

Master of Health Information Management Students' First-Year Experiences: A Case Study

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Abstract

The purpose of this study was to examine first-year students' experiences in a new Master of Health Information Management (MHIM) program. The first year in a college program is challenging for students. Specifically, first-year students' attrition from MHIM programs is an area of growing concern because the demand for health information management (HIM) professionals with advanced degrees is growing faster than the supply of graduates. Unfortunately, there is a paucity of research in this area. Data were collected using an open-ended online survey. Results indicated that students chose the program because they felt allegiance to the college, the college had their major of choice, and they wanted an online program. Students were challenged by the workload, the adjustment to online content delivery, and deficits in communication from the instructors and the school. Students were, however, generally satisfied with the quality of curriculum and instruction.

Keywords: higher education, graduate, health information management, health informatics, first-year student experience, case study, survey, qualitative, perceptions

Introduction

Student attrition in healthcare programs due to dissatisfaction with the programs is an area of growing concern.¹⁻⁴ The first year in a college program is challenging for students.⁵ In general, students' first-year experiences are correlated with their decision to attend a particular program,⁶ career or job opportunities,⁷ and perceptions of course quality and teaching.^{8,9}

Improving first-year students' experiences is an important aspect of efforts focused on reducing attrition from health information management (HIM) and health informatics (HI) programs. The demand for HIM professionals is projected to grow at double the average rate for all other occupations, which will create a shortage of HIM graduates.¹⁰ Unfortunately, this shortage comes at a time when employers are endeavoring to hire more graduates with the advanced information management skills attained in the few accredited HIM master's degree programs currently in operation.¹¹

Online course delivery has been effective in increasing the healthcare workforce supply because it is convenient for students and cost effective for the institution.¹² However, studies evaluating student success in online courses reported mixed results, indicating that a variety of assessment types are needed and that online students typically receive lower grades than on-campus students do.¹³⁻¹⁵ Still, in other studies, the performance of online healthcare students was similar to that of on-campus students,¹⁶⁻¹⁸ but online graduate social work students reported lower satisfaction levels.¹⁹ These studies indicate a need to evaluate outcomes and assess the educational curricula used in HIM and HI programs.²⁰

Given the shortage of qualified master's-level HIM graduates, it is important that students enrolled in these programs have positive experiences, persist, and graduate. To support students, HIM and HI educators need a deeper understanding of their students' perceptions of program quality and program challenges. This study explores the first-year experiences of students in an online Master of Health Information Management (MHIM) degree program to gain deeper understanding of their experiences and provide insight into reducing student attrition.

Background

In studies of other health profession academic areas, factors related to students' experiences include program selection,²¹⁻²⁵ first-year experiences,²⁶⁻²⁹ and program quality.^{30, 31} In this study, the decision to attend a program, perceptions of quality, challenges with the program, and student success factors are considered in relationship to students' first-year experiences.

A student's decision to attend a particular online program is influenced by the college's location,³² reputation, academic quality, academic programs offered, and cost.³³ Personal factors such as ethnic, social, and economic backgrounds^{34, 35} and family and social support^{36, 37} also affect the choice of college program. One study found professional advancement as the reason for attending a doctoral health profession program.³⁸

After students choose an academic program, their perceptions of course quality are related to the quality of the online learning delivery system and the availability of interactive training for that system.^{39, 40} A study of 700 online students indicated that perceived program quality correlated with students' level of comfort with technology.⁴¹ Thus, to increase student satisfaction, courses must be well designed and delivered with easy-to-use interactive learning systems.⁴²

Students who had positive experiences in prior online courses reported higher levels of satisfaction with course quality in their current online classes.⁴³ In fact, the perceived quality of online classes in these studies increased significantly from the first online class to the second online class, indicating that MHIM educators should persist in focusing on students' learning experiences and improving the quality of their programs.⁴⁴

