

LTT (which in our opinion is one of the best-designed studies addressing this subject currently), Dr. Savage³ found no differences in uptake between the 2 training modalities. However, the author additionally stated that “inherent differences in both methods may require a third type of criterion standard model necessary to measure differences between the 2 training modalities.” The author further mentioned, “when a qualitative analysis of each modality is conducted, there are strengths and weaknesses in both.” Moreover, the author stated that “until more realistic simulators are developed, likely a combined training program using simulators and LTT will remain the preferred method of preparing medics for managing battlefield trauma,” which supports our statement. In another study⁴ by Drs. Cherry and Ali, the authors commented that “a wide range of training modalities exist, but each (including high-fidelity simulators) has limitations, and these challenges need to be overcome.”

Our research targeted a polemic subject: the use of LTT in trauma compared with the use of other simulation methods. The extensive systematic literature review demonstrated that there is limited evidence to conclude that one method is better than the other. Important problems involving the existing literature in this subject include small sample sizes (no power to detect differences). In addition, structured evaluations used to measure outcome are not previously validated, there is no measurement of interrater reliability, and consideration should be given to having more than 1 independent evaluator during each assessment so that another potential source of bias is avoided and outcomes are interpreted properly. Furthermore, in our search, studies were heterogeneous with respect to participants, interventions, controls, measurements

and outcomes, limiting interpretation and generalizability. We agree that at present, simulation is a fundamental armamentarium for training in trauma, and we expect that this field is going to evolve and become more and more important in the future. However, we believe that studies with a better design/methodology still need to be conducted to definitively demonstrate whether simulation in trauma is more advantageous than LTT.

Luis Teodoro da Luz, MD;
Bartolomeu Nascimento Junior, MD;
Homer Tien, MD

From the Sunnybrook Health Sciences Centre, Toronto, ON.

DOI: 10.1503/cjs.015815

References

1. Ali J, Sorvari A, Pandya A. Teaching emergency surgical skills for trauma resuscitation — mechanical simulator versus animal model. *ISRN Emergency Medicine* 2012, [Article ID 259864]
2. Ali J, Ahmed N, Jacobs LM, et al. The Advanced Trauma Operative Management course in a Canadian residency program. *Can J Surg* 2008;51:185-9.
3. Savage EC, Tenn C, Vartanian O, et al. A comparison of live tissue training and high-fidelity patient simulator: a pilot study in battlefield trauma training. *J Trauma Acute Care Surg* 2015;79:S157-63.
4. Cherry RA, Ali J. Current concepts in simulation-based trauma education. *J Trauma* 2008;65:1186-93.

PATIENT VIEWS ON FINANCIAL RELATIONSHIPS BETWEEN SURGEONS AND SURGICAL DEVICE MANUFACTURERS

The article “Patient views on financial relationships between surgeons and surgical device manufacturers”¹ has caught my attention as few articles have in a very long time! The subject is particularly relevant

today, not only because it has an important bearing on the cost of government-sponsored health care, but also because it delves into an aspect of health care delivery that is so seldom examined by the profession while at the same time having the most phenomenal impact on the quality of care that we physicians and surgeons believe we are delivering to trusting patients.

Given the importance of the proposed study, I am disappointed that a convenience sampling was resorted to. I am not implying collusion, but convenience sampling, also known as “accidental,” “grab,” or “opportunity sampling,” is an inadequate instrument in the search for factual conclusion and truth. It is a nonprobability sampling from a population close at hand, readily available and within too close a network to be unbiased — a network difficult to distance from those involved, either geographically or on a professional level of doctor–patient interaction.

It would be naive on my part to think that the subject could be competently dealt with in a letter to the editor, but we must at least display the fact that these issues that question the integrity of the industry have been generously covered in American courts, with fines and reparation claims to the industry reaching billions of dollars. Class actions against Bard, Ethicon and Boston Scientific have peppered the news, revealing a justice system that is losing patience with the industry through multimillion dollar court-ordered decisions and settlements in favour of patients, including substantial punitive fines for “lying in court.”

