HUMANITIES

Osler's bedside library: Updated essentials from medical students

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Abstract

Over 100 years ago Sir William Osler made a list of ten readings that should be at the bedside of every medical student reflecting Osler's broad and prolific reading habits. Time has continued to flow since Osler's reading list was proposed and thus, its place in current day medical education warrants reflection. Fundamental questions in this respect include: do medical students still read in the same capacity as their century-old counterparts? If so, how widely does Osler's original reading list apply to current medical students? Finally, what works would today's medical students recommend having at the bedside? Students representing the classes of 2016 to 2020 were surveyed at Dalhousie Medical School, constituting one of the largest student efforts in the literature to date to provide perspectives on Osler's bedside reading list as well as consensus towards an updated library. This study highlights the considerable disconnect between Osler's original bedside list and reading tendencies of current medical students. Dalhousie medical students predominantly read and are influenced largely by works pertaining to the medical field and physicians, as opposed to the broad selections set forth by Osler. Although this may reflect the changing medical field or the immersive nature of current training, it also urges reflection as to the value Osler saw in his original bedside library and whether these lessons may be lost on future generations of physicians.

Ver 100 years ago Sir William Osler, the renowned Canadian physician and medical education pioneer, made a list of 10 readings that should be at the bedside of every medical student (Table 1). These selections represent impressive literary works and many are widely considered as classics, reflecting Osler's broad and prolific reading habits^{1,2}. Osler viewed these readings as essential for the training of future physicians but did not specifically address the teaching points or significance carried by each of these works. This has led to much debate, interpretation, and revision of the list³⁻⁷.

Reading material available for current medical students continues to greatly broaden with the increased availability of print and digital books, databases, mobile phones apps, podcasts and online videos. In this respect, medical students are greatly shaped by their own diverse experiences and backgrounds, including influences of literature⁸. Time has continued to flow Table I. Osler bedside table Library for Medical Students

1	Old and New Testament
2	The works of Shakespeare
3	The works of Montaigne
4	Plutarch's Lives
5	Meditations by Marcus Aurelius
6	Breakfast Table Series by Oliver Wendell Holmes
7	Discourses of Epictetus
8	Religio Medici by Sir Thomas Brown
9	Don Quixote by Miguel Cervantes
10	The works of Emerson

since Osler's reading list was proposed and thus, its place in current day medical education warrants reflection. Fundamental questions in this respect include whether medical students still read in the same capacity as their century-old counterparts? If so, how widely does Osler's original reading list apply to current medical students? Finally, what works would today's medical students recommend having at the bedside? To address these questions, an online anonymous survey was posed to the medical student classes at Dalhousie University that asked two questions: (a) which of the original Osler's Bedside Library Reading List have you read? and (b) what readings would you recommend medical students have at their bedside?

Approximately 550 students representing the classes of 2016 to 2020 were surveyed at Dalhousie Medical School and, in total, there were 75 student respondents (14% response rate, Table 2). Of these participants, 51% of responses came from male students and 49% from female students. Although this represents a minority of enrolled students, this is one of the largest student efforts in the literature to date to provide perspectives on Osler's bedside reading list as well as consensus towards an updated library.

Students were first presented with a list of the original Osler's Bedside Library and asked to identify which works they had read (Figure 1). Since several entries were written as "The Works Of...", if students had read any of a particular author's works, they indicated they had read that category. The Works of Shakespeare had the highest response on the list (58%), while the second most frequently read was the Old and New

Table 2. Demographics of medical student respondents at Dalhousie University.

Class of	# of Respondents	M/F
2016	10	1.5
2017	8	2.5
2018	9	0.8
2019	17	3.0
2020	31	0.6
Total	75	1.1

Testament (32%). The works of Shakespeare continue to be a widespread component of the public education system in Canada as well as a presence in mainstream media. Not captured in the current study however, was how many students may have been exposed in personal readings rather than formal education. Nevertheless, it is not surprising given its widespread appeal and availability that the works of Shakespeare were the most read of Osler's original bedside library. The second most common reading, the Old and New Testament, is most likely a reflection of widespread faith-based communities and educational institutions found in the Maritimes. Furthermore, works from the Old and New Testament are commonly referenced in popular culture and have been the subject of books, TV shows, and movies. Thus, it may be possible that medical students are exposed to this material both throughout formal education as well as in aspects of their personal lives.