Regarding challenges in the program, doctoral health profession students reported difficulties balancing school, work, and recreation, which they addressed by being disciplined and organized.⁴⁵ Similarly, students in different accelerated programs experienced stress related to high workloads, lack of curriculum structure, and frequent deadlines.⁴⁶ These students also described dissatisfaction with faculty support and stress due to the financial burden of tuition. Other challenges reported by students include too many tests,⁴⁷ fear of academic failure,⁴⁸ and lack of support from teachers.⁴⁹ In one study, first-year education students indicated that increased driving time and not getting into their first choice of university contributed to a lack of attachment to their program, which can lead to attrition.⁵⁰

In related healthcare professions programs, researchers have extensively examined student success factors.⁵¹⁻⁵³ Several studies have focused on factors that predict healthcare student attrition, such as the use of admission interviews,⁵⁴ faculty mentoring,⁵⁵ and other proactive measures.⁵⁶

Regarding HIM students' success, only one study that explored academic and student demographics and academic variables was found. Specifically, the study examined these factors in relationship to bachelor's degree HIM students' rate of passing the HIM national credentialing exam on the first attempt.⁵⁷ Results indicated that GPA in two academic courses was strongly correlated with first-time pass rates.

Existing Programs

Given the newness of the MHIM and Master of Health Informatics (MHI) degrees, it is not surprising that no studies have examined students' perceptions of first-year experiences. This lack of existing research is also consistent with the fact that as of 2014, there were only ten MHIM and MHI programs accredited by Commission on Accreditation for Health Informatics and Information Management

Education (CAHIIM).⁵⁸ Looking further at only online programs, we found that there were only four online MHIM and two online MHI accredited degree programs as of 2014.⁵⁹ Table 1 shows the four online MHIM programs.

The four online MHIM programs varied in several ways. For example, the number of hours required for the degree varied from 33 to 45. Also, tuition costs were quite different, ranging from \$316 to \$620 per credit hour. Note that fees varied considerably, affecting total costs. Given that these four programs were accredited by CAHIIM, it was not surprising to find similar online program curricula among the schools. Therefore, because this rapidly expanding field has only a handful of programs granting master's degrees, the results from this study might benefit instructors and administrators of MHIM and MHI degree programs by providing a better understanding of students' experiential journey during the critical first year. It might also provide direction for improving students' learning outcomes and reducing program attrition.

Conceptual Framework

The Gale et al. (2015) study, which examined the first-year experience of health profession students, guided the design of this study.⁶⁰ Specifically, the researchers explored student engagement, stress levels, perceptions of program quality, and satisfaction with first-year experiences. In that study, the students expressed concern about academic workload, time management, and course assessments but were satisfied with the quality of the teaching, faculty support, and engagement.⁶¹ Attrition was low, with only 10 percent of the first-year students reporting that they considered leaving the program. Reasons for staying included faculty mentoring, family support, and personal motivation.

Research Questions

Recognizing the importance of MHIM students' first-year experiences, the research questions for this study were as follows:

1. How did MHIM students make the decision to attend this particular program?
2. What were the challenges that the MHIM students faced during their first year?
3. What were MHIM students' perceptions of the quality of the curriculum and instruction in the first year? How could their experiences have been improved?

Methodology

The aim of this case study was to examine first-year students' experiences in a new MHIM degree program. The study site was the HIM department of a large state university in the southern United States. Data were collected with the use of an online, open-ended survey. Demographic data were extracted using SPSS, and theme identification provided insight into coded qualitative data.

The participants in this study were students enrolled in a mandatory first-year course in the new MHIM program. Participants were selected using convenience sampling. The participants were surveyed at the end of the second semester of their first year of the MHIM program. All respondents were included in the study.

Data were collected with a survey designed by the researchers. Construct validity was established through a pilot test and the creation of a table of specifications that mapped survey questions to research questions.⁶² A pilot survey was conducted with first-year HIM bachelor's degree students at the study university. Pilot results were examined, and no changes to the instrument were deemed necessary.

The survey had eight demographic questions, including age at program admission, ethnicity, gender, marital status, highest degree held, years employed in HIM, healthcare-related certifications, and full-time versus part-time program attendance. Four open-ended survey questions examined what students considered when making their college choice decision, the challenges they faced in their first year, their perceptions about the quality of the curriculum, and suggestions for improving the program quality.

