



Commentary

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Misplaced epistemological certainty and pharmaco-centrism in mental health nursing

Introduction

We read with interest a number of recently published papers in this journal, such as Jones & Gray (2008a,b) and wish to respond to these. In so doing, rather than take issue with individual specific points, we wish to draw attention to a trend that can be detected in these (and other similar) papers. The concerns we wish to raise should not be regarded as yet another debate paper on, for want of a better expression, the 'biological versus interpersonal' emphasis in psychiatric/mental health nursing as this literature is well developed.¹ Instead, it is our intention to look at and subsequently consider the way arguments are presented in these (and similar papers); we wish to draw attention to the way that these pharmaco-centric arguments are constructed. While there appears to be a strong degree of consensus that for many, the biological causation and 'treatment' orthodoxy represents the dominant discourse in contemporary mental health care, what causes particular concern to the authors is the misplaced epistemological certainty the authors such as Gray and Jones use to support their arguments. And that in the face of a more comprehensive examination of the evidence, even that which emanates from the dominant discourse itself (see for example, Stoff & Mann 1997, Mosher 1999, Healy 2005, van Praag 2005, Breggin 2007), such imprudent epistemological claims might be regarded as questionable science and inaccurate reporting.

We draw on depression and schizophrenia, two bastions of the case for biological underpinnings of mental health problems, and draw on examples of how Jones and Gray represent the pharmacological 'treatment' associated with these; following this we

review the problem of misplaced and premature epistemological certainty within various scientific disciplines. We go on to illustrate how evidence that is contrary to the established biomedical orthodoxy is dismissed and/or ignored, and we remind readers of the existence of this contrary evidence. In conclusion, we offer speculative musings on why some authors choose to couch and present their arguments with the 'vener' of premature epistemological certainty.

Pharmaco-centric biases in nursing publications

Recent publications relating to drugs in this journal and others treat speculations, assumptions and opinion as fact. For example Jones & Gray (2008a,b) have published two papers recently endorsing and promoting (perhaps inadvertently) the drug aripiprazole (abilify) and speculating about potential adverse effects. They state in the introduction of one paper,

The primary treatment for people with schizophrenia remains antipsychotic medication, *whose efficacy in the treatment of positive symptoms and consequential reduction in suicide is beyond doubt.* (our emphasis) (Jones & Gray 2008a, p. 253).

They support this powerful 'cause and effect' statement with a reference to a drug formulary. Jones & Gray (2008a, p. 253) next go on to state

The development of antipsychotic medication in the treatment of schizophrenia has made enormous advancements over the last 25 years.

In this instance they support this statement with a reference to Gray *et al.* (2005), a patient satisfaction survey which does not address recent advances at all. In another article Jones & Gray (2008b, p. 344) repeat that

The effectiveness of antipsychotic medication in the alleviation of positive symptoms of

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¹although still unresolved.

schizophrenia is beyond doubt (citing the same secondary reference as used previously).

They go on to state that antipsychotic drugs have become

the cornerstone of treatment for people with schizophrenia' throughout the western world because '80% of people with schizophrenia' have a therapeutic effect and the risk of relapse '... increases by five times if antipsychotic medication is discontinued.

This emphatic statement regarding relapse is supported by a citation to a literature review in Schizophrenic (sic) Research by Marder (1999) which says nothing of the sort. The most pessimistic results cited in this paper were derived from a further literature review by Davis (1975) in which apparently 70% risk of people who were switched from an antipsychotic to a placebo relapsed in the following year compared with 30% of those who continued on conventional antipsychotics. Strangely, this is followed by a citation of Lieberman *et al.* (2005), an randomized controlled trial in which 1493 people diagnosed with schizophrenia were randomized to various newer and older drugs and in which the authors concluded that

... patients with chronic schizophrenia in this study discontinued their antipsychotic study medications at a high rate, *indicating substantial limitations in the effectiveness of the drugs* (p. 1215) [our emphasis].

Misplaced and premature epistemological certainty

Certainty carries a certain allure and sense of security/safety; and the authors can understand the appeal of this. Yet the role of certainty and absolutes in science/philosophy is ironically, not certain; indeed an examination of historical advancements in numerous domains of science should actually usher authors to guard against misplaced and premature certainty. Consider the following examples (which are by no means the only ones available).

Five hundred years ago it was widely believed in academic circles that the earth was the centre of the solar system; that is, until Copernicus and Galileo cast doubt on this premise. Many also were certain that the earth was flat, until Columbus' voyage and discovery totally overturned this certainty. In chemistry during the late 17th century, many academics were certain of the Becher's so-called phlogiston theory, the notion that all flammable materials

contain the invisible, colourless, tasteless, odourless, weightless substance called phlogiston.² Such was the degree of certainty that even after this had been shown to be nonsense during the 18th century by Lavoisier's findings,³ many senior academic chemists continued to defend this erroneous sureness.

