topic of ADHD in the middle of the decade under study, with 2005 and 2007 featuring more articles than other years sampled. We suggest this is because both years featured multiple articles on the introduction of new medications to the national Pharmaceutical Benefits Scheme (PBS) (discounting listed drugs to eligible low income earners): in 2005 RitalinTM was added to the scheme, as were ConcertaTM and StratteraTM in 2007. Expansion of the PBS generated newsprint media editorial interest in issues of over-prescription, cost to federal government and taxpayers, and concerns over the safety and ethics of medicating children for their behaviour.

The sections that follow discuss how usage of metaphoric themes in the Australian newsprint media centred on scientific breakthrough, struggle and fault. "Metaphoric themes" refers to a grouping of concepts that contribute to a theme. For example, in an analysis of newspaper discourse of natural catastrophes, Trckova (2012) used themes such as "animate being", "monster" and "warrior". To define metaphor we work with Goatly's description of the cognitive definition, "... thinking of one thing (A) as though it were another thing (B) ... linguistically this will result in an item of vocabulary or larger stretch of text being applied in an unusual or new way ..." (2007, p. 11). In doing this an emphasis is made on

... the correlation of our experience in these two domains and our ability to structure one concept in terms of the other. Metaphorical concepts are then materialized in the language that we use every day to

speak about our experience, including abstract concepts. (Trckova, 2012, p. 138)

Our contention is that, in the newsprint media analysed, the representation of ADHD structured behaviour as medicalized. In the discussion that follows we draw on a number of quotes from the newsprint media articles and highlight how these enable concepts to be "structured in terms of the other". To illustrate the ways that words were used to convey the metaphoric themes, words are underlined. An example of this style is provided in Goatly's analysis of The Origin of the Species. Here Darwin drew heavily on metaphors of conflict and struggle, metaphors which Goatly underlined:

Battle within battle must continually be recurring with varying success ...

... What a struggle must have gone on during the long centuries between the several kind of trees, each annually scattering its seeds by the thousand; what war between insect and insect—between insects, snails and other animals with birds and beasts of prey! (Darwin 1991 [1859], p. 47-48, cited in Goatly 2006, 35)

We extend this approach to metaphoric themes in order to capture a wider effect that we observed deployed in the newsprint media. While this quote contains emphases included by Goatly to identify metaphors, in some cases in our analysis words that are underlined are not metaphors in the strictest sense, but in our view contribute to the metaphoric theme under discussion. Of note also is that though this has some resemblance to Wetherall and Potter's (1988) interpretative repertoire analysis, it differs in our focus on the construction of meaning and the influence of ideology.

There are limitations to this study. One is that by narrowing our search to a single behavioural disorder we may have excluded articles discussing the same behaviours in a non-medicalized way. This was minimized by adding the more colloquial "hyperactivity" to the diagnostic "ADHD" and "attention deficit disorder" in the AND/OR search string. This captured articles not necessarily reporting on ADHD but discussing hyperactivity and behaviour in other medicalized ways. Our search terms, although targeting one example of medicalization of child behaviour (ADHD) did not limit the data to that topic. Terms also captured editorial content promoting amelioration of behavioural and associated learning deficits by diagnosis and treatment of issues such as sleep problems or inadequate diet. A second limitation may rest in our (necessary) choice to only include articles published in alternate years, as this may have precluded material occurring exclusively in unanalysed years. Whilst this may have meant oversight of unique points of difference, the data collected were sufficient in number, geographic and temporal distribution to

generate an overview of general trends, commonalities and themes in Australian newsprint media treatment of ADHD content in the years 1999 to 2009.