Procedures

The researchers obtained Institutional Review Board (IRB) and departmental permission to conduct the study. Near the end of the first year, cover letters were e-mailed to the first cohort of MHIM students, inviting them to participate in the study. Eight participants responded and then received an e-mail link to the anonymous online survey. Responses were imported into SPSS for summary, and qualitative data were imported into an Excel spreadsheet for further analysis and coding.

Data Analysis

Demographic data were evaluated to generate frequencies and percentages. Thematic qualitative data analysis was conducted using a two-stage coding technique.⁶³ The first phase of analysis involved the use of descriptive coding methods, and the second stage of coding condensed the descriptive codes using a pattern coding technique. Table 2 presents the two-stage coding process.

Results

Demographics

The first-year MHIM students were invited to participate, and eight students completed the online survey, resulting in a 73 percent response rate. Three respondents were 36–40 years of age on program admission, one was 25 years or younger, one was 31–35 years, two were 41–45 years, and one was 51–55 years. The predominant ethnicity was Hispanic (50 percent), followed by black (25 percent) and white (25 percent). Six students were married and two were single, never married. All students were female. Table 3 presents the demographics of the participants.

Seven respondents held a bachelor's degree, one held a master's degree, and no students had obtained a doctorate. Six respondents attended full-time (i.e., at least three classes per semester), and two attended part-time. Three reported having previously earned a Registered Health Information Administrator certification, but no other certifications were reported. Table 4 shows the academic and professional backgrounds of the study group.

Research Question 1—Decision to Attend

The first research question asked about the students' decision to attend the specific college. Participants reported an allegiance to the university, which also influenced their decision to enroll in the MHIM program. Further, their decision was influenced by the availability of the online delivery model. Students mentioned the convenience of the online program as compared to the more traditional face-to-face model. Regarding content delivery, one student commented:

“Another attraction was the fact that it is online. Other colleges (in other states) may have the program but during some part of the program you have to attend in person.”

The MHIM degree itself drew students to the program, and one student reported that the university was close to their home, which made it a convenient choice.

Research Question 2—Challenges

Our next research question explored the students' first-year challenges. Four major themes emerged. First, students found the workload to be greater than they expected, and they thought it was an unnecessarily heavy load. One student remarked that she managed the workload by utilizing scheduling:

“I guess because I'm older than some of the students, the only challenge that I incurred was time management. I didn't want to neglect my husband and family so I had to put my school work and family life on a schedule so that neither would be ignored.”

Second, communication emerged as a challenge in terms of both the instructors' communication of directions and the instructors' expectations. In addition, the university's communication to the students before they began the program was mentioned as inadequate. Third, more advanced students found the workload to be a challenge in classes in which some students had no healthcare background. Lastly, students reported a period of adjustment when taking online classes.

Research Question 3—Quality and Improvement

The last research question explored perceptions about the quality of the curriculum and looked for suggestions for improvement. The findings fell into two general categories: instructors and assignments. Participants reported a range of feelings about the instructors. On one hand, students felt that the instructors were helpful and gave them personal attention; however, on the other hand, they reported an apparent range of instructor dedication to the students. Student satisfaction with the class seemed to be dependent on the instructor of record.

Next, participants reported that too great an emphasis was placed on team assignments. They also thought that there was uneven team participation. One student commented that team composition was not conducive to collaboration and suggested that instructors *“develop some sort of interest and personality inventory to assist with the creation of teams.”*

Assignments lacked an evaluation of individual participation in the assignment. One respondent reported redundancy of assignments. The workload was reported to be too great, hindering the students' mastery of the content. In addition to their thoughts on team assignments, students felt that the instructors did not set clear objectives or expectations for the assignments. Last, instructions for the assignments were not clear, and students felt that instructors, when asked to clarify instructions, did not provide the needed clarification.

Discussion

The results of the study provide valuable information regarding the perspectives of MHIM students during their first year in the program. This topic is important to the HIM profession because there is a growing job market for HIM professionals with advanced degrees in healthcare informatics, no existing doctoral HIM programs, and only a few online MHIM programs in operation. Three research questions were considered in this study.