Don Quixote (13%), Meditations by Marcus Aurelius (10%), and the Works of Emerson (6%) were all read by a minority of the respondents. This may represent the diverse backgrounds of individuals entering medical school, for example, an undergraduate degree in the arts as opposed to science may have provided a greater introduction to these works. Furthermore, four books on the original list had not been read by any students in the five classes: Plutarch's Lives, Breakfast Table Series by Oliver Wendell Holmes, Discourses of Epictetus, and Religio Medici by Sir Thomas Brown. This further highlights the considerable disconnect between Osler's

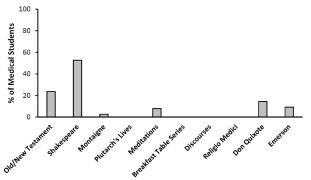


Figure 1. Percentage of medical students that have read each of Osler's original bedside reading library.

original bedside list and reading tendencies of current medical students. Osler did not define the merits of each of the works for physician education, and thus it is difficult to extrapolate what messages and lessons may now be lacking in the current medical education. Nevertheless, it is clear that a significant proportion of Dalhousie medical students have read none or few of the works proposed in Osler's bedside library (Figure 2).

Students were then asked to recommend readings that had influenced them in their path to medicine. Specific instructions mentioned that all genres of books, readings, and resources were welcome. Respondents provided an average of 3.3 readings which may suggest that the Osler principle of daily reading outside of formal studies during medical training may not be widespread among current medical students. A total of 125 unique entries were provided that bridged various genres including biographies and other nonfiction, fiction, online resources, webpages, reference books, textbooks and mobile phone apps. These suggested readings emphasized that many medical students commonly use non-traditional resources such as webpages and mobile apps throughout their training. Of note, many of the suggestions were directly medically related and largely revolved around physician experiences and training.

The top 10 entries by popular vote, with several ties, were compiled (Table 3). Several trends can be drawn from this list. All of the updated reading list selections directly involve the medical field and largely centre around physicians. In fact, most the authors are themselves physicians who write about their own experiences or perspectives. This contrasts with Osler's original list which was arguably broader in scope and did not necessarily involve the medical field or highlight physician-authors. This may be a reflection on the extensive growth and public interest in the lives and experiences of physicians as reflected in TV shows, movies, and biographies. In particular, authors such as Dr. Atul Gawande, who has three readings in our updated library, has had a prolific and rather defining

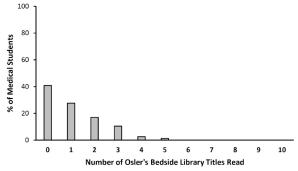


Figure 2. Number of Osler's original bedside library works read by medical students.

career in discussing his experiences in medicine and making these accessible and digestible for medical and nonmedical audiences alike.

This proposed updated list of bedside reading library for medical students is a clear departure from Osler's original works. Dalhousie medical students predominantly read and are influenced largely by works pertaining to the medical field and physicians, as opposed to the broad selections set forth by Osler. Although this may reflect the changing medical field or the immersive nature of current training it also urges reflection as to the value Osler saw in his original bedside library and whether these lessons may be lost on future generations of physicians.

Table 3. Updated Bedside Reading List according to current medical students.

	Title	Author
I	Being Mortal	Atul Gawande
2	Cutting For Stone	Abraham Verghese
3	Doing Right: A Practical Guide to Ethics for Medical Trainees and Physicians	Philip C. Hébert
4	The Immortal Life of Henrietta Lacks	Rebecca Skloot
5	The House of God	Samuel Shem
6	Bloodletting & Miraculous Cures	Vincent Lam
7-8	Complications: A Surgeon's Notes on an Imperfect Science	Atul Gawande
7-8	Mountains Beyond Mountains	Tracy Kidder
9-10	Better: A Surgeon's Notes on Performance	Atul Gawande
9-10	When Breath Becomes Air	Paul Kalanithi
9-10	Do No Harm: Stories of Life, Death and Brain Surgery	Henry Marsh
9-10	The Emperor of All Maladies: A Biography of Cancer	Siddhartha Mukher- jee

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