The metaphoric theme of scientific breakthroughs

Gonon and colleagues (2012) note print-media journalists' propensity to publish findings from initial biomedical studies on ADHD, yet a lack of "follow-up" journalism related to subsequent studies. Given the cumulative nature of scientific knowledge (i.e. that findings typically need to be replicated, extended, modified or refuted to gain purchase as a knowledge claim in the field), Gonon and colleagues also note that print media's focus on initial studies leads to a distortion of health science information communicated to the public; it does not capture the changes to the initial knowledge claims over time. Our analysis of Australian newsprint journalists' reporting of scientific findings about ADHD revealed use of what we are calling the "scientific breakthrough" metaphor to provide a compelling narrative and contribute to the framework of intelligibility by which behavioural concerns are understood. We are not insinuating here that scientific findings are metaphors. Rather we contend that when reporting on "findings" of singular (often initial) studies, journalists use metaphors to engage and entertain their readers. In the articles we reviewed, we noted that journalists tended to craft a metaphor of the singular, colossal and so newsworthy scientific "breakthrough". The "breakthrough" metaphor was deployed to create an impression of any given research finding as a grand unveiling of undisputable truth; the fact-finding scientist rising above the din of general confusion and providing a definitive scientific final-answer for socially alarming problems.

Scientific breakthrough metaphors provided a compelling narrative of ADHD in 123 of the 453 articles. In these the emphasis on science stood out, such as in the article below, which was titled Disruptive children may have depression.

In a major breakthrough, a seven-year study of 300 children at the Alfred Hospital has shown that there is a biological reason for their depressive symptoms, as well as environmental factors that can trigger them. The finding is a controversial one, as doctors have long debated whether depressive illnesses have a biological root, and if children suffer from them (Dunn, 2003, emphasis added).

In the above article the breakthrough by scientists at this Australian hospital is emphasized to have shown the "biological root" of "depressive symptoms" in disruptive children. Such achievements by scientific researchers are portrayed in the excerpt below:

Children with attention deficit hyperactivity disorder (ADHD) have impaired brain function, most likely linked to a genetic condition.

Researchers have uncovered conclusive evidence that key areas of the brain in ADHD sufferers do not develop as quickly during gestation as in children without the disorder. (Switzer, 2007, emphasis added)

In this article the emphasis on the researchers uncovering evidence again reiterates the metaphoric theme of scientific breakthroughs. While the term "breakthrough" is not referred to in this second article, it remains in our assessment an article that belongs to this metaphoric theme.

In both of these examples the metaphoric theme used by the journalists alludes to a scientific discovery that positions science in a commanding position. This links usage to a wider ideology that values and prioritizes scientific knowledge—especially over that of the lay person. Thus while accounts by lay people are important to report, their accounts are hierarchized below scientific knowledge. An effect of the scientific breakthrough theme is that it leaves little room for alternative accounts or space for uncertainty. This is evident when, even though controversy is mentioned, it is the emphasis on breakthrough, achieved via scientific words (biological, doctors, hospital) and metaphors such as "trigger", that wins through.

Articles also posited medication (and the science behind it) as a "lubricant for learning" in stories that included teachers or schools. In these articles medication was a way to make the learning accessible to the disruptive and inattentive child. It was a generator of social and educational possibility of use to educators who need to "reach the learner" before they can teach.

The drugs are used to modify a child's self-control to create opportunities for change with the help of parents, teachers, doctors and counsellors. (Sunday Tasmanian, 2001, emphasis added)

In the above article the connection between science, via doctors and counsellors, and the possibility to "change" and "modify" is made clear. Emphasis on the value of medication to improving learning is likewise made in the article below:

She (Dr Tannock) will now present her findings to Australian teachers to help them deal with ADHD in the classroom. ... "When [medication] is used with other means it gives children the opportunity to learn." (Sikora, 2007, emphasis added)

In the articles that drew on the metaphoric theme of scientific breakthrough, the only room that is afforded uncertainty is in conflicting scientific opinions as to where future medical research will lead. Problems and answers in this reductionist description are frequently mechanistic, and so it is straightforward

to position medication as giving children the "opportunity to learn". As a framework for understanding a childhood behavioural problem, the deployment of this metaphoric theme serves to firm up the depiction of behaviour as medicalized, rather than open out discussion about how it is understood.

