

Student Perceived Value of Reading Assignments During Mandatory Clerkship-Years OMM Course

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ORIGINAL RESEARCH

Abstract

Context

While the Commission on Osteopathic College Accreditation's standards require osteopathic manipulative medicine (OMM) curriculum throughout all years of osteopathic medical school, providing curriculum to expand student's OMM knowledge base and osteopathic manipulative treatment (OMT) experiences is challenging. Survey data from our pilot clerkship-years OMM course in 2014¹ demonstrated elevated levels of confidence in and intent to provide OMT in future practices.

Objective

To determine whether assigned readings—one of the two major components of the clerkship-years OMM course—are perceived as valuable to the osteopathic medical students.

Methods

A mandatory clerkship-years OMM course was implemented in the 2014 third-year curriculum and 2015 fourth-year curriculum. Chapter reading assignments required a passing grade on an online quiz for completion. Following each reading quiz, a survey requested the students to respond whether individual chapter reading assignments were perceived to be of value to them or contributed to their learning.

Results

Of the 223 students in the 2017 third-year class, 220 (99%) responded. Of the 207 students in the 2018 fourth-year class, responses ranged from 193 to 204 (93%-99%). Among the third-year students, responses ranged from 205 to 218 (93%-99%) for students reporting individual chapter reading assignments were of value and contributing to their learning, and among fourth-years, their responses ranged from 185 to 201 (91%-99%).

Conclusion

A prior study of our curriculum¹ demonstrated elevated student levels of confidence in and intent to provide OMT in their future practices. As one of the two major components of the curriculum, this study demonstrates that mandatory reading assignments incor-

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porated in an OMM course were overwhelmingly perceived as valuable and contributing to students' learning.

Introduction

Osteopathic medical students experience significant education and instruction in osteopathic manipulative medicine (OMM) during their pre-clinical years; however, it has been well established that many osteopathic medical students struggle to gain exposure to OMM and osteopathic manipulative treatment (OMT) while in their third and fourth (clerkship) years of medical school.² Additionally, Chamberlain and Yates³ found that osteopathic students 10 months into their third year were deciding not to perform osteopathic structural exams on standardized patients.

With a recognition of the need to support clinical integration of OMM into the third and fourth years of osteopathic medical school, the American Osteopathic Association (AOA) Commission

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on Osteopathic College Accreditation has required all colleges of osteopathic medicine (COMs) to develop longitudinal OMM curriculum through all years of osteopathic medical school.⁴

We have previously detailed our pilot clerkship-years osteopathic manipulative treatment (OMT) course¹ which sought to further the development of both cognitive and psychomotor skills with implementation of required reading throughout the year and submission of OMM patient encounter notes. With the pilot for the third-year OMM course and later extending into the OMM IV course, the students were required to read select chapters and complete assigned quizzes from *Somatic Dysfunction in Osteopathic Family Medicine*⁵ throughout the clerkship years. The OMM III and IV course readings and quizzes transitioned to the second edition of the Nelson text⁶ by fall 2016 as the supplemental materials became available.

The objectives for the third- and fourth-year OMM courses were to increase the students' OMM knowledge base, exposure to and use of OMT, improve their confidence in their skills, and increase the likelihood of use of OMM in their future practices. Evaluation of the third-year OMM pilot course demonstrated an increase in students' level of confidence in and intent to provide OMT in the future.¹

A secondary goal of the course was to bring OMM back into the dialogue between students, precepting physicians, and patients. Our hope is that with each passing year our students not only see more OMT being provided, but also experience more encouragement and less resistance when offering to provide it.

Ongoing survey responses since the OMM in clerkship-years pilot study have continued to demonstrate increased comfort in asking their preceptor to perform OMT and intent to provide OMT in the future. We surmised it was related to both aspects of the course: the reading assignments from Nelson's text and the OMM encounter notes. Having these two separate components to the OMM clerkship courses, it is difficult to determine which aspect has contributed most to the outcomes. We hypothesized that the readings have been playing a positive role in the students' OMM knowledge base development and attitudes toward OMM.

Methods

As part of our ongoing curricular assessment for the clerkship years course, we have asked for student feedback regarding their perceived value with the individual chapter reading assignments.