This misplaced epistemological certainty was also present in the domain of physics; the quantum physicist Rae (1994) describes how the scientific academe of this time believed that the basic fundamental principles governing the behaviour of the physical universe were known. Only to have this certainty 'blown away' by previously incomprehensible seminal discoveries such as x-rays and the detection of the electron in 1897. As a result, the physics academe had to abandon this certainty and consider entirely new conceptualizations of the universe and technologies (Crichton 1999). Up until (and for many – long after) the early part of the 20th century, everyone was certain that time was constant. Enter Einstein and his theory of relativity and the ideas that space and time are distorted by gravity; a theory which interestingly has been contested for many years and yet recent evidence lends robust support to (Asthana & Smith 2007). Accordingly, there is ample documented evidence throughout history that positions, theories and explanations that purport to be beyond question, subsequently turn out to be untrue. As Falzon (1998, p. 4) suggests, absolute truth is illusionary and '... all our concepts of knowledge, truth and right action are "local" or historically specific'.

In light of these well-documented problems of misplaced or premature epistemological certainty, one would have thought that any scientist would be cautious about situating their argument alongside such terms as 'beyond a doubt'. But maybe the contemporary evidence is so compelling for authors such as a Jones and Gray that they can speak about the aetiology and treatment of mental health problems in such absolute terms. Yet, it is difficult to follow any such chain of reasoning that allows such certain conclusions to be drawn when one considers the absence of evidence regarding the biological causation of mental health problems, the well-documented problems in accurate diagnosis of

²And here the authors will not belabour the similarities between this theory and the contemporary absence of any biological marker, blood test, pathognomonic test or specific anatomical lesion that can be found for any major psychiatric disorder (see also Breggin 2007).

³who revealed the true nature of combustion.

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mental health problems (van Praag 2005; see also the American Psychiatric Association's 2000 cautionary caveat regarding the creation of the DSM) and the realms of evidence that exist which contradict the alleged effectiveness of psychotropic drugs.

What science demands then is the maintenance of an open mind; a recognition that knowing and knowledge are fleeting and need to be revised in light of new and/or conflicting evidence as it is discovered and generated. Similarly, discursive debates require what Harding & Hare (2000) refer to as open-minded realism. This epistemological state of mind is rationalized most clearly by Harwood *et al.* (2005, p. 26) who purport, 'An important characteristic of a scientist engaged in a study is the ability to remain open-minded regarding the results of the study. Scientists who are overly concerned with proving a hypothesis may overlook data in the rush to communicate findings to peers.' This open-minded realism (Harding & Hare 2000) encapsulates the investigator's challenging task of being willing to be wrong in their expectations regarding their scientific inquiry.

Dismissing contrary evidence

Some nurses and other health professionals have a tendency to overstate the extent of the evidence to support drug treatment and biomedical ideas and even overlook or dismiss contrary evidence. Critics of drug treatment in psychiatry such as Mosher (1999), Szasz (2003), Breggin (2007) are often simply ignored. As Sharfstein (2006, p. 1713) observed in relation to psychiatry, 'we have allowed the biopsychosocial model to become the bio-bio-bio model.' Pharmacological interventions might be the orthodox, usual or only treatment offered in some places but the evidence for their effectiveness is limited. For example, Whitaker (2004) critically and comprehensively examines the use of antipsychotic drugs over 50 years and concludes that their indiscriminant use has done more harm than good. He proposes that the difference in relapse between drug and placebo, or even new drug versus other drug is often a result of abrupt withdrawal in an otherwise stable group of people. Indeed, starting a drug can create a physiological dependency or hypersensitivity that increases the risk of relapse if drugs are not continued. This has also been found to apply to classes of drugs other than major tranquilizers. For example, Lithium Carbonate may have only a marginal effect over placebo in reducing

manic or depressive episodes, but once commenced the risk of a manic episode on discontinuation is significantly higher (Moncrieff 1995, 1997). Evidence-based use of antipsychotic drugs according to Whitaker (2004) should be based on the principles of not immediately neuroleptizing first episode patients, and providing opportunities for stabilized people to gradually withdraw from them.

Alternatives to pharmacotherapy are often ignored. Loren Mosher who developed alternatives to acute psychiatric hospitalization called the Soteria Project (1971–1983) described it as the object of studied neglect (Mosher 1999). The Soteria project has been the subject of over 37 papers and in random assignment studies found that roughly 85–90% of acute, and long-term clients deemed in need of acute hospitalization could be returned to the community without conventional hospital treatment; that a drug free treatment milieu was as effective in reducing psychotic symptoms as antipsychotic drugs in the first 6 weeks; and variations of the Soteria project around the world have consistently shown similar or better results than hospitalization and drug treatments (Mosher 1999, 2004). According to Mosher (1999, p. 12) the reason why, Soteria almost disappeared from the consciousness of American psychiatry (although not Europe) was because '... it demedicalized, dehospitalized, deprofessionalized and deneuroleptized.'

The 'bio bio bio' bias may have sadly relegated whole programmes of effective care to history in some places. Perhaps worse still is that this bias might blind people to the most helpful formulations, not alternatives but the only genuinely helpful ways to construe and address problems with people. For example, there is a growing body of evidence that many people who experience psychosis have been the victims of childhood sexual abuse or trauma (Read *et al.* 2004, 2005, Morrison *et al.* 2005). It can be argued that one cannot address such problems with a drug, rather the right kind of questions, need to be asked and specific healing interventions need to be employed.

Negotiating our way through an uncertain world: a more realistic appraisal and resultant portrayal of the evidence

Jones & Gray (2008a, p. 253) claim that antipsychotic medication has played an unequivocal role in reducing psychotic symptoms and thereby

reducing suicide. However, the literature emanating from key scholars within the international academe and suicide prevention (such as Shneidman, 2001, Tanney 2000) all highlight that relationship between suicide and so-called to mental disorder is complex and there certainly are some considerable doubts about the relationship between suicide and drug treatments. Consider for example, the findings of Healy *et al.* (2006) that, recent rates of suicide and suicide attempt were up to 20 times higher than in a cohort of admissions to the same hospital at the turn of last century – despite the advent and administration of a wide-range of anti-psychotic drugs. Even the American Psychiatric Association (American Psychiatric Association 2008) acknowledge that suicide rates in schizophrenia have not diminished with the introduction of conventional or atypical antipsychotics and conclude that some apparent significant but modest reductions in rates of suicide in groups taking drugs like Clozapine may be due to non-specific factors (such as the care and attention that is associated with the protocol).

Then to consider depression and antidepressants, a meta-analysis of the efficacy of antidepressants gained worldwide public attention recently, finding that antidepressants were no better than placebo in treating anything but the most severe depression (Kirsch *et al.* 2008). Even at the severe end the difference in effectiveness is no more than a couple of points on the Hamilton Depression Rating Scale. Such a change can be gained from a person attempting suicide to just wishing they are dead. This is hardly the stuff of great ‘clinical significance’. At the time of the publication, Tim Kendall, a deputy director of the (UK) Royal College of Psychiatrist’s Research Unit described the findings as ‘fantastically important’. Within 2 weeks the news had completely blown over, prompting Dr Terry Lynch to wonder in a letter to the *Irish Times* (8 April 2008) why there was not a single reference to this issue in any of the weekly or bi-weekly medical newspapers in the 6 weeks since the publication.

In one sense this is ‘old news’ and certainly an old pattern. The lack of effectiveness of antidepressants in clinical trials has been known for years. A meta-analysis by many of the same authors (Kirsch *et al.* 2002) prompted a brief flurry of commentary in the medical press. As one would expect the validity of the study was called into question but as Antonuccio *et al.* (2002) pointed out, similar negligible effect sizes had been found repeatedly in indi-

vidual trials for more the 30 years. For example, in 1998 a meta-analysis of trials comparing antidepressants with active placebo found that in only 2 out of 9 trials was there any significant effect in favour of drugs (Moncrieff *et al.* 1998).

The widespread acceptance of antidepressants is more a triumph of marketing over science. This is hardly surprising given that pharmaceutical company revenues are worth in excess of 250 billion \$US dollars, per year and with up to 35% of revenues allocated to directly target and influence prescribing practice (Brodkey 2005). And so the flurry of interest died away and in 2006, Steven Sharfsten the former president of the American Psychiatric Association states,

We all know that pharmaceutical breakthroughs have transformed the outcomes for millions of psychiatric patients. The proven effectiveness of antidepressant, mood-stabilizing, and antipsychotic medications has sensitized the public to the realities of mental illness and has given hope to millions. (Sharfstein 2006, p. 1711).

Why is this happening? Who gains?

For the authors of this current paper, there are a number of interesting questions related to the matter of misplaced, premature certainty regarding the efficacy of pharmacological agents in the ‘treatment’ of mental health problems. At the outset, if one accepts the reality of the uncertain world that we live in, then we should similarly maintain an open mind to the possibility that one day, perhaps as a result of hitherto undiscovered technologies, we may be able to isolate a biological cause (and treatment) for mental health problems; even though we cannot do this at the moment. If we truly embrace uncertainty, then this is one possible explanation that cannot be discounted any more than any other. Yet it remains the case that given our current level or extent of knowledge, we cannot make those claims at the moment. This makes it all the more interesting that some authors can be seen to be doing exactly that; positing tentative relationships, hypotheses and findings as absolutes, certainties and ‘beyond a doubt’.