The metaphoric theme of struggles

The metaphoric theme of struggle occurred in 94 of the 453 articles and created a compelling narrative of ADHD. Articles depicted doctors, parents and teachers as struggling to deal with children or with the diagnosis itself. For example, one article published in 2007 provided a detailed narrative of a parent's struggle and the difficulty finding a doctor who would take the situation "seriously":

"It's very hard to get a diagnosis," she says. "Not all doctors take this condition seriously and it's a bit of a lottery to find someone sympathetic. In theory if you get the $\underline{\text{right}}$ person you can get a child diagnosed pretty young. There is one paediatrician in Melbourne who diagnoses children as young as three."

It was not until they were much older that (her) two sons were diagnosed with ADHD and prescribed medication to calm their hyperactivity and improve their concentration.

The usual treatment for ADHD is a very weak amphetamine or Ritalin, which was recently put on the Pharmaceutical Benefits Scheme.

In ADHD Potatoes (she), a former secondary school teacher, writes of the heartbreak her family endured before her sons' diagnosis, although she suspected what the problem was.

The boys changed schools often; teachers had put their difficulties with learning down to lack of effort and their impulsive behaviour to deliberate naughtiness.

"Children with ADHD are not very efficient with learning," she says. "They are very intelligent in many ways but they start to fall behind in general."

(She) joined ACTIVE, a support group for parents, in the 1980s at a time when little was known about ADHD.

"It was a very confusing time," she says. "I felt rather lost and almost despairing on occasions. That's why it made such a lot of difference to me when I found the support group." (Peddie, 2007, emphasis added)

The words underlined in the above excerpt, "hard", "lost", and "found" are suggestive of the difficulties this parent faced. Words such as "take", "lottery", and the "right person" produce the sense of a divide between doctors as well as the struggle to locate a sympathetic doctor. Doctors that do diagnose at young ages are connecting to the scientific discourse, and appropriately supporting this parent (and by implication, those that do not simply are not taking the parent's situation "seriously"). The struggle metaphor in this article excerpt casts the medical professional who is not forthcoming with diagnosis or medication as a barrier, a formidable force that can only be overcome by parents' heroic efforts; the medical professional and parent are engaged in an epic battle of wills.

While the ideology of the scientific fix is communicated via this metaphoric theme, the compulsion to diagnosis is predicated on the force of the personal story rather than recourse to science. In this excerpt the personal context comes to the fore. Yet at the same time the success of this narrative of struggle also requires that there are some (medical) answers or some help "out there" to be found. Crucially, the use of the metaphoric theme of struggle does not allow for the possibility in this narrative of ambiguity in understandings of behaviour. What needs to occur is for the behaviour to be medicalized as early as possible by entering the "lottery to find someone sympathetic" and finding the "right person [to] get a child diagnosed pretty young".

An unusual feature of the above excerpt was that it contained the voice of a parent. Such inclusion was rare across the 453 articles analysed. In the main the articles contained many voices—those of doctors, psychiatrists, scientists, social workers and even judges—but rarely were there voices of those most directly affected by behaviour and its interpretation. The voices of the children themselves were conspicuously absent and the voices of parents were infrequent and constrained. The most common use of the "parent" voice was the "expert-and-a-parent" voice of academics, medical professionals and journalists positioning themselves as "a parent" and justified to comment (generally negatively). This is consistent with findings from a US study of magazine coverage of ADHD between 1969 and 1998 that found the most common voices to be paediatricians, psychiatrists, psychologists and therapists (Schmitz, Filippone, & Edelman, 2003).

The newsprint media depictions also portrayed struggle against public opinion, against those parents who attribute behavioural problems to poor parenting, and even against their own feelings of failure. For instance, one article cited a parent who described her struggles against opinions of her parenting:

Alison says it is devastating when people suggest ADHD is a result of poor parenting. "It really sets you back," she says (Wilson, 1999, emphasis added)

Alison describes how ADHD gets linked to "poor parenting" and the "devastating" effects that this has on her. Echoing this depiction of struggles, the following excerpt cites a parenting discussing her struggle to medicate her son:

While reluctant to put her son on medication, Mrs Taylor-Neumann is now grateful for its proven effect. "Medication alone wouldn't have given him his friends, wouldn't have made him less frightened of other people," she said. "But it did give him the ability to wait his turn." (No author, Aug 1999, emphasis added)

Another article provides an example of parent's struggle to medicate. In this instance, the parent describes how she had felt she was "killing" her son's personality:

Susan sighs. "If I had a dollar for every time someone said to me 'just send him to live with me for a month, I'll sort him out ..." Susan now takes Jack to a paediatrician in Sydney every six months. "When Jack went on to Ritalin the change was almost instant. Now, I give him his tablet and within half an hour he is great ... When he started on Ritalin I felt like I was killing his personality, but in hindsight I realise I wasn't." (Canberra Times, 2007, emphasis added)

Conversely, other parents spoke of having to fight against a system that wanted to label their children's behaviour as a medical condition. Many of these comments related to the negative effects of ADHD medication, where the predominant metaphor was again of the medication killing their child—such as by making them psychotic or suicidal.

But Mary, who asked that the family's real names not be used, said that instead of helping John, the medication made things far worse. "The drugs had the most disastrous effect, he went quite mad and suicidal," she said. (Callaghan, 2001, emphasis added)

"Medication was killing my son," his mother Katherine says. "Medication was causing him to have psychotic episodes. He did not have the disorders, the disorders developed because of the drugs he was taking." (Bockmann, 2005, emphasis added)

For many families it was a relief to be able to put a label on their child's behaviour. But some children were just casualties of an increasingly busy world, where children had to fit in with their parents' tighter and tighter schedules. (Jackson, 2001, emphasis added)

This latter quote incorporates a word that appeared regularly in the newsprint media discussion of parents' responses: "relief"—with parents relieved at having both an explanation (diagnosis or label) and a potential solution (treatment). A similar finding was evident in an analysis of UK newsprint media, with the authors reporting the majority of parents quoted were relieved both by the potential that "something could be done" for their children and that they did not cause the problem by their poor parenting (Norris & Lloyd, 2000).

The metaphoric theme of fault

In a very small number of cases lay parents' voices were used to tell stories of "other parents" whose behaviour was immoral or dishonest. In these instances it was the parents having to "admit we are also part of the problem" (Wendorf, 2003). When parents' voices were presented they were generally positioned as having to defend their parenting and/or their decision to medicate their child. On the occasions that lay parent voices were cited in the dataset (38 articles), these were by far outweighed by comment about parents (73 articles), with coverage focused on parents as the cause of ADHD, or rather the cause of over-diagnosis. Lay and "expert" parents voices were captured under the one node "voices family". Other family voices such as grandparents and partners were also captured under this node. The total number of articles coded at this node are 57, with 16 of those citing "expert parents" (health professionals or teachers) and three citing non-parent family members, grandparents, etc. This left 38 articles citing "lay" parents.

This style of reportage portrays parents as the cause of their children's problems and the drivers of medicalizing behaviour. Portrayed in this sense parents were depicted in metaphoric terms of "hands-off parenting" or of not being "on quard". There was a widespread positioning of a rise in rates of "bad" behaviour among children (predominantly boys) as a result of parents (predominantly mothers) focusing their attention on work rather than their children. References to working mothers, busy parents, single-parent families, "handsoff parenting" and "poor parenting skills" were littered throughout the newsprint media—typified by sensationalist headlines such as "Who'll guard the kids if mum doesn't care?" (Devine, 2001). Parents were sometimes described by "experts" as a homogenous group and their voices referred to or paraphrased by others. In some cases the parent who disagrees with "experts" was dismissed and singled out for ridicule.

Not only were parents held responsible for the behaviour of their children, they were frequently positioned using metaphoric language that depicted them as the drivers of diagnosis and medication. Parents were described as seeking diagnoses and prescriptions for convenient and easy solutions to complex behavioural problems, to assuage "guilt" for their poor parenting and to absolve themselves of blame by attributing the problems they had "caused" to biological problems outside their or their child's control.