Table 1. Survey for third-year osteopathic medical students who participated in an OMT curriculum.^{a,b}

Responses to the survey item "The chapter reading assignment (corresponding with this quiz) was of value to you and/or it contributed to your learning."		
Chapters	True (%)	False (%)
1, 6, 7	205 (93)	15 (7)
12, 21	213 (97)	7 (3)
13	209 (95)	11 (5)
10	209 (95)	10 (5)
14	211 (96)	9 (4)
16, 26	216 (98)	4 (2)
24	218 (99)	2 (1)
36	213 (97)	7 (3)
37	213 (97)	7 (3)

^a Survey results from DO class of 2019.
^b Assignments were taken from *Somatic Dysfunction in Osteopathic Family Medicine*, 2nd edition.⁶

To accomplish this, we requested individual student responses to a statement following each reading assignment quiz: "The chapter reading assignment was of value to you and/or it contributed to your learning." The students responded with a choice of "True" or "False." Responses were used to gauge whether the select reading assignments, which may have included one or more specific chapters, were deemed valuable to the student's learning. Researchers were blinded to individual student responses by only viewing data corresponding with the entire class totals. Descriptive statistics including frequency were used to detail results. The procedures in this study were reviewed and determined to be exempt by the institutional review board at Des Moines University College of Osteopathic Medicine (DMU-COM).

Results

Survey results from OMM III included a total of 220 responses on each quiz except one with 219. In the OMM IV course survey, responses varied in the fall course from 193 to 196. The spring course was consistent with 204 responses.

When asked if the chapter reading assignments were of value to them or contributed to their learning, 96% of OMM III students responded "yes." The chapter reading assignment responses varied

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Table 2. Survey for fourth-year osteopathic medical students who participated in an OMT curriculum.^{a,b}

Responses to the survey item “The chapter reading assignment (corresponding with this quiz) was of value to you and/or it contributed to your learning.”		
Chapters	True (%)	False (%)
15	191 (99)	2 (1)
25	190 (98)	4 (2)
27	186 (96)	8 (4)
28	187 (96)	8 (4)
31	190 (97)	6 (3)
39	182 (93)	14 (7)
40	188 (96)	8 (4)
17	201 (99)	3 (1)
32	201 (99)	3 (1)
34	199 (98)	5 (2)
35	201 (99)	3 (1)
38	200 (98)	4 (2)
41	185 (91)	19 (9)

^a Survey results from DO class of 2018.
^b Assignments were taken from *Somatic Dysfunction in Osteopathic Family Medicine*, 2nd edition.⁶

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from 93% with the first assignment (Chapters 1, 6, and 7) to 99% with Chapter 24 (Table 1).

With the OMM IV students, the responses varied from 91% with Chapter 41, to 99% with Chapter 15, Chapter 17, Chapter 32, and Chapter 35 (Table 2).

Discussion

Our findings demonstrate students found the mandatory OMM reading assignments to be of value and contributing to their learning during clinical years. This evidence supports mandatory reading assignments with associated quizzes to be a useful adjunct in education for osteopathic manipulative medicine in clinical years.

The 2014 study by Heineman et al¹ examined the effect of implementing a mandatory OMT curriculum on various factors including greater exposure to OMT, higher confidence levels in practicing

OMT, greater intent to continue developing OMT skills, and planning to provide OMT as practicing physicians.

Our current study sought to look at one individual component of the OMM curriculum by examining student perceptions of the mandatory reading assignments. The findings demonstrate students believed the reading assignments in OMM were of value to them and contributed to their learning during clinical years, ranging per reading assignment from 93% to 99% in OMM III, and 91% to 99% in OMM IV. Teng et al⁷ reported students experienced increased comfort with OMM after undergoing formal OMM education through a didactic session and practical session every week during an OMM rotation. It does not appear reading assignments were incorporated into the curriculum, but students experienced increased comfort with OMM with “formal education.”⁷ From our findings, it appears mandatory reading assignments can be included as “formal education” that may contribute to increased comfort with OMM.

The largest limitation of the study was the incorporation of the true/false question into the quizzes. It is possible students may have felt the need to mark true to get the points associated with the question. However, students received the point regardless of the answer they chose so there was no incentive for marking true. In addition, the opportunity for subjective feedback was included, and performing thematic analysis of the subjective feedback from previous years appears to be positive to nearly the same degree as the true/false responses.

Further research should examine the impact of the mandatory SOAP notes portion of the OMM curriculum and delve into the individual chapters currently included to determine which provide the most benefit for osteopathic medical students during their clinical years.

Conclusion

The ability to incorporate OMT into practice can depend significantly on the students’ comfort, confidence in their skills, and willingness to ask in addition to preceptors’ perceived openness to including OMT in patient care. To combat these obstacles and support education in osteopathic manipulative medicine, the Department of OMM integrated a longitudinal OMM in clerkship-years curriculum consisting of OMT SOAP notes and reading assignments with associated quizzes. Our findings demonstrate the third-year and fourth-year reading assignments were valuable and contributed to the students’ learning. The results would suggest this type of curriculum may be implementable at other colleges of

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osteopathic medicine to enhance learning of OMM and to preserve osteopathic distinctiveness in practice. In addition, the structure of reading assignments may be beneficial in the realm of residents in various fields who are looking for a resource to improve their ability and comfort in providing OMT.

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