First, respondents were asked to describe how they made the decision to attend the MHIM program at the study site. The majority indicated that allegiance to the university (e.g., their status as former students), the ability to take the courses online, and the degree plan offered were factors. One student mentioned that the college location was close to home. These findings are consistent with Griffith and Rothstein's 2009 study,⁶⁴ which reported that college location and academic programs offered influenced student choices, and with a study noting that the convenience of online courses has increased their popularity.⁶⁵ This information suggests that new MHIM schools might “harvest” MHIM students from their allegiant alumni and advertise locally to market the convenience of their programs.

Second, the study aimed to understand the challenges that the MHIM students faced during their first year. Four themes emerged to which challenges were related: heavy course workloads, communications with the university and with instructors, adjustment to the online course model, and teacher support. These responses provide an opportunity for improvement in the MHIM program. While heavy course workload might be indicative of a strong program, student expectations should be aligned with such workloads. This alignment might be achieved during an introductory session so that students are aware of what to expect. With regard to communications, both university administrators and instructors would do well to take this criticism seriously. Students considering a program expect businesslike response times to communications. Adjusting to the online course model was a challenge for some students. This challenge might be ameliorated via an introduction to the course management system during orientation. Also, students need to be advised that online courses require greater time management skills because students work independently to master the course content.

Some advanced students reported difficulty working with students having no healthcare background. These challenges are consistent with a study of a healthcare doctoral program indicating that students had difficulties balancing school, work, and recreation.⁶⁶ Similarly, two studies found that students were challenged by stress due to high workloads, frequent deadlines,⁶⁷ and too many tests.⁶⁸ These concerns point to the difficulty of creating productive teams. One potential solution is to require a healthcare overview course for those not having a healthcare background. This course might contain medical terminology, anatomy and physiology, or healthcare management coursework. Finally, teacher support was reported as a factor in a study of attrition in a healthcare program.⁶⁹ Faculty should be aware that mentorship and support are considered valuable to first-year students. Making time to be available to support students during their initial coursework is important to their success.

The third research question addressed respondents' perceptions of the quality of the curriculum and instruction in the first year and how the experience could be improved. Responses varied with respect to the amount of time the students expected and received from their instructors. Participants agreed that there were too many team assignments and that student team participation was uneven. While teamwork is important, students felt that an overemphasis on teamwork introduced problems, particularly when some members had no healthcare experience. Faculty should consider the necessity of teamwork assignments and forgo such assignments unless they are needed for pedagogical purposes.

Other areas for improvement included more detailed assignment directions. One way to improve assignment directions is to ask fellow faculty or key students to review them before distribution. Students also asked for increased instructor presence in the online setting. This feeling of connectivity is important to students and can be achieved by using online collaboration tools to meet with students as needed. These opportunities for contact with instructors can also be a time for clarification and create a sense of mentorship with students.

Limitations

This study has several limitations. First, the study was conducted during the first year in which the MHIM program at the study site accepted students. Studies conducted after the program has been in operation for several years could be more representative of first-year student experiences. Second, it was the first time that the instructors at the study site had taught MHIM classes, although several course instructors had experience teaching graduate classes in related areas. Classes taught with course content that has been refined by assessing several years of student feedback could produce different responses to questions about students' challenges and suggestions for improvement. Third, the sample size was small, and all the participants came from one class in one MHIM program. Larger studies in different regions of the United States could produce more diverse results; however, given that only a few online MHIM programs exist, the sample size will be limited for the foreseeable future. Fourth, respondents were all female, few had any additional healthcare certifications, and most had moderate previous HIM experience; thus the demographics may not be typical of other MHIM programs in other states. A fifth limitation was that no prior research on the experiences of first-year MHIM students was available to guide this study. Although the study results cannot be generalized to other MHIM programs, the study does add to the body of knowledge about the perceptions of MHIM students regarding their first year in the program.

