FACTORS THAT AFFECT HIPAA COMPLIANCE: A BIBLIOMETRICS STUDY

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According to the U.S. Department of Health and Human Services (HHS), patients and providers do not understand the Health Information Privacy and Accountability Act (HIPAA). Non-compliance with HIPAA is primarily due to confusion, along with insufficient understanding. HHS has taken measures to simplify the language they use to communicate HIPAA, however, they have not taken steps that consider if one's culture, religious and social perspectives, institutional training, credentials, and comprehension of legal terminology affects medical providers and non-clinical administrative personnel's abilities to understand HIPAA. This research uses bibliometrics to examine the literature from January 2010 – September 2020 that addresses HIPAA's use of legal terminology, literacy level, and institutional training, along with religious and social perspectives, and credentials of medical providers and non-clinical administrative personnel. A total of 107 articles were examined, 42 were assigned article influence scores with values that were less than 1.00, which is a below-average influence score for the article. There were 29 articles with values equal to or above 1.00, which translates to an equal or above-average influence score. The remaining 36 articles did not have article influence scores and were assigned values as not available. Results of the review of the literature indicate that legal terminology, literacy level, training, credentialing and religious and social perspective had no or little effect in understanding HIPAA.

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INTRODUCTION

Chapter 1 discusses the background of the research and provides a statement of the

problem, including the significance of and rationale for the study. And additionally, a definition

of the terms used, the research questions, limitations, and assumptions of the study.

1.1   Background of the Study

When protected health information (PHI) is exchanged, transmitted, or shared

electronically, to minimize breaches, the United States Government took action in 1996 to

intervene with the introduction of the Health Insurance Portability and Accountability Act

(HIPAA). The primary goal of HIPAA is to safeguard the privacy of patient medical records. Upon

its introduction, which took place 22 years ago; business associates, covered entities, and

health care organizations remain uncertain about to how to comply with this regulation.

In lieu of the fact we now have more resources to improve our knowledge and

understanding of HIPAA, medical professionals and non-clinical administrative personnel

continue to express they find this regulation difficult to understand. Rothstein (2016) explains:

> Ever since the Health Insurance Portability and Accountability Act (HIPAA)[1] Privacy Rule
> took effect in 2003, it has been one of the most misunderstood and disrespected of
> federal regulations. The high level of misunderstanding among both health professionals
> and lay people is attributable to inadequate informational and educational programs on
> the part of the Department of Health and Human Services as well as the confusing
> nature of many aspects of the Privacy Rule.

Misapplications of HIPAA will continue to rise, if we do not assess why it is not understood

(Cooper, Frain, & Frain, 2017, p. 31).

1.2   Statement of the Problem

There is no account of a study that seeks to examine if the scholarly contribution is data deficient on topics that address the barriers to understanding HIPAA. In particular, as it relates to the challenges that medical providers and non-clinical administrative personnel experience because HIPAA is written in law's language, and many of them find it difficult to comprehend.

1.3   Rationale for the Study

For the benefit of society, the purpose of research is to gain knowledge (Veatch & Ross, 2015, p. 27). The focus of this research is to uncover why HIPAA is not adequately understood by medical providers and non-clinical administrative personnel (York & MacAlister, 2015, p. 571). According to the U.S. Department of Health and Human Services Office of Civil Rights, 46,769,880 breaches are currently under investigation due to not complying with HIPAA regulations (Breach Portal: Notice to the Secretary of HHS Breach of Unsecured Protected Health Information, 2020). Evans and Jarvik conclude (2018), "HIPAA's minimum necessary standard holds the dubious distinction of being one of the least-understood provisions of one of America's most-despised regulations." The National Committee on Vital and Health Statistics asserts the same perspective, "They underscored that although it is an integral part of the Rule, the minimum necessary standard remains poorly understood and inconsistently implemented by covered entities and their business associates" (2016). Therefore, it is critical to explore why HIPAA is not understood among medical providers and non-clinical administrative personnel.

1.4   Significance of the Study

The study will explore if HIPAA is not understood as intended by the U.S. Department of

Health and Human Services by medical providers and non-clinical administrative personnel.

Bibliometrics is employed to examine if linkages or associations exist between the quality of the

content found in the literature, and also if its presence on this topic is adequate to meet the

needs of medical providers and non-clinical administrative personnel who seek out this

information as a resource to understand and improve how they comply with HIPAA.

1.5   Definition of Terms

- *Credentialing*- Evidence of authority, status, rights, entitlement to privileges, or the
like, usually in written form (Dictionary.com, 2020).

- *HIPAA*-Acronym for Health Insurance Portability and Accountability Act, the federal
legislation enacted to provide continuity of health coverage, control fraud and abuse in

healthcare, reduce healthcare costs, and guarantee the security and privacy of health

information (Madero, 2021, p. 311).

- *Institutional training*-Training relating to, or established by an institution.

- *Legal terminology*-The language of law commonly used to communicate HIPAA.

- *Medical provider*-A doctor of medicine or osteopathy, podiatrist, dentist,
chiropractor, clinical psychologist, optometrist, nurse practitioner, nurse-midwife, or a clinical

social worker who is authorized to practice by the state and performing within the scope of

their practice as defined by state law, or a Christian Science practitioner, or any health care

provider from whom an employer or the employer's group health plan's benefits manager will

accept a certification of the existence of a serious health condition to substantiate a claim for

benefits (Legal Information Institute, 2018).

- *Non-clinical administrative personnel*-Clergy or chaplains.

- *Religious perspective*-How one applies, assigns, or interprets meaning based on the

teachings and traditions of their faith.

- *Training*-The education, instruction, or discipline of a person or thing that is

being trained.

- *Understanding*- The ability to think and act flexibly with what one knows (What is

Understanding? A Deeper Look, n.d.).

1.6   Scope of the Study

- *Literature surveys*- Allows the study to generate a productive count of articles from various journals that can be found in PubMed Central's online repository.

- *Content analysis*-Allows for the examination of words, texts, and phrases (Bloomberg & Volpe, 2019).

- *Citation analysis*- Ranking of periodicals, impact per publication, and article or publication influence scores.

1.7   Research Questions

One of the study's main objectives is to link questions to its purpose (Swaminathan &

Mulvihill, 2017, p. 14). As a result of examining a phenomenon, predictive questions estimate

or forecast what will unfold. A phenomenon is a fact or situation that is observed or exists to

happen, especially one whose cause or explanation is in question (English Oxford Living

Dictionaries, 2017). Predictive questions involve probing, which requires investigating if one or

more variables are responsible for an occurrence of an outcome that results in the future

(Information Resources Management Association, 2015, p. 380).

1.7.1   Research Question 1: Legal Terminology

At this time, the number of breaches for noncompliance indicates it is difficult to

understand HIPAA (Murphy, 2015 p. 161). The cause or explanation in question could be how

HIPAA is communicated. Therefore, we predict the use of legal terminology is responsible for

why HIPAA is difficult to comprehend. Therefore, the following research question is derived,

"How does the use of legal terminology affect the abilities of medical providers to understand

HIPAA?

> *RQ 1.1: How does the use of legal terminology affect the abilities of medical providers to understand HIPAA?*

> *RQ 1.2: How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?*

1.7.2   Research Question 2: Literacy Level

It is typical to incorporate "how" in the development of research questions to examine

and describe its variables under investigation (Johnson & Christensen, 2019, p. 96). The practice

of doing so lends itself to generate results to better explain the study's findings (Johnson G.,

2015, p. 37). Therefore, to some extent, all research is descriptive. As scientists we cannot

accomplish research without a clear statement of what we strive to investigate, which is

especially difficult if we remove questions that address who, what, when, where, why, and how

delineations.

Nonetheless, the overall intent of RQ 2 is not to be descriptive, but to also examine the

impact literacy has on one's ability to comprehend and comply with HIPAA. Therefore,

implementing an impact research question is appropriate because the aim is to reveal the

effect literacy has on one's ability to understand HIPAA by assessing if a causal link exists

between literacy, which is the dependent variable, and the independent variable, which is one's

ability to understand and interpret HIPAA (Mertens,2015, p.188) (See figure 152).

RQ 2.1: How does literacy level affect the abilities of medical providers to understand HIPAA?

RQ 2.2: How does literacy level affect the abilities of non-clinical administrative personnel to understand HIPAA?

1.7.3   Research Question 3: Institutional HIPAA Training

Research Q3 is also a causal impact question. It hypothetically implies that medical

providers and non-clinical administrative personnel's abilities to understand HIPAA is

dependent on the independent variable, which is institutional HIPAA training.

RQ 3.1: How does institutional HIPAA training affect the abilities of medical providers to understand HIPAA?

RQ 3.2: How does institutional HIPAA training affect the abilities of non-clinical administrative personnel to understand HIPAA?

1.7.4   Research Question 4: Credentialing

RQ 4 seeks to uncover if a causal impact relationship exists between credentialing,

which is the independent variable, affects the abilities of medical providers and non-clinical

administrative personnel to understand HIPAA, which is the dependent variable.

RQ 4.1: How does credentialing affect the abilities of medical providers to understand HIPAA?

RQ 4.2: How does credentialing affect the abilities of non-clinical administrative personnel to understand HIPAA?

1.7.5   Question 5: Religious Perspective

RQ 5 seeks to uncover if medical providers and non-clinical administrative personnel

religious perspectives, has a causal impact on their abilities to understand HIPAA.

RQ 5.1: How does the religious perspective of medical providers affects the abilities to understand HIPAA?

RQ 5.2: How does the religious perspective of non-clinical administrative personnel affects the abilities to understand HIPAA?

1.8   Limitations

A limitation of the study is that it investigates findings in the literature of medical providers and non-clinical personnel perspectives on HIPAA. It does not include an extensive view of sociocultural perspectives. PubMed Central's database does not represent all scholarly contributions that explores the topic of medical providers and non-clinical administrative personnel's abilities to understand HIPAA.

1.9   Assumptions

It is assumed medical providers and non-clinical administrative personnel understand HIPAA and comply with it as expected by the Department of Health and Human Services. If HIPAA is difficult to understand due to legal terminology, it is assumed it will be easier for medical providers and non-clinical administrative personnel to understand if it is replaced with common language.

If one has a college education, and routinely undergoes HIPAA training, it is assumed they will be better equipped to understand and interpret HIPAA, as opposed to those who do not read at a college level, and additionally, are not required to complete mandated HIPAA compliance training. It is also assumed that medical providers and non-clinical administrative personnel that receive training facilitated by their institutions will be better positioned to understand and comply with HIPAA. Another assumption is that credentials will ensure that

HIPAA is understood by medical providers and non-clinical administrative personnel. Lastly, it is also assumed that religious perspectives affect how medical providers and non-clinical administrative personnel understand, interpret, and comply with HIPAA.

CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

Chapter 2 provides an overview of HIPAA, and its five tenets. The chapter also presents

a review of the origins of understanding, which offers insight to explain how one learns to

assign meaning to a text, as well as provide a basic fundamental concept of what determines

how one reaches a point of understanding, by investigating it from various views that includes

theoretical, philosophical, and religious perspectives. It also examines how we learn to encode

and decode messages unconsciously.

Other areas include discussions on the use of legal terminology, the importance of

literacy, issues concerning training, and the requirements for the HIPAA privacy and security

rules for educating covered entities, as well as the U.S. healthcare workforce. Other

considerations examines the influences that credentialing and religion can potentially have on

medical providers and non-clinical administrative personnel's abilities to understand and

comply with HIPAA.

2.2   The Health Insurance Portability and Accountability Act (HIPAA)

The Health Insurance Portability and Accountability Act is recognized by its acronym,

HIPAA (Thompson, 2020, pp. 23-26). It is also referred to by less commonly known terms, for

example, Public Law 104-191 (Saba & McCormick, 2015, p. 6) and the Kennedy Kassebaum Act

(Ciment, 2015, p. 845). HIPAA contains five categories, each of which represents a provision

provided by the act:

- Title I: HIPAA Health Insurance Reform

- Title II: HIPAA Administrative Simplication and Wasteful Spending

- Title III: Electronic Transaction Governance

- Title IV: Application and Enforcement of Group Health Plan Requirements

- Title V: Revenue Offsets

2.2.1 Title I: HIPAA Health Insurance Reform

In the United States, 50% of the non-elderly population is enrolled in an employer-sponsored insurance plan, accounting for an estimated 147 million participants. Before the implementation of Title 1 of HIPAA, coverage supported by employers was nonportable. For example, when an employee was laid off, terminated, changed jobs, or voluntarily resigned; they lost fringe benefits, and most of the time this had to do with provisions such as healthcare coverage plans (Fordney, 2017, p. 23).

2.2.2 Title II: HIPAA Administrative Simplification and Wasteful Spending

Administration simplification is a Title II HIPAA provision. It addresses waste and fraud in the U.S. Healthcare system. It is governed and enforced by the U.S. Department of Health and Human Services (Green, 2020, p. 148).

2.2.3 HIPAA Title II and Electronic Transaction Governance

Before the implementation of Title II of HIPAA, most electronic transmittals were not uniform transactions. The absence of this provision made it difficult to monitor, audit, track, and safeguard the privacy and security of Protected Health Information. Because of HIPAA's Title II Electronic Transactions and Code Set Rules, managing electronic transactions is now less complicated. It is now an efficient process that standardizes how data is captured and

transmitted. It also allows for the early detection of trends and patterns to identify culprits responsible for potential acts of waste and fraud abuse (Davis, 2020, p. 296).

2.2.4 Title III: HIPAA Tax-Related Health Provisions

One of the most commonly known tax-related health provisions provided by HIPAA is a medical savings account (MSA), in which employers govern funds for their employees. The regulation also allows employers to contribute to employees in the form of tax-deferred accounts to offset the costs of their medical expenses (Green, 2020, p. 149).

2.2.5 Title IV: Application and Enforcement of Group Health Plan Requirements

Title IV of HIPAA regulates employer-sponsored health care plans. Before government intervention, pregnant women and sexual assault victims were prone to higher rates because they were said to have pre-existing medical conditions. As a result of the Affordable Care Act's introduction and implementation, the practice is no longer legal (Green, 2020, p. 150).

2.2.6 Title V: Revenue Offsets

U.S. citizenship comes with a covenant of economic value. Many citizens of the United States benefit from the provision of eligibility. Citizens of this nation are enabled with support from many agencies and services available publicly and paid for by the U.S. Government. If citizenship is lost, there are procedures in place to address matters that involve gift taxes, estate taxes, and income taxes. It is also important for employers to understand that they will no longer have the benefit to write off taxes on behalf of the employee's expenses for healthcare (Krager & Krager, 2018, p. 6).