It is convenient and guilt-relieving to attribute a child's difficult behaviour to a neurochemical problem rather than to parenting or broader social issues. (Gliksman & Ryan, 2001, emphasis added)

... you can't help but think that some parents play the ADHD card as a foil for their own slackness. (Penberthy, 2005, emphasis added)

Parents who were characterized in terms such as "guilt relieving" or who "play the ADHD card" were frequently described as "desperate" and seeking "quick fixes":

And the number of children whose desperate parents have sought a quick drug fix for their child's unruly behaviour has soared over the past decade. (Clarke, 2001, emphasis added)

Teachers were also depicted in the articles as seeking a "quick fix" to pacify students. For example,

EDUCATION experts have traced the crisis over attention deficit hyperactivity disorder (ADHD) to the classroom—and not the doctor's surgery—as teachers seek a quick fix for misbehaving children. (McDougall, 2007b, emphasis added)

At times however, in the debate about the role of schools in the medicalization, the voices of teachers and school principals were quoted as placing the "blame" on parents—thus pitching blame at parents as well as drawing on the metaphoric theme of struggle (this time as a war between parents and teachers rather than parents and public opinion).

A peak principals' group has launched a blistering attack on parents, blaming them for the blowout in the number of children taking drugs for ADHD. The primary principals accuse parents of "opting out of their responsibilities" by making drugs their first option—not a last resort ... (McDougall, 2007a, emphasis added)

Other articles positioned parents and schools as collaborators in the conspiracy to diagnose children in order to secure support for education services and access to welfare payments. Concern about teachers and the "quick fix" tended to centre on debates over lack of teacher knowledge of "correct" diagnosis,

SOME teachers struggling to control classes are wrongly categorising high-spirited students as having undiagnosed attention deficit disorder, a teacherturned-MP says. (Tickner, 2001, emphasis added)

In this excerpt (and in other articles that shared a similar critique) teachers are at fault for their unrealistic construal of "normal" (that is, high-spirited, enthusiastic, boisterous, and energetic) childhood behaviour.

The metaphoric theme of fault was also evident in articles that drew on testimonies from parents and people diagnosed with ADHD. In the excerpt below, the school is depicted as at fault for the insisting on diagnosis,

Denise, a Brisbane mother, says that happened to her son John who was branded a "bad" child all through preschool:

"This came to a head when he had only been in Grade 1 for approximately four months when the principal came to me and told me I either put my son on medication or he would be expelled," she said. (Passmore, 2007, emphasis added)

Usage of "branded" prior to the parent's quote accentuates the portrayal of the effect of diagnosis -and the implication of fault onto the school.

The force of the metaphoric theme of fault was in the effect that this had to simplify ideas and thereby obscure the complexity faced by the parents and teachers in these stories. Also, even though fault was foregrounded in articles, this worked at several levels, drawing in themes of the scientific breakthrough as well as at times the theme of struggles, especially by infusing the ideology that science fixes behaviour.

Science reaching the child: ADHD medicalizing behaviour?

The premise that a diagnosis and ensuing medication regimens would make education more accessible and effective saturated the newsprint media articles. In relation to teachers, the use of metaphoric themes at times produced a dichotomous conceptualization of their role. On the one hand newsprint media positioned teachers as at fault, seeking diagnoses with ill intent or discriminating against children with ADHD. On the other, the newsprint media pressed an imperative for teachers to reach learners. Significantly, this imperative defines the responsible teacher as one who investigates medical explanations for unwanted classroom behaviours and who encourages parents to seek out the diagnosis and medication that would best render the child reachable and teachable (McMahon, 2012). In this respect ADHD was characterized as an "obstacle" to learning, which by consequence conveyed the sense that diagnosis is required to attend to the obstacle:

It has been identified as a key obstacle to learning and a cause of disruption in families and the classroom (Bevilacqua, 2003)

The idea promoted is one of an inability of the child to effectively receive education without medical intervention. Thus in many articles medication is posited as a way of reaching the learner, not just fixing the child. For example:

The [psychostimulant] medication suppresses symptoms, allowing a child to sustain attention, to concentrate, to control impulsivity and to function socially and academically. (The Sunday Mail, Aug 2001, emphasis added)

Behaviour was also medicalized in the newsprint articles that contained stories about the problems or danger of medication. At first glance it seems counterintuitive to argue these articles also produced ADHD

as medicalizing behaviour. This was possible because discussion about medicalization was superficial at best and sensationalist at worst. In the example below questions are raised about the fault of insistence on medication for the schoolchild, but the science of reaching the child remained unchallenged.