Given this practice it maybe noteworthy that there are a number of well-documented ‘benefits’ and/or outcomes that occur as a result of positioning oneself as an ‘expert’ or authority. For Foucault (1965, 1970), finite resources will inevitably lead to competition and resultant differences in power,

especially as one group gains access to and control over resources. Foucault (1988, p. 19) described power ‘... as strategic games between liberties – strategic games that result in the fact that some people try to determine the conduct of others.’ Power, according to Foucault (1975/79, p. 194) ‘... produces reality; it produces domains of objects and rituals of truth’. The power and control of one group over another is subsequently reinforced and normalized by the creation of discourses that uphold the differences in power as natural and normal and knowledge as self evident. There are obvious and multiple examples of finite resources within both health care and education, for example, finite funding for mental health care, research assessment exercises, grant competitions, limited numbers of suitably qualified/experienced faculty, fewer and fewer students, etc. Thus, accepting Foucault’s argument, both mental health care and education will inevitably be replete with ‘strategic games’ as one group seeks to gain access (and control over) the limited resources, sometimes overtly, but more often than not through alignment with the dominant discourse.

Accordingly, one can argue that seeking to establish oneself as an expert can be viewed as a means to gain greater control over the limited resources; grants will be awarded, in the main, to the those within the dominant discourse; those seen as expert by and in the dominant discourse. Assertions of certainty can be seen as an attempt to quieten the non-dominant discourse, to marginalize those with dissenting voices and in the process much knowledge becomes invisible. Furthermore, positioning oneself as an expert by using phrases such as ‘beyond a doubt’ has implications for those who read and disagree with the statement. If something is beyond a doubt, what does it say about me that I do have doubts? What does it say about my potential expertise?

Lastly, it may appear rather obvious, and we do not wish to belabour the point that the pharmaceutical industry benefits / profits enormously from a pharmacocentric discourse relating to mental health and illness. Foucault (1975/79, p. 191) described how the prison is a form of visibility that produces statements about criminality, while statements of criminality produce forms of visibility that reinforce the prison. The pharmaceutical industry is intertwined with psychiatry and health care in general. The hospital, pharmacy, and other healthcare institutions are all forms of visibility

that are mutually reinforcing. It should, therefore be no surprise that mental health experts within the dominant discourse assertively endorse view points that not only sustain them professionally but their institutions as well. This may be a natural state of affairs but Foucault (1984/86, p. 262) cautions that it is dangerous (which is not the same thing as bad) and ought to lead to scepticism and activism.

Conclusions

Different kinds of knowledge inform or ought to inform good nursing care. For example, stating that service users should not be coerced, or should be assisted to formulate their own plan of care is to a large degree an appeal to values and ethics. This is the right thing to do, and demonstrates respect for people. Weighing up whether something works or not requires other knowledge and forms of enquiry. In essence, nurses need to adopt the attitude of the scientist, that is, to treat hypothesis as speculative, critically consider evidence, and be prepared to revise theories in light of new evidence (Grinnell 1992).

Nurses can be heartened by the knowledge that despite the limited evidence of the efficacy of some forms of pharmacotherapy such as antidepressants there is considerable evidence that most people do improve. Our observations and shared experience of recovery probably suggests that other extra-pharmacological factors are at play. That antidepressants don’t work, are at best poorly targeted, or that placebo might work just as well should be cause for celebration for nurses. It strongly suggests that despite the pharmaco-centric emphasis (bias or delusion) of many services something does work. In many instances that something is likely to be the ‘therapeutic alliance’ or good nursing care.

The expansion of nursing roles into prescribing drugs remains contentious and begs questions about what the nature and purpose of nursing is (Lakeman 2000). Nevertheless, some nurses will continue to prescribe drugs and will require the best available information on which to base care. It is therefore necessary that that discussion about drug treatments take place in the nursing press. However, nursing as a discipline needs to maintain a critical stance towards pharmacotherapy generally and approach the project of expanding practice with a scientific attitude.

Now, more than ever, nursing needs to examine its relationship to the pharmaceutical industry, and probably (if it is to maintain its integrity and impartiality) maintain some considerable distance. It may be time for nursing journals to follow the lead of medical journals and require authors to make full disclosures of affiliations, involvement and prior sponsorship by pharmaceutical companies by authors writing about particular drugs.

Nurses need to be particularly cautious when endorsing any kind of simplistic explanation for mental illness or treatment. The history of psychiatry is replete with theories and treatments that have not stood the test of time and have irreparably harmed people. Nurses who once assumed primarily instrumental roles on behalf of medicine, being the eyes, ears and enforcers of psychiatric treatment might claim diminished culpability. However, with nurses assuming prescriptive authority for drugs come a greater responsibility to critically, carefully and with the highest level of scholarship examine claims about cause, effect and efficacy.

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