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Jocelyn Downie

Fiona Campbell

Simon Outram

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CAVEAT EMPTOR, VENDITOR, ET PRAESCRIBOR: LEGAL LIABILITY ASSOCIATED WITH METHYPLENIDATE HYDROCHLORIDE (MPH) USE BY POSTSECONDARY STUDENTS

*Jocelyn Downie, Simon Outram & Fiona Campbell**

INTRODUCTION

For years, students have endured the physical and mental stress that comes as a result of the demands of postsecondary education. All-night cramming for exams and marathon paper writing sessions are considered, by many, to be a rite of passage, endured by generations of students. For many years, students have also turned to stimulants (from coffee to energy drinks and caffeine pills) to extend their physical and cognitive limits in order to better cope with the demands of school and life. In this sense, the use of stimulants as study-aids is not a new phenomenon nor has it been the subject of much concern or discussion. But within the past few years, the use of a prescription drug (specifically, methylphenidate hydrochloride, MPH, often known as Ritalin) by postsecondary students for cognitive enhancement purposes has emerged as a phenomenon and has become the subject of considerable attention in the bioethics literature as well as the popular press.¹

MPH is known for its cognitive effects, specifically, its ability to reduce restlessness and improve concentration, for individuals with Attention Deficit

* Jocelyn Downie, Canada Research Chair in Health Law and Policy and Professor, Faculties of Law and Medicine, Dalhousie University, Halifax, Nova Scotia; Simon Outram, postdoctoral fellow at Novel Tech Ethics, Dalhousie University; Fiona Campbell, student, Schulich School of Law, Dalhousie University.

1 V. Cakic "Smart Drugs for Cognitive Enhancement: Ethical and Pragmatic Considerations in the Era of Cosmetic Neurology" (2009) 35 *Journal of Medical Ethics* 611; Martha J. Farah *et al.*, "Neurocognitive Enhancement: What Can We Do and What Should We Do?" (2009) 5 *Nature Reviews, Neuroscience* 421; and, Henry Greely *et al.*, "Towards Responsible Use of Cognitive-Enhancing Drugs by the Healthy" (2008) 456 *Nature* 702.

Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD).² Some students have noted this and begun using MPH in an effort to study with increased focus, for long periods of time without tiring, while also being able to retain the information they are learning.³ David Green, a student at Harvard University, told the Washington Post: "In all honesty, I haven't written a paper without Ritalin since my junior year in high school."⁴ A straight-A student at Queen's University reported that when she takes MPH "the material becomes so interesting, you don't want to move, go to the bathroom, eat, or do anything. And you remember all of it."⁵

Although MPH is legally available by prescription only, there appears to be a significant amount of use without a prescription or usage that is deemed to be outside of the prescribed usage directives of a physician. The vast majority of studies have been conducted within US universities⁶, although at

- 2 M.K. Dulcan, "Using Psychostimulants to Treat Behavioral Disorders of Children and Adolescents" (1990) 1 *Journal of Child and Adolescent Psychopharmacology* 7; Laurence Greenhil *et al.*, "Efficacy and Safety of Immediate-Release Methylphenidate Treatment for Preschoolers with ADHD" (2006) 45 *Journal of the American Academy of Child & Adolescent Psychiatry* 1284; Nora D. Volkow & James M. Swanson, "Variables that Affect the Clinical Use and Abuse of Methylphenidate in the Treatment of ADHD" (2003) 160 *American Journal of Psychiatry* 1909; and, T.E. Wilens & T.J. Spencer, "The Stimulants Revisited." (2000) 9 *Child & Adolescent Psychiatric Clinics of North America* 573.
- 3 Christian J. Teter *et al.*, "Prevalence and Motives for Illicit Use of Prescription Stimulants in an Undergraduate Student Sample" (2005) 53 *Journal of American College Health* 253; and, Lisa L. Weyandt *et al.*, "Nonmedical Prescription Stimulant Use Among a Sample of College Students" (2009) 13 *Journal of Attention Disorders* 284.
- 4 Jeremy Laurance, "Ritalin abuse hits students looking for an exam kick" *The Independent* (26 August 2003), online: [The Independent <http://www.independent.co.uk/news/education/education-news/ritalin-abuse-hits-students-looking-for-an-exam-kick-537088.html>](http://www.independent.co.uk/news/education/education-news/ritalin-abuse-hits-students-looking-for-an-exam-kick-537088.html).
- 5 Vanessa Richmond & Lindsay Cohen, "Up all night with new study aids" *Georgia Straight* (17 February 2005), online: [Straight.com <http://www.straight.com/article/up-all-night-with-new-study-aids>](http://www.straight.com/article/up-all-night-with-new-study-aids).
- 6 C.D. Advokat, D. Guidry & L. Martino, "Licit and Illicit Use of Medications for Attention-Deficit Hyperactivity Disorder in Undergraduate College Students" (2008) 56 *Journal of American College Health* 601; Q. Babcock & T. Byrne, "Student Perceptions of Methylphenidate Abuse at a Public Liberal Arts College" (2000) 49 *Journal of American College Health* 143; Kristina M. Hall *et al.*, "Illicit

least one study has been conducted at McGill University in Canada.⁷ In one of the more comprehensive studies of illicit MPH use, White *et al.* reported on the results of a sample of 1,025 returned surveys from students at the University of New Hampshire.⁸ In the survey they found that 16.2% of the population reported using stimulants “in ways not prescribed by a physician.” Of this 16.2%, 96% specified that MPH was their stimulant of choice, with 2% choosing the mixed amphetamine salt compound (better known by the trade name Adderall). The study found that 15.5% of the users reported that they were using two or three times a week, 33.9% one or two times per month, and 50.6% two or three times a year.⁹ Similar questionnaire-based studies have provided estimates for lifetime usage (variously described as use without a prescription and/or use that is not in accordance with medical guidance) of between 8.1-35.5%.¹⁰ These statistics on this new version of an old phenomenon are troubling for a variety of reasons, including the potential health risks associated with the use of illicit stimulants as a study-aid and the legal liabilities that the various players involved in such use may face.

Students who use MPH illicitly are risking their health. Furthermore, when students take, buy, sell, or give away MPH they are exposing themselves to the risk of significant legal repercussions. Many students are unaware of the severity of consequences they could face with respect to both criminal and civil liability and how these consequences could affect their future. Thus, one purpose of this paper is to outline the potential risks for postsecondary students associated with the use of MPH for cognitive enhancement – both physical and legal risks. We describe the evidence with respect to the cognitive benefits and physical risks of illicit MPH use for

Use of Prescribed Stimulant Medication Among College Students” (2005) 53 *Journal of American College Health* 167; K. Graff Low & A.E. Gendaszek, “Illicit Use of Psychostimulants Among College Students: A Preliminary Study” (2002) 7 *Psychology, Health and Medicine* 283; Teter *et al.*, *supra* note 3; and, B.P. White, K.A. Becker-Blease & K. Grace-Bishop, “Stimulant Medication Use, Misuse, and Abuse in an Undergraduate and Graduate Student Sample” (2006) 54 *Journal of American College Health* 261.

7 Sean P. Barrett *et al.*, “Characteristics of Methylphenidate Misuse in a University Student Sample” (2005) 50 *Canadian Journal of Psychiatry* 457.

8 White, Becker-Blease & Grace-Bishop, *supra* note 6.

9 *Ibid.* at 264.

10 Graff Low & Gendaszek, *supra* note 6 [35.5% figure]; and, Teter *et al.*, *supra* note 6 [8.1% figure].

cognitive enhancement purposes and explain the potential legal repercussions associated with this use. The second purpose of this paper is to highlight how physicians who prescribe MPH to students for cognitive enhancement purposes may also face legal risks. In sum, we seek to fill knowledge gaps about the law as it relates to cognitive enhancement use of MPH by postsecondary students and thereby, we hope, contribute to the development of sound policy and practice in this arena.

AN MPH USE PRIMER

How does MPH work?

For people who suffer from lack of attentiveness and hyperactivity (diagnosed with having ADHD), MPH appears to provide some relief from their symptoms. Although the exact mechanisms by which MPH works are not fully understood, scientists have identified that the key to its effectiveness in treating ADHD is the drug's ability to regulate the uptake of dopamine in the synapse. In short, persons with ADHD suffer from too much production of dopamine such that too much dopamine enters the synapse which results in hyperactivity. However, they also suffer from an over-absorption, or over-active reuptake, of dopamine, which results in a lack of reward stimulus and thus a reduced ability to sustain working attention or concentration.¹¹ MPH appears to be able to co-ordinate both the production and reuptake of dopamine within the synapse due to its slow release, and thus it modifies both hyperactivity and lack of attention and/or concentration.

What is known about the efficacy and safety of MPH for cognitive enhancement?

At present, very little is actually known about the efficacy or safety of using MPH for the purposes of cognitive enhancement. Of the few studies that have been conducted on healthy individuals, both Mehta *et al.*¹² and

11 Brian Vastag, "Pay Attention: Ritalin Acts Much Like Cocaine" (2001) 286 *Journal of the American Medical Association* 905; Nora D. Volkow *et al.*, "Therapeutic Doses of Oral Methylphenidate Significantly Increase Extracellular Dopamine in the Human Brain" (2001) 21 *Journal of Neuroscience* RC121.

12 Mitul A. Mehta *et al.*, "Methylphenidate Enhances Working Memory by Modulating Discrete Frontal and Parietal Lobe Regions in the Human Brain" (2000) 20 *Journal of Neuroscience* RC65.

Elliot *et al.*¹³ have reported evidence for an improvement in spatial working memory in healthy adults. However, both studies also confirm that this is a limited improvement and does not include nonspatial task improvement. More specifically, Schermer *et al.* report that MPH “does not appear to have [an] effect on concentration or sustained attention in healthy volunteers. Moreover, while methylphenidate enhances executive function on novel tasks, it impairs previously established performance.”¹⁴ A 2009 Guidance of the Ethics, Law and Humanities Committee of the American Academy of Neurology, Responding to Requests from Adult Patients for Neuroenhancements, concluded that:

Evidence suggests that these medications can improve memory and executive function in normal individuals. However, other evidence suggests that these effects are complex, may not be uniformly positive across all dose levels or age groups, and do not enhance all aspects of executive function or memory.¹⁵

and

Physicians who consider prescribing medication for neuroenhancement are disadvantaged by the dearth of valid clinical studies concerning the effects and safety of these drugs on normal persons. Whether the effects shown in these studies can be extrapolated to the general population is unknown.¹⁶

Indeed, the product monograph for Ritalin contains the following precaution and warning: “Because RITALIN may affect performance, patients should be cautioned against engaging in hazardous activities (i.e., operation of automobiles or dangerous machinery)”¹⁷; and, “RITALIN should not be used for

13 R. Elliott *et al.*, “Effects of Methylphenidate on Spatial Working Memory and Planning in Healthy Young Adults” (1997) 131 *Psychopharmacology* (Berl.) 196.

14 M. Schermer *et al.*, “The Future of Psychopharmacological Enhancements: Expectations and Policies” (2009) 2 *Neuroethics* 75 at 77.

15 Dan Larriviere *et al.*, “Responding to Requests from Adult Patients for Neuroenhancements: Guidance of the Ethics, Law and Humanities Committee” (2009) 73 *Neurology* at 1407.

16 *Ibid.* at 1409.

17 Novartis Pharmaceuticals Canada, *Product Monograph “RITALIN” (methylphenidate*

the prevention or treatment of normal fatigue states.”¹⁸ Thus, whatever the benefits that may accrue from using MPH, it appears that improving cognitive performance is not yet proven to be one of them.

Similarly, there is little evidence of the side effects of MPH specifically in healthy individuals. Some information might be gleaned from the initial research on, and ongoing surveillance of, the use of MPH for the treatment of ADHD and narcolepsy. The official drug product monograph for Ritalin¹⁹ lists the following side effects characterized as “common”:

- “dizziness, drowsiness, headache, dyskinesia”;
- “nausea, vomiting and abdominal pain may occur at the start of treatment and may be alleviated if taken with food. Dry mouth”;
- “palpitations, changes in blood pressure and heart rate (usually an increase), tachycardia, cardiac arrhythmias”; or,
- “rash, pruritis, urticaria, fever, arthralgia, scalp hair loss”.

The product monograph for Ritalin also lists the following symptoms that have been reported in individuals taking stimulant drugs (while noting causation cannot always be established, they were of sufficient concern that they were included in the “Warnings” section of the monograph):

- “sudden death, stroke, and myocardial infarction”;
- “hypertension”;
- “psychotic symptoms, including visual and tactile hallucinations”;
- “emergent aggressive behaviour or an exacerbation of baseline aggressive behaviour”;
- “may lower the convulsive threshold” and “may experience an increase in seizure frequency”; or,
- “chronically abusive use can lead to marked tolerance and psychological dependence with varying degrees of abnormal behaviour. Frank psychotic episodes can occur, especially with parenteral abuse.”

hydrochloride) 10 mg and 20 mg tablets (Novartis Pharmaceuticals Canada, August 31, 1984 revised December 10, 2007) accessed online: Health Canada Drug Product Database, <<http://webprod.hc-sc.gc.ca/dpd-bdpp/>> at 8.

18 *Ibid* at 6.

19 *Ibid*. All quotes from the following bulleted lists are taken directly from this monograph.

The following are contraindications for Ritalin:

- “Anxiety, tension, agitation, thyrotoxicosis, advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, glaucoma and pheochromocytoma. Known or suspected hypersensitivity to the drug or its excipients. Also contraindicated in patients with motor tics or with a family history or diagnosis of Tourette’s syndrome”;
- “hyperthyroidism”; or,
- “during treatment with monoamine oxidase inhibitors [antidepressants], and also within a minimum of 14 days following discontinuation of a monoamine oxidase inhibitor.”

Ritalin “generally should not be used” in individuals with:

- “structural cardiac abnormalities, cardiomyopathy, serious heart rhythm abnormalities”; or,
- “pre-existing CNS abnormalities.”

It should be used with caution in individuals with:

- “pre-existing hypertension, heart failure, recent myocardial infarction, or ventricular arrhythmia”;
- “involved in strenuous exercise or activities”;
- “a family history of sudden/cardiac death”;
- “bipolar disorder [current or risk including family history of suicide, bipolar disorder, and depression]”; or,
- “emotionally unstable patients, such as those with a history of drug dependence or alcoholism.”

Finally, and of particular relevance for postsecondary students: “Patients should be advised to abstain from alcohol during treatment”²⁰ and “alcohol should be avoided.”²¹

Of course, this information comes from studies on the use of MPH in the treatment of ADHD and narcolepsy. It is possible that the efficacy and safety would be somewhat different for healthy individuals using the drug for cognitive enhancement purposes. However, unless and until studies are

20 *Ibid.* at 8.

21 *Ibid.* at 18.

done with that population under those conditions, this information is what can, should, and would be used for the purposes of the legal analysis.

Why and how are students using MPH for non-therapeutic reasons?

With respect to usage, as with prevalence, the statistics are variable. In a study of students at McGill University “seventy percent of those who used MPH reported using it for recreational purposes, while the remaining 30% reported using it exclusively as an aid for study.”²² By contrast, in White *et al.*'s study, improving attention was given as the dominant reason for using MPH, partying given as relatively close second, improving studying habits and grades were third and fourth respectively, with reduction in hyperactivity given as the fifth reason.²³ While specific types of use are not predictable according to motivations, it is likely that partying would involve binge use and would heighten the possibility of MPH being used in conjunction with other drugs (including alcohol). Aiding study may involve more steady use, although again, it could involve the binge use of MPH to assist with meeting paper deadlines and exam schedules.

How are students getting MPH?

Many students appear to perceive MPH to be widely obtainable and it is generally reported that the main source of illicit MPH is from friends who have a prescription.²⁴ In Barrett *et al.*'s study within McGill University, of the 36 MPH users who provided additional information about their source(s) of MPH, most (77.8%) reported obtaining it from a friend or acquaintance with a prescription. Other methods included black market purchases (16.7%), getting one's own prescription (11.1%), and theft (4%).²⁵ These figures correspond to the study of Advokat *et al.* noting that most students report obtaining drugs from peers and that a large proportion of the ADHD group reported having been asked to give their medications to a nondiagnosed student (84%), to sell their drugs (54%), or to fake ADHD symptoms for the purposes of obtaining drugs (19%).²⁶ Clearly, there are indications of

22 Barrett *et al.*, *supra* note 7 at 458-459.

23 White, Becker-Blease & Grace-Bishop, *supra* note 6 at 264-265.

24 Advokat, Guidry & Martino, *supra* note 6 at 604; White, Becker-Blease & Grace-Bishop, *supra* note 6 at 264.

25 Barrett *et al.*, *supra* note 7 at 459.

26 Advokat, Guidry & Martino, *supra* note 6 at 602.

over-prescription of MPH without due care and attention to symptoms, the faking of symptoms, and the distribution of MPH to friends (with or without payment).

MPH AND THE LAW

There have not yet been any cases in Canada of students or physicians being prosecuted or sued in relation to taking, buying, selling, giving away, or prescribing MPH for cognitive enhancement purposes. What follows is therefore a discussion based on application of established law (statute, case law, and common law) to this novel situation. There are two categories of potential legal liability most relevant to MPH use by postsecondary students: criminal liability; and civil liability.²⁷ Consider each in turn.

Criminal Liability

Legal Status of MPH

MPH has been approved for use for the treatment of ADHD and narcolepsy under the *Food and Drugs Act*.²⁸ MPH is classified under Schedule III of the *Controlled Drugs and Substances Act*.²⁹ The *Controlled Drugs and Substances Act* is a federal statute with criminal law power, and more specifically, the *Act* defines what constitutes criminal behaviour with respect to a multitude of drugs and substances, including MPH. The *Controlled Drugs and Substance Act* also outlines the penal consequences that are attached to a breach of the statute.

27 It is also possible that a physician could face professional discipline in relation to prescribing MPH for cognitive enhancement purposes. This might take the form of a response to a claim of professional misconduct or incompetence by the body that regulates physicians (in each province/territory, the College of Physicians and Surgeons). However, given space constraints and the fact that, unlike physician discipline, a discussion of criminal and civil liability is relevant to both students and physicians, we focus in this paper on potential liability outside of the realm of self-regulation. Furthermore, the cautionary note for physicians regarding prescribing MPH for cognitive enhancement purposes can be sounded loudly enough with a discussion of only civil and criminal liability. Therefore, the analysis of the professional discipline risks of prescribing MPH for cognitive enhancement purposes must remain for a future paper.

28 *Food and Drugs Act*, R.S. 1985, c. F-27, s. 1.

29 *Controlled Drugs and Substances Act*, S.C. 1996, c. 19.

Potential Criminal Liability for Students

As discussed earlier in this paper, there are various ways that students obtain MPH. Some students obtain MPH from a friend without exchanging anything in return (thus it is a gift), while other students buy or trade items of value for MPH, from both friends and/or lesser known third parties (such as a drug dealer). Other students steal MPH from a variety of sources including fellow students, siblings, nurses' offices, and clinics. Students have also been known to fake symptoms of ADD or ADHD in order to obtain MPH through a prescription from a doctor.³⁰ Finally, some students write false prescriptions and try to pass them off as legitimate at a pharmacy. Consider the legal implications of each of these behaviours in turn.

Possessing MPH

Possession of MPH is arguably one of the most seemingly benign activities associated with the drug. But knowingly being in possession of even a single MPH pill without a prescription is a criminal offence. Section 4(1) of the *Controlled Drugs and Substances Act* states that, except as authorized under the regulations, no person shall possess a substance in Schedules I, II or III (which includes MPH).³¹

The definition of "possession" is quite broad. Section 2 of the *Act* defers to the *Criminal Code* for its definition of possession.³² According to s. 4(3) of the *Criminal Code*, a person can be said to have something in his possession when he knowingly has it in his personal possession, has it in the actual possession of another person or has it in a place that is being used for his benefit, even if that place does not belong to or is occupied by him.³³ Section 4(3) goes on to state that in situations where one group member has something in his custody or possession with the knowledge and consent of the group, each member of the group shall be deemed to have possession of the item or thing. Therefore, if a student is sharing MPH with a friend and

30 Allyson G. Harrison, Melanie J. Edwards & Kevin C. H. Parker, "Identifying Students Faking ADHD: Preliminary Findings and Strategies for Detection" (2007) 22 *Archives of Clinical Neuropsychology* 577.

31 *Controlled Drugs and Substances Act*, *supra* note 29, s. 4(1). By comparison, of the better known recreational drugs: Schedule I drugs include opiates and cocaine; Schedule II drugs include cannabis; Schedule III drugs include amphetamines; and, Schedule IV drugs include barbiturates.