Future Research

Future research with other school populations could reveal different student perspectives. Currently, only a few universities have online MHIM programs in the United States, and including all their students in a future study would provide more student perspectives. Furthermore, as more MHIM and MHI programs accept students, a comparison of MHIM and MHI program outcomes will be feasible. Studies by educational researchers at other MHIM programs could uncover further topics for additional research, such as the relationships of students' personality types or their leadership styles with their perceptions of curriculum quality. Additionally, the effect of having more years of healthcare experience or more healthcare certifications on self-reported positive program perceptions should be explored.

The research is important because the first year in any graduate program is challenging. The HIM and HI fields have a shortage of professionals with advanced degrees and only a few graduate programs in operation. One way to increase the supply of qualified graduates is to increase the number of MHIM graduate students who enroll in these programs and persist to graduation. This study found areas that clearly challenged the students and ways that the school could improve the program.

Conclusions

This exploratory study examined first-year experiences of MHIM students in a new program. The findings were as follows:

1. students chose the program based on their allegiance to the college, the fact that the program was online, and that the college had their major of choice;
2. the students were challenged by the workload, including team assignments in which participation was unequal, the need to adjust to the online system of class delivery, and communication deficits from both instructors and the school itself; and
3. students were generally satisfied with the curriculum and instruction, although suggestions were made for improvement in both instruction and assignments.

Much work remains to be done in educating HIM and HI professionals. These results may help guide others in their endeavors.

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Table 1

Online Master of Health Information Management Programs as of 2014

Online Master of Health Information Management Program	Percentage Online	Required Hours	Tuition Costs Per Hour
College of St. Scholastica	100	40	\$620
Louisiana Tech University	100	45	\$316
University of Maryland University College	100	36	\$458
University of Tennessee Health Science Center	100	33	\$550

Table 2

Two-Cycle Qualitative Coding

Question Topic	First-Cycle Codes (Descriptive)	Second Cycle (Pattern)
Decision to Attend the College	Allegiance to the college	College choice
	Online program	College choice
	Major they wanted	College choice
	Close to home	College choice
Challenges	Workload	Heavy workload
	Too many group projects	Heavy workload, assignments
	Assignment redundancy	Heavy workload, assignments
Quality	Instructors vary in their ability to communicate	Communication
	College didn't communicate during application phase	Communication
	Instructions for assignments not clear	Communication, assignments
Improvements	Some students had no health science background	Students should have some background in health science
	Had to learn how to take an online course	Adjustment to online learning
	Instructors showed personal interest	Instructors' interest in students varied, teacher support
	Instructors were unavailable	Instructors' interest in students varied, teacher support

Table 3

Demographic Characteristics of Participants

Characteristic	No. of Participants	Percentage
Age in years on program admission		
<25	1	12.5
26–30	0	0.0
31–35	1	12.5
36–40	3	37.5
41–45	2	25.0
46–50	0	0.0
51–55	1	12.5
56–60	0	0.0
61–65	0	0.0
>65	0	0.0
Ethnicity		
Unassigned	0	0.0
White (Non-Hispanic)	2	25.0
Black (Non-Hispanic)	2	25.0
Hispanic	4	50.0
Asian	0	0.0
Native Hawaiian or Pacific Islander	0	0.0
Unknown	0	0.0
Gender		
Male	0	0.0
Female	8	100
Marital status		
Single, never married	2	25.0
Married	6	75.0
Divorced	0	0.0
Separated	0	0.0
Widowed	0	0.0

Table 4

Academic and Professional Characteristics of Respondents

Characteristic	No. of Participants	Percentage
Highest degree achieved		
Bachelor's	7	87.5
Master's	1	12.5
Doctorate	0	0.0
Student attendance		
Part-time (<3 classes per semester)	6	75.0
Full-time (3 or more classes per semester)	2	25.0
Years employed in health information management		
<3	3	37.5
3–10	3	37.5
11–15	0	0.0
>15	2	25.0
Previous healthcare-related certifications		
Registered Health Information Administrator	3	37.5
Registered Health Information Technician	0	0.0
Certified Coding Associate	0	0.0
Certified Coding Specialist	0	0.0
Registered Nurse	0	0.0
Emergency Medical Technician	0	0.0
Other (please specify)	0	0.0