2.2.7 Summary of HIPAA's Five Tenets

After reviewing HIPAA's five tenets, Title II of the provision best suits the needs of this research. Its primary focus is on the protection of patient privacy. It serves as a platform to investigate if healthcare professionals and non-clinical administrative personnel require additional assistance to understand and interpret HIPAA (Harman & Corneilus, 2017, p. 79).

An abundance of resources is currently available that offer guidance and solutions on how to comply with HIPAA. Furthermore, research indicates that when subject content appeals to consumers, it is easier to market and will result in higher-profits (Mc Donald & Wilson, 2016, p. 7).

Fundamentally, it makes sense from an economic perspective for publishers to place a focus on generating products that sell. Therefore, it is common knowledge some publishers position their organizations to reap immediate returns on their investments, and this typically occurs when publisher's decisions are dictated by demands that drive the current market.

Undoubtedly, coverage on this topic exposes research in this area remains meager. Particularly, regarding the extent to which medical providers and non-clinical administrative personnel are able to understand and comply with HIPAA.

Nonetheless, although studies do exist, and some more recent than others, the findings suggest that the need is significant to improve how we communicate, understand, and interpret HIPAA (York & MacAlister, 2015, p. 571). There is tremendous anticipation for continued research in this area, and there is much to gain by taking on such a pursuit.

2.3 What is Understanding

Hermeneutics initially applied to Biblical texts. It was a science solely conceived as a

theory of interpretation (Zimmermann, Hermeneutics: A Very Short Introduction, 2015). In Greek mythology, the gods relayed messages to humanity by the messenger god Hermes (Yeshaya & Hollander, 2017). Notably, the word hermeneutics originates from Hermes (Zimmermann, Hermeneutics a Very Short Introduction, 2015, p. 4). However, today's generation of scholars recognize it as a theory of understanding, and for this reason, some refer to it as a tradition of modern or contemporary hermeneutics.

2.3.1 Fundamental Concept of Understanding

Before discussing reasons that medical providers and non-clinical administrative personnel do not comprehend HIPAA, we must first establish a concept of what understanding is. We can assume the meaning of understanding is broad, and from a research perspective, we can agree that its meaning is not one that is elementary to define. Nevertheless, although we observe and experience the same encounters, we do not always have the freedom to exercise how we form conclusions. This is because our opinions, interpretations, and views, often will result in understandings that differ. Furthermore, we do not always possess the autonomy to see and know life in the way that someone else does.

Therefore, in simple terms, understanding is a cognitive process that enables us to form personal conclusions. In a foundational sense, it is responsible for how we first learn to apply and assign meanings to things in our environments, in addition to the worlds outside of the ones in which we live.

Everyday situations attest to this. For example, jurors typically see attorneys dissect cases and drill down to details beneath the surface, and everyone receives the same information at the same time. However, the jurors do not always agree. Logically, rather than

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disagreement, recipients of the same information should result in concurrence. Unfortunately, it is not that simplistic, especially since we do not process or comprehend information in the same way. Does a fallacy of some sort exist? If this is evident, then what exactly is the culprit?

2.3.2   Solving the Riddle of Understanding

The literature indicates no agreed understanding of HIPAA exists amongst medical providers and non-clinical administrative personnel (York & MacAlister, 2015, p. 571). Albeit hidden, there is an explanation. In addition to solving the riddle of why medical providers and non-clinical administrative personnel do not understand the meaning, purpose, and intent of HIPAA, an examination of why our understandings differ will also be discussed.

2.3.3   Why Understanding is More Important than Ever

In the Information Age, we have resources to retrieve information in a matter of seconds from various and multiple sources; therefore, it results in more to process cognitively; we have more information available at our immediate disposal than in past Industrial and Agricultural revolutions.

2.4   To Error by Interpretation

In the name of modern convenience, technology allows us to access information at much faster rates. However, because we process information differently, it can result in misunderstanding, and this is an illustration of how one can error by interpretation.

In the origins of hermeneutics, we read in the Bible book of 2nd Peter Chapter 1 verse 20, "knowing this first: that no prophecy of the Scripture is of any *private* interpretation" (New King James Version, emphasis added). With regard to Biblical prophecies, it is succinctly clear no

prophecy of the Scripture is to be assigned a private interpretation. Nonetheless, many faiths

interpret Biblical prophecies differently, in lieu of the fact they all refer to the same source, the

Bible.

Benusa and Chen (2015) found the following:

The HIPAA security rules were written as very general guidelines, with no details regarding current or future information technology. No particular hardware devices, software, nor technologies are mentioned in the rules. As a result, the rules are sometimes quite vague and open to interpretation by information security professionals. Therefore, information security professionals typically implement current best practices (p. 163).

Open interpretations that result from vague, unclear, or unfamiliar language contributes to

confusion. Often, we unknowingly assume we understand, when in actuality, we do not. This is

the fallacy of what it means to error by interpretation.

2.4.1   Encoding and Decoding: Why Interpretations Differ

The generator of a message is the sender, and the user is the receiver. When the

generator's image of the world does not coincide with the recipient's image of the world, the

original intent, purpose, and meaning of the message is lost (Fisher, Erdelez, & McKechnie,

2015, p. 44).

As a theorist, Belkin hypothesized, one's current state of knowledge can potentially be

classified as an anomaly. This occurs as a result of uncertainty that one experiences prior to

reaching an anticipated state of conclusion in their efforts to process information to reach the

goal of understanding, in which they experience an anomalous state in their thinking or

thoughts (Fisher, Erdelez, & McKechnie, 2005, p. 44). Hypothetically, if one does not have

knowledge of legal terminology, or have the ability to read at the college level, they likely will

experience what Belkin theorizes as an anomalous state of knowledge while in the process of

attempting to understand HIPAA (Fisher, Erdelez, & McKechnie, 2015, p. 45).

Figure 2.1

Belkin's Theory of Information Behavior
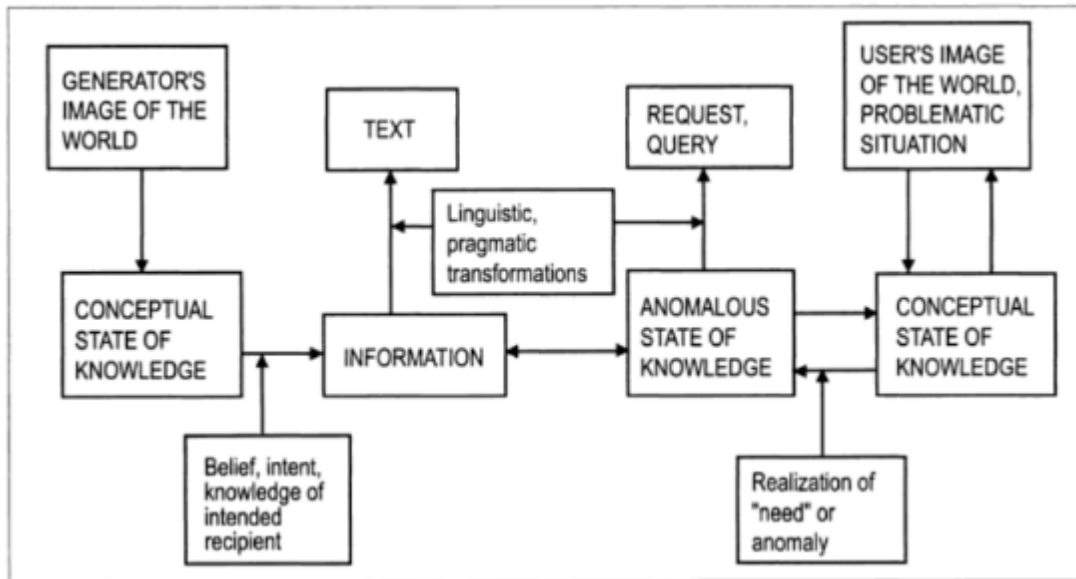
Source: Fisher, Erdelez, & McKechnie 2015, p. 45.

Uncertainty can manifest itself in such a way that it obstructs the abilities of medical

providers and non-clinical administrative personnel to comply with HIPAA. For example, they

can experience an anomaly when presented with a document to sign, and they may encounter

uncertainty because they may not be able to comprehend or fully interpret the language the

document contains. Figure2.1 illustrates Belkin's theory. In this example, we identify the

Department of Health and Human Services as the generator of the message, because they are

the sender. However, medical providers and non-clinical administrative personnel are the

receivers, representing the users in Belkin's diagram. When guidance is sent from the

Department of Health and Human Services to medical providers and non-clinical administrative

personnel, and their images of the world do not coincide, it will likely result in an anomalous

state of knowledge, and this will take place before a realization of need occurs; which is to understand.

In fact, all messages are encoded by senders and decoded by receivers. A sender encodes a message by applying meaning to its text or words; a receiver decodes those words in the message by translating them into meanings (Amin, 2017). For example, in a hypothetical scenario, for illustrative purposes, we refer to the first computer as Computer A and the second as Computer B. Computer A reads only green software and Computer B reads only red software. When the green software intended for Computer A is placed in the drive of Computer B, the user does not see a document with words but instead only symbols. The software loads on both computers, but only one interprets the content on the disc correctly as words; in this instance, Computer B incorrectly translates green software the content as symbols.

Much like computers, humans, in the same manner, interpret information differently for many reasons, but this is primarily due to one's exposures, experiences, and influences, which they encounter in their surroundings during development.

2.4.2   Perspectives on How Interpretation is Learned

Our interpretations differ for a wide range of reasons. Concerning human development, not all methods of learning are instructional. One approach is observational, this occurs when we model behavior(s) that we learn from others in our shared environments. For example, when infants and toddlers imitate others in their surroundings, we refer to this as social learning theory in practice (Heyes, 2015).

Collectively, behavioral reinforcement theorists agree that early influences and

exposures in familial settings are the initiation point for the formation of human development.

Early influences and exposures result in the pavement of a foundational framework responsible

for shaping our perspectives. It also serves as an instrument to format our worldviews (Levine &

Munsch, 2019).

According to Gadamer, "Long before we understand ourselves through the process of

self-examination, we understand ourselves in a self-evident way in the family, society, and the

state in which we live" (2016, p. 66). Again, this further suggests that we first learn and apply

meanings to the world around us due to what we learn and practice in environments

established by our families (Beaver, Wyatt, & Jackman, 2018, p. 280). Watson's view is children

are blank slates and can be nurtured and molded as a result of applying learned reinforcement

behaviors. Watson wrote (as cited in Belskey, 2015):

> Give me a dozen healthy infants, well-formed, and my own specialized world to bring
> them up in, and I'll guarantee to take anyone at random and train him to become any
> type of specialist I might select-doctor, lawyer, artist, merchant, chief, and yes, even
> beggar men and thief, regardless of his talents, penchants, tendencies, abilities,
> vocations, and the race of his ancestors. (p. 12).

The construction of how one responds to external stimuli derived from a model of rewards and

punishments, which we refer to as positive or negative reinforcement, is the basis for operant

conditioning theory. If a parent wishes to encourage a child to clean her room, they may reward

her by paying an allowance for each day the task is completed favorably, which is an example of

positive reinforcement (Schultz & Schultz, 2017, p. 337).

Negative reinforcement involves removing an external stimulus to change behavior. In

the same scenario, the child does not clean their room; a parent may elect not to reward the

child and not give compensation when the room is not cleaned as expected (Schultz & Schultz, 2017, p. 337).

Positive punishment involves adding an external stimulus to decrease the behavior; in this scenario, the parent may choose to supervise the room's cleaning and lecture the child for a long-extended period. The behavior may decrease because the child may view parental supervision as annoying and as an invasion of their privacy (Pierce & Cheney, 2017, p. 179).

Negative punishment involves removing a pleasant external stimulus to decrease an unwanted behavior. The parent may remove the phone and television from the child's room until they demonstrate they understand the expectation the room is to be cleaned daily without requiring instruction (Pierce & Cheney, 2017, p. 180) These examples illustrate how a child learns to understand when reinforcement theories are applied to shape their desired behaviors.

Known for his combined contributions and interest in operant conditioning theory, Skinner is most notable for his research and discovery of how rewards shape behaviors. He felt children were developed into adults in this manner. In fact, it was he who professed, "Give me a child at birth, and I will shape him into anything" (as cited in Pessin & Engel, 2015, p. 329). However, Bandura disagrees; he, on the other hand, professed humans are cognitive; in other words, they think about how consequences are linked to their actions. Therefore, he concludes we are affected more by what we believe, rather than the consequences of our actions, which implies behaviors are not reinforced by rewards (Sigelman & Rider, 2018).

French philosopher Paul Ricoeur referred to the founders of modern hermeneutics as masters of suspicion, which is the belief that what we think we know is actually an illusion. As a

prerequisite to understanding the nature of our being, Marx, Freud, and Nietzsche implied, we must "first understand ourselves, as we exist outside of ourselves (Kearney, 2017, p. 7)."

When we look outside of ourselves, we see there are many inputs we absorb from our surroundings in our environments, such as race, religion, cultural background, and social-economic status. These inputs are all responsible for how we develop our interpretations of who we are, as well as others, in addition to our views of the world.

However, according to Gadamer, we are chiefly influenced by traditions, which we are born into. In addition, we are indoctrinated by sociocultural and psychological experiences, which aid in the development of our cognitive abilities (Packer, 2018, p. 110).

Traditions and their practices are commonly rooted in one's sociocultural background, in addition to other categories that are not as influentially significant. However, much like computers are programmed, humans too, are also a conditioned species. Therefore, metaphorically, we are preloaded with the content that we learn from our environments, which again, includes our cultural backgrounds, family heritage, race, and religion, which serves as a framework or software that determines how our messages will be encoded and decoded, as well as how we interpret, understand, and apply meaning to our experiences and encounters, in addition to our involvements and observations of the world (Balkin, 1993, as cited in Chinen, 2019, p. 18; see Figure 2).

According to Heidegger, "Whatever and however, we may try to think, we think within the sphere of tradition" (Hendrik, 2018). How people believe, what they believe, and what they practice is a formulation of their identities and how they interpret and apply meaning to a text, spoken dialog, and observations. Nevertheless, the outcome is one that results from an

accumulation of learned traditional perspectives.

Figure 2.2

Environments Influence How Messages are Encoded and Decoded
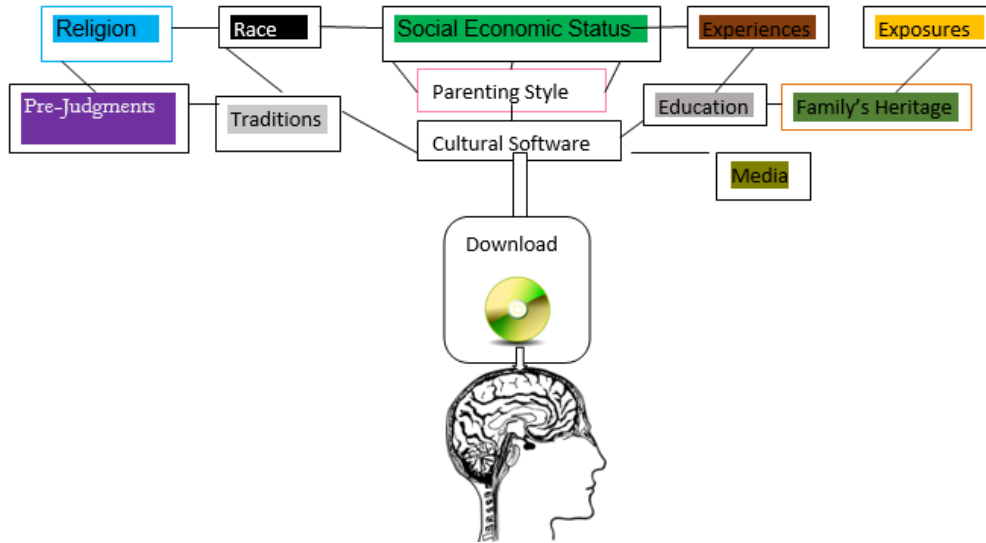
Source Balkin (1993, as cited in Chinen, 2019, p. 18).

A pre-requisite to understanding is cognition. Generally speaking, our cognitive abilities are formed in religious settings. Traditionally, religion serves as a conduit to connect with a higher life force, and typically, it is always one that is superior to man. Therefore, logically, we conceive that anything beyond our grasp will result in a process that requires understanding, which explains why hermeneutics is prevalent for its use in theology. Humans need to dissect the intricate teachings from a divine source that is perceived to be superior, which requires interpretation as a prerequisite for understanding. As previously stated, regardless of faith, research yields to the notion that our cognitive beginnings are shaped by religious dimensions, which are enforced by our traditions (Tillson & Hand, 2019, p. 1).

2.5   Why Understanding is the Problem and Not HIPAA

Many U.S. medical providers and non-clinical administrative personnel express they do

not understand HIPAA (Murphy, 2015 p. 161). Therefore, a primary goal in this research is to explore the underlying causes to explain why they do not. While the literature makes it known that HIPAA is poorly communicated (O'Brien, 2015), what is not investigated is how well medical providers and non-clinical administrative personnel understand HIPAA. According to Mac Alister & York (2015, p. 571), many healthcare professionals do not share the same understandings or interpretations of HIPAA. Therefore, they have disagreements, and when providers willingly neglect to share information that pertains to a patient's care, they put the patient's life at risk, because the information they do not share, can prove to be lifesaving.

2.5.1 HIPAA Federally Required Training (Privacy Rule)

HIPAA's function is to protect and maintain the confidentiality of patient information found in the medical record (Potter & Ostendorf, 2016, p. 36). Approximately more than 41% of U.S. healthcare organizations are involved in unintended data breaches by their employees. Most of it is likely due to a lack of understanding of how to comply with HIPAA standards (Murphy, 2015, p. 161).

Routinely, health information management professionals are educated and tested on their knowledge of HIPAA, primarily because medical facilities receive penalties for noncompliance. Section 45 CFR 164.530 of the federal HIPAA privacy rule requires employees of covered entities to receive mandated privacy training.

2.5.2 HIPAA Federally Required Training (Security Rule)

Section 45 CFR 164.308(a) (5) (i) pertains to what is known as the HIPAA security rule, which is a mandate for all members of a covered entity's workforce. By completing such

training, employees are better equipped to secure and protect medical records in paper and digital formats (Saba & McCormick, 2015, p. 117).

2.5.3   Literacy Level and the Importance of Education and HIPAA

At a minimum, to successfully read and understand documents that relate to HIPAA, one should be able to read and interpret information at the college level (Plain Language Principles and Thesaurus for Making HIPAA Privacy Notices More Readable, n.d.).

In 2016, according to the U.S. Census, 9,492 residents were counted and grouped as either having no education, or completing no more than an 8th-grade level of learning, 13,961 residents had obtained a 9th through 11th-grade education, 62,002 residents completed a high school diploma (U.S. Census Bureau, 2017). While more Americans are returning to college, there is still a large segment of the population not vested in continuous learning, it is likely within this demographic, where most challenges surface. However, the U.S. Department of Health and Human Services' efforts have been made to communicate patient rights in simple language less challenging to understand **(**P & T: a peer-reviewed journal for formulary management, 2019).

2.5.4   Healthcare Privacy Credentials Education Requirements

One is typically required to complete a two-year associate's degree to become a privacy professional in a healthcare organization. However, some certifications favor the completion of advanced graduate degrees. For example,to become certified by AHIMA (American Health Information Management Association), as a credentialed CHPS (Certified in Healthcare Privacy and Security), one can pursue multiple paths. In addition to completing an associate's degree,

one must also have six years of specialized experience in healthcare privacy or security

management. For current AHIMA credentialed RHITs (Registered Health Information

Technicians), they must possess four years of experience in healthcare privacy or security

management, along with the completion of a two-year degree in Health Information

Management or Health Information Technology.

Candidates who have completed bachelor's degrees in health information management

or health information technology, must have an active AHIMA RHIA (Registered Health

Information Administrator) certification, combined with four years of experience employed as a

privacy or security health information management professional (AHIMA, 2017).

Candidates, who complete law degrees, medical degrees, and doctoral degrees, become

eligible for the credential with two years of experience as privacy or security health information

management professionals (AHIMA, 2017).
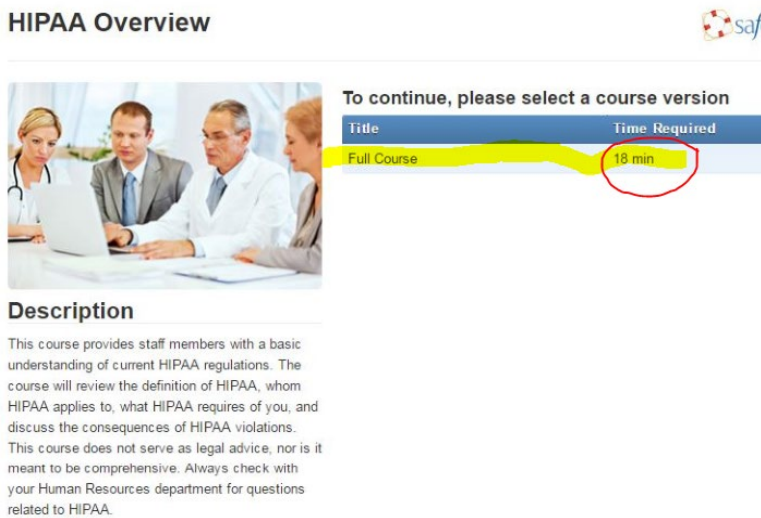
The content of the exam covers four domains. For domain one, candidates are tested on

their knowledge of ethical, legal, and regulatory issues and their expertise in their abilities to

utilize experiences in these areas as health information management professionals. In domain

two, candidates are tested on program management and administration. In domain three,

candidates are tested on their knowledge of information technology and physical safeguards. In

domain four, candidates must demonstrate their competency with regard to investigation,

compliance, and enforcement. There is a total of 150 multiple choice questions, and the exam

has a duration period of 3.5 hours (AHIMA, n.d.). The American Health Information

Management Association requires holders of the CPHS credential to recertify by completing 30

continuing education units every two years (AHIMA, 2017).

2.5.5   Healthcare Workforce and Covered Entities

Covered entities have the autonomy to determine the extent of the training that they will provide to their employees. However, the training may vary significantly by employer and can range from being facilitated over a few minutes to a duration period of a couple of days. The required course offered by Safeco (Figure2.3) took 18 minutes to complete. The course the VA facilitates was for a duration period of 1 hour (Figure 2.4).

Figure 2.3

Safeco Online College Training 2016

Figure 2.4

U.S. Department of Veterans Affairs Training 2020

2.5.6   Legal Terminology

Many factors contribute to the lack of understanding as it pertains to HIPAA; for the

most part, it is rooted in compliance. However, in some instances, the legal language that some

organizations incorporate into their policies to communicate HIPAA are not correct. Berwick

and Gaines (2018) argue: "In too many cases, these policies do not reflect HIPAA requirements.

Rather they are grounded in 'HIPAA myths': misapplications based on

misunderstandings about what the law requires." Across medical specialties, it is not

uncommon for providers to share the same concerns.

Gardner and Allen (2019) maintain that:

Incomplete knowledge of what is allowed or prohibited under HIPAA can lead to
confusion; unfortunately, on occasion, an acceptable request for patient information is
inappropriately denied. That confusion is not surprising because the combined HIPAA
regulation text is long and unwieldy, written in technical, legal language. (p.76)

Apparently, most of the written language to communicate HIPAA employs legal

terminology, making it difficult for medical providers and non-clinical administrative personnel

to understand its requirements (Dewan, Luo, & Lorenzi, 2015, p. 40).

2.5.7   Compliance

There are numerous accounts in the literature that document the leading cause

responsible for the lack of compliance with HIPAA is misunderstanding, which is significantly

important because one must possess understanding as a prerequisite before they can comply

with HIPAA (Chen & Benusa, 2017). Even in the best of intentions, HIPAA compliance is a target

that medical providers and non-clinical administrative personnel continue to miss, and it is not

uncommon for their efforts to result in noncompliance because they go overboard in doing so,

which often leads to unintended noncompliance (DeVore, 2015, p. 72).

Halamka & McGraw (2015) found the following:

Many organizations do impose greater privacy protections than the Rules require—likely out of an abundance of caution. However, entities should not pursue privacy safeguards that could have a negative impact on patient care, and they certainly shouldn't point the finger at HIPAA as the rationale for doing so, at least not in circumstances where the regulations and accompanying guidance are clear.

While most organizations that over-interpret HIPAA are simply failing to understand the federal regulations, there are circumstances in which state and federal laws do impose more stringent privacy burdens than those required by HIPAA itself. However, a number of organizations overlook that they still may fail in their efforts to comply with HIPAA; in many instances, they will become overprotective and less compliant (Marting, 2018).

2.6   Medical Provider and Non-Clinical Administrative Personnel Perspectives

In medicine, there is an expectation for medical providers to train as authorities in their area of expertise. In general, innovation is not something medical providers readily welcome. In particular, medical providers resist the integration and use of new technologies. They also fail to embrace new regulations such as HIPAA, mainly because it is difficult to understand and interpret (Klocker, 2015, p. 40).

Because the practice of medicine is highly entrepreneurial; most providers operate independently with an entrepreneur's mindset (Wulfovich & Meyers, 2020). Understandably, because medical providers are not typical hospital staff or medical personnel, they may not identify with tasks that do not involve or require patient care.

Also, the education physicians receive positions them to be more than masters of their crafts, but to be highly knowledgeable in their roles as medical providers. Therefore, not

understanding HIPAA may resonate with a provider as incompetency. However, on the other hand, some providers may lean towards the idea that HIPAA is not significant to what they do in their roles as medical providers, and therefore, they may view it as something of a clerical nature, which they may not necessarily accept as a part of their culture.

2.7   Religious Perspective

Chaplains function primarily in Christian owned or church-based hospitals, except for those who work for the U.S. Department of Veterans Affairs. However, some may work in hospice settings to provide comfort to terminally ill patients who have very little time remaining to survive. Occupational burnout and secondary traumatic stress are traits chaplains routinely experience in their roles as non-clinical administrative personnel (Hotchkiss & Lesher, 2018).

In hospital settings, chaplains often feel emotionally exhausted. They express they experience stress that often results in low levels of motivation. Hospital chaplains experience high levels of dissatisfaction because of little or no control over their work, along with inadequate funding for resources, in addition to less than manageable caseloads, violent acts that pose threats to their safety, and longer than usual 8-hour scheduled shifts (Hotchkiss & Lesher, 2018).

On the other hand, while many hospital chaplains are bogged down and overcommitted to high caseloads, many express they have a calling for their work and find purpose and fulfillment in the comfort they provide to others. Nonetheless, this does not come without sacrifice, and therefore, they must individually sustain their own internal needs, such as self-care (Hotchkiss & Lesher, 2018).

Religion and spirituality are challenging for most providers to discuss (Bre' ult-Phillips, et

al., 2015). Nevertheless, patients expect providers to pray for them and assemble with their families in prayers (Lundy & Janes, 2016, p. 402). Most patients find doctors are reluctant to include topics such as religion in their delivery of patient care. Nevertheless, as with any demographic, it is clear that not all providers share the same beliefs. For example, some do not identify with a religion (Wilson, 2018, p. 508). However, suppose a provider chooses to engage in topics that involve religion with their patients. In that case, it can be a slight risk because it is not acceptable for providers to impose spiritual and religious beliefs upon patients.

The belief religion alleviates stress and anxiety from patients who suffer from chronic conditions is found in the literature (Steinhorn, Din, & Johnson, 2017). If underlying diseases are not brought under control, it can have a negative effect on a patient's care. Therefore, some providers will remain open to discussing a patient's spiritual and religious concerns, even though they are not spiritual care professionals (Canzona, Peterson, Villagran, & Seehusen, 2015). Contrarily, others refuse to do so because they believe it is inappropriate, and therefore, denounce it as medically unacceptable. However, this is not true for all providers because many believe a patient's religious faith is what determines if the success of their medical treatments will lead to outcomes that are favorable (Steinhorn, Din, & Johnson, 2017).

Nevertheless, an assessment of a patient's religious and spiritual background is a standard practice in the delivery of patient care (Urden, Stacy, & Lough, 2016, p. 112). Therefore, the act of doing so is credible. However, to approach care in a manner that does not go against the religious and spiritual values of a patient, a provider will first review the patient's spiritual assessment, and then, determine how to best pursue care that takes the religious values and principles of the patient into consideration.

However, it is a general preference for most providers to allow hospital clergy and chaplains in spiritual care professional roles to address their patient's religious concerns (Bre'mault-Phillips, et al., 2016, p. 151). In particular, in instances when providers feel it is not the responsibility of medical doctors to address concerns that are non-pertinent to patient care (Keeley, 2017, p. 96). If a situation occurs and a provider chooses to do so, they should err on the side of caution, mainly because patient and provider language do not always have the same meanings. Additional concerns include differences in economic, cultural, and social circumstances of providers. Furthermore, patient perceptions of these variations may resonate as discriminatory and unfair (Keeley, 2017, p. 113).

Providers are also reluctant to disclose their religious and spiritual beliefs because the topic is divisive and will not always unify or bring people together. If religious and spiritual beliefs differ, it can often result in disunity amongst people. However, some providers see value in finding common ground with patients, and while some physicians may choose to establish professional boundaries, others find it acceptable to share their religious backgrounds in their exchanges; they also see this as an opportunity to establish intimacy in their patient-provider relationships (Bre'mault-Phillips, et al., 2016, p. 151).

Understandably, providers are careful to avoid topics that include abortion, gay marriage, and right-to-die issues; they want to appear neutral and do not want their patients to perceive them as judgmental or biased (Canzona, Peterson, Villagran, & Seehusen, 2015). To avoid violating patient rights and patient privacy, providers must take additional measures to not solicit patients for information that is not relevant or pertinent to the care they receive (Galanti, 2015, p. 76). In instances such as this, it is wise for providers to exercise caution.

Tactics providers use to manage privacy include validating, refocusing, topic shift, and outsourcing (Canzona, Peterson, Villagran, & Seehusen, 2015). Providers use validating to assure patients that they agree with what they believe. It is a form of support that lends itself to comforting the patient, which likely puts them at ease and makes them feel more receptive to the care that they receive from their medical providers. However, there are instances when patients will query providers for information that is not relevant to patient care, but is private, which is why some doctors may choose to refocus their patient-provider conversations. By doing so, they protect their privacy.

Topic shift is similar to refocusing. It can resonate unfavorably with patients because they may perceive that their provider is dismissive, and therefore, conclude their decision to not to discuss religious topics with them as uncaring. On the opposite side of topic shift is outsourcing, this is when providers refer patient's religious concerns to be addressed by hospital chaplains.

The literature concludes most physicians realize their roles as caregivers and view the religious and spiritual beliefs of patients as fundamental rights. Although providers have the same religious rights as patients, they do not receive the same considerations because they want to remain neutral.

No prerequisite requires medical providers to disclose private and personal information about themselves to patients. Nevertheless, patients expect providers to offer emotional and psychological support to listen fully to their concerns, as a result of this expectation; a provider may unintentionally find himself or herself conversing with a patient about religious and spiritual matters. It is at that point; it becomes evident that no distinction between the role of

spiritual care provider and medical provider is made by the patient.

Nevertheless, when this does occur, providers respond in a manner that appears to be subtle, but yet defensive. For example, "My personal beliefs aren't what we're here for today," or "I don't think it is appropriate to talk about that subject with patients." This response illustrates how a physician manages to shift the focus back to the importance of the patient's care; the goal is to eliminate the patient's desire to discuss their religious and spiritual interests with their provider, especially if it is not relevant to the patient's care (Canzona, Peterson, Villagran, & Seehusen, 2015).

Therefore, providers must take into account the measure of influence that comes with their roles as medical providers, so they must be careful not to involve themselves with the business of inadvertently proselytizing patients, which could result if they impose their religious values and beliefs on those who rely on them for care.

Conclusively, the impact religious perspective has on a provider's ability to understand HIPAA remains unanswered. Further investigation on this topic will require additional research.

2.8   Division of Interpretations

The Department of Health and Human Services does not recognize those in roles such as chaplain and clergy who provide spiritual care as equivalent to that of medical providers who provide patient care (Krager & Krager, HIPAA for Health Care Professionals, 2016, p. 112). Needless to say, there is a distinction. If a hospital chaplain wishes to see a patient's record, they must have the authorization to do so. Whereas, a medical provider does not require prior consent to view a patient's medical record(s) (Krager & Krager, HIPAA for Health Care Professionals, 2016, p. 112).

Nonetheless, attorneys who specialize in healthcare compliance hold a different view. Therefore, they do not share the same interpretation of the preamble that was written by the U.S. Department of Health and Human Services. They interpret those in roles such as chaplain and clergy to be equivalent to those who provide direct-patient care and are classified as medical providers (Tovino, 2017).

2.9   Historical Shaping of Insights

More importantly, an examination of the historical relationship between medicine and religion provides insight as to why some have a perception of spiritual care as the equivalent of medical patient care. In Western Christian tradition, medieval hospitals were led by religious orders in ancient times, in which many priests were responsible for the treatment of patients (Engs, 2019, p. 33).

Clergy and chaplains who function in non-clinical roles are subject to succumb to perspectives taught in their religious institutions of higher learning. In many settings, they still must access patient protected health information to provide a response to a physician's order, or a referral made by a nurse to facilitate spiritual care to a patient, as well as assist with arrangements for funerals (Koenig & Mccall, Health and Medicine, 2018). It is for these reasons, that chaplains who function as non-clinical administrative personnel are likely to use a framework that employs the use of religiosity to approach how they understand and interpret the meaning of HIPAA.

2.10   Summary

Chapter 2 discusses the five tenets of HIPAA:

- Title I: HIPAA Health Insurance Reform

- Title II: HIPAA Administrative Simplication and Wasteful Spending

- Title III: Electronic Transaction Governance

- Title IV: Application and Enforcement of Group Health Plan Requirements

- Title V: Revenue Offsets

For the sake of familiarity, it is essential to discuss each tenet. However, as this study expands to complete its research objectives, Title II of HIPAA serves as its focal point.

There are many findings in the literature that identify misunderstanding as a root cause for HIPAA noncompliance. Still, no known study at this time investigates how we learn to apply meaning to a text, written, or spoken word to improve the abilities of medical providers and non-clinical administrative personnel to understand, comply, and interpret HIPAA correctly. It is also vital to examine HIPAA's language. There are many accounts found in the literature to examine literacy level and education as prerequisites to understanding HIPAA. Still, there are few discussions found in the literature that address if the use of legal terminology is responsible for why medical providers and non-clinical administrative personnel do not understand HIPAA.

Additionally, this chapter also explores medical provider and non-clinical administrative personnel perspectives, as well as the significance of how religion can shape one's views and understanding of the world.

The overall intent of this chapter is not merely to collect and organize information but to discover new shreds of evidence as to why HIPAA is challenging for medical providers and non-clinical administrative personnel to understand, which may potentially provide insights that improve their abilities to understand and comply with HIPAA.

CHAPTER 3

METHODS

3.1   Introduction

This research aims to examine the presence of topics in the literature that address if

HIPAA's use of legal terminology, literacy level, and institutional training, along with religious

and social perspectives, and credentials of medical providers and non-clinical administrative

personnel affects their abilities to understand HIPAA. It also examines if the impact and

influence scores of the literature's contents are rated high or low. For the sake of this study's

purpose, such metrics can be instrumental in gauging the effectiveness of scholarly

contributions.

3.2   Quantitative Data Collection

This study employed a quantitative data collection method to examine the impact and

influence of a total of 107 articles as samples that resulted from a search in PubMed Central's

database. Bibliometrics serves as a tool to measure the activity and impact of research

(Henneken & Kurtz, 2017). Therefore, it is a reasonable and customary practice for researchers

to investigate the presence and impact of scholarly contributions in the literature, which can be

accomplished by incorporating the use of bibliometrics into their research (Warren, 2018).

Bibliometrics incorporates Lotka's law of scientific productivity, Bradford's law of

scatter, and Zipf's law of word occurrence to measure productivity, generation, and

dissemination of knowledge, which can help discover the number of times a work is cited. The

study utilized the following bibliometric methods:

- *Form-wise distribution*: Coverage that addresses the topic of why medical providers

and non-clinical personnel do not understand HIPAA can be found in the format of articles retrieved by accessing PubMed's Central's database via the University of North Texas library by proxy.

- *Year-wise distribution*: Year-wise distribution refers to the annual frequency of articles that address main points in the research questions, grouped into yearly or annual review periods. The year-wise distribution parameter was set in PubMed Central from January 1, 2010-May 31, 2020.

3.3   Validity and Reliability Checks

In constructing coding categories, a letter was assigned to each keyword in the research. Validity and reliability checks will result in the same results consistently. This research incorporated cross-tabulation as well as concurrent validity and test-retest reliability. A test-retest method allows the researcher to assess the same data twice to see if the results are similar or the same (Withrow, 2016, p. 149). Concurrent validity is implemented to examine if the findings of the number of times a keyword is cited throughout the research (Figure 4.1; see also Table 4.1) coincides with the keywords as they are coded, which is a fair measure to gauge if entries are accurate (Singh, Kroner, Wormith, Desmarais, & Hamilton, 2018, p. 219). Data collection and analysis employ descriptive statistics to analyze the sources that are collected and to examine the data quantitatively in the context of percentages that are displayed, which can be contrasted with the total sums reported.

3.4   Article Level Metrics: Relative Citation Ratio (RCR) and Article Influence Scores

As a secondary methodology, the study employed article level metrics to complement to its use of bibliometrics and provide a more accurate view of the content found within journals (Silva & Vance, 2017, p. 11). It is not ideal to employ bibliometrics to measure the relevancy of articles (Gordon, Lin, Cave, & Dandrea, 2015). Bibliometrics impact factor favors the journal,

and not the actual content written in the article (Hutchins, Yuan, Anderson, & Santangelo, 2016). The metrics used are:

- Relative citation ratio (RCR) is a method to determine the influence or strength of an article (Matthews, 2018, p. 185).

- Article's measure of influence or article influence score

3.5   Journal Impact Factor

Journal impact factors (JIFs) are measurements that determine the rank, influence, and importance of journal publications. The ratio of the number of works cited in a journal for the past two years, divided by the number of citable works in the journal the previous two years, is what determines if its rating, rank, or influence will be high or low. Therefore, it is clear the final impression of a journal related to impact factors is determined by its number of citations. While there is no such thing as a good impact factor or bad impact factor, what does exist is that some articles in journals will be cited more than others. However, JIFs do not account for individual articles, but solely focuses on the journal as a whole (Bornmann & Werner, 2016).

There are also other unmentioned underlying determinants, such as availability, that can affect a journal's impact factor. Some journals are more readily available to access than others. Simultaneously, those that are difficult to access may not be cited as often because they may not be a part of a library's collection, or alternatively, too costly for a user to access its articles. Therefore, the journal does not only become less accessible but also less citable, and this can have an effect on the journal's rank as well as its overall impact factor.

3.6   Article Readability

According to Wu et al. (2016), readability affects comprehensibility. The study examines

if the readability of articles found in the search results meets the requirements and

recommendations of the U.S. Department of Health and Human Services' Plain Writing Act of

2010. The study accomplishes this by employing the following readability measures:

- Gunning Fog factors words, sentences, and complex words with three or more syllables, to determine the approximate level of education that one must possess to understand the text (Abid, Kuppusamy, Ajit, & Ojha, 2019).

- Coleman Liau Index determines the grade level of a written text due to its characters and not the number of syllables per word in the length of the sentence (Abid, Kuppusamy, Ajit, & Ojha, 2019).

- Flesch Kincaid Grade Level factors the average sentence length and the average number of syllables per word (How to Use and Understand Flesch-Kincaid Readability Statistics in Microsoft Word, 2017).

- Automated Readability Index (ARI) factors word and sentence difficulty, to determine the age and grade level targets necessary to comprehend a text's written words and sentences (Abid, Kuppusamy, Ajit, & Ojha, 2019).

- SMOG (Statistical Measure of Gobbledygook) examines words that contain three or more syllables over a span of three 10-sentence passages of a document for readability (Masters, 2020, p. 283) .

- Flesch Reading Ease is a measure that determines how difficult it is to read and understand text in written formats (Linares, Daly, & Daly, 2017).

3.7   Appropriateness

Keyword and text searches for this research served as fundamental labors. Bradford's

law applies to the circulation of articles (Vitanov, 2016, p. 179), and Zipf's law is relevant to

generate words and written text searches (Nakamori, 2016, p. 70). Relative citation ratio (RCR)

lends itself to improve how the strength of the actual work in the article is featured in the

publication is received, which cannot be accomplished by making use of journal impact factors

(JIF), which is a feature of bibliometrics (Hutchins, Yuan, Anderson, & Santangelo, 2016).

3.8   Data Collection Procedures

Content analysis is a systematic, objective, quantitative analysis of message

characteristics (Neuendorf, 2017, p. 1). All fundamental data was retrieved from Pubmed

Central's website via the University of North Texas online library. Detailed steps used to collect

the data are found in Appendix A.

CHAPTER 4

FINDINGS AND RESULTS

The data used in this research came from PubMed Central's database. The information

was collected and transcribed into discussion formats.

4.1   Quantitative Content Analysis

The results for each executed query before and after abstracts were removed are

displayed in Table 4.1.

Table 4.1

Summary of Articles Returned from Search Queries

Criteria	# Articles	After Abstracts Removed
RQ 1.1	14	5
RQ 1.2	1	0
RQ 2.1	35	30
RQ 2.2	0	0
RQ 3.1	81	60
RQ 3.2	1	1
RQ 4.1	9	4
RQ 4.2	0	0
RQ 5.1	15	7
RQ5.2.	1	0
Totals	157	107

In the following sections, results of each research question are discussed individually.

Individual data tables for each research question query are found in Appendix B.

4.1.1 Research Question 1.1

How does the use of legal terminology affect the abilities of medical providers to understand HIPAA?

The keywords used in the PubMed Central's database query were derived from RQ 1.1:

- Legal: The term legal was linked to words that included *legal challenges, legal ethics, legal statutes,* and *legal action*.

- Terminology: The keyword terminology was not found to have an association to the word legal. However, it was used in reference to *medical terminology* and *current procedural terminology,* and *in the context of phrases that were linked to medical billing and coding.*

- Understand: The keyword understand was found to be linked to phrases that included *health informatics, medical consensus costs, medical condition,* and *medical bills.*

- HIPAA: The acronym HIPAA was discussed in reference to consent forms, which are used by Institutional Review Boards to meet their research requirements.

- Providers: The term providers had associations to keywords and phrases that included *provider attitudes, provider withholding information, privacy,* and *legal instruction*.

The query returned five articles (see Table B.1). The keyword search that had the lowest count in RQ 1.1 was **HIPAA** (6 times), while the keyword that had the highest count in the research is **providers** (110 times). The results indicate more research is present in journals and articles that focus on medical provider's abilities to understand ethics, statutes, and legal outcomes of their actions, rather than address if HIPAA's use of legal terminology is a barrier that limits their capacities to understand HIPAA.

4.1.2 Research Question 1.2

How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 1.2 in PubMed Central's

database generated no phrases or investigations to address if the use of legal terminology has

an impact or influence on non-clinical administrative personnel's abilities to understand HIPAA.

4.1.3 Research Question 2.1

What affects does literacy have on the abilities of medical providers to understand HIPAA?

The keywords used in the PubMed Central's database query were derived from RQ 2.1:

- Literacy: The term literacy had associations to keywords and phrases that included literacy *skills, healthcare literacy, health insurance literacy, computer literacy, low health literacy, literacy and aptitude, adult literacy, poor literacy,* and *literacy scores.*

- Abilities: The term abilities had associations to keywords and phrases that included manage *privacy, cognitive abilities, lower textual abilities, interpretation abilities,* and *visual abilities*. It addresses manage privacy in the context of social media.

- Understand: The keyword understand had associations to phrases that included understand *complex information, understand English,* and *understand consent forms*.

- HIPAA: The acronym HIPAA had associations to phrases that included *authorizations for consents, informed consent, institutional review boards, secure email, web-based password encryption, smartphone, virtual private networks,* and *video teleconferencing technologies (VTC).*

- Medical: The keyword medical had associations to phrases that included *medical information, medical condition, medical records, medical experts, medical outcomes, medical research, medical directories, medical disease, medical campus, medical technology,* and *medical environment.*

- Providers: The keyword providers had associations to phrases that included *provider patient communication, medical provider,* and *provider referral*. However, the search did not return results that were provider centric; rather, the queries generated research articles that focused on patient abilities to understand and interpret medical documents.

The query returned 30 articles (see Table B.2). The keyword search that had the lowest

count in RQ 2.1 was **HIPAA** (42 times) while the keyword that had the highest count was

medical (632 times). As it relates to HIPAA, the search produced more results that had to do

with virtual and electronic technologies, IRB consents, and patient authorizations.

4.1.4 Research Question 2.2

How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 1.2 in PubMed Central's

database generated no phrases or investigations to address what affect literacy level has on the

abilities of non-clinical administrative personnel to understand HIPAA.

4.1.5 Research Question 3.1

How does institutional HIPAA training affect the abilities of medical providers to understand HIPAA?

The keywords used in the PubMed Central's database query were derived from RQ 3.1:

- Institutional: The term institutional had associations to keywords and phrases that included i*nstitutional oversight, institutional management, institutional responsibilities, institutional review, institutional leaders, institutional history, institutional policy, institutional regulatory, institutional framework, institutional review board, institutional employment, institutional liability, institutional training, institutional level, institutional security, institutional environment, institutional discrimination, institutional processes, institutional support, institutional subscription, institutional autistic syndrome, institutional affiliations,* and *institutional issues*.

- HIPAA: The acronym HIPAA had associations to keywords and phrases that included *biometrics, compliance, authorization,* and *consent*.

- Training: The term training had associations to keywords and phrases that included *laboratory staff, facilities, materials, athletic training, patient training, formal training, level, interpersonal,* and *sessions*.

- Abilities: The term abilities had associations to keywords and phrases that included *reasoning abilities, visual search abilities, communication abilities, language abilities, typing abilities, processing abilities, interpretation abilities, cognitive abilities, search abilities,* and *limit setting abilities.*

- Medical: The term medical had associations to keywords and phrases that included *medical treatment, medical appointments, medical communication, medical conditions, medical history, medical demographics, medical illnesses, medical monitoring, medical information, medical questions,* and *medical evaluations*.

- Providers: The term providers had associations to keywords and phrases that included obstetric *providers, providers ratings, provider preferences, service provider, insurance provider, counseling provider, provider education requirements, provider specialties, provider knowledge, provider records, provider establishment, campus provider, and environment* and *recovery provider*.

- Understand: The keyword understand had associations to phrases that included *understand multifactorial, understand influences, understand reasons, understand health impacts,* and *understand English*.

The query returned 60 articles (see Table B.4). The keyword search that had the lowest count in RQ 3.1 was **HIPAA** (107 times) while the keyword that had the highest count was **medical** (815 times).

4.1.6   Research Question 3.2

How does institutional HIPAA training affect the abilities of non-clinical administrative personnel to understand HIPAA?

The keywords used in the PubMed Central's Database query were derived from RQ 3.2:

- Institutional: Used in reference to keywords or phrases such as *institutional review board, institutional level, institutional policies, institutional training, institutional review board approval, institutional information,* and *institutional approval*.

- HIPAA: Used in reference to the protection of the rights of research subjects.

- Training: Used in reference to keywords or phrases that included *specialized training, training requirement, training initiative,* and *required training*.

- Affect (verb): Used in reference to the rights and welfare of subjects, and found to identify with phrases such as *informed consent*.

- Non-clinical: Used in reference to laboratory studies.

- Understand: Used in reference to *the role or the institutional review board,* in addition to *the subject's abilities to understand what their participation involves.*

The query returned 1 article (see Table B.5). The words that appeared the least were **affect** and **non-clinical**, which both only occurred once in the search. The keyword **institutional** was coded more than any term in the keyword search (13 times). It was predominantly referenced in the context of institutional review board research, as opposed to its intended target, i.e., institutional HIPAA training.

4.1.7 Research Question 4.1

How does credentialing affect the abilities of medical providers to understand HIPAA?

The keywords used in the PubMed Central's database query were derived from RQ 4.1:

- Credentialing: The term credentialing was linked to terms associated with *regulatory requirements* and *recommendations.*

- Affect (verb): Refers to *employee orientation, telemedicine equipment,* and *change* within the context of *delivery of health care.*

- Abilities: Refers to *technical abilities* as it relates to *telemedicine, clinical judgement* as it relates to the *abilities* and *limitations of telemedicine,* and *the enhancement of provider qualifications,* as it relates to their abilities to increase their accuracy of diagnosing and treating sleep disorders when clinical uncertainties arise.

- Medical: The term medical refers to keywords and phrases that include *medical opinion, medical information, medical facility, medical nutrition, medical evaluation, medical services, medical complexity, medical necessary, medical necessity, medical examination, medical care file,* and *medical association*.

- Providers: The term providers refers to keywords and phrases that include *sleep telemedicine, primary care providers, provider resources, provider specialist, specialist providers, separated providers, referring providers*, and the key elements providers should perform.

- Understand: Understand was used in the context to refer to phrases that include *payor reimbursement, telemedicine, job expectations,* and *treatment options for athletes*.

- HIPAA: The acronym HIPAA refers to the regulation's importance as it relates to *message encryption,* in addition to devices used to safeguard protected health information.

The query returned four articles (see Table B.5). The keyword search that had the lowest count was **affect** (4 times), in the context of how equipment affects proper patient assessment. The keyword that had the highest count was **medical** (95 times). It was frequently used to refer to medical expertise.

4.1.8 Research Question 4.2

How does credentialing affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 4.2 in PubMed Central's database generated no phrases or investigations to address what affect credentialing has on the abilities of non-clinical administrative personnel to understand HIPAA.

4.1.9 Research Question 5.1

How does the religious perspective of medical providers affect the abilities to understand HIPAA?

The keywords used in the PubMed Central's database query were derived from RQ 4.1:

- Religious: The term religious was linked to keywords and phrases that include *religious worship in private temples, political* or *religious beliefs, genetic, biometric,* and *health data, quasi-religious movement, community* and *religious leader involvement, shared religious beliefs* and *ethnicity, daily exercise, games* and *religious services, perceived religious support,* and *private and organized religious practices*.

- Perspective: The phrases linked to perspective include *Antiethical perspectives of privacy concerns, proposal perspectives* to *balance privacy,* and *perspectives* to *help providers build empathy for patients*.

- Medical: The term medical was linked to keywords and phrases that include *medical attention, medical provider, medical director, medical programs, medical systems, medical research, medical care services, medical settings, medical providers, medical research, medical condition, medical experts, medical decision, medical schools, medical situation, medical safety, medical debt, medical expenses, medical team, medical legal, medical regimens, medical sciences, medical intervention,* and *medical community living environment*.

- Providers: The term provider was linked to keywords and phrases that include healthcare *providers, provider's settings*, as well as how providers prioritize care for physical impairments over their patient's social needs.

- Affect (verb): Used to refer to keywords and phrases such as *affects voluntariness* and *issues, emotional reaction and behavior, child* and *parent health,* and *racism affects health*.

- Abilities: The term abilities was linked to keywords and phrases that include *broad abilities to use data for law enforcement purposes, user abilities to manage privacy on social media, interact and abilities, range of resident interests and abilities,* and *resident preferences and abilities*.

- Understand: The term understand was linked to keywords and phrases that include *understand the Aadhaar policies, understand India's failure to not provide adequate data protection in the Aadhaar, understand why India did not put data protection legislation during the development of Aadhaar, understand the broader conditions of GDPR (General Data Protection Regulation), privacy solutions consumers can understand without difficulty, understand social process theory, understand cultural heritages, understand resident warning signs of depression, understand anxiety, understand co-relationships in assisted living,* and *understand how relationships are shaped in assisted living*.

- HIPAA: The acronym HIPAA was used to refer to phrases that include *HIPAA and the privacy act, its impact on social media,* and *the privacy of individuals*.

The query returned seven articles (see Table B.6). The keyword search that had the lowest count was **abilities** (8 times). It was mainly used to reference resident's abilities to manage privacy on social media. The keyword that had the highest count was **provider** (95 times), and was used frequently to refer to healthcare providers.

4.1.10 Research Question 5.2

How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 5.2 in PubMed Central's database generated no research or findings that addressed how the religious perspective of non-clinical administrative personnel affect the abilities to understand HIPAA.

Table 4.2

Summary of All Research Question Query Results

| Terms*	RQ 1.1 (n = 5)	RQ 1.2 (n = 0)	RQ 2.1 (n = 30)	RQ 2.2 (n = 0)	RQ 3.1 (n = 60)	RQ 3.2 (n = 1)	RQ 4.1 (n = 4)	RQ 4.2 (n = 0)	RQ 5.1 (n = 7)	RQ 5.2 (n = 0)	Total
Abilities		–	57	–	170	0	5	–	8	–	**243**
Affect (verb)		–		–		1	4	–	6	–	**11**
Credentialing		–		–			6	–		–	**6**
HIPAA	6	–	42	–	112	2	7	–	24	–	**188**
Institutional		–		–	150	13		–		–	**164**
Legal	25	–		–				–		–	**25**
Literacy		–	223	–				–		–	**223**
Medical	77	–	632	–	815		95	–	73	–	**1776**
Non-clinical		–		–		1		–		–	**1**
Perspective		–		–				–	40	–	**40**
Providers	110	–	373	–	394		76	–	58	–	**1004**
Religious		–		–				–	27	–	**27**
Terminology	8	–		–				–		–	**8**
Training		–		–	440	9		–		–	**504**
Understand	31	–	146	–	604	6	7	–	53	–	**452**

*Although keywords appear the same across all research questions, the actual terms associated with the keyword in each query result varies. Please review text for more detailed information. Cells highlighted in yellow indicate highest number of times a term occurred in query results for each research question; while those highlighted in blue indicate the lowest number of times a term occurred.

4.1.11 Summary of Quantitative Content Analysis

Table 4.2 is a summary table of results for all research questions. Throughout the entire study, HIPAA was a keyword found in every research question and used in every query; however, its presence accounted for only 4% of the keywords results (see Figure 4.1).

Figure 4.1

Percentage of Times Keyword is Cited throughout Entire Study
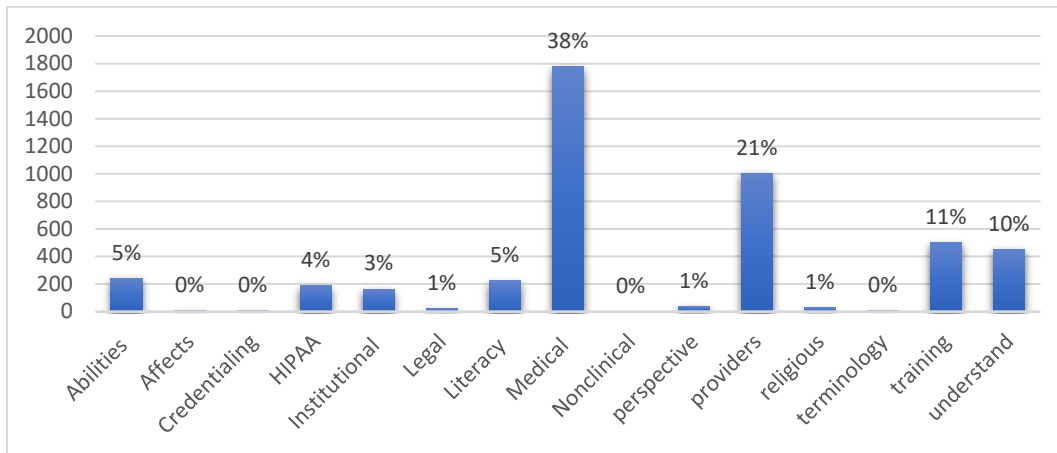
4.2 Article Level Metrics

4.2.1 Relative Citation Ratio (RCR)

A relative citation ratio (RCR) is a method to determine the reference or strength of an article (National Institutes of Health Office of Portfolio Analysis, 2020). The National Institutes of Health (NIH) percentile indicates how an article compares to all NIH publications. A higher NIH percentile is reflective of the strength of the article's influence. Therefore, a highly influential set of articles will have a higher weighted RCR than total publications, while a set of articles with below-average influences will have a lower weighted RCR (National Institutes of Health Office or Portfolio Analysis, 2020).

In the following sections, results of each research question are discussed individually. Individual data tables for each research question query are found in Appendix C.

4.2.1.1   Research Question 1.1

How does the use of legal terminology affect the abilities of medical providers to understand HIPAA?

Table C.1 displays the results from the National Institutes of Health iCite query, using the same five articles generated from the PubMed query. Two articles were rated less than 50% when compared to all NIH publications, and three were higher. The overall combined average percentage rating for all five of the RQ 1.1 articles is 54.26%.

The query in the National Institutes of Health iCite web application produced a weighted relative citation ratio of 8.40 for the set of five articles (see Figure C.1). This indicates that the article influence scores for RQ 1.1 is high, and therefore, deemed as favorable.

4.2.1.2   Research Question 1.2

How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords that were found in RQ 1.2 in PubMed Central's database generated no phrases or investigations to address if the use of legal terminology has an impact or influence on non-clinical administrative personnel's abilities to understand HIPAA.

4.2.1.3   Research Question 2.1

What affect does literacy have on the abilities of medical providers to understand HIPAA?

Table C.2 displays the results from the National Institutes of Health iCite query, using the same 30 articles generated from the PubMed query. There were three articles in the

findings not accounted for, and therefore, they were not assigned a value in the form of a numerical percentage rating. Of the remaining articles, 13 were rated less than 50% when compared to all NIH publications, and 14 were rated higher than 50%. The overall combined average percentage rating for RQ 2.1 is 52.91%.

The query in the National Institutes of Health iCite web application produced a weighted relative citation ratio of 52.35 for the entire set of 30 articles (see Figure C.2). This indicates that the article influence scores for RQ 2.1 is high, and therefore, deemed as favorable.

4.2.1.4   Research Question 2.2

How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 1.2 in PubMed Central's database generated no phrases or investigations to address what affect literacy level has on the abilities of non-clinical administrative personnel to understand HIPAA.

4.2.1.5   Research Question 3.1

How does institutional HIPAA training affect the abilities of medical providers to understand HIPAA?

Table C.3 displays the results from the National Institutes of Health iCite query, using the same 60 articles generated from the PubMed query. There was one article in the findings that was not accounted for, and therefore, it was not assigned a value in the form of a numerical percentage rating. Of the remaining articles, 28 were rated less than 50% when compared to all NIH publications, and 31 were rated higher than 50%. The overall combined average percentage rating for RQ3.1 is 51.41%.

The query in the National Institutes of Health iCite web application produced a weighted

relative citation ratio of 161.19 for the entire set of 60 articles (see Figure C.3). This indicates

that the article influence scores for RQ 3.1 is high, and therefore, deemed as favorable.

4.2.1.6   Research Question 3.2

How does institutional HIPAA training affect the abilities of non-clinical administrative personnel to understand HIPAA?

Table C.4 displays the results from the National Institutes of Health iCite query, using

the same article generated from the PubMed query. The article was rated less than 50%

compared to all NIH publications. The average percentage rating for RQ 3.2 is 0%.

The query in the National Institutes of Health iCite web application produced a weighted

relative citation ratio of 0.50 for the article (see Figure C.4). This indicates that the article

influence score for RQ 3.1 is low, and therefore, deemed as less than favorable.

4.2.1.7   Research Question 4.1

How does credentialing affect the abilities of medical providers to understand HIPAA?

Table C.5 displays the results from the National Institutes of Health iCite query, using

the same four articles that were generated from the PubMed query. Two articles were rated

less than 50% compared to all NIH publications, and three were higher. The overall combined

average percentage rating for all five of the RQ 1.1 articles is 54.26%

The query in the National Institutes of Health iCite web application produced a weighted

relative citation ratio of 10.32 for the entire set of 4 articles (see Figure B.5). This indicates the

article influence scores for RQ 3.1 is high, and therefore, deemed as favorable.

4.2.1.8   Research Question 4.2

How does credentialing affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 4.2 in PubMed Central's

database generated no phrases or investigations to address what affect credentialing has on

the abilities of non-clinical administrative personnel to understand HIPAA.

4.2.1.9   Research Question 5.1

How does the religious perspective of medical providers affect the abilities to understand HIPAA?

Table C.6 displays the results from the National Institutes of Health iCite query, using

the same seven articles that were generated from the PubMed query. Four articles were rated

less than 50% compared to all NIH publications, and three were higher than 50%. The overall

combined average percentage rating for all seven of the RQ 5.1 articles is 53.12%**.**

The query in the National Institutes of Health iCite web application produced a weighted

relative citation ratio of 24.07 for the entire set of seven articles (see Figure C.6). This indicates

that the article influence scores for RQ 5.1 is high, and therefore, deemed as favorable.

4.2.1.10   Research Question 5.2

How does the use of legal terminology affect the abilities of non-clinical administrative personnel to understand HIPAA?

The query performed by entering keywords found in RQ 5.2 in PubMed Central's

Database generated no research or findings that addressed how the religious perspective of

non-clinical administrative personnel affect the abilities to understand HIPAA.

4.2.1.11   Summary of Relative Citation Ratios

Table 4.3 is a summary table of results for all research questions. Figure 4.3 displays the

overall percentages by range for the entire study's RCRs.

Table 4.3

Summary of NIH Queries Results for All Research Questions

Research Question	0-9%	10-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%
RQ1.1		20					66.3	75.2		93
		20.1								
RQ2.1	0	11	24.2	36.1		57	63.6	77	81.9	95
		14.9	28.7	40.5	41.1		66.3	72.1	85.9	97.5
		19	30.6		42.4		69.4	72.6	86.3	98.3
		20						77		
		20.1								
RQ3.1	0	12.7	21.2	33.5	46.9	57	62.8	72	84	91.1
	0	13.6	22.2	36.1	48.4	59.5	63.6	72.1	85	91.8
	0	14.4	24.1	37.9	48.7	60.7	64	72.6	86.3	95
	0	14.9	24.2	39.5	49.9		66.1	77	86.8	97.5
		16.4	25.2				66.3	77.9	87.2	99.1
		19.5	25.3				66.7		88.4	100
		20	27.4				67.5		88.9	
			28.3				67.9			
			30.6				68.8			
							69.1			
RQ3.2	0									
RQ4.1					48.7		62.8		88.4	93
RQ5.1		14.9	21.2			57		75.9	90	
			22.8						90.1	

Figure 4.2
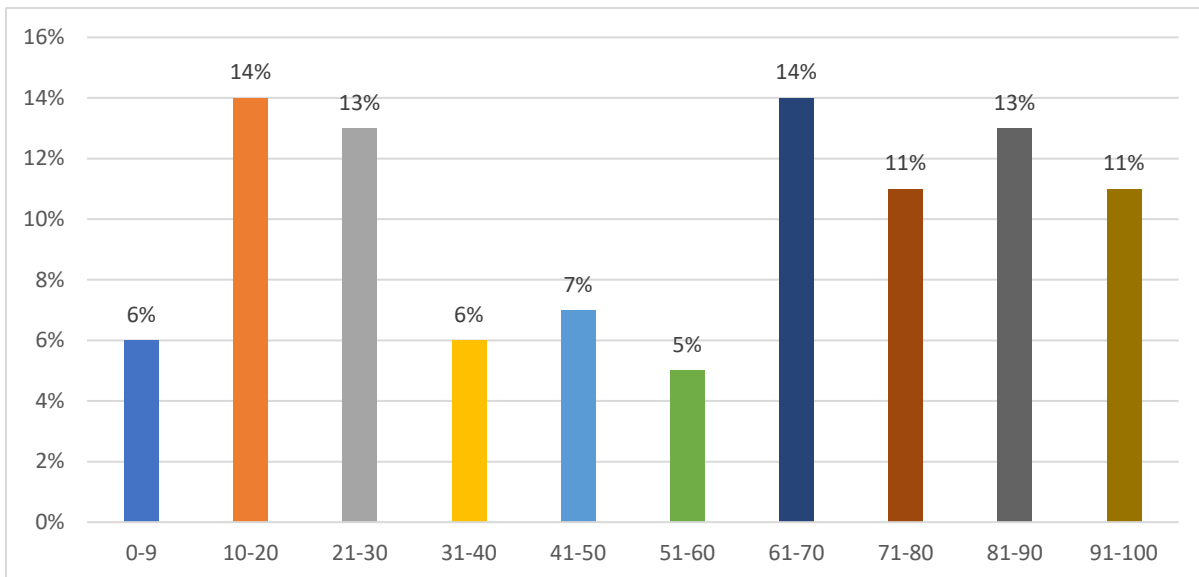
Overall Percentages by Range for Entire Study's Relative Citation Ratios

Figure 4.3

Article Influence Scores < 1.00

Article Influence Scores 1-20

Article Influence Scores 21-41

Figure 4.4

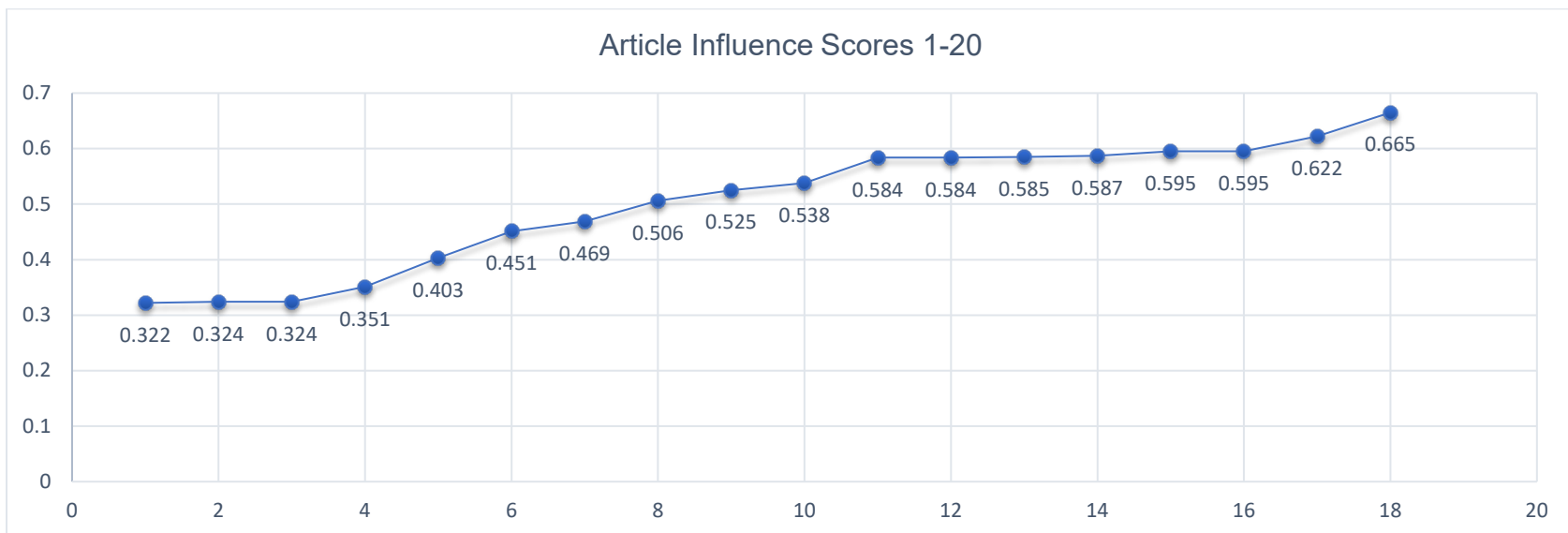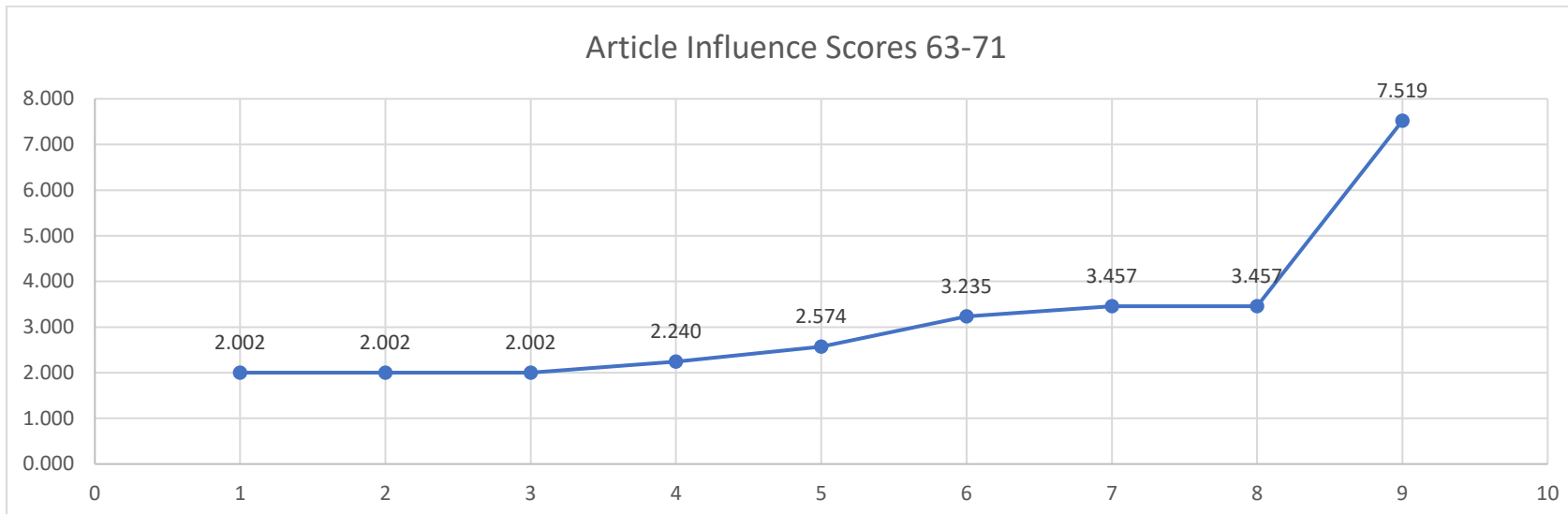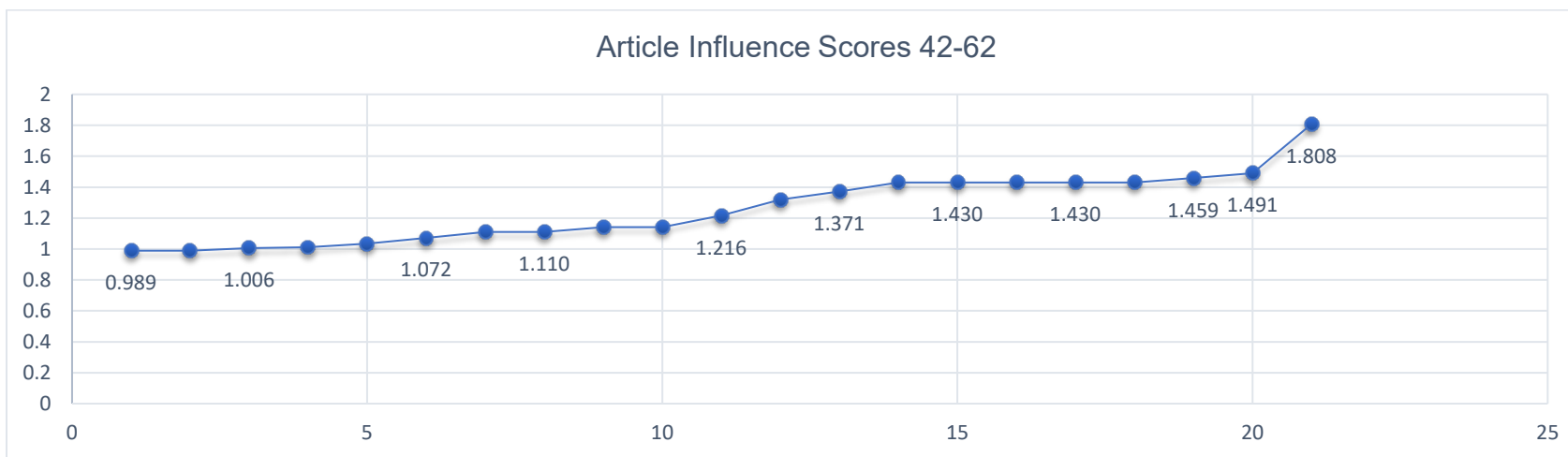*Article Influence Scores ≥ 1.00*

Article Influence Scores 42-62

Article Influence Scores 63-71

4.2.2 Article Influence Scores

Regarding article influence scores, an article with a metric greater than 1.00 has an above-average influence. An article with a metric less than 1.00 has an influence rating below average (Clarivate Analytics, 2020). Data for each research question article query are found in Appendix D.

Out of 107 articles associated with the journals that resulted from the search, 42 had an article metric less than 1.00, which is a below-average influence score (Figures 4.3). There were 29 articles that had an article metric equal to or above 1.00, which is an equivalent to or above-average influence score (see Figures 4.4). The remaining 36 articles did not have article influence scores, and therefore, were assigned values as not unavailable and are not graphed.

4.3 Journal Impact Factor

The queries conducted in this research resulted in a total of 82 journal titles (see Appendix E). Of these, 58 had journal impact factors available through the Web of Science, and 24 were not available. The impact factors were labeled A through J and broken down into 10 categories (see Table 4.4).

Table 4.4

Journal Impact Rankings

Category	JIF Range	n	%
A	0.754-0.964	3	6
B	1.028-1.987	15	18
C	2.093-2.966	20	36
D	3.093-3.644	10	20
E	4.112-4.621	2	4

(table continues)

Category	JIF Range	n	%
F	5.034-5.902	3	6
G	6.018-6.494	2	4
H	9.274	1	2
I	10.228	1	2
J	16.463	1	2

The three journal titles with the highest JIF identified in this research are *Journal of the American Society of Nephrology* (Category H), the *Journal of Allergy and Clinical Immunology* (Category I), and the *Annual Review of Public Health* (Category J).

4.4   Readability

Readability levels coincide with one's ability to correctly understand and comprehend information according to the intent and purpose of the individual or organization that is the responsible author of the content.

The Coleman-Liau Index assesses the number of letters per word. Using the Coleman Liau-Index, an interpretation for a value assigned 8 through 11 is interpreted as an 8th through 11th-grade reading level. The student age range is also 8 through 11. An interpretation of a value assigned 11 and above is within the range between 11th-grade and college. The student age range is 17 and above (Abid, Kuppusamy, Ajit, & Ojha, 2019).

The Flesch-Kincaid Grade Level Index calculates the average number of words per sentence. In addition to its average number of syllables to determine the readability and grade level of the written text found in documents (Zhou, Jeong, & Green, 2017). An understanding measure that is between 10.0 and 30.0 indicates that the material is challenging to read and is best understood by university graduates; values between 0.00 and 10.0 indicates that the

material is exceptionally challenging to read, and therefore, is believed to be best understood by university graduates who are professionals (Flesch, n.d.).

In the following sections, the results of each research question are discussed individually. Data for each article query are found in Appendix F.

The results for the Gunning Fog Index findings range from 11.31 to 16.68, which indicates the articles that the search returned can be understood from an 11th-grade high school junior level to the equivalent of a four-year university bachelor's degree.

4.4.1   Research Question 1.1

How does the use of legal terminology affect the abilities of medical providers to understand HIPAA?

The results for the Gunning Fog Index findings range from 12.57 to 17.45, which indicates the articles that the search returned can be understood from a 12th-grade high school senior to a college graduate level. The results for the Coleman Liau-Index findings ranges from 12.01 to 16.62, which indicates the articles returned by the query are too difficult for most readers to understand. The results for the Flesch-Kincaid Grade Level Index findings range from 10.42 to 15.12, which indicates that all articles that resulted from the search can be understood by professionals and college graduates who completed a bachelor's master's or doctorate degree. The results for the Automated Readability Index findings range from 8.87 to 14.82, which indicates that all articles that resulted from the search can be understood from an 8th-grade to a college sophomore reading level. The results for the Flesch Reading Ease Index findings ranges from 18.66 to 44.99, which indicates that the articles can be understood from the master's to doctorate education levels.

4.4.2 Research Question 2.1

What affect does literacy have on the abilities of medical providers to understand HIPAA?

The results for the Gunning Fog Index findings range from 10.06 to 16.91, which

indicates that they can be understood from a 9th-grade high school freshman to the equivalent

of a four-year university bachelor's degree. The results for the Coleman Liau-Index findings

ranges from 8.55 to 10.94, which indicates that they can be understood from an 8th- grade to

11th- grade junior high-school level. The results for the remaining ranges from the query were

from 11.18 to 16.64, which indicates that they can be understood from an 11th grade high

school junior to four-year bachelor's degree level. The overall findings indicate that nine of the

articles are moderately difficult for readers to understand, while the remaining 21 were found

to be too difficult for most readers to comprehend. The results for the Flesch-Kincaid Grade

Level Index findings were from 8.49 to 15.10, which indicates that the articles can be

understood by college graduates who completed a bachelor's master's or doctorate degree.

The results for the Automated Readability Index were from 6.25 to 15.28, which indicates that

the articles can be understood by college graduates who completed a bachelor's master's or

doctorate degree. The results for the SMOG Readability Index findings were from 12.10 to

16.07, which indicates the articles can be understood by those who have the ability to

comprehend written text from a high school senior to the equivalent of a four-year university

bachelor's degree. The results for the SMOG Readability were from a value of 9 to 15.71, which

indicates the articles can be understood from a high school freshman to college junior grade

level. The results for the Flesch Reading Ease Index returned results for three articles that were

assigned values less than 30, while the rest were assigned values that ranged from 32.57 to

50.19. Articles assigned with a principal value between 0 and 30 can be understood by those who can read and comprehend at the college graduate level, and those with values between 30 and 50 by those who can read and comprehend from the college freshman to the equivalent of a four-year university bachelor's degree.

4.4.3   Research Question 3.1

How does institutional HIPAA training affect the abilities of medical providers to understand HIPAA?

The Gunning Fog Index query returned results that ranged from 10.27 to 16.91, which indicates that all articles the query returned can be understood from a 10th-grade high school sophomore level to a college senior level. The range for the Coleman Liau-Index findings were from 12.10 to 25.16, which indicates that the articles are too difficult for most readers to comprehend. The range for the Flesch-Kincaid Grade Level Index was from 9.82 to 15.10, which indicates the articles were written at the college level and can be understood by college graduates that completed bachelor's master's or doctorate degree.

The results for the Automated Readability Index were from 6.84 to 21.17, which indicates the articles the query returned can be understood from a 6th- grade to college professor reading level. The results for the SMOG Readability Index were from 9.81 to 15.71, which means the articles can be understood from a high school freshman to college junior grade level. The Flesch Reading Ease Index findings showed that 28 articles were assigned values less than 30, while 33 were assigned values that ranged from 30.43 to 44.58. Articles assigned with a value between 0 and 30 can be understood by those who can read and comprehend at the college graduate level. Articles assessed with values between 30 and 50 will

require the ability to read and comprehend from the college freshman to the equivalent of a

four-year university bachelor's degree.

Research Question 3.2

How does institutional HIPAA training affect the abilities of non-clinical administrative personnel to understand HIPAA?

The Gunning Fog Index query returned results that determined the article's readability is

13.04, which indicates the article can be understood at a college freshman level. The Coleman

Liau-Index findings showed the article was assigned a value of 19.97, which means it is too

difficult for most readers to comprehend. The Flesch-Kincaid Grade Level Index showed the

article was assigned a value of 12.07, which means it was written at the college level and can be

understood by professionals who completed a bachelor's master's or doctorate degree. The

Automated Readability Index query returned results that show the article was assigned a value

of 15.78, which means it is understood by those who can comprehend at the reading level of a

college professor. The SMOG Readability Index is 12.48, which indicates that the article can be

understood with the attainment of a high school senior 12th-grade education. The Flesch

Reading Ease Index for the article was assigned a value of 32.64, which indicates that it can be

understood from the college freshman to college senior grade level.

4.4.4   Research Question 4.1

How does credentialing affect the abilities of medical providers to understand HIPAA?

The Gunning Fog Index query returned results that ranged from 13.79 to 17.45, which

indicates the articles can be understood from a college freshman education level to the college

graduate level. The range for the Coleman Liau-Index findings were from 18.66 to 24.93, which

indicates they are too difficult for most readers to comprehend. The range for the Flesch-

Kincaid Grade Level Index was from 12.34 to 15.12, which means the articles can be understood

by professionals who have completed a bachelor's master's or doctorate degree. The query for

the Automated Readability Index findings was from 11 to 21.7, which indicates the articles can

be understood from a 6th-grade to college level. The results for the SMOG Readability Index

ranged from 12.96 to 16.07, which indicates that the articles can be understood from a high

school senior to a four-year bachelor's degree level. The Flesch Reading Ease Index query

returned results for three articles that were assigned values less than 30, and one article that

was assigned a value greater than 30. Articles assigned with a value between 0 and 30 can be

understood at the college graduate level, and those with values between 30 and 50 can be

understood from the college freshman to the equivalent of a four-year university bachelor's

degree.

4.4.5   Research Question 5.1

How does the religious perspective of medical providers affect the abilities to understand HIPAA?

The results for the Gunning Fog Index query were from 11.31 to 16.68, which means the

articles the search returned can be understood from a high school 11th-grade junior level to a

four-year bachelor's degree education level. The range for the Coleman Liau-Index findings

were from 12.57 to 24.22, which indicates the articles the search returned from this query are

too difficult for most readers to comprehend. The results for the Flesch-Kincaid Grade Level

Index findings were from 12.42 to 14.84, which indicates that the articles can be understood by

professionals, in addition to college graduates who have completed a bachelor's master's or

doctorate degree. The results for the Automated Readability Index were from 8.83 to 20.50,

which indicates the articles can be understood from a 6th- grade to college level. The results for

the SMOG Readability Index query were from a 11.2 to 14.65, which indicates the articles can be understood from a high school 11th-grade to college sophomore education level. The Flesch Reading Ease Index query returned results for three articles that were assigned values less than 30, and four articles were assigned values greater than 30. Articles assigned with values between 0 and 30 can be understood at the college graduate level. Articles with a Flesch Reading Ease Index with values assigned between 30 and 50 can be understood from a college freshman to college senior grade levels.

4.4.6   Summary of Readability

The overall Gunning Fog Index Readability average grade level is 13.65, which is best understood by those who can read and comprehend at a college freshman level. The overall Coleman-Liau readability average grade level is 17.67, which is considered too difficult for most readers to comprehend. The overall grade level Flesch-Kincaid readability average is 12.09, which is considered difficult to read and is best understood by university graduates that have a bachelor's master's or doctorate degree. The overall Automated Readability average grade level is 13.87, which is considered difficult to read and is best understood by college students who are in pursuit of completing a minimum of a degree. The overall average for the SMOG Readability Index is 13.06, which is best understood by those who can read and comprehend at a college freshman level. The overall Flesch Kincaid Reading Ease average is 33.56, which is considered difficult and is at or above the college graduate level.

4.5   Additional Queries

To further qualify and support preliminary efforts, three additional queries were

performed in EBSCOhost by using the Academic Search Complete database (see Figures 5, 6, and 7).

Figure 4.5

"Understanding and HIPAA" Query Results

Database	Number of Hits	Discusses Understanding HIPAA	Focuses on Measuring Extent to which HIPAA is Understood
ERIC (Education Resource Center	4	0	no
CINAHL (The Cumulative Index to Nursing and Allied Health Literature)	33	19	no
Medline	26	6	no
Academic Search Elite	21	1	no

Figure 4.6

"Patient Understanding and HIPAA" Query Results

Database	Number of Hits	Discusses Understanding HIPAA	Focuses on Measuring Extent to which HIPAA is Understood
ERIC (Education Resource Center	2	0	no
CINAHL (The Cumulative Index to Nursing and Allied Health Literature)	26	3	no
Medline	0	0	no
Academic Search Elite	0	0	no

Figure 4.7

"Provider Understanding and HIPAA" Query Results

Database	Number of Hits	Discusses Understanding HIPAA	Focuses on Measuring Extent to which HIPAA is Understood
ERIC (Education Resource Center	0	0	no
CINAHL (The Cumulative Index to Nursing and Allied Health Literature)	1	1	no
Medline	0	0	no
Academic Search Elite	0	0	no

CHAPTER 5

DISCUSSION

5.1   Conclusions

The article influence scores examined in the research were all favorable, with the

exception of the results found in research question (RQ3.2). Only one result was returned.

However, it is the only article the search produced to address non-clinical administrative

personnel.

The journal impact factors varied by rank. Those ranked higher were in the 2 %

percentile, and those ranked with the highest frequency were in the 36th percentile. Most of

the journals were clinical and nonadministrative. Journals found with a value of less than 1.000

accounts for 6 % of the articles examined in this research.

For the most part, the relative citation ratios were favorable. The lowest in reference to

medical providers was 48.7%, other relative citation ratios were slightly above 50%, and one

was at 73%. Therefore, while the content concerning medical provider's abilities to understand

HIPAA is deficient, with respect to this demographic it was moderately prevalent.

The Plain Language Requirement and Readability of HIPAA's regulations are subjective.

To elaborate further, there is no set grade level to communicate HIPAA in written format.

However, there is a Plain Language requirement, the readability indices in this study indicate

that one must be able comprehend from a college to doctorate level to understand HIPAA. One

recommendation is to factor education attainment demographics by geographic location.

Another alternative is to communicate it in written format at a level that everyone can

generally understand and interpret. The current provision of the Plain Language Act is to write

at the level of understanding your audience can comprehend, which does not allow for the uniformity of understanding HIPAA to result.

In closing, the literature review results indicates that legal terminology, literacy level, training, credentialing, and religious perspective had no or little effect in understanding HIPAA. None of the five factors investigated were shown to have an impact on the abilities of medical providers and non-clinical administrative personnel to understand HIPAA that could be found in the literature in a search over a 10-year period in PubMed Central's database.

5.2   Recommendations for Future Research

Recommendations to expand on the findings in this study should include exploring other databases, some to consider includes, (CINAHL) Cumulative Index to Nursing and Allied Health Literature, Sage Direct, ProQuest, and Taylor & Francis Online.

Another recommendation to consider for future studies is to examine why HIPAA is not understood by medical providers and non-clinical administrative personnel by employing a format that will allow for interviews and individual personal perspectives, that will give way to responses that are authentic to increase the odds of uncovering new findings that result in the knowledge generation of new ideas and concepts, to attain the goal of discovery in research.

Recommendations to expand on the findings in this study should also include exploring other databases. Some to consider include (CINAHL) Cumulative Index to Nursing and Allied Health Literature, Sage Direct, ProQuest, and Taylor & Francis Online.

APPENDIX A

STEPS FOR QUANTITATIVE DATA COLLECTION

The following are the research questions used in the study. Words in bold typeface are keywords and/or phrases used in database queries:

RQ 1.1: How does the use of **legal terminology** affects the abilities of **medical providers** to **understand HIPAA**

RQ 1.2: How the use of **legal terminology** affects the abilities of **non-clinical administrative personnel** to **understand HIPAA**?
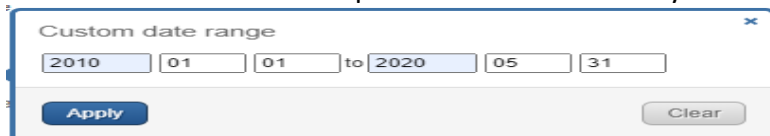
RQ 2.1: What affect does **literacy** have on the **abilities** of **medical providers** to **understand HIPAA?**

RQ 2.2: How the use of **legal terminology** affects the abilities of **non-clinical administrative personnel** to **understand HIPAA**?

RQ 3.1: How **institutional HIPAA training affect** the **abilities** of **medical providers** to **understand HIPAA**?

RQ 3.2: How **institutional HIPAA training affect** the **abilities** of **non-clinical administrative personnel** to **understand HIPAA?**

RQ 4.1: How **credentialing affects** the **abilities of medical providers** to **understand HIPAA**?
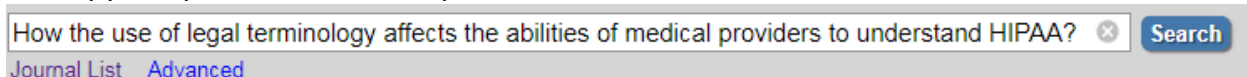
RQ 4.2: How **credentialing affects** the **abilities of non-clinical administrative personnel** to **understand HIPAA**?

RQ 5.1: How the **religious perspective** of **medical providers affects** the **abilities** to **understand HIPAA**?

RQ 5.2: How the use of **legal terminology** affects the abilities of **non-clinical administrative personnel** to **understand HIPAA**?

1. Log on to the PubMed Central U.S. National Library of Medicine National Institutes of Health website: https://www.ncbi.nlm.nih.gov/pmc/

2. Copy and paste the research question into the search field as shown below:

How the use of legal terminology affects the abilities of medical providers to understand HIPAA? ⊗ **Search**
Journal List   Advanced

3. Select search –then set parameters from January 2010-May 31, 2010:

Custom date range   ✕
2010   01   01   to 2020   05   31
Apply   Clear
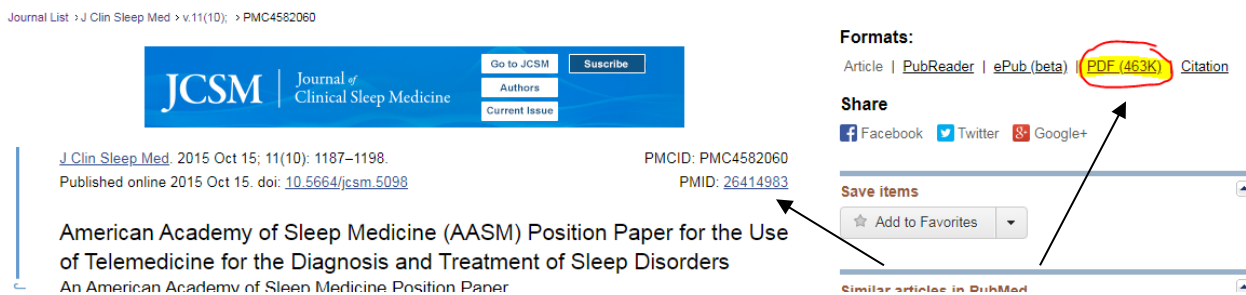
4. Select Apply

5. Remove all abstracts and conference papers from the search by checking the box next to the title of the article.

Filters activated: Publication date from 2010/01/01 to 2020/12/31. Clear all to show 23 items.

☑ American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the
1. Diagnosis and Treatment of Sleep Disorders: An American Academy of Sleep Medicine Position
Paper

6. Click on the article title.

7. When the articles become visible select PDF format and write down the article's PMID

Journal List › J Clin Sleep Med › v.11(10); › PMC4582060

JCSM | Journal of Clinical Sleep Medicine

Go to JCSM   Suscribe
Authors
Current Issue

J Clin Sleep Med. 2015 Oct 15; 11(10): 1187–1198.
Published online 2015 Oct 15. doi: 10.5664/jcsm.5098

PMCID: PMC4582060
PMID: 26414983

American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders
An American Academy of Sleep Medicine Position Paper

Formats:
Article | PubReader | ePub (beta) | PDF (463K) | Citation

Share
Facebook   Twitter   Google+

Save items
⭐ Add to Favorites

Similar articles in PubMed

8. When the article downloads in PDF format, perform the keyword searches of the text in bold in the research questions to perform the counts, phrases, and assess descriptive words to conduct the research. A written follow up for each query of keyword search is completed for each research question's keywords found in bold.

legal   ∧ ∨ ✕   800...   🔁 Home

9. List the articles in an Excel Spreadsheet, write down all the PMIDs on a sheet of paper, and enter them in the Excel Spreadsheet in a separate column.

How the use of **legal terminology** affects the abilities of **medical providers** to **understand HIPAA**?

Article	Legal	Terminology	Understand	HIPAA	Medical	Providers
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders						
Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training						
A Qualitative Analysis of Health Literacy Issues among Women with Visual Impairments						
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia						
Elder Orphans Hiding in Plain Sight: A Growing Vulnerable Population						

10. Enter the number of times each word is found in the article, do not include entries that are found in the references of the article.

How the use of legal terminology affects the abilities of medical providers to understand HIPAA?

Article	Legal	Terminology	Understand	HIPAA	Medical	Providers		
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders	7	4	4	4	12	56		
Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training	7	2	4	0	5	4		
A Qualitative Analysis of Health Literacy Issues among Women with Visual Impairments	2	1	#	0	10	37		
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia	0	0	6	1	10	5		
Elder Orphans Hiding in Plain Sight: A Growing Vulnerable Population	9	1	1	1	40	8		

11. Scrub the data by removing the abstracts and the conference results from the initial search and list by highlighting the before results in blue, and create before and after tables.

Results: 14 (RQ1.1)

TITLE-ABS-KEY (hipaa AND legal AND **terminology** AND medical AND **provider** AND understand)

Results: 1 (RQ1.2)

TITLE-ABS-KEY (hipaa AND legal AND **terminology** AND non-clinical AND understand)

Results: 30 (RQ2.1)

RQ2.1 What affect does **literacy** have on the **abilities** of **medical providers** to **understand HIPAA**?

TITLE-ABS-KEY (literacy AND medical AND **providers** AND understand AND hipaa)

Results: 0 (RQ2.2)

RQ2.2 What affect does **literacy** have on the **abilities** of **non-clinical administrative personnel** to **understand HIPAA**?

TITLE-ABS-KEY (literacy AND medical AND **providers** AND understand AND non-clinical)

Results: 81 (RQ3.1)

RQ3.1 *How* **institutional HIPAA training** *affect the abilities of* medical providers *to understand HIPAA*?

TITLE-ABS-KEY (institutional AND **hipaa** AND **training** AND **affect** AND **the** AND **abilities** AND of AND medical AND **providers** AND to AND understand AND **hipaa?**)

RQ3.2 *How* **institutional HIPAA training** *affect the abilities of* **non-clinical administrative personnel** *to understand HIPAA*?

TITLE-ABS-KEY (institutional AND **hipaa** AND **training** AND **affect** AND **the** AND **abilities** AND of AND **non-clinical** AND **administrative** AND **personnel** AND **to** AND **understand** AND **hipaa**)

RQ4.1 *How* **credentialing** *affects* the *abilities of medical providers* to *understand HIPAA*?

TITLE-ABS-KEY (credentialing AND **affects** AND the AND **abilities** AND of AND **medical** AND **providers** AND to AND **understand** AND **hipaa?**)

RQ4.2 *How* **credentialing** *affects* the *abilities of* **non-clinical administrative personnel** *to understand HIPAA*?

TITLE-ABS-KEY (credentialing AND **affects** AND the AND **abilities** AND of AND **non-clinical** AND **administrative** AND **personnel** AND **to** AND **understand** AND **hipaa?**)

RQ5.1 How the **religious perspective** of **medical providers affects** the **abilities** to **understand HIPAA**?

TITLE-ABS-KEY (how AND **the** AND **religious** AND **perspective** AND of AND **medical** AND **providers** AND **affects** AND **the** AND **abilities** AND **to** AND **understand** AND **hipaa?**)

RQ5.2 How the **religious perspective** of **non-clinical administrative personnel affects the abilities** to **understand HIPAA**?

TITLE-ABS-KEY (how AND **the** AND **religious** AND **perspective** AND of AND non-**clinical** AND **administrative** AND **personnel** AND **affects** AND **the** AND **abilities** AND **to** AND **understand** AND **hipaa?**)

Unit of Analysis

The unit of analysis is the article, in addition to the research question's keywords. The Microsoft Control "F" search function was used to locate keyword searches within the document.

Sampling Plan:

All content after the data for the research questions were scrubbed were included in the study. Search parameters were set for an estimated 10-year period in PubMed Central.

Construct Coding Categories:
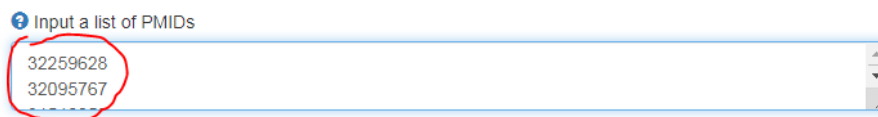
Display the coding categories by assigning a letter to each key word in a grid with the codes starting with the letter A in a column on the left and the keyword in a column on the right.

Coding, Validity and Reliability Checks:

Display the keywords in a chart for each research question. Then, complete another chart to allow for the overall data to be captured and complete concurrent validity, concurrent reliability, and test re-test of the entries by cross-referencing the data. All content from credible sources is considered face validity and reliability.

Data Collection and Analysis:

1. Complete a summary of the number of times each keyword is cited throughout the entire research and illustrate the data captured in a chart.

2. Complete a secondary source that cross-references the information by individually by each research question, make sure the data coincides with the overall findings in the first chart as means to perform the validity and reliability checks.

3. Compile a chart that illustrates the percentages of times each keyword is used throughout the research.

4. Compile a list of relative citation ratios (RCR) for each research question.

    a. Go to this link: https://icite.od.nih.gov/analysis for the NIH iCite Portal.

    b. Copy and paste the research question's PMID (PubMed ID, see Step 7 above):

   ❓ Input a list of PMIDs

   ```
   32259628
   32095767
   ```

   A maximum of 10000 PMIDs may be queried at a time.

   The *iCite* database currently contains articles published from 1980 to present.
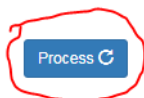
   Process ⟳

    c. Select Process to generate the RCR report associated with the article entries. Include the total pubs, cites per year, relative citation ratios, along with the weighted RCR. Also include this information each time a report is launched for each research question.

Year	Title	Authors	Journal	NIH Percentile	RCR

5. From the customization report tab, select the export option.

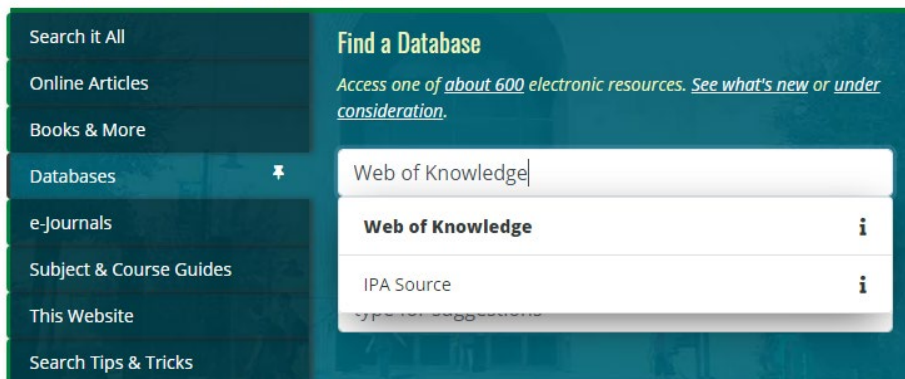

6. Select Export this module.
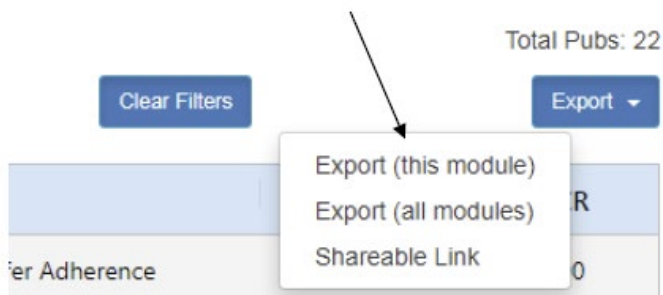
7. Save the data in an Excel Spreadsheet. Name it according to the research question.

8. Create a table that cross-references the viewable publications by year on the left, and on the right create a header for weighted RCR by year.

9. Gather the information from within the report by placing your mouse over the bars to get the information you will need to complete your entries for your tables, which will appear in red.

10. Create a table with columns on the right that display research questions on the left, and categories 0-9%,10-20%,21-30%,31-40%,41-50%,51-60%,61-70%,81-90%, and 91-100%.

11. Go to the previous tables for each individual research question and compile it in the overall table so that previous entries can be cross-referenced and validated and are now viewable collectively for comparison purposes.

12. Log the number of overall percentages for the entire study's relative citation ratios in a table that displays the percentages on the left, and the number counts of each percent category on the right.

Article Influence Scores

1. Log on to UNT's Library's Website: https://library.unt.edu/

2. From the homepage select Databases.

3. Type in Web of Knowledge

4. Select Web of Knowledge and the Web of Science page becomes visible.

START YOUR RESEARCH

Search it All	**Find a Database**
Online Articles	Access one of about 600 electronic resources. See what's new or under consideration.
Books & More	
Databases ⊠	Web of Knowledge
e-Journals	**Web of Knowledge** i
Subject & Course Guides	IPA Source i
This Website	
Search Tips & Tricks	

Web of Knowledge

Web of Knowledge provides access to the world's leading scholarly literature in the sciences, social sciences, arts and humanities by aggregating the contents of multiple databases (including Web of Science, BIOSIS Previews, Zoological Record and Journal Citation Reports). WOK covers over 23,000 high-impact scholarly journals, 23 million patents, 9,000 web sites and 148,000 conference proceedings it provides exhaustive citation indexes for tracking topics or authors through time as well as links to additional external resources. Access to full-text of some resources is provided. Dates of Coverage: Varies by resource 1990s–Current, with backfiles to 1900.
more...

5. