Cognitive enhancers

Staff from the neuroethics unit at McGill University in Montréal, Quebec, published an article in *CMAJ* titled, "Should physicians prescribe cognitive enhancers to healthy individuals?"[1] During my career, I have had a number of contacts with ethicists. I am skeptical when ethicists, without having any clinical experience in the practice of medicine, give advice to practising physicians on how to behave.

Stimulant medication does produce substantial cognitive enhancement in healthy individuals. Particularly in university populations, diverting cognitive enhancers (which are prescribed for attention-deficit/hyperactivity disorder) to individuals who want to use neurostimulants for cognitive enhancement particularly around exam time is a major issue.

My position is that if individuals are going to use cognitive enhancers then they should do so under the direct care of a physician, rather than simply getting these medications from friends or via the Internet, where they are readily available. Certain people should never use cognitive enhancers, and only careful screening by physicians will identify such people.

The authors state that cognitive enhancers, if they were available, would be available only to a limited segment of the population because of financial reasons and therefore prescribing them would imply a breach of ethical principles. I find this position to be untenable. Individuals in Canada are free to purchase all manner of services including private education and private health care, and most people must pay for prescribed medication because of limited public coverage. Large sums of money are spent on cosmetic surgery without any concerns about distributive justice or deployment of physicians. To suggest that neurocognitive medications should not be available because everyone could not afford them is preposterous.

William Safire has defined neuroethics as "The examination of what is right and wrong and good and bad about the treatment of, perfection of, or unwelcome invasion of and worrisome manipulation of the human brain."[2] There are a number of ethical principles that need to be addressed. Forlini and colleagues[1] look at only one, distributive justice. I prefer a more liberal position when it comes to ethical issues, specifically that everyone should be free to do what they want as long as their actions do not cause harm to others. I specifically reject the principle that physicians have a role in ensuring that medical services are equally distributed.

I remain ambivalent in my own practice about prescribing neurostimulant medications for enhancement in the absence of psychiatric illness. I believe it would be unethical to prescribe cognitive enhancers to children and teenagers for these purposes, although I have been pressured on a number of occasions to do so by parents who want their children to be scoring even higher academically than they are currently.

If the profession is to have an ethical position on this matter, I would welcome leadership by the Canadian Medical Association or the Canadian Psychiatric Association that would involve input primarily from practising physicians.

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References

1. Forlini C, Gauthier S, Racine E. Should physicians prescribe cognitive enhancers to healthy individuals? *CMAJ* 2012; Dec. 17 [Epub ahead of print].
2. Safire W. Visions for a new field of neuroethics. *Proceedings of the Neuroethics Mapping the Field Conference*; 2002 May 13–14. San Francisco (CA).

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A1C screening less expensive?

In letters published in *CMAJ*, Robinson and Sohal[1] and Tonelli and colleagues,[2] like many, agree that A1C testing is a more expensive tool for screening diabetes than blood glucose measurement. This may not be the case and is applicable only if the costs of the reagents used in the laboratory are considered. A simple comparison certainly makes A1C testing appear to be more expensive; however, 2 important factors need to be considered.

First, the associated costs (i.e., phlebotomy, tubes, reporting) of processing a sample are equal for measurement of A1C and glucose and are substantially greater than the cost of reagents. Processing costs vary but they may be 20 times greater than the cost of the reagents for A1C and so the percentage difference between A1C and glucose measurement is relatively small, (e.g., the typical costs of processing any single laboratory sample is about $20.00, while the reagent costs for plasma glucose are about $1.00 and for A1C are about $5.00. Those who raise concerns about the cost of A1C see the 5-fold difference in costs compared with glucose, but the true difference is less than 20% [$21.00 v. $25.00]).[3]

Second, A1C is much more stable and reproducible than any measure of serum or plasma glucose; and it is much more likely that a definitive diagnosis can be trusted after a single measurement of A1C, unlike the repeated measurements required for glucose.[4]

After these considerations, A1C may well be a cheaper way of screening for diabetes than using serum or plasma glucose measurements.

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References

1. Robinson CA, Sohal P. Diabetes guidelines [letter]. *CMAJ* 2013;185:237-8.
2. Tonelli M, Pottie K; the Canadian Task Force on Preventive Health Care. Diabetes guidelines [letter]. *CMAJ* 2013;185:238.
3. Edwards A. Screening for diabetes with A1c: staring at the empty stable. *Can J Diabetes* 2012;36:3-4.
4. International Expert Committee. (ADA, EASD, IDF) Report on the role of the A1C assay in the diagnosis of diabetes. *Diabetes Care* 2009;32:1327-34.

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Some letters have been abbreviated for print. See www.cmaj.ca for full versions and competing interests.