



Survey of Ohio Pharmacists' Perception of a PharmD/MBA Degree

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Abstract

Telehealth is referred to as the remote interactions between health care providers and patients. The purpose of this study is to gather information on the perception of pharmacists about dual PharmD/MBA degrees. Findings from this study would contribute to identifying 1) if there is a need for Colleges of Pharmacy to enhance offerings in their curricula related to business and 2) if certain pharmacy occupations favored candidates with a PharmD/MBA over just a PharmD. Surveys were emailed to all Ohio licensed pharmacists (n = 20,553). 711 pharmacists responded (response rate of 3.5%) to the survey which asked pharmacists about their perceptions of the benefits of a PharmD/MBA dual degree. Only 108 pharmacists had an MBA or an additional business degree, such as Healthcare Administration, Finance, or Accounting (15.2%). Attitudes toward the credibility of pharmacists with an MBA were neutral (60.0%) and about one third of them viewed pharmacists with an MBA as more credible than those without an MBA (35.9%). When asked to rate on a scale of 1-5 how much an MBA has or would have helped their career, in their opinion, the most likely Pharmacy professionals to rate the MBA as more useful (4-5) had careers in Academia (mean 3.375, n=32), Independent Community (mean 3.524, n=63), Industry (mean 3.636, n=11), and Managed Care (mean 4.563, n=16). Obtaining an MBA with a PharmD can be a difficult task and may not be perceived as useful to every pharmacist. However, there are groups of people that value a PharmD/MBA which corresponds to more use in their respective area of pharmacy. Business concepts are important in pharmacy practice and a dual degree could help progress more niche areas of pharmacy practice.



Business concepts are critical in the operations of a pharmacy. Pharmacists use business topics daily to run their outpatient stores, prepare inventory, and work with insurance companies. The purpose of this study was to assess how useful a Master of Business Administration (MBA) degree would potentially be to a practicing pharmacist. We hypothesized that most pharmacists would perceive an MBA degree to be beneficial to their professional career.

Pharmacy is moving forward as a profession with advancements as a primary provider in some states to help provide better care for patients.¹ Pharmacists can also obtain an MBA to help advance their profession by becoming more educated in healthcare related business. Additional education in business topics can assist pharmacists in making more informed decisions in activities such as formulary decision making, budgeting, IT services and leadership. MBA courses can also help a pharmacist communicate business concepts between key stakeholders.

Pharmacists should be able to understand, communicate and apply business techniques in pharmacies. Common business-related topics found in MBA curriculums usually include classes such as accounting, leadership, finance, marketing, human resources, operations, and other electives depending on the focus.² Previous analyses of the use of certain business topics in pharmacy have confirmed that business skills affect pharmacists everyday responsibilities.³ Some topics, such as accounting, may only be beneficial for select

pharmacists such as those in management positions, owning their own business, or other specialized career paths. Pharmacists in these career paths may utilize more business topics in a more direct manner and would likely have a higher perceived value of an MBA.

A concern has risen about the ability for pharmacy students to understand the value and use of business topics in pharmacy practice.⁴ Business concepts are necessary in pharmacy curriculums and are included in the Pharmacy Curriculum Outcomes Assessment (PCOA) as well as other pharmacy accreditation standards. However, this base knowledge may not be enough to prepare students for application as a practicing pharmacist. Most students have reported not experiencing or experiencing only a few business topics during their Introductory Pharmacy Practice Experiences (IPPE) and Advanced Pharmacy Practice Experience (APPE) rotations.⁴

Studies have been conducted that compare student knowledge of business concepts pre-and post-pharmacy business courses that have found a large increase of knowledge in several business concepts.⁵ A study by Rollins et al. showed that a pharmacy course with pharmacy students rated their knowledge of business topics as “adequate” after finishing only the required courses.⁵ While business classes are important to understand as a pharmacist, it should not come at the cost of replacing clinical knowledge that is critical to pharmacists.¹





Similar studies have been conducted to examine pharmacist knowledge of business topics with the impact of a PharmD/MBA dual degree.⁶ One study by Chumme et al. focused on comparing pharmacy graduates with dual degrees to those without. The study found that the dual degree graduates had a higher average GPA than both pharmacy majors and business majors by about 0.1 and 0.15 respectively, and a higher first year compensation than other pharmacists by about \$27,000.⁶ Another study by Daly et al. found that 85% of the respondents believed the dual degree helped in career advancement and 90% believed that the dual degree made them more competitive in the job market.⁷ Finally, Alkhateeb et al. assessed pharmacists who practiced in specialized career settings such as pharmaceutical marketing and management.⁸ Alkhateeb et al. found that an MBA was considered to be beneficial but was not preferred over healthcare associated business degrees.⁸

This study investigates the perceived value of a PharmD/MBA dual degree among practicing pharmacists regardless of their background and practice setting. The study seeks to answer what populations of Ohio licensed pharmacists believe an MBA/PharmD dual degree is beneficial when working in the field.