32 *Ibid.*, s. 2.

33 *Criminal Code*, R.S. 1985, c. C-46, s. 4(3).

the friend keeps it at her home, even if the MPH is not on his person, the first student can still be said to be in possession and still be charged as such. Section 4(6) of the *Controlled Drugs and Substances Act* outlines the penalty for possession of MPH without authorization, which can be as severe as three years in jail and/or a fine of up to \$2,000.³⁴

Trafficking MPH

Sections 5(1) and 5(2) of the *Controlled Drugs and Substances Act* prohibit the trafficking of MPH or any substance that is held out to be MPH, as well as possessing MPH for the purpose of trafficking.³⁵ "Trafficking", defined by s. 2 of the *Act*, means "to sell, administer, give, transfer, transport, send or deliver the substance, to sell an authorization to obtain the substance, or to offer to do any of the aforementioned activities."³⁶ "Sell" is defined in s. 2 of the *Act* as to "offer for sale, expose for sale, have in possession for sale and distribute, whether or not the distribution is made for consideration."³⁷ Like possession, the definition of trafficking is clearly very broad and students providing MPH to anyone, for any reason, even for free, constitutes trafficking. This means that students who share pills or who give them away for free to a friend could be charged under the same section of the *Controlled Drugs and Substances Act* as a drug dealer who sells the pills at a profit. The punishment for a breach of either s. 5(1) or s.5(2) is set out in s. 5(3)(b) of the *Act* and can include imprisonment for a term not exceeding 10 years.³⁸

MPH Theft

According to a study conducted by the United States Drug Enforcement Agency (DEA), between 1990-1995 MPH was among the 10 most popular stolen drugs.³⁹ In addition, from January 1996 to December 1997, "about 700,000 dosage units of methylphenidate were reported" as stolen on the

34 *Controlled Drugs and Substances Act*, *supra* note 29, s. 4(6).

35 *Ibid.*, s.5(1), 5(2).

36 *Ibid.*, s. 2.

37 *Ibid.*

38 *Ibid.*, s. 5(3).

39 U.S., Drug Enforcement Agency, *Congressional Testimony Before the Committee on Education and the Workforce: Subcommittee on Early Childhood, Youth and Families*, 106th Cong. (2000), online: U.S. Drug Enforcement Agency <<http://www.justice.gov/dea/pubs/cngrtest/ct051600.htm>>.

DEA's drug theft database.⁴⁰ While the theft of MPH is not addressed in the *Controlled Drugs and Substances Act*, theft is an offence under s. 322 of the *Criminal Code*.⁴¹ The punishment for theft is outlined in s. 334, and it changes depending on the value of what is stolen. When the value does not exceed \$5,000 (which would describe most MPH thefts, particularly by postsecondary students) s. 334 stipulates that the guilty party will face a fine of not more than \$2,000 or imprisonment for six months or both.⁴²

Double-doctoring

Section 4(2) of the *Controlled Drugs and Substances Act* makes it an offence to seek to obtain MPH or seek an authorization to obtain MPH (i.e., a prescription) without disclosing to the physician details about any other attempt to obtain MPH from another physician within the preceding thirty days.⁴³ Therefore students who, without disclosing the multiple visits, go to multiple physicians in a month seeking MPH (either to sell or give to others or simply to meet their own heavy usage) could be found guilty of trying to obtain an authorization, contrary to the *Act*. Depending on the amount of the drug, the penalty can go as high as a \$2,000 fine or imprisonment for a term not exceeding three years.⁴⁴

Fraud

Students who falsely represent themselves in order to obtain MPH may also risk a charge of fraud, which is defined under s. 380(1) of the *Criminal Code* as using "deceit, falsehood, or other fraudulent means" to deprive the public or another person "of any property, money or valuable security or any service."⁴⁵ An argument might be made that students who feign symptoms of ADD or ADHD and claim insurance coverage for the MPH prescribed as a result are guilty of fraud. If convicted, a student could face a penalty of imprisonment for a term not exceeding two years (if less than \$5,000 worth of coverage, as it would likely be in this kind of case).⁴⁶

40 *Ibid.*

41 *Criminal Code*, *supra* note 33, s. 322.

42 *Ibid.*, s. 334.

43 *Controlled Drugs and Substances Act*, *supra* note 29, s. 4(2).

44 *Ibid.*, s. 4(6).

45 *Criminal Code*, *supra* note 33, s. 380(1).

46 *Ibid.*

Forgery

Writing a false prescription is a clear example of forgery, which is prohibited under s. 366 of the *Criminal Code* and using the false prescription to get drugs is “uttering a forged document” and is prohibited under s. 368 of the *Code*.⁴⁷ In *R v. Cooper*, the defendant had knowingly altered a prescription made out to him by a physician and presented it as a genuine document to be filled at a pharmacy.⁴⁸ The defendant was convicted of uttering a forged document contrary to s. 368(1)(a) and (d) of the *Criminal Code*.⁴⁹ It would follow that any individual who attempts to use a false prescription to get MPH could be found guilty of forgery and uttering a forged document. The punishment for this can go as high as imprisonment for a maximum of 10 years.⁵⁰

Civil Liability

Civil Liability in General

Negligence is the most likely cause of action in the context of student use of MPH for cognitive enhancement purposes. There are six elements that must be established, on a balance of probabilities, in order for a claim of negligence to be successful:

(1) the claimant must suffer some damage; (2) the damage suffered must be caused by the conduct of the defendant; (3) the defendant’s conduct must be negligent, that is, in breach of the standard of care set by the law; (4) there must be a duty recognized by the law to avoid this damage; (5) the conduct of the defendant must be a proximate cause of the loss or, stated in another way, the damage should not be too remote a result of the defendant’s conduct; (6) the conduct of the plaintiff should not be such as to bar or reduce recovery, that is the plaintiff must not be guilty of contributory negligence and must not voluntarily assume the risk.⁵¹

47 *Ibid.*, ss. 366, 368

48 *R. v. Cooper*, 2007 PESCTD 16.

49 *Criminal Code*, *supra* note 33, s. 368.

50 *Ibid.*, s. 367.

51 Allen M. Linden & Bruce Feldthusen, *Canadian Tort Law*, 8th ed. (Markham: Lexis Nexis, 2006) at 109.

Three of these elements require some brief explication. First, the duty of care is owed to the plaintiff (the person suing) by the defendant. The classic statement on the duty of care is found in a 1932 decision from the British House of Lords:

You must take reasonable care to avoid acts or omissions which you can reasonably foresee would be likely to injure your neighbour. Who, then, in law, is my neighbour? ... [P]ersons who are so closely and directly affected by my act that I ought reasonably to have them in contemplation as being so affected when I am directing my mind to the acts or omissions which are called into question.⁵²

The leading case from the Supreme Court of Canada, *Cooper v. Hobart*, makes it clear that there are two sub-elements to the duty of care analysis.⁵³ First, the relationship between the parties must be sufficiently close and direct and, second, the harm must be reasonably foreseeable. Furthermore, even if these two elements are established, the court may decline to find a duty of care if there are convincing policy arguments against extending a duty of care to such situations (e.g., where the harms of doing so for “other legal obligations, the legal system and society more generally”⁵⁴ are considered too great).

Second, the breach of the standard of care. This is the standard to which the court will hold the defendant. The court will determine whether the defendant took sufficiently good care given the circumstances of the case. In general, the standard is that of the “reasonable person” – how “a person of ordinary care and skill”⁵⁵, “a person of ordinary prudence”⁵⁶, would have acted in the circumstances. The standard is tailored to the features of the defendant (e.g., a physician would be held to a higher standard than an untrained person and a specialist would be held to a higher standard than a general practitioner).⁵⁷ It is important to note that the standard is set by the

52 *Donoghue and Stevenson*, [1932] A.C. 562 (H.L.) at 580-81.

53 *Cooper v. Hobart*, [2001] 3 S.C.R. 537.

54 *Ibid.* at para. 37.

55 *Bridges v. North London Ry.Co.* (1874), L.R. 7 (H.L.) 213 at 232, cited in Linden & Feldthusen, *supra* note 51 at 140.

56 *Vaughan v. Menlove* (1837), 132 E.R. 490, cited in Linden & Feldthusen, *supra* note 51 at 141.

57 As per *Crits v. Sylvester*, [1956] O.R. 132 (C.A.) at para. 13, “Every medical practitioner must bring to his task a reasonable degree of skill and knowledge and

courts. The court will make reference to standard practice in a profession but it is clear that even if something is widely practiced by a profession or endorsed by a respected minority, the courts can still find it does not meet the standard of care. This can happen “where the practice does not conform with basic care which is easily understood by the ordinary person who has no particular expertise in the practices of the profession.”⁵⁸

Third, the bars on or sources of reduction in recovery. Even if the first five required elements of negligence are proven, the defendant may escape or reduce liability if he can make out a defence. The possible defences are *volenti non fit injuria* (voluntary assumption of risk) and contributory negligence. *Volenti* operates on the principle that the plaintiff should not be able to recover if the plaintiff voluntarily assumed the risks of harm and the harms materialized.⁵⁹ Contributory negligence operates on the principle that the plaintiff should share the costs of the harms suffered with the defendant insofar as she too was negligent.

Potential Civil Liability for Students

Recall here the potential side effects, contraindications, and warnings outlined earlier in this paper. It is possible (if not likely) that these would all apply to students using MPH for cognitive enhancement purposes. Some might even be exacerbated given the probability of the significant presence of some of the risk factors and risk behaviours (e.g., depression, strenuous activities, and alcohol use) along with the fact that, particularly when taking MPH without a prescription, students are unlikely to know when MPH could be particularly dangerous to them. Harm from MPH use for cognitive enhancement purposes could well result. Students who give, sell, or trade MPH might therefore find themselves defending a negligence suit if the person to whom they have provided the drug suffers an injury or damage as a result of taking the drug.

must exercise a reasonable degree of care. He is bound to exercise that degree of care and skill which could reasonably be expected of a normal, prudent practitioner of the same experience and standing, and if he holds himself out as a specialist, a higher degree of skill is required of him than of one who does not profess to be so qualified by special training and ability.”

58 *ter Neuzen v. Korn*, [1995] 3 S.C.R. 674 at para. 56.

59 Note that the onus for proving that the plaintiff voluntarily assumed the risks rests on the defendant.

Consider, for example, a student who was already taking an anti-depressant and then took MPH to stay awake to study for longer hours over a period of days, went out drinking to celebrate the end of exams, and had a severe reaction and went into cardiac arrest. If she had been given the MPH by another student and wished to sue, she would have to prove on a balance of probabilities that her supplier owed her a duty of care and breached the standard of care and that she suffered harm and that the giving of the MPH was a proximate cause of the harm.⁶⁰ It is not at all clear that any, let alone all, of these elements could be made out. However, a recent case suggests that it might be possible and so this area of law should be monitored.

In January 2008, a Saskatchewan woman named Sandra Bergen sued her drug dealer, Clinton Davey, for negligence after she nearly died from a crystal meth overdose, a drug that he had provided for her.⁶¹ She spent 11 days in a coma after suffering a heart attack from the overdose. The case went to court and Bergen was ultimately successful in her claim after the judge struck out Davey's defence when he refused to name his supplier.⁶² Bergen sought damages in the amount of \$50,000 but the amount ultimately awarded does not appear to have been made public. This case, while potentially ground breaking, left many questions unanswered. Because Davey's defence was struck out, the open negligence law issues were not settled. Specifically, it is still unclear as to whether a drug dealer owes a duty to his client, and, if he does, what the standard of care would be. Thus, it is unclear whether a student providing another student with MPH would owe a duty of care and, if so, what the standard of care would be. Therefore, it is unclear whether a claim of negligence could succeed. But it is possible.⁶³

60 The conduct of the student who took the MPH would also be judged as she would have had an obligation to behave reasonably. Inasmuch as she did not, and thereby contributed to her own harms, she could be found to be contributorily negligent and have any damages reduced proportionate to her contribution.

61 James Bone, "Court victory for drug addict, Sandra Bergen, who sued her dealer over heart attack" *The Sunday Times* (11 January 2008), online: *The Sunday Times* <http://www.timesonlin.co.uk/tol/news/workd/us_and_americas/article3168179.ece>.

62 *Ibid.*

63 It may seem strange that someone could sue someone else when both parties were engaged, voluntarily, in an illegal activity (using, possessing, and trafficking Ritalin) and her harm stemmed from participation in that illegal activity.

Potential civil liability for physicians

Consider now a university student who went to her family physician and explained that she had heard from her roommate that MPH could help her focus for long periods of time without getting tired and that it could help her retain information learned during long hours of studying. She asked for a prescription on this basis for MPH and was given it by her physician. She took the MPH throughout the school year, particularly when facing exams and paper deadlines. In the middle of her final exams, she began to experience psychotic symptoms and failed her year. If she wished to sue her physician, she would have to prove on the balance of probabilities that her physician owed her a duty of care and breached the standard of care and that she suffered harm and that the prescribing of the MPH caused the harm. The physician would also have to be unsuccessful in terms of any possible defences raised. The trickiest part for any plaintiff to make out from a legal perspective in this kind of case will be the standard of care and we therefore focus on that in this paper. The other elements, on the right set of facts, could be made out⁶⁴ and the possible defences could fail.⁶⁵

But just because a harm occurred as a result of participating in an illegal act does not, in and of itself, prevent a party from recovering damages. Until 1993, *ex turpi causa non oritur actio* was a common law principle that meant that an action could not arise from a dishonourable cause. Essentially, people involved in criminal acts could not sue each other for the damage caused as a result of those voluntary, criminal acts. However, in a landmark decision, *Hall v. Hebert*, [1993] 2 S.C.R. 159, a majority of the Supreme Court of Canada held that committing an illegal act does not necessarily deprive the ability of the individual to sue for damages, even if those damages or injuries came as a result of their own illegal act. They held that the duty of care arises from the relationship between the two parties and the fact that the parties were engaged in an illegal activity has no bearing on that relationship and, as a general rule, *ex turpi causa* cannot be used as a defence in a negligence action. For a full discussion of *ex turpi causa*, see Linden & Feldthusen, *supra* note 51 at 522-526.

64 Unlike the student discussed in the previous section, physicians engaged in prescribing drugs very clearly owe a duty of care to their patients.

65 For example, if the student followed the instructions of her physician in terms of how and when to take the MPH and did not contribute, for example, by drinking alcohol, to the harms she suffered (required for the contributory negligence defence) and if she did not, at the time of the prescription, agree (expressly or implicitly) with the physician that she was exempting him from liability should she suffer harm (required for the *volenti* defence).

Prescribing at all

It could be argued that, no matter how carefully done, the mere prescription of MPH for cognitive enhancement purposes violates the standard of care. To be successful in this argument, the plaintiff would need to convince the court that the prescription of MPH for cognitive enhancement purposes created an unreasonable risk of harm.

The court would reflect on: the probability of harm (the greater the severity, the lower the probability required); the severity of the potential harm; the social utility of the prescription (the higher the social utility, the higher the probability and severity of harm that will be tolerated); and, the cost of avoiding the risk (the higher the cost of avoiding the risk, the higher the probability and severity of harm that will be tolerated). In reflecting on these factors, the court would also look to the reasonable person standard and ask what a reasonable physician would do if asked for a prescription for MPH for cognitive enhancement purposes. The court would ask whether such prescription is standard practice in medicine or, if not, whether it is accepted by at least a respected minority of physicians. The court would also ask itself whether the risks can be understood by "the ordinary person who has no particular expertise in the practices of the profession"⁶⁶ and, if so, whether, to the judge, they seem unreasonable.

Recall that Health Canada has approved MPH but only for the treatment of ADHD and narcolepsy (cognitive enhancement is therefore an "off label use") and the Product Monograph explicitly indicates that MPH should not be used for "the prevention or treatment of normal fatigue states."⁶⁷ Furthermore, there is no peer-reviewed published evidence that the prescription of MPH for cognitive enhancement is a common practice among physicians nor even that there is a respected minority of physicians who prescribe it for these purposes. The evidence that is available does not seem so complex that it could not be understood by the ordinary person and so the factors can be considered through the eyes of the ordinary person. Through the eyes of the ordinary person, it seems that the probability of harm is uncertain,⁶⁸ the potential harms can be very severe, the social utility is arguably very low (particularly as the efficacy for cognitive enhancement is uncertain and the social value of cognitive enhancement is hotly contested), and the cost of

66 *ter Neuzen v. Korn*, *supra* note 58 at para. 56.

67 *Product Monograph*, *supra* note 17 at 6.

68 *Larriviere et al.*, *supra* note 15.

avoiding the risk for the physician is very low (it is the reaction of the patient when she is not given something she has requested that is not proven safe or effective for the purpose she is requesting it). It is therefore entirely possible (if not likely) that a court would find the prescription of MPH for cognitive enhancement purposes (given the current state of knowledge) creates unreasonable risk and so could violate the standard of care.

Negligently prescribing (failure to screen/warn and failure to get informed consent)

Even if it could be argued that prescribing MPH for cognitive enhancement purposes would not necessarily *per se* violate the standard of care, the physician could still be found to have violated the standard of care if the following conditions were not met.

First, given the contraindications and warnings noted in the product monograph for MPH, she would have to have:⁶⁹

- taken reasonable steps to ensure that there was no family history of Tourette's Syndrome (and not given the prescription if there was);
- taken reasonable steps to ensure that the patient does not suffer from any contraindicated conditions ("Anxiety, tension, agitation, thyrotoxicosis, advanced arteriosclerosis, symptomatic cardiovascular disease, moderate to severe hypertension, glaucoma and pheochromocytoma. Known or suspected hypersensitivity to the drug or its excipients. ...motor tics ... or diagnosis of Tourette's syndrome"); "hyperthyroidism"; and within 14 days of treatment with monoamine oxidase inhibitors (and not given the prescription if the patient does); and,
- taken reasonable steps to ensure that the patient does not have a family history of sudden/cardiac death, ventricular arrhythmia, depression, suicide, or bipolar disorder or himself suffer from hypertension, heart failure, recent myocardial infarction, ventricular arrhythmia, bipolar disorder, emotional instability, drug dependence or alcoholism (and exercised caution if he does).

Second, given the warnings noted in the product monograph for MPH, she would have to have:

69 The following bulleted lists are taken from *Product Monograph*, *supra* note 17.

- told the patient not to take MPH within 14 days of taking anti-depressants, not to drink alcohol, and not to use MPH “for the prevention or treatment of normal fatigue states” and cautioned the patient against engaging in hazardous activities (e.g., driving a car) and engaging in strenuous exercise or activities.

Third, she would have to have disclosed the fact that there is little evidence about the efficacy and safety of use of MPH for cognitive enhancement purposes and disclosed all of the material risks listed in the product monograph as well as the alternatives to taking MPH for these purposes.

The time burden of screening/warning and meeting the requirements for a valid informed consent to the use of MPH for cognitive enhancement purposes may well result in very few physicians being willing to offer such prescriptions. This is particularly likely given that the screening/warning and the informed consent processes for MPH for cognitive enhancement purposes are not medically necessary services (because there is no medical necessity for cognitive enhancement) and so the time spent on them would not be (legitimately) billable to the provincial/territorial health care system.

Summary

In sum, it does appear that a physician could be found liable for prescribing MPH for cognitive enhancement purposes. There is clearly a duty of care, a breach of the standard of care could well be made out, harms and causation may be proven, and defences may fail. The likelihood of a successful lawsuit is difficult to predict (there are so many factual variables to consider). However, the possibility is very much alive and so physicians should be careful.

CONCLUSION

This paper has provided a general overview of the phenomenon of MPH use for cognitive enhancement purposes by postsecondary students and the law as it applies to such use. Given the fact that MPH is a controlled substance and cognitive enhancement is neither an approved use for the drug, a use for which there is a demonstrated and accepted favourable harm-benefit ratio, nor a use for which there is evidence of acceptance by even a respected minority of physicians, one could make a strong argument that the legal context is unfavourable for MPH use for cognitive enhancement purposes. Students should be aware of their potential liability so that, in an effort to improve their future prospects through better performance in school, they do not damage their future prospects through a criminal record or debili-

tating debt. In addition, physicians should avoid prescribing MPH off-label for cognitive enhancement purposes. If prepared to run the risk of liability for prescribing for such use, physicians should at least ensure that they take a very thorough history, ensure there are no contraindications, make full disclosure of the possible effects of MPH (especially the physical harms), and issue clear warnings consistent with the product monograph (e.g., about alcohol). It is hoped that with a better understanding of the law and better practices with respect to MPH use by postsecondary students for cognitive enhancement purposes, students and physicians will be better protected from the physical and legal risks associated with such use.