The extent of the cooperation by the “collaborative faculty,” the term referring to surgeons who work closely with the industry, was highlighted in an editorial directed at the American Hernia Society when 60% of the speakers at their annual

conference had 1 or more financial connections with the manufacturers of hernia devices and implements.²

The choice of one's own patients to carry out the present study is, to my thinking, not a well thought-out design. Is it far-fetched to think that a patient in one's own clinic may be intimidated? Would the patients find it difficult to be objective? Can such a patient assess the quality of treatment and the integrity of a surgeon? Of an industry? Of a financial interaction between the last 2 entities? Can a patient not be concerned of a possibility of retribution in the quality of care? Not only is it not a multivariate proposal, but also one bordering on psychological testing, which has been difficult of late to duplicate with any accuracy.

It may be of interest to add that the US Food and Drug Administration itself is facing its own set of conflicts of interests, abundantly covered in the lay press. Dr. Jeff Shuren (a lawyer and physician), who is in charge of the devices division that vets various polypropylene and other gadgets in hernia and other surgeries, is married to a lawyer who is an established lobbyist for the industry that manufactures the very items that her husband has to approve or reject!

The assistant chief to Shuren recently proposed by President Obama is Robert M. Califf, a former "Big Pharma" mega-lobbyist who received millions in funding and salary support."³

Despite the honest intent of the University of Toronto group, their dutiful call on the ethical teams and sundry support from their venerable institution, I find it difficult to believe their conclusions, and without malice I must quote the insightful Scottish poet Andrew Lang: "politicians use statistics in the same way that a drunk uses lamp-posts — for support rather than illumination."

Robert Bendavid

Department of Surgery, Shoultice Hospital & University of Toronto, Toronto, Ont.

DOI: 10.1503/cjs.015715

References

1. Camp MW, Gross AE, McKneally MF. Patient views on financial relationships between surgeons and surgical device manufacturers. *Can J Surg* 2015;58:323-9.
2. Bendavid R. Hernia societies — A blessing or a curse? Who is running them? Ethical surgeons or the industry. *Int J Clin Med* 2014;5:766-9.
3. Wedler C. Obama's new appointee to head the fda is a big pharma mega-lobbyist. *MintPress News* 2015 Oct. 19. Available: www.mintpressnews.com/obamas-new-appointee-to-head-the-fda-is-a-big-pharma-mega-lobbyist/210458/ (accessed 2015 Nov. 3).

PATIENT VIEWS ON FINANCIAL RELATIONSHIPS BETWEEN SURGEONS AND SURGICAL DEVICE MANUFACTURERS: AUTHOR RESPONSE

Like Dr. Bendavid, we were concerned about the potentially confounding effect of social desirability response bias¹ (the desire of study participants to please and be treated favourably by the research team). We tried to mitigate this bias by informing patients that their participation was entirely voluntary and that their current and future care would not be affected by being interviewed. Patients were told that interviews were confidential and that their surgeon would never have access to their interviews, nor be aware that they had been interviewed. Their surgeon was not involved in analyzing or collecting the data. We excluded pre-operative patients, who might more easily be intimidated or worried by the implied suggestion that their care could be subordinated to industry interests.

Dr. Bendavid's concerns regarding the methodology used in our

study reflect unfamiliarity with qualitative research. Qualitative methods are uniquely valuable for examining areas that are not amenable to quantitative methods, such as complex social phenomena with multiple variables that are difficult to control (beliefs, behaviours and attitudes).² In qualitative research, convenience sampling is used initially to get a general sense of the problem, as viewed by the participants. As analysis proceeds during the collection of data, convenience sampling ceases as concepts and themes that emerge guide purposive recruitment and subsequent research. The reproducibility and trustworthiness of our findings meets recognized standards for qualitative research.³

Based on our qualitative exploration, we completed a quantitative survey of more than 500 postarthroplasty patients in Canada and the United States.⁴ In total, 502 patients from 3 centres and 15 surgeons' clinics completed self-administered questionnaires. The results from this quantitative study support and expand the findings from our qualitative study.⁵ The element of patient intimidation was diminished by geographic and professional distance from the authors of the qualitative study.

The problems at the interface of surgery with industry are well described by Dr. Bendavid in his own field. Our goal in this research was to bring the common sense voice of experienced patients into the discussion. We recognize our patient participants' approval of certain financial relationships between surgeons and industry does not mean that these relationships are morally acceptable.⁶ However, we believe the results of this qualitative research and its quantitative complement will add the patients' perspective, helping surgeons develop appropriate management of their