Methods

This study received prior approval by the University of Findlay's Institutional Review Board. Surveys were emailed to 20,553 pharmacists in the state of Ohio. Participants were selected to be included in

this study if they were licensed and actively practicing in the state of Ohio.

Pharmacists were invited to participate in this survey via an introductory email which contained a link to the study survey. Implied consent was given by accessing the link and completing the survey. The survey contained a total of 20 questions which collected demographic information as well as information pertaining to the main research question. A variety of different questions were asked including formats such as multiple choice, fill in the blank, and rating scales of 1-5, with one being "never" and five being "always". No identifiable information was collected from study participants. Questions covered content such as how much business-related content pharmacists have been exposed to over their career and what type, pharmacist perceptions of an MBA, and the benefit and importance in pharmacy of having an MBA. Participants had the option of participating in a drawing for a \$100 gift card. Questions were either close ended using yes or no, multiple choice, or of a rating scale format. Surveys were initially sent in December 2019. Reminder emails were sent to non-responders three weeks later.

Results

A total of 715 pharmacists responded to the survey. Demographics are reported in Table 1. When asked about business qualifications, 108 pharmacists (15.2%) reported that they had an MBA or other type of business degree, while 604 pharmacists (84.8%) reported that they did not; there





were 3 non-responders. Male pharmacists were more likely than female pharmacists to have an MBA ($p < 0.001$). Outside of the pharmacy curricula, 337 pharmacists (47.3%) took additional business classes or pursued other continuing education opportunities while 379 pharmacists (53.2%) reported that they did not consider an MBA or taking additional classes.

Pharmacists were asked, “*How often do you think business-related skills are used in the role of the pharmacist*”, on a rating scale of 1-5, with one being “never” and five being “always”. One hundred and sixty (22.4%) of them reported that they thought these skills were “always” used, 297 study participants (41.6%) answered with the score of four, 184 pharmacists (25.8%) answered with the score of three, 58 pharmacists (8.1%) responded with a score of two, and 15 pharmacists (2.1%) responded with the lowest rating of “never.” The mean score for this question was 3.74 (see Table 2).

Pharmacist opinions were gathered on the ability of an MBA to improve patient outcomes using a similar rating scale with one being “never improves patient outcomes” and five being “always improves patient outcomes.” A score of three was the highest chosen rating (30.4%). The mean for this question was 2.55 (see Table 3). “*How much do you feel business classes have helped in your career*” was also rated on a scale of 1-5. Of the 676 study participants that responded to this question, 111 persons (16.4%) answered with the lowest rating of one (not much), 107 persons (15.8%)

responded with a rating of two, 248 persons (36.7%) answered with a rating of three, 113 persons (16.7%) answered with a rating of four and 97 persons (14.3%) answered with the highest rating of five (see Table 4). Study participants were also asked to rate if they thought having an MBA benefited or would have benefited their pharmacy career. On a scale of 1-5 with one meaning “not beneficial” and five meaning “extremely beneficial”. Most pharmacists responded with a rating of four ($n=189$, 26.5%), 150 participants (21.1%) responded with a rating of three, 131 participants (18.4%) answered with a rating of five, 126 participants (17.7%) responded with the lowest possible rating and 116 participants (16.3%) responded with a rating of two. For this question, persons in academia (mean score 3.375, $n=32$), independent community (mean score 3.524, $n=63$), industry (mean score 3.636, $n=11$) and managed care (mean score 4.563, $n=16$) settings responded with higher ratings of four to five. Pharmacists from hospital and community chain settings had the lowest mean scores for this question, with a mean score of 2.949 ($n=234$) and 2.885 ($n=165$) respectively (see Table 5 and Table 6).

