EMPLOYERS' PERCEPTIONS OF NON-CLINICAL, GRADUATE

DEGREES IN THE HEALTH PROFESSIONS

by

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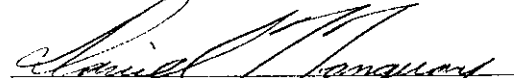
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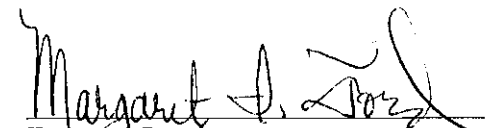
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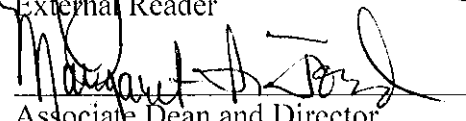Southern New Hampshire University

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Abstract

This quantitative research studied the perceptions of individuals who screen employment applications in local health departments regarding non-clinical graduate health care degrees based on their perceptions of credibility of method of instructional delivery (classroom, online) and the type of college/university (nonprofit, for-profit). As more institutions award degrees earned online, it is important to understand marketplace acceptance of online degrees. It is paramount we understand how employers view degrees earned online compared to traditionally-earned degrees, as well as understand perceptions of nonprofit and for-profit colleges. If certain degrees are not perceived as credible, then students and institutions of higher education need to better understand marketplace perceptions to make good educational and financial decisions. An email was sent to 1,935 members of the National Association of County and City Health Officials. Undeliverable emails resulted in 1,804 possible participants. Participation was 12.1% (n=218). The results found a significant difference in local health administrator perceptions of four non-clinical graduate health care degree options. Specifically, non-clinical graduate health care degrees from nonprofit colleges with classroom instruction were viewed most favorably, as was expected. Non-clinical graduate health care degrees earned from for-profit colleges with online instruction were viewed least favorably. The two degree options, online from nonprofit and classroom instruction from for-profit colleges, were viewed equally by the participants. This study established a new line of inquiry regarding the acceptance by employers of non-clinical graduate health care degrees earned online or in the classroom, and from nonprofit or for-profit colleges.

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CHAPTER 1

INTRODUCTION

Higher education in this country has changed significantly since the mid-nineteenth century when the United States first modeled the German educational system (Altbach, Gumport, & Berdahl, 2011). While college and university campuses are still relevant in higher education, technology has enabled institutions of higher learning to rethink the way in which students earn degrees.

The Internet has provided more learning opportunities to a more diverse group of people than face-to-face courses (Gaytan, 2007; Sperling, 2000). "Educators have at their disposal sets of tools in the form of the Internet and a science of learning and teaching that permits the alteration of the nature of instruction at the university level" (Larreamendy-Joerns & Leinhardt, 2006, p.1). The research (Gaytan, 2007) suggests students who take online courses tend to be older than typical 18-22 year old college students. While students often choose online courses because of the convenience, they expect the instructional design to be of high quality. In 2012, there were approximately 7.1 million students taking at least one online course. This compares to 1.6 million online students in 2002. There were also approximately 3 million college students enrolled in degree programs taught exclusively online (Allen & Seaman, 2014).

As technology improves and the cost goes down, more people will be able to afford advanced degrees. While technology has changed the face of higher education, so has where the student earns their degree. In 1972, an amendment to the Higher Education Act (HEA) enabled students to receive more financial aid for college, and allowed for-profit universities to offer financial aid to their students (Breneman, Pusser, & Turner, 2006). The federal government made this change based on the theory that higher education furthers the public good and should

therefore improve the educational level of society (McGuire, 2012). In the 2009-2010 academic years, the federal government awarded $146.5 billion in grants and loans to students through Title IV programs. Of those funds, more than 20% went to for-profit schools (McGuire, 2012).

For-profit institutions have served Americans for decades and are a varied group. Often referred to as *proprietary schools* or *career colleges*, they provided training in a vocation or occupation needed by employers in a community. While many small for-profit colleges still thrive, the introduction of for-profit institutions like the University of Phoenix is often what comes to mind when someone mentions for-profit institutions of higher education (Deming, Goldin, & Katz, 2013). For-profit institutions were responsible for approximately 30% of the growth in postsecondary education enrollment from years 2000 – 2009 (U.S. Department of Education, 2011). For-profit institutions in the United States provide education (online and face-to-face) to nearly 3.5 million students in over 3000 institutions (Association of Private Sector Colleges and Universities, 2015).

For-profit colleges and universities attract a different student demographic than the nonprofit institutions. Many of the students are older than age 25, female, and are often minorities (Deming et al., 2013; McGuire, 2012; Tierney & Hentschke, 2007). The typical student at a for-profit school is looking to advance a career rather than looking for the humanities and general education emphasis found in nonprofit institutions (Deming et al., 2013). Approximately 35% of students enrolled in a fully online degree program attended a for-profit university. The remaining 65% are attending a public (45%) or private nonprofit (20%) college/university for their online instruction (Aslanian & Clinefelter, 2013).

Statement of the Problem

As more institutions award degrees earned online, it is important to understand the acceptance of those degrees in the marketplace. Because of this, it is paramount we understand how employers view degrees earned online vs. classroom instruction as well as the employers' perception of the institutions that grant those degrees. If colleges and universities are conferring degrees that are not perceived as credible in the marketplace, then institutions need to take a harder look at degree offerings, or do a better job of demonstrating to employers that instructional method is not as important as the knowledge and skills acquired.

While much of the current literature concerning perceptions of online education relates to student and faculty, little focuses on employer perceptions. Adams and DeFleur (2005, 2006, 2007) published three studies related to employer acceptability of online degrees as credentials for employment. One of those studies related to employment in health care (Adams & DeFleur, 2007). This study, asking about clinical (i.e. patient care) health care degrees earned, revealed that employers' preferred an applicant to have earned a degree in a classroom. The respondents were given two scenarios and asked to choose which applicant they would recommend for hire. In both scenarios the employer chose the applicant who earned a degree in the classroom (95% and 71% respectively). Another study (Kinneer, 2013) related to employer perspectives in health care examined health care recruiters' attitudes toward RN-to-BSN degrees based on instructional delivery method and college for-profit/nonprofit status. Kinneer's (2013) findings were "…that significant differences still exist among hiring decision-makers based on the method of instruction and for-profit/nonprofit status of the college granting the degree" (p. 86). Hiring managers in his study still preferred employees with BSN degrees earned from nonprofit colleges and through the traditional method of instruction (86%). This compared to 37.5% for

traditional college and online instruction, 49.6% for-profit college and classroom instruction, and 23.9% for-profit college and online instruction.

What has not been investigated is the employer perception of non-clinical health care degrees earned online vs. classroom and from nonprofit vs. for-profit colleges/universities. It is currently unclear if employers perceive the credentials of a job applicant with a non-clinical health care degree earned online as equivalent to the credentials of a job applicant with the same degree earned on campus. This is critical as potential students make decisions about a college or university where they intend to pursue an advanced non-clinical health degree. According to GetEducated.com (2013), a distance education research company, the average cost of an online Master of Public Health (MPH) degree is $31,985. If an employer does not value a MPH degree earned online, then students are not making a smart economic choice in their education and future careers.

This is a critical concern as the health care system changes and matures, and employers need to recruit individuals with health care/administrative knowledge acquired in degree programs such as a Master of Public Health or Master of Healthcare Administration (MHA). According to Johnson (2008), the American Schools of Public Health estimates there is a need for an additional 250,000 public health workers by 2020.

> Accredited schools of public health in the United States graduate between 80% and 85% of the nation's public health workforce. To replenish the work force and deflect the crisis, schools in public health will have to graduate three times the current number of graduates over the next 12 years. (Johnson, 2008, para. 9)

Public health is a diverse field that exists to serve others. Public health is about prevention and education; clinical health is largely about treatment. Because there are many different jobs in

public health, there are many different opportunities, which means there are different pay scales

depending on the expertise and position. For example, a health educator could earn anywhere

from $33,000 to $86,400. An executive director in public health could earn anywhere from

$60,200 to $137,000 (MPH Program Lists.com, 2015). This is comparable to an individual with

an earned MHA degree. A healthcare administrator can expect to earn anywhere from $37,500 to

$128,721 (The Health Express, 2015) with the median annual wage of $88,580 reported for 2012

(U.S. Department of Labor, 2014).

Purpose Statement

The purpose of this quantitative study is to compare the perceptions of individuals who

screen employment applications in U.S. local health departments regarding non-clinical health

degrees (i.e.. Master of Public Health, Master of Healthcare Administration) based on the

method of instructional delivery (classroom, online) and the type of university (nonprofit, for-

profit,) to determine if significant differences exist. There are four degree options for education

setting/ instructional method to be considered:

- Nonprofit College + Classroom Instruction

- Nonprofit College + Online Instruction

- For-profit College + Classroom Instruction

- For-profit College + Online Instruction

For the purpose of this study, administrators in local health departments in the United States will

be surveyed. Contact information will be secured through the National Association of County &

City Health Officials (NACCHO) and the entire population will receive the electronic survey.

Research Questions

To understand how employers view non-clinical health care degrees, specifically hiring administrators working in U.S. local health departments, an extensive review of the literature was performed. The following research questions and independent variables will be used in this study. These are similar to the independent variables used by Kinneer (2013) in his study related to nursing degrees.

1. How do hiring administrators' perceived advantage of a non-clinical, graduate health care degrees differ depending on applicant's degree option?

2. How do hiring administrators' perceived concerns about credentials of a job applicant differ in the hiring process depending on the degree option?

3. How likely is a hiring administrator to recommend hiring an applicant based on degree option?

Hypotheses

Null Hypothesis 1

There is no significant difference in the perception of an advantage of a non-clinical degree by hiring administrators at U.S. local health departments across four degree options.

Alternative Hypothesis 1

There is a significant difference in the perception of an advantage of a non-clinical degree by hiring administrators at U.S. local health departments across four degree options.

Null Hypothesis 2

There is no significant difference in the perception of the credentials by hiring administrators at U.S. local health departments based on four degree options.

Alternative Hypothesis 2

There is a significant difference in the perception of the credentials by hiring administrators at U.S. local health departments based on four degree options.

Null Hypothesis 3

There is no significant difference in the likelihood to recommend hiring of an applicant at a U.S. local health department based on four degree options.

Alternative Hypothesis 3

There is a significant difference in the likelihood to recommend hiring of an applicant at a U.S. local health department based on four degree options.

Definition of Terms

Non-clinical health care degree – graduate degree that is not related to direct patient care; generally administrative in nature.

Master of Public Health – graduate degree that prepares students for careers in public health. Typical places of employment include community health centers, health departments, state and federal agencies (Association of Schools and Programs in Public Health, 2015)

Master of Health Administration – graduate degree that prepares students for careers in hospital administration, health policy, and health service management (Association of Schools and Programs in Public Health, 2015)

Local Health Department – governmental health department including counties, cities, city/counties, districts, tribes, and townships (National Association of County & City Health Officials, 2015)

Hiring Administrator - a person in a community health center who manages and administers the day-to-day operations

Instructional Design - a branch of the education field concerned with research and theory about instructional strategies and the process for developing and implementing these strategies" (Little, 2009).

Online education/instruction – Instruction delivered where most (at least 80%) or all of the content is delivered online. Typically there are no face-to-face meetings (Allen & Seaman, 2014).

Distance education/instruction – used synonymously with online education/instruction

Classroom instruction – Instruction delivered where no online technology is used. All content is delivered in person, either written or orally, between the faculty and student (Allen & Seaman, 2014).

Nonprofit College/University– A public college/university that receives monies from the government and provides physical buildings for classroom instruction (Tierney & Hentschke, 2007) or a private college/university that is independent in serving their unique mission and governed by a board of directors or trustees.

For-Profit College/University – A private college/university that is structured as a for-profit corporation where individuals can buy and sell shares in that institution. For-profit colleges/universities are in the business of educating and make a profit for its investors. For-profit colleges/universities do not receive any state or federal appropriations (Tierney, Lechuga & Hentschke, 2010). Examples include the University of Phoenix, Walden University, Capella University, and DeVry University.

Degree type (options):

- Nonprofit College + Classroom Instruction
- Nonprofit College + Online Instruction

- For-profit College + Classroom Instruction

- For-profit College + Online Instruction

Significance of the Study

This study intends to assess the local health department marketplace for acceptance of non-clinical health care degrees earned online vs. classroom. The research will provide insight into hiring administrators' perceptions of degrees earned from for-profit versus nonprofit colleges/universities. This study will identify whether employers place a level of importance on the method of instruction and/or whether the reputation of the institution itself is of more importance. The results should help prospective students make informed decisions choosing a non-clinical health care degree, so they have broader career opportunities. Therefore, this descriptive correlational study has significance to individuals looking to earn an advanced non-clinical health care degree online, for-profit administrators, nonprofit administrators, and the larger public health community in general.

Theoretical Framework

The theoretical framework applied is human capital theory (Becker, 1975; Schultz, 1961). Human capital theory relates to the development of skills, which are an important factor in economic and social transformation (Olaniyan & Okemkinde, 2008). "The development of certain skills requires both specialization and experience and can be had partly from firms and partly from schools" (Becker, 1962, p. 25).

It is widely known that education improves the standard of living of individuals, increases economic productivity, and creates a more robust community. Past research (Psacharopoulos & Woodhall, 1997; Sakamota & Powers, 1995; Schultz, 1971), points to human

capital theory, education and the need to improve production in a population. Simply put, an educated workforce is a productive community.

Taiwan, Singapore, and Korea have experienced expansive economic growth during the time in which significant investments in education were made (Olaniyan & Okemkinde, 2008). Research (Van-Den-Berg, 2001) reveals that countries that lead in the technology industry have the most educated populace. As robust economies require an educated workforce, it is necessary for institutions of higher learning to meet educational demands using methodologies deemed acceptable to and perceived as credible by employers.

Following human capital theory, individuals pursuing non-clinical health care degrees must consider the return on investment. It is important to understand whether some degrees have greater value in the marketplace based simply on the method of instruction or the reputation of the institution where they were earned. Kinneer (2013) applied human capital theory to his study on the value of a Registered Nurse – to – Bachelor of Science in nursing degree. There are no studies that apply human capital theory to individuals pursuing a non-clinical health care degree.

If someone decides the investment in additional education is worthwhile, he or she has many degree options. These include earning a degree in the classroom, online, or earning a degree from a public and nonprofit college/ university or from a for-profit institute. Many factors come into deciding where, and what, degree to pursue. Some factors are cost, location, flexibility, time commitment, and value in the workplace. Deciding to pursue an advanced degree in non-clinical health care requires an investment by the individual and sometimes by the employer.

It is important to note the limitations of human capital theory when applied to education. First, human capital theory is economics based, and as such, uses education strictly as a means to

an economic reward for an individual and a community. This is problematic in that human capital theory does not account for non-economic reasons why people pursue education, such as social, religious, or emotional reasons (Robeyns, 2006). The other challenge applying human capital theory to education might be that one is compelled to compare this investment (i.e. monies spent on higher education) with other investments and decide which provides the highest return (Robeyns, 2006). While both are important limitations to the theory, one cannot ignore that an educated healthcare workforce in the health care environment is advantageous to individuals and communities.

Target Population

The population to be studied is administrators at local health departments (LHDs) in the United States. The National Association of County & City Health Officials (NACCHO) lists 1,935 administrators (convenience sample) representing approximately 13,000 public health professionals across the 50 United States. Collectively, the LHDs provide health-related services to almost three-quarters of the U.S. population (National Association of County & City Health Officials, 2015). The number of employees with non-clinical higher education degrees is not known, but each LHD would have an administrative person who is involved in hiring.

This quantitative, non-experimental research will be descriptive and will collect data using a SurveyMonkey link sent to email addresses from the National Association of County & City Health Officials database. All individuals in the National Association of County & City Health Officials database will be potential recipients of the online questionnaire. Participants will be asked to consent to participation at the end of the Informed Consent. Participation will be considered as consent. Privacy and confidentiality will be ensured by removing all identifying information after data collection and before analysis of the data. Data from the study will be

collected and downloaded in the statistical software, IBM SPSS Version 22.0 (IBM Corp, Armonk, NY). The documented analysis will present demographic information on the background of the participants and the LHD involved.

Summary

This study is a quantitative study conducted to understand how non-clinical health care degrees are perceived by employers, specifically, hiring administrators working in U.S. local health departments. While there is some research related to employer perception of online degrees, there are few related to health care degrees, and none related to non-clinical health care degrees (i.e. MPH and MHA). Local health departments in the United States are employers of individuals with non-clinical health care degrees and their perspectives would be invaluable.

It is hoped the results of this study will help students and colleges/universities assess the marketplace acceptance of non-clinical health care degrees earned online. This study will identify whether or not employers place a level of importance on the method of instruction and/or whether the type (i.e. nonprofit vs for-profit) of the institution is of importance. The results should help potential students make an informed decision choosing a non-clinical health care degree so that they have broader career opportunities. Regardless of the results, information from this quantitative study will fill a gap in the literature related to employer perception of non-clinical health degrees.

CHAPTER 2

LITERATURE REVIEW

Higher education in this country began in the mid-nineteenth century when the United States first modeled the European educational system (Altbach et al., 2011). While college and university campuses are still relevant in higher education, technology has enabled institutions to rethink the way students earn degrees. Higher education is no longer just for the wealthy. Technology has enabled working adults as well as individuals from all socio-economic backgrounds to earn degrees. While many people believe this transformation from the campus classroom to the virtual classroom happened in the past 25 years, the change actually started well over a century ago (Moore, Dickson-Deane, & Gaylen, 2011; Spector, Merrill, Merrienboer, & Driscoll, 2008).

Distance education began after the advent of the U.S. postal service (Gaytan, 2007; Visual Academy, 2013). It was the postal service that facilitated distance education through correspondence courses. In 1873, Bostonian Ana Eliot Ticknor founded the Society to Encourage Home Studies, America's first correspondence education program. (Larreamendy-Joerns & Leinhardt, 2006).

While correspondence courses were the first distant education instruction offered, it was by no means the most dramatic. The early 1900s saw the use of radio, telephone, film, and television as a means to offer classes (Larreamendy-Joerns & Leinhardt, 2006). It was not until 1969 when the U.S. Department of Defense developed the Intranet (ARPANET) that the type of progress that could be made in distance learning was realized (Harasim, Hiltz, Teles, & Turoff, 1995). The Intranet led the way to the Internet and the ability for colleges and universities to offer college courses over the World Wide Web (Harasim et al., 1995). Online education has

changed from the early days of correspondence courses to a common, accepted educational modality in most universities (Gaytan, 2007). There are two reasons why online education is one of the fastest growing trends in higher education. The first is that it is too expensive to be a full-time on-campus student and the second is easy access to the Internet (Chronicle Research Services, 2009).

The Internet has allowed students from all over the world to experience higher education (Gaytan, 2007). It has provided learning opportunities to a more diverse group of people than face-to-face courses (Gaytan, 2007; Sperling, 2000). Educators have a wide range of technologies, as well as a variety of proven pedagogies, that enable them to be creative in their methods of instruction (Larreamendy-Joerns & Leinhardt, 2006). The research (Gaytan, 2007) also shows students who take online courses tend to be older than the traditional student, choose online courses because of the convenience, and expect high quality instructional design. The number of students taking at least one online class increased in the 7 years from 2003 - 2009, but has decreased year-over-year since. However, online education is still growing at a rate greater than the face-to-face higher education student body (Allen & Seaman, 2015).

The term *distance education* is often used interchangeably with *e-learning*, *online education*, or *self-directed education* (Moore, Dickson-Dane, & Gaylen, 2011). Distance education is any course delivered to students who are not in a classroom. *E*-learning is any course sent electronically; online education is any course delivered to students on the Internet (Tallent-Runnels et al., 2006). The term self-directed education has been described as learning where no real learner-to-learner interaction takes place (Moore et al., 2011). While all may be technically different, the commonality between distance education, e-education, and online education "…is that some form of instruction occurs between two parties (a learner and an

instructor), it is held at different times and/or places, and uses varying forms of instructional materials" (Moore et al., 2011, p.130).

Over 20 years ago, Watkins (1991) outlined five elements to address for online education to succeed. These five issues are relevant today. First, there must be continued adaption. As technology changes, so must people. The advent of Learning Management Systems (LMS) was an important development in online learning. These software platforms enabled individual classes to be designed and tailored in a consistent professional manner. Learning management systems continue to evolve and with better technology, the faculty members and instructional designers are better able to design computer-based courses that are easier to use and enable students to access information in ways never accessed before. The LMS allowed for a single place to retain and receive classroom activities. As technology changed, it required a new expertise, *Instructional Design* and a new role *Instructional Designer* (ID). An ID is knowledgeable in educational instruction and an expert in technologies required in an online classroom (Little, 2009).

Second, the financial element related to online education must be understood and addressed. The cost of residential higher education continues to rise and this requires more financial aid and more student debt. Colleges can offer online courses for less because online courses do not require additional buildings, are less expensive to develop, and can be replicated for many different classes. Online education enables students to finally afford a college degree because they no longer have costs related to relocation. Students can continue with their families and career and earn a degree in the comfort of their homes (Watkins, 1991).

Third, Watkins (1991) argued there must be progressive leadership. As more colleges and universities offer online courses the better the course content. As well-respected professors write

and teach the same course material as they would online as they do face-to-face, the public and academia in general perceive the online courses to be of higher quality. This is only correct if the professors are well versed in how to deliver content in an appropriate way in the online environment.

Fourth, we must effectively deal with politics that traditionally gets in the way when introducing something new to an education system that is slow to change and not eager to change. The politics of online education is still apparent in academia, as many residential professors are threatened by their courses being offered online. Also, because a for-profit institution (The University of Phoenix) pushed for online education as a way to reach adults, minorities, and people living in rural America accrediting agencies were forced to seriously consider accrediting online programs (Sperling, 2000).

Finally, Watkins (1991) asserted there must be a commitment from educational stakeholders. Colleges and universities understand the benefits of a diverse student body, see the value of reaching more students around the country, as well as internationally, and understand the confines and expense of residential expansion, i.e. land, buildings, utilities. While the technology is important to deliver online education, the real value lies in the discourse it encourages individually and institutionally (Larreamendy-Joerns & Leinhardt, 2006).

Online Health Professions Education

The use of technology in the health professions is not new; however, the specific use of online education has only become commonplace in the last two decades. Deming et al. (2013) report, "In the 2009-2010 academic year, programs in the health professions made up the single largest field of study in for-profit colleges and the second largest in community colleges" (p.149). In 2004, Allen and Seaman (2005) reported that approximately 32% of all public and

private universities offered at least one health profession degree online. Technology has played a training role in university-based health professions programs for many decades. The technologies used include computer tutorials (Lieberman, Abramson, Volkan, & McArdle, 2002), interactive video (Calderone, 1994; Cohen & Dacanay, 1994), prerecorded lectures, technology-supported study guides (Adams, DeFleur, & Heald, 2007), interactive television, and video conferencing (DiMaria-Ghalilli, Ostrow, & Rodney, 2005).

Online education in the health professions has some of the same advantages and disadvantages seen in other disciplines. Some of those benefits are convenience, removal of geographic barriers, economy of scale, individualized learning, and lower cost (Adams et al., 2007; Cook et al., 2008; Lunney et al., 2008). Disadvantages are upfront costs, social isolation, and technical issues (Cook et al., 2008). Many of the disciplines in the health professions require a clinical experience that is hard to simulate on a computer. While there are ever-increasing web-based simulation programs that are very lifelike, they have not taken the place of hands-on clinical training.

Graduate (MPH and MHA) degrees are in demand and non-clinical in nature. In a global society, we face more threats from bioterrorism and infectious diseases as never before (Centers for Disease Control and Prevention, 2001). *The Future of Public Health* (Institute of Medicine, 1988) report called for schools and programs of public health to educate new students as well as current public health workers to assume leadership positions. One way to do this cost effectively is through online graduate degree programs. There are approximately 33,000 students in programs and schools of public health (offering degrees such as the MPH and MHA) and many of those are taking classes online (Association of Schools and Programs in Public Health, 2015).

Much of the literature related to online education in the health professions can be classified into four distinct areas: quality, critical thinking and knowledge transfer, perceptions, and interdisciplinary education. These are important individually and collectively. One could argue the first three areas are so intertwined they are all necessary if online education is to thrive in the health professions.

Quality

Instructional quality is important irrespective of delivery format. As Gonzalez (2008) pointed out, "If online educational material is to gain credibility with professional and educational accreditation authorities throughout the world, it must be educationally and scientifically based" (p. 50). To this end, Attstrom (1997) reported on an international, cross-sectional study developed in 1997 by five periodontists. There were 218 survey respondents and 68% believed an international quality assurance committee for online education was needed in dentistry. When asked to rank items based on importance to quality in online education, the areas with consensus were *being scientifically based, being regularly updated, easy to navigate, defined educational objectives*, and *stimulate learning*. While important to clinical online education in 1997, these aspects are still important in all health professions education in 2015.

In contrast to Attstrom (1997), Billings, Skiba, and Connors (2005) explored quality online education using benchmarking. This study involved undergraduate and graduate nursing students. "Benchmarking is a quality improvement tool that helps educators strive for excellence and maintain accountability for outcomes" (Billings et al., 2005, p. 127). The benchmarks used were technology, educational practices, student support, and outcomes. The study was 558 bachelor, masters, and doctoral nursing students enrolled in courses that were 100% online. The instrument used was a 57-item survey. The technology scale results found students spent more

time in an online course than they did in an on-campus course. Students did not believe that not having computer expertise hindered the ability to learn. Educational practices were shown to shape outcomes. Some students thought interaction with faculty was less (older students), but just as many thought they had more interaction (younger students). Finally, there were no significant differences between age groups on professionalism, convenience, satisfaction or preference for on-campus learning. Overall, Billings et al. (2005) support online education for graduate health professions programs.

Important to the quality of online health professions' instruction is the use of technology. Hauge et al. (2010) reported their experience providing online training in the business of health care and practice management to surgical residents. They surveyed perceptions related to online instruction. Twenty-two residents completed a pre-test and post-test (79%) with 91% stating they found the materials well organized and relevant to future clinical practices. The residents found the online program was a welcome change to a curriculum requiring hands-on clinical education (Hauge et al., 2010). Smothers, Green, Ellaway & Detmer (2008) report on the need to develop technology standards for all health professions education. The use of technology to educate can create efficiencies and pedagogical improvements.

Technology was at the center of a study conducted by Smith, Gilliam, McCutcheon and Ziaian (2011). The program studied used *scenariation,* a term used to describe software that generates scenarios, in online education to determine its benefit in a clinic-based program (Smith, Gillham, McCutcheon, & Ziaian, 2011). In this particular study, the researchers used scenariation in a nursing program. The initial plan was to use scenariation-based online instruction related to decisions for patient assessment. The scenariation provided students with video patient presentation, simulated case note, assessment documentation and textual scenario-

based content. Students were required to make clinical decisions on the available information and select from multiple-choice options. Results found scenariation to be effective simulating a nursing workplace and could develop skills related to clinical decision-making (Smith et al., 2011).

There are many studies related to approaches and conceptions to teaching and learning in a residential setting, but little related to online learning. The exceptions are studies conducted by Roberts (2003), Ellis, Steed and Applebee (2006), and Gonzalez (2008). Roberts (2003) identified three learning conceptions that the Internet is used for: individual and independent self-paced learning, as a source of information, and as a means of group analysis, decision making, and dialogue. Ellis et al. (2006) studied conceptions of blended learning and teaching, as it applies to course design. The authors found that teachers who use technology to aid students in achieving learning outcomes helped the student develop new ideas and understanding. In contrast, teachers who used the technology to simply deliver information were doing so at the expense of student learning. Because of the lack of research in health professions learning, Gonzalez (2008) conducted a qualitative study with seven lecturers from a faculty of health sciences. Results produced three conceptions of online learning: individual access to learning materials and information, learning related to asynchronous and/or synchronous communications, and networked learning.

Critical Thinking and Knowledge Transfer

"Past research has shown that critical thinking is a learned skill that can be fostered through teaching strategies" (Lunney, Frederickson, Spark, & McDuffie, 2008, p. 85). The researchers tested 10 educational strategies in online courses used to improve critical thinking in the health sciences. The strategies were:

- Ask questions that can be answered through information seeking

- Expect students to describe the meanings of their required readings in their own words

- Motivate students to use effort through grading criteria

- Stimulate students to give examples of concepts or theories being studied

- Provide case studies or other examples of application of class content

- Prompt students to ask questions of each other and the instructor

- Phrase questions so that additional independent research or reading is required

- Promote student debates on controversial subjects within the discipline

- Require students to use journaling; and reinforce students' use of critical thinking. (p. 88)

The reason these strategies work in health professions instruction is they allow a student to review and re-review a patient's clinical issues and provide additional thinking time. "This enhances the ability to learn, reflect, and problem solve through the use of critical thinking strategies" (Lunney, 2008, p. 96).

Related to critical thinking is knowledge translation. Greenhalgh and Russell, (2006) studied knowledge translation in an online Master of Science course in primary health care in London. Knowledge translation is not the same as learning evidence-based medical knowledge. In medicine, the latter is related to concrete, specific items like knowing what a parasite is or understanding the term *alopecia*. Knowledge translation is *softer* and involves explaining to a parent that a child has cancer or knowing how to access a patient's pain tolerance. Knowledge translation is something a health professional learns over time as he/she experiences different patients at different locations. Greenhalgh and Russell (2006) created an online course for senior

members of health organizations. Researchers found a constructivist (i.e. students use prior knowledge and experience and apply to something new) approach to online learning allowed students "… to respond effectively and creatively to different intellectual problems in a changing environment" (Greenhalgh & Russell, 2006, p. 105). The researchers believed the actual course design allowed this process to happen, not just the technology. Student evaluations pointed to three elements that facilitated knowledge transfer: a discussion spread out over a couple of weeks allowed for more reflection, information in one spot allowed a student to refer to salient points when adapting to a place of employment, and sharing ideas with other health professionals a student practiced and modified scenarios to put knowledge to practice (Greenhalgh & Russell, 2006).

Jackson and Woolsey (2009) reported on the use of online education in an advanced diagnostic course. The traditional college model did not work for the millennial students in their course. Participation lagged and students were simply not engaged. To integrate knowledge and clinical skills, the course was rewritten, so that all reading materials were online, as well as, video of peer-conducted diagnostic sessions for student review. Results found students were able to learn and apply knowledge into clinical scenarios.

Perceptions

In 2006, Hendricson et al. assessed 800 dental student and faculty members at 14 schools on perceptions of *e*-learning. The study was conducted in three phases. Fifteen dental schools completed through Phase 3. The selection criteria were schools that required students to use a laptop, more than 33% of the courses were web-based and used some type of online course evaluation, at least 33% of the faculty knew how to develop an online course, and finally, the school had access to instructional technology experts. Results showed that new dental students

were comfortable with the technology and most students felt that the laptops were essential to earning a good grade. Students were concerned about the cost of the technology, and few students changed their study habits because of the technology requirement. Faculty members believed online learning would not become pervasive or reach its full potential until all faculty members learned the technology and believed the technology would change the way they teach. The Hendricson et al. (2006) study indicates the need for health professional schools to use technology to enhance the curricula rather than as a means from which a student learns independently. The authors revealed that acceptance by students and faculty is paramount to the success of online teaching and learning.

In a meta-analysis of Internet-based learning in the health professions literature, Cook et al., (2008) attempted "to summarize the effect of Internet-based instruction for health professions learners compared with no intervention and with non-Internet interventions" (p. 1181). Articles published from 1990 - 2007 were eligible, as were articles in any language that quantified the association mentioned above. This allowed for an analysis of 201 studies. Cook et al. (2008) concluded "Internet-based learning is associated with large positive effects compared with no intervention. In contrast, effects compared with non-Internet instructional methods are heterogeneous and generally small, suggesting effectiveness similar to traditional methods" (p. 1190). In 2008, Richardson, MacRae, Schwartz, Bankston, and Kosten reported the outcomes of five cohorts of occupational therapists who completed an online, non-clinical master's degree. The results found a high level of satisfaction (90%) by the respondents.

For several years, Adams and DeFleur have studied the value of online doctorates in the workplace. In 2005, they studied faculty search committees to determine the acceptability of doctoral degrees earned on campus, doctoral degrees earned online, and doctorates that were

hybrids of the two methods. Adams (2008) surveyed deans and academic directors on the hiring of faculty with doctoral degrees, all other factors being equal, overwhelmingly preferred the degree earned in a face-to-face classroom (Adams, 2008; Adams & DeFleur, 2005). The three areas in academics perceived as missing in candidates with online degrees were face-to-face interactions, reputation of the institution, and mentoring opportunities. It is important to note that these two studies are 8 and 11 years old respectively and results might be different today as many well-respected and renowned universities now have online courses and degrees in the health professions.

Two other studies (Adams & DeFleur, 2006; Adams, DeFleur, & Heald, 2007) examined online health professions degrees and the perception of the hiring managers and the human resource personnel. Adams and DeFleur (2006) studied hiring managers and found 95% of their respondents preferred candidates have a doctoral degree earned in a face-to-face format. Adams, DeFleur and Heald (2007) surveyed human resource personnel at health care agencies/organizations on their perceptions of degree delivery. Thirty-eight large city newspapers were reviewed for qualifying advertisements. The survey consisted of qualitative and quantitative items and there were 141 respondents. The results found face-to-face education was preferred (95%) for jobs that required clinical skills. Reasons related to classroom experiences and mentored clinical fieldwork was expressed. Adams and DeFleur (2006), and Adams, DeFleur, and Heald (2007) conducted studies in non-academic settings and were different in that the positions require an advanced degree but did not require a doctorate degree. While a position may or may not have required clinical duties, the results favored the face-to-face delivery.

In a study by Wilson and Wen (2000), pharmacists who earned an online master's degree from the University of Texas at Austin were surveyed. The degree was a Master of Science in

pharmacy administration. Results showed that this nontraditional MS degree did improve the opportunity for higher-level positions, as 60.7% of the respondents reported a promotion since earning the degree. Further, 66.1% of the respondents believed an advanced degree was necessary for career advancement (Wilson & Wen, 2000).

Interdisciplinary Applications

A specific category in health professions online education that has recently showed positive results is in interdisciplinary research. "Many interdisciplinary collaborative research programs in the health professions are adopting the community of practice concept within the virtual environment" (Butson, Hendrick, Kidd, Brannstrom & Hedberg, 2012, p. 320). This research involved clinical educators from various health professions and various locations across New Zealand. The researcher used second person action research, where people come together to explore areas of common interest. Forty clinicians eventually created an interprofessional Virtual Community of Practice (VCoP). Research data were published on the VCoP with the idea that all participating researchers could comment and share ideas and research. The VCoP was a research project in itself, but no participants thought that being studied affected participation (Butson, Hendrick, Kidd, Brannstrom & Hedberg, 2012). Technology brought researchers together who might never have interacted in an interdisciplinary way to further research.

<div align="center">

Summary

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Online education in the health professions is quickly evolving from the use of classroom technology to delivering degree programs asynchronously. Challenges exist that involve more than just the speed at which the technology evolves. As the quality of online education improves the positive perception of students, faculty, and employers will follow. Additional research showing the ability of online health professions education to facilitate critical thinking and

knowledge transfer needs to be conducted. Because the health professions often consist of a clinical component, additional challenges are found in providing strictly online education in the profession. More research on acquiring clinical skills online is needed. Much can still be learned concerning the use of online education in the health professions and quality research will help us understand best practices.

CHAPTER 3

RESEARCH METHOD

This study explored how non-clinical health care degrees were perceived by hiring administrators at local health departments, based on instructional delivery method and the nonprofit/for-profit status of an institution at which the degree was earned. Three research questions were explored.

1. How do the hiring administrators' perceived advantage of a non-clinical, graduate healthcare degree differ in the hiring process depending on applicant's degree option?

2. How do the hiring administrators' perceived concerns about credentials of a job applicant differ in the hiring process depending on the degree option?

3. How likely is the hiring administrator to recommend hiring an applicant based on the applicants' degree option?

This chapter describes the research methodologies used to conduct the research. The overall design is discussed including sample type and size. The survey instrument and survey design process are also detailed. This chapter concludes with an overview of the data collection procedure and plan for data analysis.

Rationale for Research Approach

This research design is a quantitative correlational study using a cross-sectional survey methodology. Correlational studies are designed to describe the relationship between variables. It does not modify or change the situation being studied and it is does not determine cause-and-effect (Leedy & Ormrod, 2010; Trochim & Donnelly, 2008). Quantitative research is a "…numerical representation of some object" (Trochim & Donnelly, 2008, p. 142). A cross-sectional study takes place at a specific point in time (Trochim & Donnelly, 2008). The term

survey research involves the acquisition of information from one or more groups of people by asking them questions and tabulating their answers. Survey research may inquire about opinions, attitudes, or experiences and that information, once tabulated, is described to the reader in a report or manuscript (Leedy & Ormrod, 2010). Survey research is often used when the population is too large to observe directly. There were a total of 1,935 distinct individuals in the National Association of County and City Health Officials (NACCHO) database. These individuals were employed in county and local health departments across the country. This research used a survey design that was sent as a link via email to all health professionals with an email address on the NACCHO website.

Research Design

To answer the stated research questions, this descriptive study utilized survey research design. Specifically, a correlational study was conducted to investigate the relationship or difference between perceptions of classroom or online instruction and nonprofit or for-profit legal status. The independent variable for the study was *type of non-clinical health care degree*, with four combinations/levels based on instructional delivery method (classroom or online) and legal status of the college/university (nonprofit or for-profit). Table 1 shows the four levels of the independent variable at the nominal level of measurement and coded for use in SPSS Version 22.0 (IBM Corp, Armonk, NY).

Table 1

Independent Variable Matrix

<div align="center">TYPE OF COLLEGE</div>

		Nonprofit College (NC)	For-Profit College (FPC)
Type of Instruction	Classroom Instruction (CI)	NC+CI (1)	FPC+CI (3)
	Online Instruction (OI)	NC+OI (2)	FPC+OI (4)

The three dependent variables were measured on a 4-point Likert scale as described in Table 2 below. For this study, the following definitions help explain the dependent variables.

Advantage – something that helps make someone better or more likely to succeed than others; a good or desirable quality. The *Advantage* variable was a sum of 4 items (*no advantage; very little advantage; some advantage; significant advantage)*. A score for each of the variables was summed for these 4 items. Each variable therefore assumed a score from 0 (*no advantage*) to 16 (*significant advantage*).

Credibility – validity; legitimacy. The *Credibility* variable was a sum of 4 items (*very low; low; moderate; high)*. A score for each of the variables was summed for these 4 items. Each variable therefore assumed a score from 0 (*very low*) to 16 (*high*).

Likelihood – chance that something would happen. The *Likelihood* variable was a sum of 4 items (*very unlikely; unlikely; likely; very likely)*. A score for each of the

variables will be a sum of these 4 items. Each variable therefore assumed a score from 0 (*very unlikely*) to 16 (*very likely*).

Table 2

Dependent Variables in this Study

Dependent Variable	Likert Rating Scale (1)	(2)	(3)	(4)
Advantage in hiring process	No advantage	Very little advantage	Some advantage	Significant advantage
Concerns about credibility	Very low	Low	Moderate	High
Likelihood to recommend	Very unlikely	Unlikely	Likely	Very likely

Research Setting/Context

Online surveys offer researchers several advantages. These include reduced cost, faster response turnaround, and the ability to download data directly to statistical software (Van Selm & Jankowski, 2006). Email is now ubiquitous and a common means of business communication, making this an attractive means for surveying a professional population.

Research Sample and Data Sources

This study used a convenient sample of 1,935 health professionals identified at LHDs representing approximately 13,000 health professionals. The NACCHO database was downloaded from its website and duplicate names removed as well as email addresses that were generic in nature and not associated with an individual. If an email address was unclear as to its owner, it was left in the database. Because the survey was electronic, it was efficient and preferred that all email addresses be used for the study sample. Individuals who would respond to the survey must have met two inclusion criteria: responsibility for screening or interviewing

applicants, and applicants screened or interviewed had an MPH or MHA degree. Respondents had to answer *yes* to both of these initial questions in order to continue with the rest of the survey.

<div align="center">**Data Collection Methods**</div>

Instrumentation

An electronic survey instrument (Appendix C) using SurveyMonkey was deployed. Survey items have been used in prior survey research on the topic of employers' perceptions (Adams, DeFleur, & Heald, 2007; Kinneer, 2013; Thompson, 2009). The questions that relate to the research questions were adapted from Kinneer (2013). He established face validity by piloting the survey with health recruiters in the nursing field. Feedback from these recruiters was incorporated into the survey. This assured the survey was understandable and clear. To further validate the survey, Kinneer had individuals from Indiana University of Pennsylvania Applied Research Laboratory review the instrument. During the instrument development process for this study, the questions were vetted through Human Resources professionals who work for a health professions university. A Cronbach's Alpha was calculated to determine reliability (internal consistency). The survey instrument (Appendix C) included five sections and 18 items. Following is a description for each section.

The first page of the survey provided information about the voluntary nature of the survey, the general purpose of the survey, IRB considerations, and provided the researcher's contact information. Participants were required to answer a question at the end of the page in the affirmative as an informed consent to participate.

This was followed by definitions of terms used in item wording. Terms were: *non-clinical health care degree; Master of Public Health; Master of Health Administration; Local*

Health Department; Hiring Administrator; Online education/instruction; Classroom instruction; Nonprofit college/university; and For-profit college/university.

Section 1 of the survey is 5 items that either required a *yes/no* answer or required a respondent to choose one of the distinct categories offered. The first item asked respondents if they were involved in the screening and/or interviewing of applicants. If the respondent answered *no* to this item, these surveys were excluded from the dataset because the purpose of the study was to investigate perceptions of hiring administrators. The second item asked if any applicants screened had MPH or MHA degrees. If respondents answered *no* to this item, their survey was excluded. The remaining three questions asked about length of time hiring personnel, current position, and the number of employees who work at the health department.

Section 2 of the survey included four items, three items that address the primary research questions for the study. The first research question was addressed by a question that asks:

If experience and other qualifications (e.g. references, favorable personal and professional qualities, etc.) were equal, how much of an advantage in the hiring process would a job applicant with the following degree have?

The second research question was addressed by a survey item that asks:

If experience and other qualifications (e.g. references, favorable personal and professional qualities, etc.) were equal, how much concern would you have about the credentials of an applicant who earned their non-clinical health care degree from the following?

The next item in this section measured the third research question:

If experience and other qualifications (e.g. references, favorable personal and professional qualities, etc.) were equal, how likely would you be to recommend hiring an applicant with a non-clinical health care degree earned in the following manner?

The final item in Section 2 required a respondent to choose *agree, disagree*, or *unsure* to an emphatic statement about the reputation of the institution being more important rather than the method of instruction.

Section 3 of the survey consisted of 6 demographic topics (9 items): sex, age, education, and location, personal experience with online education courses/programs and for-profit colleges/universities.

Procedures

All individuals listed as the contact for local health departments (LHDs) in the NACCHO databank were potential recipients of this online survey. Participants were asked to consent to participation at the end of the Informed Consent page. Participation was considered as consent.

The methodology involved in data collection ensured the privacy and anonymity of participants. Confidentiality was maintained, so all respondents were free to answer items honestly. Names or email addresses of respondents or LHDs were not associated to any responses in the reports generated.

All questionnaires were sent during the month of September/October 2015. The questionnaire was built in SurveyMonkey and participants were asked to complete the questionnaire within 1 week. A follow up email was sent after 1 week to participants who had not yet responded to the survey. One week later, another email reminder was sent, and a final reminder was sent 1 week after the second reminder. A response rate of no less than 25% was anticipated for this survey. The G-Power for this study is calculated by using a two-tailed *t*-test, small effect size (0.2), an alpha of .05, and a Power of 0.8. Using these numbers, a total of 191 completed surveys was needed. While there were 1,935 email addresses only 1,804 were deliverable.

Data Analysis

The survey data were downloaded to IBM SPSS Version 22.0 (IBM Corp, Armonk, NY).

Data analysis included performing descriptive statistics for all dependent and independent

variables, and demographics. Because most data was categorical, frequency distributions,

percentages, and counts are presented. Categorical data were assigned numerical values and

entered into SPSS. The three dependent variables were computed summing items to create total

scores. To answer the research questions, Friedman and Wilcoxon signed rank tests were

conducted.

Issues of Trustworthiness

This research project was submitted to the Southern New Hampshire Institutional Review

Board (IRB) for approval. No research was conducted until IRB approval was granted. An email

invitation was sent to all selected participants. The email emphasized that participation was

voluntary, that participants may withdraw at any point by simply closing the browser on their

computer. The survey included an informed consent and explained the purpose of this survey,

how the data would be used, that responses would be anonymous, and no email addresses would

be tracked by the researcher. Participants were provided the contact information of the researcher

and could request a copy of the results. Email addresses of respondents were not collected or

tracked by the researcher. Email addresses or the LHD were not tied to any responses in the

reports generated from the surveys.

Limitations and Delimitations

The following are limitations to this study:

1. Study participants were limited to local health departments listed in the National

   Association of County & City Health Officials database.

2. Study was limited to LHD administrators with an active email address.

3. Study data was limited to only those administrators at a local health department who volunteer to complete the electronic survey.

4. Respondents may provide socially desirable answers rather than honest answers.

5. Respondent's command of a computer, as well as command of the English language may hinder participation.

6. Cultural bias may be reflected in respondent answers.

7. Survey does not allow for follow-up or clarifying comments by the respondents with the exception of the comment section(s) related to three of the questions.

8. Study is limited to non-clinical health care degrees such as a Masters of Public Health and Masters of Healthcare Administration

9. Generalizing study results to other locations or degrees may not be appropriate.

10. Generalizing study results to others in the LHD may not be appropriate.

Summary

This chapter outlined a quantitative study to help understand how non-clinical health care degrees are perceived by employers, specifically, hiring administrators working in LHDs. The study used one independent variable, with four degree options. This study explored three different dependent variables (advantage in hiring, credibility of the degree, likelihood to hire) in an attempt to understand the acceptability of non-clinical health care degrees earned from institutions of higher education. Data was collected through an electronic survey and analyzed using SPSS.

CHAPTER 4

ANALYSIS OF DATA

This chapter is the analysis of data from a survey of employer perceptions toward non-clinical health care degrees (i.e., Master of Public Health (MPH) and Master of Healthcare Administration (MHA)). The purpose of this study was to determine if hiring administrators in local health departments perceived a significant difference between four degree options described in Chapter 3 (Nonprofit College + Classroom Instruction = NC+CI, Nonprofit College + Online Instruction = NC+OI, For-profit College + Classroom Instruction = FPC+CI, or For-profit College + Online Instruction = FPC+OI). This chapter begins with a description of the survey responses, explains the data analysis, and then details the characteristics of the survey respondents. Three primary research questions are presented with associated hypotheses along with the results of non-parametric statistical analysis. The three research questions focused on the relative advantage of the degree options in the hiring process, the perceived credibility of degree options, and the likelihood of hiring a candidate based on type of degree earned.

Data Collection and Response Rate

An email requesting participation was sent to 1,935 members of the National Association of County and City Health Officials (NACCHO). The email was sent with a direct link to the survey instrument located on the SurveyMonkey website. The initial deployment resulted in 102 undeliverable email recipients and 29 emails blocked to SurveyMonkey emails. This left 1,804 emails that received the survey. The initial survey was sent out on the last Wednesday morning of September 2015 followed by reminders the following three Wednesdays. The survey was open for participation for a total of 4 weeks. Respondents needed to answer *yes* to the first two questions. Any respondent answering *no* did not meet the criteria of interviewing applicants for a

health department and interviewing applicants who had either a MPH or MHA. There were 346

yes responses to the first question related to participating in an interview process at a work place.

Those 346 respondents went on to question two; 218 affirmed they interviewed applicants with

MPH or MHA degrees. These 218 (12.1%) respondents constituted the final sample.

Data Analyses

Data were imported into SPSS ver. 22 (IBM Corp, Armonk, NY). Descriptive statistics

(counts and percentages) were computed for demographic variables and survey content

questions. Nonparametric inferential tests were chosen due to the ordinal nature of data.

Friedman tests were used for within-subject analyses conducted on more than two categories.

Friedman tests provide mean ranks and then test statistics (Chi-Square, degrees of freedom and

overall statistically significant difference) to explain the actual results. Statistically significant

Friedman tests ($p < 0.05$) were followed by Bonferroni–protected pair-wise comparisons

(Wilcoxon with alpha = 0.0008). The Friedman test is the non-parametric equivalent of the

repeated measures ANOVA, and is used when analyzing ordinal data. The Friedman test is

appropriate because the same respondents (within-subject) were addressing alternative scenarios.

Likewise, Wilcoxon signed-rank tests are used for the analysis of dependent samples. The

Wilcoxon signed-rank test compares two sets of scores from the same participants. Alpha for the

primary hypotheses was set at 0.05, two-tailed. Cronbach's Alpha was calculated to measure

reliability (internal consistency). A reliability coefficient of 0.7 or higher is considered

acceptable in most social science research.

Sample Characteristics

Data from the 218 participants were analyzed. Not every participant answered every

question, but all available responses were used in data analysis. People from 40 states plus the

District of Columbia responded to the survey. Table 3 is a summary of the personal information

of the respondents, which includes sex, age range, years involved in hiring in health care, and

current position at a health department.

Table 3

Summary Profile of Respondents

Characteristic	n	%
Sex		
Male	76	34.9
Female	119	54.6
Missing	23	10.6
Age Range		
20 – 30	0	0
31 – 40	17	7.8
41 – 50	43	19.7
51 – 60	89	40.8
60+	44	20.2
Missing	25	11.5
Years Hiring		
1 – 5	20	9.2
6 – 10	30	13.8
11 – 15	36	16.5
20+	91	41.7
Missing	2	.9
Current Position		
Executive	168	77.1
Senior Management	41	18.8
Middle Management	7	3.2
Non-management	0	0
Missing	2	.9

The respondents were predominately female (54.6%). The age of the respondents varied

with 61% of the sample older than age 50. No respondent identified as being younger than age

31. Additionally, years of hiring experience ranged from a low of 1-5 years for 20 (9.2%)

respondents to a high of 91 (41.7%) of respondents reporting 20+ years. Finally, 168 (77.1%) of

the respondents held an executive position in an organization, while 41 (18.8%) were in senior

management. Only 7 (3.2%) reported as being in middle management. Table 4 summarizes the

educational experience of the respondents.

Table 4

Educational Experience

Characteristic	N	%
Highest Level of Education		
Diploma	3	1.4
Associate Degree	2	.9
Bachelor Degree	34	15.6
Graduate Degree	158	72.5
Missing	21	9.6
Graduate Degree		
MPH	84	38.5
MHA	11	5.0
Other	63	28.9
Missing	21	9.6
Online Course		
Yes	87	39.9
No	110	50.5
Missing	21	9.6
Online Degree*		
Yes	19	8.7
No	68	31.2
Attended For-Profit		
Yes	16	7.3
No	181	83.0
Missing	21	9.6
Degree from For-Profit**		
Yes	9	4.1
No	7	3.2

* Only respondents who answered the previous question (#15) with a *yes* were directed to this follow-up question
** Only respondents who answered the previous question (#17) with a *yes* were directed to this follow-up question

Over 70% (*n* = 158) of respondents had a graduate degree with a majority (43.5%) having

a MPH (38.5%) or MHA (5%). When asked if they had taken an online course for college credit,

39.9% (*n* = 87) reported they had; 8.7% (*n* =19) stated they earned a degree entirely online. When asked if they had ever attended a for-profit college/university, 16 responded affirmatively. Only 9 respondents reported having earned a degree from a for-profit institution.

A Cronbach's Alpha was calculated using questions 6, 7, and 8 as those are the three questions that related to the 3 research questions. The alpha coefficient for the 12 items (4 per question) was .78 and suggests a relatively high internal consistency.

Research Question 1

RQ1: How do hiring administrators' perceived advantage of a non-clinical, graduate health care degrees differ depending on applicant's degree option? The first research question was addressed by asking respondents to rate the advantage, with experience and other qualifications being equal, of hiring an applicant with one of the four-degree options. The type of non-clinical health care degree was the independent variable with four combinations/levels possible. The dependent variable was measured on a 4-point Likert scale, indicating the advantage (1 – *No Advantage* to 4 – *Significant Advantage*) of each degree option when hiring. The frequency distribution for responses appears in Table 5. The number of respondents (*n* = 211) is less than the total number consenting to participate as not all respondents answered all questions.

Null Hypothesis 1

NH1: There is not a significant difference in the perception of an advantage of a non-clinical degree by hiring administrators at U.S. local health departments across four degree options (NC+CI, NC+OI, FPC+CI, FPC+OI).

Alternative Hypothesis 1

AH1: There is a significant difference in the perception of an advantage of a non-clinical degree by hiring administrators at U.S. local health departments across four degree options (NC+CI, NC+OI, FPC+CI, FPC+OI).

Table 5

Frequency Distribution for Rating of Perceived Advantage in the Hiring Process Across Four Degree Options (n = 211)

Characteristic	No Advantage	Little Advantage	Some Advantage	Significant Advantage
NC+CI	12.3%	11.8%	32.7%	43.1%
NC+OI	15.2%	21.8%	52.6%	10.4%
FPC+CI	16.6%	20.4%	42.7%	20.4%
FPC+OI	25.1%	33.6%	36.0%	5.2%

NC+CI = Nonprofit College + Classroom Instruction; NC+OI = Nonprofit College + Online Instruction; FPC+CI = For-profit College + Classroom Instruction; FPC+OI = For-profit College + Online Instruction

Applicants with degrees earned from nonprofit colleges earned through classroom instruction (NC+CI) were rated as having significant advantage at a frequency of 43.1% compared to nonprofit + online (NC+OI) at 10.4%, for-profit + classroom instruction (FPC+CI) at 20.4%, and for-profit + online (FPC+OI) at 5.2%.

Table 6

Friedman Test for Perceived Advantage in the Hiring Process

N	211
Chi-Square	219.1
Degrees of Freedom	3
Significance	.000

Note: $p < .001$

A non-parametric Friedman test of differences for repeated measures was conducted. A significant difference ($p < .001$) in mean ranks of the perceived advantage of NC+CI (3.15),

NC+OI (2.37), FPC+CI (2.61), and FPC+OI (1.87) was found. The test also yielded a Chi-Square value of 219.1, which was significant (*p* < .001). The significant *p*-value indicates that the groups have differing distributions, but does not tell us which ones differ. The *p*-value is less than 0.005, so we reject the idea that the differences between groups are due to random error, and conclude instead that there are differences among the groups. To find out which pairs of our groups differ from each other, a post-hoc analysis with Wilcoxon signed-rank tests was conducted.

Table 7

Pairwise Comparison of Advantage of Hiring by Degree Type Using Wilcoxon Signed-Rank Tests

Pair	Scenario 1	*M*	*SD*	Scenario 2	*M*	*SD*	*z*	*p*
1	NC+CI	1.36	.63	NC+OI	1.96	.75	-9.27	<.001
2	NC+CI	1.36	.63	FPC+CI	1.88	.89	-6.69	<.001
3	NC+CI	1.36	.63	FPC+OI	2.38	1.0	-9.67	<.001
4	NC+OI	1.96	.75	FPC+CI	1.88	.89	-1.55	.121
5	NC+OI	1.96	.75	FPC+OI	2.38	1.0	-6.93	<.001
6	FPC+CI	1.88	.89	FPC+OI	2.38	1.0	-8.97	<.001

Note. *M* = mean; *SD* = standard deviation; *z* = standardized score; the value of the a statistic divided by its standard error; probability = *p* < .001
NC+CI = Nonprofit College + Classroom Instruction; NC+OI = Nonprofit College + Online Instruction; FPC+CI = For-profit College + Classroom Instruction; FPC+OI = For-profit College + Online Instruction

The Wilcoxon signed-rank test compares two sets of scores from the same participants. The results show a significant difference in perceived advantage between NC+CI and NC+OI (*Z* = -9.27, *p* < .001). There was also a significant difference between NC+CI and FPC+CI (*Z* = -6.69, *p* < .001); NC+CI and FPC+OI (*Z* = -9.67, *p* < .001); NC+OI and FPC+OI (*Z* = -6.93, *p* < .001); FPC+CI and FPC+ OI (*Z* = -8.97, *p* < .001). These five pair-wise comparisons were significantly different (Bonferroni-corrected alpha = 0.008). The one pair with no significant difference was between NC+OI and FPC+CI pair (*Z* = -1.55, *p* = 0.12). The absence of a

significant difference suggests respondents did not perceive a difference between a non-clinical graduate health care degree earned online from a nonprofit college and a degree earned in a classroom from a for-profit college. This supports the alternative hypothesis.

Qualitative Data

Following the rating scale, the instrument provided space for comments. Five of the 29 comments referenced the need for a school to be accredited. Other comments addressed a candidate's ability to fit into a work environment, while others stated all candidates are treated equally. Of particular note was one respondent who stated any appropriate educational degree is valued. Respondent comments regarding perceived advantages are in Appendix D.

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Research Question 2

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RQ2: How do hiring administrators' perceived concerns about credentials of a job applicant differ depending on the degree option? This research question was addressed by a survey item that measured perceived concerns (1 – *No concern* to 4 – *Significant concern*) of applicant qualifications on the four types of degree options, when experience and other qualifications were equal. The frequency distribution appears in Table 8. The number of respondents ($n = 205$) is less than the total number consenting to participate as not all respondents answered all questions.

Null Hypothesis 2

NH1: There is no significant difference in the perception of the credentials by hiring administrators at U.S. local health departments based on four degree options (NC+CI, NC+OI, FPC+CI, FPC+OI).

Alternative Hypothesis 2

AH2: There is a significant difference in the perception of the credentials by hiring administrators at U.S. local health departments based on four degree options (NC+CI, NC+OI, FPC+CI, FPC+OI).

Table 8

Frequency Distribution for Rating of Perceived Concern about Credentials in the Hiring Process Across Four Degree Options (n = 205)

	No Concern	Little Concern	Moderate Concern	Significant Concern
NC+CI	70.7%	24.9%	2.4%	2.0%
NC+OI	28.8%	48.3%	21.5%	1.5%
FPC+CI	41.0%	34.6%	19.5%	4.9%
FPC+OI	21.5%	35.6%	26.8%	16.1%

Note: NC+CI = Nonprofit College + Classroom Instruction; NC+OI = Nonprofit College + Online Instruction; FPC+CI = For-profit College + Classroom Instruction; FPC+OI = For-profit College + Online Instruction

Degrees from nonprofit colleges earned through classroom instruction (NC+CI) were rated as being of no concern at frequency at 70.7%, compared to nonprofit + online (NC+OI) at 28.8%, for-profit + classroom instruction (FPC+CI) at 41%, and for-profit + online (FPC+OI) at 21.5%.

Table 9

Friedman Test for Perceived concern about Credentials

N	205
Chi-Square	234.81
Degrees of Freedom	3
Significance	.000

Note: p < .001

A non-parametric Friedman test of differences for repeated measures was conducted. A significant difference ($p < .001$) in mean ranks of the level of concern of NC+CI (1.75), NC+OI (2.67), FPC+CI (2.40), and FPC+OI (3.18) was found. The test also yielded a Chi-Square value

of 234.81, which was significant (p < .001). As we found in the first research question, the

significant *p*-value indicates that the groups have differing distributions, but does not tell us

which ones differ. The *p*-value is less than 0.005, so we reject the idea that the differences

between groups are due to random error, and conclude instead that there are differences among

the groups. To find out which pairs of our groups differ from each other, a post-hoc analysis with

Wilcoxon signed-rank tests was conducted.

Table 10

Pairwise Comparison of Perceived Concern about Credentials by Degree Type Using
Wilcoxon Signed Ranks Tests

Pair	Scenario 1	*M*	*SD*	Scenario 2	*M*	*SD*	*z*	*P*
1	NC+CI	3.45	.69	NC+OI	3.00	.68	-9.59	< .001
2	NC+CI	3.35	.69	FPC+CI	2.91	.76	-7.09	< .001
3	NC+CI	3.35	.69	FPC+OI	2.38	1.0	-9.79	<. 001
4	NC+OI	3.00	.68	FPC+CI	2.91	.76	-1.05	.294
5	NC+OI	3.00	.68	FPC+OI	2.56	.80	-6.27	<. 001
6	FPC+CI	2.91	.76	FPC+OI	2.56	.80	-8.89	<. 001

Note: *M* = mean*; SD* = standard deviation*; z* = standardized score; the value of the a statistic
divided by its standard error; probability = *p* < .001
NC+CI = Nonprofit College + Classroom Instruction; NC+OI = Nonprofit College + Online
Instruction; FPC+CI = For-profit College + Classroom Instruction; FPC+OI = For-profit College
+ Online Instruction

The Wilcoxon signed-rank test compares two sets of scores from the same participants.

The results show a significant difference in perceived concern about credentials between NC+CI

and NC+OI (*Z* = -9.59, *p* < .001). There was also a significant difference between NC+CI and

FPC+CI (*Z* = -7.09, *p* < .001); NC+CI and FPC+OI (*Z* = -9.79, *p* < .001); NC+OI and FPC+OI

(*Z* = -6.27, *p* < .001); FPC+CI and FPC+ OI (*Z* = -8.89, *p* < .001). These five pair-wise

comparisons were significantly different (Bonferroni-corrected alpha=0.008). The one pair with

no significant difference was between NC+OI and FPC+CI pair (*Z* = -1.05, *p* = .294). The

absence of a significant difference suggests respondents did not perceive a difference between

non-clinical graduate health care degrees earned online from a nonprofit college and a degree

earned in a classroom from a for-profit college. This supports the alternative hypothesis.

Qualitative Data

The survey provided space for comments following the rating scale. The most frequent

response mentioned accreditation of the school/program (4 of 18 responses). Respondent

comments regarding concerns about credentials are in Appendix D.

Research Question 3

RQ#3: How likely is a hiring administrator to recommend an applicant based on degree

option?

The third research question asked respondents to rate how likely (1 – *Very Unlikely* to 4 – *Very*

Likely) they would be to recommend an applicant, with experience and other qualifications equal

when hiring a job applicant with each of the four-degree options (NC+CI, NC+OI, FPC+CI, and

FPC+OI). The frequency distribution appears in Table 9. The number of respondents (n = 198) is

less than the total number consenting to participate as not all respondents answered all questions.

Null Hypothesis 3

NH3: There is no significant difference in the likelihood to recommend hiring of an

applicant at a U.S. local health department based on four degree options (NC+CI, NC+OI,

FPC+CI, FPC+OI).

Alternative Hypothesis 3

AH3: There is a significant difference in the likelihood to recommend hiring of an

applicant at a U.S. local health department based on four degree options (NC+CI, NC+OI,

FPC+CI, FPC+OI).

Table 11

Frequency Distribution for Rating of Likelihood to Recommend in the Hiring Process across Four Degree Options (n = 198)

	Very Unlikely	Unlikely	Likely	Very Likely
NC+CI	3.0%	3.0%	49.5%	44.4%
NC+OI	3.5%	12.1%	65.2%	19.2%
FPC+CI	5.6%	16.2%	59.1%	19.2%
FPC+OI	11.1%	30.3%	50.5%	8.1%

Note: NC+CI = Nonprofit College + Classroom Instruction; NC+OI = Nonprofit College + Online Instruction; FPC+CI = For-profit College + Classroom Instruction; FPC+OI = For-profit College + Online Instruction

Applicants with degrees from nonprofit colleges earned through classroom instruction (NC+CI) were rated as *very likely to hire* a frequency at 44.4% compared to nonprofit + online (NC+OI) at 19.2%, for-profit + classroom instruction (FPC+CI) at 19.2%, and for-profit + online (FPC+OI) at 8.1%.

Table 12

Friedman Test for Perceived Likelihood of Recommend in the Hire Process

N	198
Chi-Square	187.03
Degrees Freedom	3
Significance	.000

Note: p < .001

A non-parametric Friedman test of differences for repeated measures was conducted. A significant difference ($p < 0.001$) in mean ranks of the level of the likelihood to recommend in the hiring process NC+CI (3.07), NC+OI (2.52), FPC+CI (2.50), and FPC+OI (1.90) was found. The test also yielded a Chi-Square value of 187.03, which was significant ($p < .001$). As we found in the first two research questions, the significant *p*-value indicates that the groups have differing distributions, but does not tell us which ones differ. The *p*-value is less than 0.005, so

we reject the idea that the differences between groups are due to random error, and conclude

instead that there are differences among the groups. To find out which pairs of our groups differ

from each other, a post-hoc analysis with Wilcoxon signed-rank tests was conducted.

Table 13

Pairwise comparison of Likelihood to Recommend in the Hiring Process by Degree Type Using Wilcoxon Signed Ranks Tests

Pair	Scenario 1	*M*	*SD*	Scenario 2	*M*	*SD*	*z*	*P*
1	NC+CI	3.10	1.02	NC+OI	2.58	.87	-7.62	<. 001
2	NC+CI	3.10	1.02	FPC+CI	2.67	.98	-6.84	<. 001
3	NC+CI	3.10	1.02	FPC+OI	2.21	.88	-9.01	<. 001
4	NC+OI	2.58	.87	FPC+CI	2.67	.98	-1.50	.134
5	NC+OI	2.58	.87	FPC+OI	2.21	.88	-7.36	<. 001
6	FPC+CI	2.67	.98	FPC+OI	2.21	.88	-8.03	<. 001

Note: *M* = mean; *SD* = standard deviation; *z* = standardized score; the value of the a statistic divided by its standard error; probability = $p < .001$
NC+CI = Nonprofit College + Classroom Instruction; NC+OI = Nonprofit College + Online Instruction; FPC+CI = For-profit College + Classroom Instruction; FPC+OI = For-profit College + Online Instruction

The Wilcoxon signed-rank test compares two sets of scores from the same participants.

The results show a significant difference in perceived concern about credentials between NC+CI

and NC+OI ($Z = -7.62$, $p < .001$). There was also a significant difference between NC+CI and

FPC+CI ($Z = -6.84$, $p < .001$); NC+CI and FPC+OI ($Z = -9.01$, $p < .001$); NC+OI and FPC+OI

($Z = -7.36$, $p < .001$); FPC+CI and FPC+ OI ($Z = -8.03$, $p < .001$). These five pair-wise

comparisons were significantly different (Bonferroni-corrected alpha=0.008). The one pair with

no significant difference was between NC+OI and FPC+CI pair ($Z = -1.50$, $p = 0.134$). The

absence of a significant difference suggests respondents did not perceive a difference between

non-clinical graduate health care degrees earned online from a nonprofit college and a degree

earned in a classroom from a for-profit college. This supports the alternative hypothesis.

Qualitative Data

The survey also provided space for comments. There were 21 comments that expressed the familiar theme of accreditation that all applicants are treated equally, and that if the applicant came from a reputable institution, then the method of instruction was not a factor. Respondent comments regarding concerns about likelihood of hiring are in Appendix D.

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Summary

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The results from this study found a significant difference in local health administrator perceptions regarding four non-clinical graduate health care degree options. Specifically, non-clinical graduate health care degrees from nonprofit colleges with classroom instruction were viewed more favorably compared to the other options. The credibility of the non-clinical graduate degrees from the combination of nonprofit college with classroom instruction was regarded with a higher degree of credibility and likelihood to hire. Non-clinical graduate health care degrees earned from for-profit colleges with online instruction were viewed least favorably. The two degree options, online from nonprofit and classroom instruction from for-profit colleges, were viewed equally by the participants. Respondents in the three open comments sections reported that accreditation was paramount and stressed that a candidate's qualifications and fit with an organizational culture were important to hiring decisions.

CHAPTER 5

SUMMARY, CONCLUSIONS AND IMPLICATIONS

The purpose of this quantitative correlational study was to determine if hiring administrators in local health departments perceived a significant difference between four degree options described in previous chapters (Nonprofit College + Classroom Instruction, Nonprofit College + Online Instruction, For-profit College + Classroom Instruction, or For-profit College + Online Instruction). The conclusions from this study follow the research questions and the discussion: How do hiring administrators' perceived advantage of a non-clinical, graduate healthcare degree differ depending on applicant's degree option? How do hiring administrators' perceived concerns about credentials of a job applicant differ depending on the degree option? How likely is a hiring administrator to recommend an applicant based on the degree option?

An electronic survey was sent to local health departments in the United States. The survey was open for 4 weeks late September through mid-October 2015. Of 1,804 useable email addresses, 346 (19.6%) respondents agreed to participate in the survey. Of the 346 respondents, 218 (12.1%) respondents qualified to answer the entire survey by answering *yes* to the first two questions. Seventy-seven percent of respondents ($n = 168$) identified themselves as holding an executive position in a local health department. Almost 43% had been hiring employees for over 20 years and 72.5% had earned graduate degrees. This chapter discusses the significant findings and conclusions from this research. A discussion of the implications of the findings and recommendations for further research are presented.

Discussion

This descriptive correlational study compared the perceptions of individuals who screen employment applications in U.S. local health departments regarding non-clinical graduate health

care degrees based on method of instructional delivery (classroom, online) and the type of
university (nonprofit, for-profit) to determine if significant differences exist. A summary of the
significant findings of each research question and a discussion of its relevance to the current
literature follows.

Perceived Advantage

*Research Question 1: How do the hiring administrators' perceived advantage of a non-
clinical, graduate health care degree differ in the hiring process depending on applicant's
degree option (Nonprofit College + Classroom Instruction, Nonprofit College + Online
Instruction, For-profit College + Classroom Instruction, or For-profit College + Online
Instruction)?* The results of this study found administrators who screen applications at United
States local health departments perceive an advantage for applicants who earned a degree from a
nonprofit college in the traditional manner, which is through classroom instruction. Those
individuals who earn degrees (i.e. Master of Public Health or Master of Health Administration)
from a for-profit college and through online instruction have the least advantage. There was no
significant difference between the remaining two options: nonprofit college with online
instruction and the for-profit college with classroom instruction.

Previous researchers who examined employer's perception of degrees earned at nonprofit
or for-profit colleges also found employers to perceive nonprofit colleges (Kinneer, 2014;
Seibold, 2007) to have an advantage over for-profit colleges. Also, previous research supports
the findings that traditional classroom methodology has an advantage over online instruction
(Adams et al., 2007; Carnevale, 2007; Chant, 2013; Kinneer, 2014; Thompson, 2009). In contrast
to these findings, Chaney (2002) found hiring personnel in the pharmaceutical industry made no
distinction between an online degree and a traditional, classroom degree when evaluating

applicants. Bailey (2011) also found no difference between online and classroom instruction when researching hiring personnel's perception of applicants with a master's of business administration. These respondents also did not care if the degree was from a nonprofit or for-profit institution. Ambiguity in the research is not helpful for students or educators. The differing results confuse the matter of whether or not the type of institution (nonprofit vs. for-profit) or the method of instruction (classroom vs. online) is really the most important aspect or if other factors (e.g. accreditation, reputation of the granting institution, etc.) are paramount to the hiring administrators. Further research would delineate the issues.

Kinneer's (2014) research looked at an employer's perceived advantage of applicants based on the four options used in this research. Kinneer's (2014) research looked at the RN-to-BSN degree and his findings match our results, even to finding no statistical difference between nonprofit, online instruction and for-profit classroom instruction. Because the survey instrument for this study was modeled after Kinneer's instrument, finding similar results from different populations (health care recruiters involved in registered nurse recruitment vs. hiring administrators at local health departments) and from different areas in the health care field (clinical nursing vs. non-clinical graduate health care degrees) further validates the results of both studies.

Comments received in this section emphasized accreditation of the institution as more important than if a degree was earned from a nonprofit or for-profit college or the type of instruction. This is consistent with previous research (Gordon, 2013; Kinneer, 2013; Thompson, 2009). Other comments underscored the importance of experience and the ability to fit with the rest of the staff as important. (Appendix D)

Perceived Concerns about Credentials

Research Question 2: How do the hiring administrators' perceived concerns about credentials of a job applicant differ in the hiring process depending on the degree option (Nonprofit College + Classroom Instruction, Nonprofit College + Online Instruction, For-profit College + Classroom Instruction, or For-profit College + Online Instruction)? The findings revealed there was a significant difference in perceived credibility of non-clinical graduate health care degrees earned across the four degree options. The findings again favored a degree earned from a nonprofit college and in a classroom setting. A degree earned from a for-profit college and online was perceived as raising concerns about an applicant's credentials. The results of this question again showed no significant difference in degrees earned from a nonprofit college with online instruction and for-profit college with classroom instruction. There are other studies (Adams & DeFleur, 2005; 2006; Adams et al., 2007; Danzinger, 2007; Kinneer, 2014; Vault, 2001) that looked at credibility of online and classroom degrees (with findings that favored classroom instruction).

A survey conducted by the Society for Human Resource Management (2010) report that its members, when asked to compare four degree options (public + online; private, not-for-profit + online; private, for-profit + online; 100% distance learning institution) to traditional degree options, view the online options *just as favorable* (57%; 58%; 51%; 41%). This same report revealed that as it relates to credibility of an online degree versus a traditional, classroom degree, 40% agreed and another 9% strongly agreed that the degrees were equally credible (*n*=448). When asked if a degree earned online from an online college was equally credible as an online degree earned from a traditional university, 32% agreed and 7% strongly agreed (*n*=444).

Respondent comments in this section mirrored responses found in the section above. (Appendix D)

Likelihood to Hire

Research Question 3: How likely is a hiring administrator to recommend hiring an applicant based on the applicants' degree option (Nonprofit College + Classroom Instruction, Nonprofit College + Online Instruction, For-profit College + Classroom Instruction, or For-profit College + Online Instruction)? Once again, and consistent with the responses to the previous questions, the results revealed a significant difference in the likelihood to hire, with all other factors equal, across the four degree options. The findings again favored a degree earned from a nonprofit college and in a classroom setting. The applicant with a degree earned from a for-profit college and online was less likely to be recommended for hire. The results of this question again showed no significant difference between degrees earned from a nonprofit college with online instruction and the for-profit college with classroom instruction. This is consistent with results demonstrating a preference for classroom instruction over online instruction in previous studies (Adams et al., 2007; Gordon, 2013; Jeancola, 2011). It is also consistent with Kinneer's (2014) study for hiring personnel in nursing.

In contrast to the above findings, Bailey (2011) found no difference in preference for instructional delivery method or status of the college when hiring employees with an MBA. Two further studies (Tabatabaei & Gardiner, 2012; Vukelic & Pogarcic, 2011) reported uncertainty by hiring personnel when evaluating applicants with degrees from online colleges. While none of these studies were related to health care, contradiction in the research leads to confusion for students and colleges/universities.

The respondents comments in this section again mirrored the responses found in the previous sections. Respondents who provided comments did not seem to favor one type of college or instructional delivery method over another. Respondents were more concerned that degrees earned were from an accredited institution; the applicant had the appropriate experience; and/or whether or not an applicant would fit into the workplace culture.

While the results show a preference for nonprofit and classroom instruction, there seems to be room for alternatives to the traditional educational system. From a human capital theory perspective (Becker, 1975; Olaniyan & Okemkinde, 2008; Schultz, 1961) it is important to consider whether or not the investment in a master's degree will provide an economic benefit to an individual. Carnevale, Cheah, and Hanson (2015) report, "Graduate degree holders who majored in health and medical preparatory programs earned 137 percent more than those with Bachelor's degrees…" (p. 90). While earning potential appears to be great for individuals with a non-clinical graduate health care degree, graduate students must be cognizant of the various options available when choosing a college and method of instructional delivery. For working adults, or adults not close to a college campus, online instruction from a nonprofit or for-profit college may be the best or only option available. As one person commented on the survey, "We have a very low number of college graduates in our area (12%) which makes any education an advantage."

The findings from this study have relevance beyond the world of local health departments and non-clinical graduate health care degrees. This study provides valuable insight regarding employers' perception of different instructional methodologies (online vs. classroom) and degree granting institutions (nonprofit vs. for-profit).

Implications

This study, which explored the perceptions of individuals who screen employment applications in U.S. local health departments regarding non-clinical healthcare based on the method of instructional delivery and the type of university, has implications for students, institutions of higher education, and employers.

Students

Educational opportunities abound for an individual interested in pursuing a college education. Today's traditional college student, as well as a working adult looking for additional credentials, needs to make informed choices when choosing a degree program. Research by Public Agenda (2014) shows students are far less likely to know the difference between nonprofit and for-profit institutions and seldom comparison shop. This same report found adults without degrees, who were considering going back to school, wanted a school that offered online courses where they could graduate quickly. Prospective students need to know the standards in the field in which they intend to work, and whether or not a degree program meets those standards. Failing to do so can be a waste of time and money for students. Students who graduated from "…for-profit colleges had lower earnings and were less likely to be employed 6 years after their initial enrollment…" (Deming, Goldin, & Katz, 2013, p.142). Because every occupation is different, knowing the value of a degree in the marketplace is crucial. Students should talk with employers as well as career counselors before enrolling in a degree program. Students need to be careful and check the accreditation status of all colleges to which they intend to apply (Thompson, 2009).

Institutions of Higher Education

Many colleges and universities, both nonprofit and for-profit now offer a mix of classroom and online degree options. Results from this study can inform all colleges on perceptions of their institution and how best to improve that perception in the marketplace; provide information that would allow institutions to better compete; and provide insight into building new classrooms or investing in technology to improve online offerings.

Improving the perception of colleges/universities is critical. Nonprofit and for-profit colleges/universities have been in the news for various reasons, e.g. shootings, protests, discrimination, accreditation, and violation of federal policies. For instance, in 2015 Corinthian Colleges (for-profit) was fined $30 million by the Department of Education for misrepresenting its job placement rates. In 2015 Education Management Corporation (EMC), a for-profit corporation, agreed to pay $102 million to approximately 80,000 students for loan forgiveness. This is in addition to the $95 million EMC paid in 2007 under the False Claims Act. Also, Apollo Education Group, which owns The University of Phoenix (for-profit), has been investigated and/or fined by the federal government six times since 2000 for various offenses. The most recent investigation was by the Federal Trade Commission for deceptive marketing tactics. For-profit colleges could improve the public's perception by following accreditation and federal guidelines and by making sure products are reasonably priced for the marketplace. Continued unfavorable press is not only harmful to for-profit colleges, but for the image of higher education in general.

All colleges need to consider partnerships with business to better educate human resource professionals on the various benefits of traditional and online methodologies. The partnerships could include direct marketing materials, live or virtual presentations, and tuition

discounts. Colleges should also become more active in offering career services, so students are able to secure appropriate jobs after graduation, which will help with student loan repayment. While the demand for online programs is likely to continue, institutions must make sure programs align with the needs in each particular field. For-profit colleges do an excellent job of advertising; thus attracting students. Nonprofit colleges need to consider innovative ways to communicate and market programs. Informing the potential student on whether the college is nonprofit or for-profit should be considered. Colleges should consider publishing school performance data and explaining the differences between nonprofit and for-profit, so prospective students can make informed decisions about the appropriate college for them (Public Agenda, 2014).

Employers

As higher education changes, so must an employer. With so many students earning degrees in different ways from different institutions, employers need to consider that accreditation is a standard and that generalizing about a particular instructional methodology or institution is not fair to a job candidate. There are good courses and good instructors in every college. Employers need to be open-minded to the changes in higher education and look at knowledge and skills and determine the best fit for an organization. Employers will continue to see applicants with degrees earned as an adult and/or as part of a career change. With that reality, employers need to understand online degrees and accelerated programs are now commonplace and should be judged on merit rather than generalized from the bad press of a few offenders.

Employers in the health professions need to understand that for-profits have moved purposely into the health professions where job opportunities are growing. Deming, Goldin,

and Katz (2013) report that 10 of the 20 fastest-growing occupations in the United States are related to the health professions. For managers who hire individuals to work in the health professions, it is critical they better understand the higher education environment and the institutions offering degrees in their field.

Recommendations for Further Research

Further research should include studies to identify and refine the factors that influence the perceptions of hiring administrators in health-related fields toward instructional methodologies and the institutions in which they are earned. Further research should investigate the hybrid model of education (classroom and online components) compared to traditional classroom instruction and strictly online instruction. Also, exploring the hiring administrators who hire for non-clinical health professions degrees could be expanded to different work environments, such as hospitals and community health centers. Another potential area of research would be one related to the quality of the degrees earned. Examining actual job performance of employees with online vs. traditional degrees might help determine if employers' perception actually matches employee's performance. Finally, in-depth interviews with hiring managers for non-clinical graduate health professions degrees would allow for a deeper understanding of concerns related to online instruction and for-profit colleges.

Limitations

The findings reported in this study are limited to members of the National Association of County & City Health Officials (NACCHO). The useable response rate (12.1%) means we cannot generalize findings to all hiring personnel in county and city health departments or to other organizations. This research did not consider hybrid programs as a method of instruction.

Despite these limitations, this study provides valuable insight regarding hiring administrators' attitudes toward non-clinical health professions degrees earned in various ways at various types of colleges.

Conclusion

Higher education has undergone a significant transition from strictly nonprofit colleges offering classroom instruction to for-profits offering strictly online instruction (Mandlebaum, 2014). The lines are now blurred as many colleges offer both types of instruction. With the vast number of students graduating with degrees earned online and with the success for-profit colleges have had over the past three decades attracting students, it is important employers become well educated about the quality and choices current and future employees have when pursuing education.

This study is important because higher education institutions, both nonprofit and for-profit, continue to expand online offerings. This study established a new line of inquiry regarding the acceptance by employers of non-clinical graduate health degrees earned online or in the classroom, and from nonprofit or for-profit colleges.

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APPENDICES

Appendix A

Invitation Email

Dear Local Health Official,

The need for appropriately educated employees working in county and city health offices is paramount to a healthy community. You can help us by completing this survey that will report how you perceive non-clinical graduate degrees (i.e. MPH and/or MHA) degrees earned from educational institutions.

The survey will take no more than 10 minutes of your time.

Thanks in advance for your participation,

Don Altman, DDS, MPH, MBA, MA, DHSc

Appendix B

Reminder Email

Dear Local Health Official,

A week ago you received an email message asking you to assist in the above referenced survey by clicking on the button below.

This survey will take you no more than 10 minutes and will help educators better understand how local health administrators perceive non-clinical graduate degrees (i.e. MPH and/or MHA) degrees earned from educational institutions.

Thanks in advance for your participation,
Don Altman, DDS, MPH, MBA, MA, DHSc

Appendix C

Data Collection Instrument

Informed Consent

You are invited to participate in a research study about employers' perceptions toward non-clinical health care degrees (i.e. Master of Public Health and Master of Health Administration). Don Altman, a doctoral student at Southern New Hampshire University in Manchester, New Hampshire, is conducting this study as part of his doctoral program in Educational Leadership. The following information is provided so that you can make an informed decision on whether to participate in this short, electronic survey. You are eligible to participate because your agency is part of the National Association of County and City Health Officials (NACCHO) and you are someone identified as involved with hiring personnel for your health department(s).

The need for appropriately educated employees working in county and city health offices is paramount to a healthy community. You can help by completing this survey that will report how you perceive non-clinical graduate degrees (i.e. MPH and/or MHA) degrees earned from educational institutions (nonprofit and for-profit) as well as your perception of the methodology (traditional, face-to-face and online).

This research will involve your participation in an electronic survey that will take approximately 10 minutes to complete. Participation in this study is voluntary and you may withdraw at any time by simply closing your browser. Individual responses will be anonymous. Survey results will only be reported in aggregate form. There are no foreseeable risks from participating in this survey. There are no financial costs to you to participate in this study. You will not be compensated for your time.

The results of the study will be published in a doctoral dissertation and may ultimately be presented in other formats such as academic journal articles or conference presentations. You may request a copy of the survey results by contacting the researcher.

The Southern New Hampshire University Institutional Review Board (SNHU IRB) has reviewed and approved this research proposal. The SNHU IRB is a committee whose task it is to make sure that research participants are protected from harm. More information about the Southern New Hampshire University Institutional Review Board may be found by contacting Thomas Beraldi at: t.beraldi@snhu.edu or 603.645.9695 or visiting the website: http://family.snhu.edu/Resources/policiesandprocedures/Pages/All%20Policies%20and%20Proce dures/Institutional%20Review%20Board%20Summary.aspx

If you have any questions or concerns about this study, or would like to receive a copy of the survey results, you may contact Don Altman at 5850 E. Still Circle, Mesa, AZ 85206; daltman@atsu.edu

Your completion of this survey indicates your consent to participate in this research study. Do you wish to participate in this survey?
Yes
No

Definitions
Thank you for agreeing to participate in this survey. There are 10 survey questions followed by several demographic questions at the end of the survey. Topics include your experience, opinions, and attitudes. All questions are multiple choice and there are several opportunities to also share additional comments, to clarify, or expand on your responses. Please allow 10 minutes to complete the survey.

Following are definitions of some terms you will find in the survey.

Non-clinical health care degree - A graduate degree that is not related to direct patient care; generally administrative in nature.

Master of Public Health - A graduate degree that prepares students for careers in public health. Typical places of employment include community health centers, health departments, state and federal.

Master of Health Administration - A graduate degree that prepares students for careers in hospital administration, health policy, and health service management.

Local Health Department - A governmental local health department including counties, cities, city/counties, districts, tribes, and townships.

Hiring Administrator - a person in a local health department who manages and administers the day-to-day operations.

Online education/instruction - Instruction delivered where most (at least 80%) or all of the content is delivered online. Typically there are no face-to-face meetings.

Classroom instruction - Instruction delivered where no online technology is used. All content is delivered in person, either written or orally, between the faculty and student.

Nonprofit college/university - A public college/university that receives monies from the government and provides physical buildings for classroom instruction or a private college/university that is independent in serving their unique mission and governed by a board of directors or trustees.

For-profit college/university - A private college/university that is structured as a for-profit corporation where individuals can buy and sell shares in that institution. For-profit colleges/universities are in the business of educating and make a profit for its investors. For-

profit colleges/universities do not receive any state or federal appropriations. Examples include the University of Phoenix, Walden University, Capella University, and DeVry University.

Section 1

INSTRUCTIONS: For each of the following questions, please choose the option that best describes you.

1. Are you involved in the screening and/or interviewing of applicants for a local health department?
__ Yes
__ No

2. Have any of those applicants had a Master of Public Health (MPH) or Master of Health Administration (MHA) degree?
__ Yes
__ No

3. How many years have you been involved in health care hiring?
__ 1 - 5 years
__ 6 - 10 years
__ 11 - 15 years
__ 16 - 20 years
__ 20+ years

4. Which of the following best describes your current position in your local health department?*
__ Executive
__ Senior Management
__ Middle Management
__ Non-management

5. How many total employees (all positions) are in the local health department for which you primarily recruit job applicants?
__ 1 - 50
__ 51 - 100
__ 101 - 199
__ 200+

Section 2

INSTRUCTIONS: This section asks for your opinion regarding job applicants holding non-clinical health care degrees (e.g. MPH, MHA). Please indicate your response by selecting the option which best describes your opinion.

6. If experience and other qualifications (e.g. references, favorable personal and professional qualities, etc.) were equal, how much of an advantage in the hiring process would a job applicant with the following degree have?

	No Advantage	Very Little Advantage	Some Advantage	Significant Advantage
Non-clinical health care degree from a NONPROFIT COLLEGE, earned through CLASSROOM INSTRUCTION				
Non-clinical health care degree from a NONPROFIT COLLEGE, earned through ONLINE INSTRUCTION				
Non-clinical health care degree from a FOR-PROFIT COLLEGE, earned through CLASSROOM INSTRUCTION				
Non-clinical health care degree from a FOR-PROFIT COLLEGE, earned through ONLINE INSTRUCTION				

Comments:

_____

_____

7. If experience and other qualifications (e.g. references, favorable personal and professional

qualities, etc.) were equal, how much concern would you have about the credentials of an

applicant who earned their non-clinical health care degree from the following?

	No Concern	Little Concern	Moderate Concern	Significant Concern
Non-clinical health care degree from a NONPROFIT COLLEGE, earned through CLASSROOM INSTRUCTION				
Non-clinical health care degree from a NONPROFIT COLLEGE, earned through ONLINE INSTRUCTION				

Non-clinical health care degree from a FOR-PROFIT COLLEGE, earned through CLASSROOM INSTRUCTION				
Non-clinical health care degree from a FOR-PROFIT COLLEGE, earned through ONLINE INSTRUCTION				

Comments:

_____

_____

8. If experience and other qualifications (e.g. references, favorable personal and professional qualities, etc.) were equal, how likely would you be to recommend hiring an applicant with a non-clinical health care degree earned in the following manner?

	Very Unlikely	Unlikely	Likely	Very Likely
Non-clinical health care degree from a NONPROFIT COLLEGE, earned through CLASSROOM INSTRUCTION				
Non-clinical health care degree from a NONPROFIT COLLEGE, earned through ONLINE INSTRUCTION				
Non-clinical health care degree from a FOR-PROFIT COLLEGE, earned through CLASSROOM INSTRUCTION				
Non-clinical health care degree from a FOR-PROFIT COLLEGE, earned through ONLINE INSTRUCTION				

Comments:

_____

_____

9. The reputation of the institution is more important in making an evaluation of an application than the method of instruction (online vs. classroom).
__ Agree
__ Disagree
__ Unsure

Section 3

INSTRUCTIONS: For each of the following questions, please choose the option that best describes you. All answers are confidential and data will not be associated with your individual responses in any way.

10. What is your sex?
__ Male
__ Female

11. What is your age group?
__ 20 - 30 years
__ 31 - 40 years
__ 41 - 50 years
__ 51 - 60 years
__ 60+ years

12. In which U.S. State do you currently work?

13. Which of the following best describes the highest level of education you have completed?
__ Diploma
__ Associate Degree
__ Bachelor Degree
__ Graduate Degree

14. Please indicate your graduate degree discipline.
__ MPH
__ MHA
__ Other

15. Have you ever completed an online course for college credit?*
__ Yes
__ No

16. Do you hold a college degree that was completed entirely through online instruction?
__ Yes
__ No

17. Have you ever attended a for-profit college/university (examples include the University of Phoenix, Capella University, Kaplan University, Walden University, DeVry University)?*
__ Yes
__ No

18. Do you hold a degree from a for-profit college/university (examples include the University of Phoenix, Capella University, Kaplan University, Walden University, DeVry University)?
__ Yes
__ No

Appendix D

Respondent Comments

6. If experience and other qualifications (e.g. references, favorable personal and professional

qualities, etc.) were equal, how much of an advantage in the hiring process would a job

applicant with the following degree have?

A lot depends on position applied for and if a degree is part of the requirements for the position.

As long as the applicant has a degree from an accredited institution, and it is a requirement, they will have the same advantage.

Depends on specific job.

I find that a person who has only an online degree sometimes is not as prepared for the workforce than classroom instruction degree. I feel a combination of both is the best.

I guess I still have some personal bias about whether the on-line studies are as effective as face-to-face interactions.

I prefer standard college degrees.

If qualified and from an accredited school all we be treated as equal, regardless if their education was online, classroom instruction, profit or non profit schools.

If the candidate is otherwise qualified by experience and has demonstrated real-world professional competencies, it doesn't matter where the degree comes from as long as the institution is accredited.

I'm not sure I would consider any differentiation for non clinical degrees. I would give additional preference to classroom instruction for clinical degrees (such as nurse practitioner / advanced practice nurse). I have read that the best results have been shown in combination programs where some is online and some is physical classroom.
in person discussion is key.

Including BLENDED INSTRUCTION as a category would move my responses to Significant Advantage for the BLENDED categories given my experience with applicants and students.

It depends on the position.

It is not easily evident on a resume if a non-profit college degree is classroom or online.

It really depends on the online college. An online advanced degree from the School of Public Health at the University of Michigan would may be looked at differently than one from some more obscure entity.

May be misinterpreting the qualifier. An MPH degree with no hands on experience would have less advantage than one with a community experience. Online weighs equally with classroom, esp. with an independent community experience(s).

Non-Clinical health care areas Where & how they got their degree doesn't carry as much weight as their experience and ability to fit in with the rest of our staff.

Not sure I would think this about all, but have had the experience of employees with suspect degrees from for-profit, online institutions that turned out not to be accredited.

Not very familiar with the for profit model or its graduates.

On line nonprofit weight would also likely be governed by the reason on-line was selected (working and unable to attend "in person, geographic access to degree program, etc).

Our health department offers a variety of services which include: Mental Health, Nursing, Environmental Health, Senior Programs and Emergency Management. The advantage would vary depending on the position applied for.

Some for-profit, online degrees are clearly worth more than others; problematic weeding out the less meaningful.

The likert scale used does not reflect how I would like to respond. Of course there is always some advantage but as it's worded, it's hard to find an appropriate category. Recommend the following: 1. No benefit 2. Minimal benefit 3. Beneficial 4. Highly beneficial 5. Not applicable

The minimum level of education is what matters. Personality traits make the better employee.

The selections some and significant and far apart on the spectrum. My responses do not indicate a significant difference.

We are a Public Health Nursing organization. For some of our management positions a masters degree in nursing or a related field (this does include MPH or MHA - I have a MPA) qualifies. For others the masters is preferred. We value any of these masters degrees and have hired from any of them.

We have a very low number of college graduates in our area (12%) which makes any education an advantage.

When I look at MPH-holding candidates, they have an advantage over non-holding candidates. If the degree is from an accredited school of public health, I have not thought to give one school more advantage than another, nor the method of instruction. The best differences between candidates would be by assessment of KSAs and experience. If all things are equal, I have no basis to make a choice on type of school or method of instruction. With a lack of qualitative information on the school or method, I would probably be making a biased choice. (Go Emory Eagle!).

Would want to understand the course requirements for the specific programs. An on-line course would have the same advantage as classroom instruction if it included a practicum to support the theory.

7. If experience and other qualifications (e.g. references, favorable personal and professional qualities, etc.) were equal, how much concern would you have about the credentials of an applicant who earned their non-clinical health care degree from the following?

Accreditation would be a factor in considering these applicants. Accredited institutions, whether online or not, would earn more credibility for hiring.

Again, no differentiation.

Another factor would be from a School of Public health versus a Program assuming both are Accredited.

For both of these questions, I would need to know if the program was accredited. I will assume that all of the above are equally accredited.

I have an MPH from a for-profit college earned on-line. I have one employee with an MPH from a public school, and one earning an MPH from a for-profit school.

It really depends on the position.

My answers are assuming the institution is accredited.

Please see comments to question #6.

Public health is combination art/science - the "art" is often rooted in the social sciences of interpersonal skills - listening, watching, interpreting body language, understanding stressors and environments from which various responses are drawn. I have concerns that those persons that choose not to interact with others in their course of study may not do well when interacting with their patients and/or community to deliver public health programs and services.

Same comment as in previous box.

See my previous question note.

See prior comment.

See the statement I made on the previous page.

The selections some and significant and far apart on the spectrum. My responses do not indicate a significant difference.

There are different positions within health departments that require clinical care degrees and experience. That requirement has decreased through the years.

Too many variables. Frequency of classroom instruction? Curriculum differences or similarities? Identification process of online students (who is actually completing assignments and tests)?

We don't differentiate between degrees earned on-line vs classroom, or for-profit vs non-profit.

If the school is accredited we accept the degree.

With all else being equal this likely would not factor into the hiring decision. The choice would be based on best fit for the job (with administrative team).

8. If experience and other qualifications (e.g. references, favorable personal and professional

qualities, etc.) were equal, how likely would you be to recommend hiring an applicant with a

non-clinical health care degree earned in the following manner?

Again accredited school versus program also important.

Again every thing else equal we would look at how the individual would fit in with the rest of the staff.

Again this would likely not be the determining factor unless it was specifically required in the job applications.

Again, if the school is accredited all applicants will be treated equal regardless of how they got their instructions (classroom, online, or combination of both).

For Profit colleges have negative eruption. With the exception being IT schools.

I don't necessarily believe that a non-profit or for-profit college is a determining factor in the quality of the curriculum/subject content.

If job required a special degree the applicant would have to ask.

In general, I would prefer someone with a clinical degree and experience AND the above.

In our HLD, our scope of work is such that an applicant only need an undergrad science degree of approved sciences.

It depends on the position.

It is unclear throughout what job the individual is being hired to fill.

Recommending an applicant for hiring is not influenced by where they received their degree.

Same as before.

See comments from previous questions; also how well the student performed does impact these decisions.

Sincerely doubt the necessary skill sets can be acquired online with no direct interaction with fellow students and faculty.

The only unaccredited college degrees I have encountered in applicants have been for-profit, online only institutions. Thus the pattern of above answers. If the institution offers both online and in-classroom equivalent degrees, and I happen to know this, I'm less suspect and would consider the degrees equally. In fact, it is uncommon to know whether a degree was earned online or not, except for certain schools with a degree-for-sale reputation, and is not routinely asked.

The other issues would be the determining ones. Where they received degree would barely be considered.

The reputation of the institution based upon the program area I am hiring from is more important to me than the method of learning.

The selections some and significant and far apart on the spectrum. My responses do not indicate a significant difference.

We really don't focus on the setting in which non-clinical was obtained.