RHIA CERTIFICATION EXAM SUCCESS FACTORS

Posted on November 10, 2021 by Matthew

Category: Fall 2021

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Abstract

This study explored possible success factors for passing the Registered Health Information Administration (RHIA) certification exam. According to the American Health Information Management Association (AHIMA), only 70 percent of first-time test-takers passed the RHIA exam in 2019. A literature review offered insight into factors related to passing certification exams. Sources included existing, relevant peer-reviewed and published literature since 1990 within 87 educational and health/medicine databases and 62 other articles and journal databases available at the University of South Dakota library. A correlational design was used in the study. Data was retrieved from AHIMA, cleaned, and binary logistic regression analysis was completed. A significant relationship was identified between having a prior credential, such as the Registered Health Information Technician (RHIT) credential and passing the RHIA exam. This new information will help improve pass rates, advance the HIM field research base, and help students improve their odds of passing the RHIA exam.

Keywords

certification exam success factors, registered health information administrator, certified health data analyst, health information management

Introduction

This study identifies some factors associated with successfully passing the Registered Health Information Administration (RHIA) exam. The hope is that this information will help improve health information management (HIM) program outcomes and help narrow the expected workforce shortage of more than 72,000 medical and health service managers by 2026.[1] The Commission on Accreditation for Health Informatics and Information Management's (CAHIIM) 2018 Annual Report indicates that there were 1,271 baccalaureate graduates between August 1, 2016, and July 31, 2017.[2] These graduates were eligible to take the RHIA exam. AHIMA's website indicates 1,129 first-time test-takers took the exam and 801 passed on the first attempt.[3] Because not all graduates sat for the RHIA exam, only 63 percent of the students that graduated with baccalaureate degrees successfully obtained the RHIA credential on their first attempt. Two known problems include the number of graduates not attempting the RHIA exam and the RHIA credentialing exam pass rates.

Background

HIM professionals serve a vital role in aligning electronic health record (EHR) documentation systems and clinicians' workflow. HIM professionals understand the data being collected throughout

a healthcare enterprise and the requirements for use and exchange of information for care delivery and decision-making. Changes to EHR documentation and communication methods are being routinely tested to improve continuity of care and communication with patients while decreasing errors and safety concerns.[4-6] A key part of the HIM professional's role is to advance changes that will improve healthcare data quality, improve information-sharing, and improve the use of secondary data in healthcare. Leading these important changes requires development of advanced skills in leadership, data analysis, and data governance.[7.]

HIM programs educate students to be professionally responsible for ethical information practices in healthcare delivery, billing, and secondary data use, and are capable of leading and adapting to change in the HIM profession.[8] Students who graduate from a CAHIIM-accredited HIM program are eligible to sit for the RHIA credentialing exam.[9] The demand for graduates of HIM programs exceeds the supply of existing programs and students.[10] Increasing the number of graduates is complicated by centralization of administrative services in healthcare, which has increased the number of HIM employees working from home while limiting the number of employees available to work with students in hands-on practical training at the healthcare worksite.[11]

One potential solution is to expand the number of RHIAs by increasing the number of students taking and passing the exam on the first attempt. As a possible step in that direction, changes to eligibility requirements have allowed more students with bachelor's or master's degrees to attempt the exam through a temporary proviso. According to the Commission on Certification for Health Informatics and Information Management (CCHIIM), the eligibility criteria to sit for the RHIA certification exam has been amended for individuals who hold the Registered Health Information Technician (RHIT) credential. Individuals who have an RHIT will be eligible for the RHIA exam starting July 1, 2017, through December 31, 2021. This is if they have received a baccalaureate degree or higher from a regionally accredited institution or nationally recognized accreditor; received their RHIT credential on or before December 31, 2018; and have complied with the Standards for Maintenance of the RHIT credential. [12]

The 2018 national pass rate for the RHIA certification exam was 71 percent.[13] Students' failure to pass the entry-level certification has become a pattern for more than four years.[14,15] In 2018, 1,271 new graduates were eligible for the RHIA entry-level exam but only 801 passed (63 percent).[16,17] Students and faculty can benefit from better understanding factors (i.e., possible interventions) that improve pass rates. Thus, the present study tests the relationship between first-time test-taker characteristics, specifically age, highest educational degree, work setting, and additional credentials, and passing the RHIA certification exam. These relationships have been theorized in the HIM

Educational Model,[18] and their empirical exploration will inform the development of helpful interventions and student recruiting strategies.

Literature Review

The Health Information Management Education Conceptual Framework has four components, including students, faculty, curriculum, and resources, that intersect to create successful program graduates who passed the RHIA exam.[19] This framework was applied here. The Community of Inquiry (COI) Model[20] was also used. Both frameworks combined together included key component similarities of students, instructors, and content leading to successful outcomes. Both frameworks were used to strengthen the theoretical models proven in the field of education and HIM and to show the relationships between the two frameworks.

The present study was focused on evaluating student characteristics that predict passing HIM certification exams in general but, more specifically, the RHIA exam.

Registered Health Information Administrator Credentialing Exam

Individuals seeking to obtain the RHIA credential were eligible for the exam by graduating from a CAHIIM-accredited health information administration program, a CAHIIM-accredited health information technology program, or a formerly accredited program. Other eligibility opportunities included completion of a certificate of the degree program, a CAHIIM-accredited master's degree program, or having an RHIT credential and meeting special proviso qualifications. The RHIA exam is an entry-level credential in HIM. At the end of 2018, there were 16,632 RHIA credential-holders.[21]

Methodology

This quantitative research study used an ex post facto correlational design.[22] Data for the study was collected from application and scoring results of first-time RHIA test-takers between January 2015 and December 2019 by AHIMA.

Data Collection

Upon approval by the University of South Dakota Institutional Review Board, the study began. Individual consent was not required for use of pre-existing, archival data. There were 5,300 first-time RHIA takers (January 1, 2015, to December 31, 2019) in the dataset. Participants' dates of birth were converted to year of birth (20-29; 30-39; 40-49; 50 etc.[28]) by AHIMA to ensure confidentiality. Cases with age 70 or greater were considered outliers by statistical and practical definition and were removed. Thus, data from 1,165 cases were removed from the study during the data cleaning process, and 4,135 cases were analyzed here.

Predictors included age; (current) highest educational degree; (current) work setting; (current) job

category; and additional credentials. The criterion variable was passing (or not). Highest educational degree, work setting, additional credentials, and job category data reflected current information rather than the data collected during application for the exam.

Data Analysis

Analyses were conducted using the SPSS Grad Pack 26.0.[23,24] Frequencies were computed for each variable to identify the actual response percent, valid response percent, and cumulative response percent for each year of data and were consolidated after data was cleaned. Logistic regression coefficient estimates, model fit, confidence intervals, and odds ratios were calculated. The level of significance (α) for the study was set to 0.05, and the power to detect an effect at 0.80 and a medium effect size of 0.5 was chosen. G*Power indicated that a sample of 721 students was required to achieve the desired power of .80.[25,26] The sample exceeded 721 by more than a factor of five.

Stepwise regression models were fit to ensure that the best-fitting model was selected. The Omnibus Test of Model Coefficients and Hosmer and Lemeshow Test results were compared to assess model fit. Classification tables were reviewed for the models. The model indicated the highest predicted percentage correct (95.9 percent) for passing the exam with an overall correct prediction rate of 75.1 percent. The Hosmer and Lemeshow Test values for the standard regression model showed a good model fit, $\chi 2(8, N = 4{,}135) = 4.996$, $p = .758$. The -2 Log likelihood (4301.260[a]), Cox & Snell R-Square (0.094), and Nagelkerke R-Square (0.138) results indicated consistency with the model selection and hypothesis testing ensued.

Results

Recall that we posited a relationship between first-time test-taker age and passing the RHIA certification exam. Logistic regression results are depicted in **Table 1** and indicate that age category 30-39 ($p = .015$) and category 40-49 ($p = .015$) were inversely significant predictors of passing the RHIA on the first attempt. First-time test-takers age 50 and older were more likely to pass the exam than those who were 30-49 years old.

Our second question considered the relationship between first-time test-taker highest educational degree and passing the RHIA certification exam. Results are depicted in **Table 2** and indicated that participants with the highest educational level of high school (presumed to be early testers who had not yet earned a bachelor's degree) had a greater likelihood of passing the RHIA exam than those with a master's degree. Participants with the highest educational level of HIM/coding certificate showed an inverse relationship, meaning they were less likely to pass the exam compared to those with a master's degree.

The third question considered the relationship between first-time test-taker current work setting and passing the RHIA certification exam to those first-time test-takers who were unemployed. There

were significant inverse results for participants working in Health Information Exchange organizations (see **Table 3**). In addition, there was significant inverse results for participants working in home health agencies and for participants working in long-term care facilities, and for participants working in other provider settings. In other words, those who were unemployed showed a higher likelihood of passing the RHIA exam than those who worked in healthcare.

Our fourth concerned the relationship between first-time test-taker additional credentials and passing the RHIA certification exam. Logistic regression using current additional credentials including CCA, CCS, CCS-P, CDIP, CHDA, RHIT, CHPS, CHTS-TS, CHTS-CP, CHTS-TR, CHTS-PW, CHTS-IM, CHTS-IS, and CPHI as predictors of first-time success was completed (see **Table 4**). There were significant results for participants with the CCS credential and the RHIT credential. The test-takers with the CCS or the RHIT credential had a high likelihood of passing the RHIA exam on the first attempt.

Serendipitous Results

Job level category data was analyzed (see **Table 5**) to determine if there was a relationship between first-time test-taker job setting (clerical/administrative support, clinician, consultants, directors, educators, executives, HIM technicians, managers/supervisors, and those in technology) and passing the RHIA certification exam. There were significant results for nine different job levels including that being employed in any of the nine job levels of the HIM profession increased the likelihood of passing the exam compared with those who were unemployed.

Further analysis was completed by converting the odds to probabilities for each variable (shown in **Table 6**) for comparison with actual results. The probability for test-takers with other advanced practice credentials (CCS, CCS-P, CHDA, CPHS, and CPHI) indicated higher probabilities in passing the RHIA exam.

The test-takers with the highest probability (50 percent or above) of passing the exam were found to be the following groups: highest degree of baccalaureate, doctorate and high school graduates (early testers who had not received a bachelor's degree) compared with those with a master's degree. Those working in a regional extension center, and those with at least one of the following list of credentials—CCS, CCS-P, CHDA, RHIT, CHPS, or CHPI—had a probability of at least 50 percent or higher in passing the RHIA exam.

Summary of Results

The 2018 national pass rate for the RHIA certification exam was 71 percent, a repeating pattern of at least four years. Only sixty-three percent of new graduates eligible for the RHIA entry-level exam attempted and passed the RHIA exam, which inspired this study focused on increasing pass rates of the first-time test-takers interested in taking the exam. The present study was designed to discern factors of success for passing the RHIA certification exam. The study relied on data collected by AHIMA between 2015 and 2019.

There is limited, available research specific to the RHIA credential to inform this study. The Health Information Management Education conceptual framework and the Community of Inquiry framework underpin the study. Factors for success related to test-takers that have been identified through literature review included: HIM GPA, mean cumulative GPA, admission GPA, grades in coding, and introduction to HIM courses.[27-30]

Several significant predictors for passing the RHIA exam were identified, including the examinees with only a high school diploma (early testers working toward a bachelor's degree) were more likely to pass the exam than those with a master's degree; examinees holding a CCS or an RHIT credential were likely to pass the exam on the first attempt; those individuals currently working either in a clerical role or as a clinician, consultant, director, executive, educator, HIM tech role, manager/supervisor, or a technology role were more likely to pass the exam than those who were not employed in the HIM field; test-takers with the highest education level of HIM/coding certificate program completion were less likely to pass the exam than those with a master's degree; and first-time test-takers working in long-term care, at a home health agency, or a Health Information Exchange organization were less likely to pass the exam than those first-time testers who were unemployed.

High school graduates working toward baccalaureate degrees taking the credentialing exam prior to receiving the degree are successful with early testing. Findings in this study are consistent with other disciplines, where individuals who experience a high-stakes exam, such as the RHIT exam, gain critical experience in taking another second important exam, such as the RHIA exam. This may improve confidence and reduce testing anxiety levels, while better preparing candidates for the additional high-stakes exam.

The exam results did indicate that test-takers 50 years of age or older were more likely to pass the RHIA exam than younger, first-time test-takers. The first assumption would be that individuals who are older have more life experience. Interestingly, those with a master's degree were more likely to pass the exam than those with a baccalaureate degree. Considering the results where those 50 years of age and older and those with higher education levels were more likely to pass the exam leads one to a conclusion that the exam may be better classified as an advanced practice exam. Yet, those with a high school degree without a baccalaureate degree (early testers) are more likely to pass the exam than those with master's degrees, indicating some other unknown factors may be impacting pass rates (e.g., the time allocated to studying each week; lack of multiple roles; not being employed while undertaking education; having better test-taking skills; having less anxiety while taking exams; completing courses on campus as full-time students; or even having the initiative and time to seek faculty tutoring).

Probabilities indicate the likelihood that those individuals with advanced credentials requiring experience in the profession will perform well on the RHIA exam, yet only one advanced practice credential is significant in passing the RHIA exam in this study. There is a limitation in the ability to

interpret the findings due to the lack of separation of current member data from data collected at the time of application for the RHIA exam. The usual practice within the profession is to obtain an entry-level generalist credential first followed by the advanced practice credentials.

In order to increase the number of candidates taking and passing the RHIA certification exam, early testing successes and the importance of taking and passing a high-stakes exam, such as the the RHIT exam, prior to taking the RHIA exam should be widely communicated throughout the HIM profession. Incentives such as testing discounts or bypassing academic exit exams should be considered for students. Including the cost for the RHIA exam within a required preparation course is one idea that could increase the number of students taking the exam.

RHIA exam eligibility criteria could be expanded to include those professionals with RHIT or CCS credentials and significant managerial/supervisory experience and those individuals with a CHDA or CHPS credential and experience in the HIM/HI or data analytics fields. Adding this incentive for RHIT, CCS, CHDA, and CHPS credential-holders to gain an RHIA credential could help in advancing the HIM field forward and open new paths to the RHIA credential. An alternative approach might be for academic programs to transparently offer and market prior learning credit for individuals with any of the four credentials and supervisory or other appropriate experience to encourage those same individuals to enroll in the bachelor's HIM program. Probabilities explored during this study show that individuals with this type of preparation have a higher than 50 percent probability of passing the RHIA exam.

Future research should explore the value of the RHIA credential by students and employers. Further investigation of why students are not taking the RHIA exam after obtaining a bachelor's, post-bachelor, or master's degree is also warranted. Additional studies might probe additional factors, such as years to program completion, the multiple hats of students, the amount of time dedicated to study during pursuit of the bachelor's degree and the impact on passing certification exams and learn what is understood by students about the early testing option and study the proportion of students taking advantage of that option and the likelihood of passing exams. There also are additional unknown factors that could be identified and studied to provide insight into passing the RHIA exam.

Limitations

Limitations include unknown confounding factors, e.g., the amount of time a student has worked in a particular type of employment setting prior to completing the exam or having prior certification exam experiences. The dataset used for the study included four variables that could have been updated by the AHIMA member after the exam was initially attempted. The four variables included: highest educational degree, work setting, job category, and additional credentials held. This is the only dataset available on a national scale to study the RHIA student factors for success on a longitudinal basis and of sufficient sample size. An additional limitation is the use of an ex post facto,

correlational design in which causal relationships between the independent (predictor) and dependent (criterion) variables cannot be asserted.[31-34] However, the temporal relationship between the independent and dependent variables does, perhaps, imply causality to some degree. And future studies may include experimental or mixed-method designs, which can more strongly identify causal relationships. There was a prior exam calibration issue[35] that caused no apparent limitation during data analysis. Researcher bias may have impacted the study by selecting ex post facto variables from the first-time RHIA application without incorporating a qualitative component to identify additional confounding success factors. Workforce needs in HIM rapidly changed and caused several updates to educational curriculum requirements followed by exam outline changes with periodic lags in exam updates. Results of this study can be generalized only to the RHIA certification exam in HIM.

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Notes

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There are no comments yet.