When asked “*What is your impression of a pharmacist with an MBA*”, 29 respondents (4.1%) said “less credible”, 256 respondents (35.9%) said “more credible”, and 428 respondents (60.0%) were “neutral.” Pharmacists ranked the most beneficial aspect of a business degree as content related to Leadership skills ($n=195$, 27.5%) followed by Finance ($n=124$, 17.5%) and then Information and Technology





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(n=93, 13.1%). See Table 7 for complete information related to all possible topics.

As shown in Table 8, the most cited reason for not being able to obtain an MBA was time (n=202, 28.4%). Lack of value or benefit was the second most common reason (n=196, 27.5%,) followed by cost (n=113, 15.9%).

From the survey, 365 (51.3%) respondents answered “no” when asked if additional business education was necessary

in the progression of pharmacy as a profession. Respondents were also asked to rate the likelihood of them recommending a dual PharmD/MBA degree to current pharmacy students on a scale of 1-5, with one being “will never recommend” and five being “will always recommend.” As shown in Table 9, the most selected rating was three (n=211, 29.6%), followed by four (n=175, 24.5%), two (n=142, 19.9%), one (n=104, 14.6%), and then five (n=82, 11.5%).

Table 1. Demographics of Respondents

	<i>Number of Participants (n = 715)</i>	<i>Percentage</i>
Ethnicity		
American	1	0.1%
American Indian or Alaska Native	1	0.1%
Asian	33	4.6%
Black / African-American	11	1.5%
German	1	0.1%
Greek	1	0.1%
Hispanic or Latino	5	0.7%
Indian non-American	1	0.1%
Mixed	4	0.6%
Native Hawaiian or Pacific Islander	2	0.3%
Prefer not to answer	2	0.2%
White	641	89.7%
Did not answer	12	1.7%





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Age			
	22-30	109	15.2%
	31-40	179	25.0%
	41-50	135	18.9%
	51+	286	40.0%
	Did not answer	6	0.8%
Years of Practice			
	0-5 years	113	15.8%
	6-10 years	105	14.7%
	11-15 years	86	12.0%
	16-20 years	56	7.8%
	21-25 years	69	9.7%
	26-30 years	78	10.9%
	31+ years	185	25.9%
	I do not currently practice pharmacy	20	2.8%
	Did not answer	3	0.4%
Gender			
	Male	322	45.0%
	Female	385	53.8%
	Other	6	0.8%
	Did not answer	2	0.3%



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Table 2. How Often Respondents Think Business Skills Are Used as a Pharmacist

Response**	<u>Number of Participants</u> (n = 715)	Percentage of total
1	15	2.1%
2	58	8.1%
3	184	25.8%
4	297	41.6%
5	160	22.4%
Did not Answer	1	0.1%

*1 = Never, 5 = Always

+Mean Score = 3.74

Table 4. How Business Classes Have Benefited Respondents in Their Careers

Response**	<u>Number of Participants</u> (n = 715)	Percentage of Total
1	111	15.5%
2	107	15.0%
3	248	34.7%
4	113	15.8%
5	97	13.6%
Did not Answer	29	4%

*1 = Not Much, 5 = Very Much

+Mean Score = 2.97

Table 3. Answers to “Do You Think Having an MBA Would Improve Patient Outcomes?”

Response**	<u>Number of Participants</u> (n = 715)	Percentage of Total
1	153	21.4%
2	199	27.9%
3	217	30.4%
4	106	14.8%
5	39	5.5%
Did not Answer	1	0.1%

*1 = Never, 5 = Always

+Mean Score = 2.55

Table 5. Respondents’ Opinions on How Much an MBA Helped/Would Help Pharmacy Career

Response**	<u>Number of Participants</u> (n = 715)	Percentage of Total
1	126	17.7%
2	116	16.3%
3	150	21.1%
4	189	26.5%
5	131	18.4%
Did not Answer	3	0.4%

*1 = Not beneficial, 5 = Extremely Beneficial

+Mean Score = 3.12



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Table 6. Comparison of Responses to How Much an MBA Helped/Would Help Pharmacy Career Among Areas of Pharmacy Practice