... By the time Mary started Year 2, her teachers said they would no longer tolerate her disruptions.

"We started Mary on a low dose of Ritalin: half a tablet every day," Ottaviano [Mary's mother] says. "Within weeks, her teachers started to say she was beautifully behaved, but at home she wasn't sleeping or eating. She grew quiet and withdrawn and constantly complained of nausea."

To appease the teachers, Mary's mother kept her on the Ritalin, but reduced her dosage down to a quarter of a tablet. (Cummings, 2005, emphasis added)

In the excerpt below the "danger" of medication is made resoundingly clear:

In a week that has seen the seizure of enough chemicals to make more than \$500 million worth of ecstasy, that philosophical change needs to be broader and more fundamental.

Can it be a surprise that children whose very existence has been medicalised even before birth turn to pills when they want a good time? It is wrong. It is illegal. It is dangerous. It can be deadly. But the example from wider society is pervasive, powerful and convincing.

Maybe we need to kick most of our legal pill habit. Maybe society would be healthier as a result. (Sunday Age, 2007, emphasis added)

Links between ADHD medication and ecstasy are made in this piece, as well as reference to children being medicalized—yet discussion about medicalization itself is suppressed. In this example discussion of medicalization is limited to association with drug taking, and an emphasis on shame and social exclusion. What is absent in this type of sensationalist account is any room for the portrayal of a doctor and parent/ carer/child to express the inherent complexities of the situation.

These metaphoric themes build a depiction where ADHD, by proxy, medicalizes behaviour. The themes were much more than "figurative expressions"; since via them mainstream medicine and health can be stripped of complexity and a valuable space for uncertainty. Children need medication to learn and parents either struggle or are at fault for seeking diagnosis. In this sense the metaphoric themes had the productive power to "redescribe reality" (Ricoeur, 2006).

These metaphoric themes are linked to ideology and power. Citing Thomson (1984), Goatly argues that metaphor is "meaning in the service of power" (2006, p. 25). How then might media representations produce a portrayal of ADHD that medicalizes behaviour? In an example of this process Goatly discusses ideology and economics and the use of metaphors that connote "human quality with wealth" (2006, p. 38):

For [Adam] Smith's economic model it was vital that wealth be equated with virtue rather than vice, that the quantity of one's possessions should be an index of morality not evil. Avarice needs to be made innocuous in the eyes of society, in order for the market to operate effectively. (Goatly, 2006, p. 38)

For Smith an ascendency of wealth as goodness meant dealing with the "Christian values of the sanctity of poverty" (Goatly, 2006, p. 38). In relation to ADHD, and to paraphrase, we might ask, what needs to be innocuous in newsprint media for ADHD to have the effect of medicalizing children's behaviour? As described above, there were a number of points that went largely unreported. One of these was the lack of in depth discussion of medicalization even when, such as in the above excerpt, terms such as "medicalized" were used.

What is important, in our view, is that the use of these metaphoric themes had the effect of reinforcing ADHD as a scientific ideology that both medicalizes child behaviour and makes children, parents or teachers problematic. This is evident in that way in which reports of conflict between schools and parents could represent ADHD as belonging to a scientific framework of intelligibility at the same time as focusing on the struggle of parents or on the faults of teachers and schools.

Conclusion

Media "frames" can both construct and reflect the way an issue is understood in society (Nelson, Clawson, & Oxley, 1997), reducing complexity by providing parameters for our understanding of social phenomena (Gamson, Croteau, Hoynes, & Sasson, 1992). While the reduction of complexity was clearly evident in the majority of articles analysed, it was the capacity to construct ADHD and the medicalization of behaviour that was of note. Even in cases where medication or diagnosis was critiqued, or when ADHD was questioned, medicalization of behaviour was not adequately explored. Instead, behaviour remained under the remit of science, and this was dominated by the figurehead of ADHD. Articles also used metaphoric themes to situate behaviour in a negative frame. Thus, while medicine (or medicalization) was not depicted as a "new repository of truth" (Zola, 1972, p. 487) ADHD, we might argue, implicitly was.

At one level, our use of metaphors to analyse the production of ideas about ADHD, medicalization and behaviour could be critiqued. At times we have elected to interpret word usage as contributing to

metaphoric themes when, taken on their own, these would not be considered metaphors. In taking this route however, we have been able to pick up on ways that an ideology of the "scientific fix" threads through these Australian newsprint media stories—even in those that critiqued medication usage.

It is evident there is a paradox in the subtle and largely untroubled use of metaphors to characterize this complex issue. The very attention afforded to children's behaviour by the deployment of metaphoric themes obscures the way behaviours are framed as scientific objects. In making connections that bring together "seemingly unrelated concepts" (Coveney et al., 2009, p. 489), media usage of these metaphors permitted an easy passage of behaviour into unquestioned medicalized domains. Connected to this point, it is also important to establish the imbalance in newsprint media representation of parents—as well as teachers or mainstream medicine and health professionals. The metaphoric themes of breakthrough, struggle and fault were almost exclusively the work of media's representation and not, necessarily, the work of the professionals themselves. On a wider social level, the evidence that prescription of medication for ADHD is disproportionally high in areas of socioeconomic disadvantage (Prosser & Reid, 2009) should lend moral weight to encouraging broader, not narrower, discussion on the medicalization of childhood behaviour in the newsprint media.

Extending from our analysis of newsprint media itself, we suggest that the possible effects of these representations must be investigated. An issue that gives us cause for concern is the possible effects that these media accounts may have influenced understandings of medical science (Farr, 1993) and relationships to medical care. The interaction that occurs between parents/carers/children and their general practitioners (GPs) is of significant interest in this discussion as GPs are the most common point of entry into the "medical system" in Australia (AIHW, 2008). There is a very complex series of events and influences that leads to decisions by individuals to seek medical attention—either for concerns of the individuals themselves or on behalf of others (Andersen, 1995). Children typically are not the initiating agent in seeking medical opinion, but rather a parent, carer or other figure of authority in the child's life, such as a school teacher (Phillips, 2006) or welfare worker. A referral from a GP is required to access a specialist doctor in Australia and the majority of prescribing of psycho-stimulant medication for children diagnosed with ADHD is from specialist paediatricians and psychiatrists (Berbatis et al., 2002). Whilst estimates vary, a recent large-scale Australian study showed that over 80% of paediatric patients diagnosed with ADHD were prescribed psychotropic medication (Efron, Davies, & Sciberras, 2013). Thus, GPs are in a position

of significant power, and the corollary of an interaction between parents/carers/children and GPs concerning childhood behaviour may be the precipitant of a referral to a paediatrician that results in a child being prescribed medication.

It would be overly simplistic to assume that the interaction between GPs and patients/carers will be inevitably directive; that GPs will automatically take a dominant medicalizing role, or that patients/carers might find a medical framework for their experience unhelpful (Broom & Woodward, 1996). Researchers have described "constructive forms of medicalization", reached through mutual understanding, that individuals have found of benefit, particularly where there was significant uncertainty or ambiguity (Broom & Woodward, 1996). Nor can it be assumed that patients will be "passive consumers duped by medical ideology" (Williams & Calnan, 1996). The reality is that the relationship between "modern medicine and the lay populace" is a very complex space (Williams & Calnan, 1996). Our analysis reveals a further complication to this space, where newsprint media usage of metaphoric themes that reports on ADHD produces negatively medicalized constructions of the reality of child behaviour.

Notes

- 1. We also use Goatly's definition of ideology: "meaning in the service of power" (2006, p. 25).
- See Harwood (2010) and Graham (2010) for discussion of these effects.
- 3. Australia reported as having 59,202 children on ADHD pharmaceuticals, NSW is cited as having 23, 758 and Western Australia 5741 (previously 18,000) (Medicare Australia, 2010).

Disclosure statement

No potential conflict of interest was reported by the authors.

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