Area of Practice	<i>Number of Participants</i> (n = 715)	Percentage of Total	Mean Score
Academia	32	4.5%	3.375
Ambulatory Care	11	1.5%	3
Community Chain	165	23.1%	2.88
Community Independent	63	8.8%	3.52
Hospital	234	32.7%	2.95
Industry	11	1.5%	3.64
LTC	18	2.5%	3
Managed Care	16	2.2%	4.56
PBM	11	1.5%	3
Other Responses	151	21.1%	-
Did not Answer	3	0.4%	-

Table 7. Most Beneficial Aspect of a Business Degree

Aspect	<i>Number of Participants</i> (n = 715)	Percentage of Total
Accounting	45	6.3%
Business Development	88	12.3%
Communication	60	8.4%
Economics	44	6.2%
Finance	124	17.3%
Information Technology	93	13.0%
Leadership	195	27.3%
Marketing	29	4.1%
Other	31	4.3%
Did not Answer	6	0.8%





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Table 8. Reasons for Not Obtaining an MBA

Reason	<i>Number of Participants</i> (n = 710)	Percentage of Total
Lack of Value / No Need	196	27.5%
Money	113	15.9%
Age/Retirement/Near Retirement	23	3.2%
Lack of Interest	5	0.7%
Time	202	28.4%
Already Have MBA (or working on MBA) or Other Master's Degree	92	12.9%
Effort or Additional Work	67	9.4%
Other	12	1.7%

Table 9. Likelihood of Recommending a Business Degree to Future Pharmacists

Response**	<i>Number of Participants</i> (n = 715)	Percentage of Total
1	104	14.6%
2	142	19.9%
3	211	29.6%
4	175	24.5%
5	82	11.5%
Did not Answer	1	0.1%

*1 = Will Never Recommend, 5 = Will Always Recommend

+Mean Score = 2.98





Discussion

Obtaining an MBA with a PharmD can be a difficult, but not insurmountable task. The skills provided from an MBA can translate to many jobs a pharmacist could receive. Dual PharmD/MBA degrees may also improve the communication, leadership, and time management skills of pharmacists especially when talking with non-medical leadership. Though traditionally not all pharmacist roles consider an MBA as necessary, our results do show that pharmacists believe it to be beneficial for certain specialized practice settings.

Our survey found that leadership skills are one of the main reasons a pharmacist would consider an MBA degree. This may be because leadership is critical to the role of a pharmacist and can be more broadly applied to more pharmacy professions. Communication and Leadership skills were cited by pharmacists in our study as two of the most beneficial aspects of a business degree. Knowledge of the Business/Finance field was also included among the top reasons for considering a dual MBA/PharmD degree. An MBA could further prepare an individual for managerial roles in addition to the therapeutics intensive pharmacy curriculum. Content related to economics, finance, accounting, and technology use, along with business knowledge, are important tools that an MBA will give to help prepare pharmacists for a business-related role in pharmacy.

According to the results of this study, the career path where an MBA would be perceived to be most helpful is in

academia. According to our survey, independent pharmacy owners believe that they would benefit from a dual MBA/PharmD degree. Additionally, pharmacy residencies, such as the OhioHealth PGY1/PGY2/MS Health-System Pharmacy Administration Residency, allow for pharmacists to obtain dual degrees after they graduate. A dual degree along with this type of specialized residency may help increase a pharmacist's success in managerial positions.

Time and money were two of the biggest factors as to why pharmacists would not obtain an MBA. An efficient time to acquire an MBA would be while pursuing a pharmacy degree. Instead of taking pharmacy electives or general credits focused in other areas, that time and money could be spent on obtaining an MBA. It was hypothesized that most of the pharmacists who would perceive that having an MBA was beneficial would-be pharmacists who already have an MBA. This could have led to bias in the findings from participants favoring their degrees or from simply having an increased response rate from persons with a greater interest in the subject.

Some recommendations for the future of business education in the pharmacy curriculum could be increasing the credit hours designated for business courses. The majority (52.7%) of pharmacists in our study group reported not receiving any business coursework in their entire career. Therefore, this may be beneficial to future pharmacists. Continuing education requirements related to business topics in





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pharmacy would also be something to consider by State Boards of Pharmacy. Two hours of CE credit are required for law and 2 hours are required for Medication / Patient Safety every two years for pharmacist licensing in Ohio. Similarly, two hours could be added for business topics.

There is a use for an MBA/PharmD dual degree, but this is within very specific areas of pharmacy practice. It is not for everyone, but this would be a great route to pursue for those who would like to become better leaders and/or pursue managerial roles.





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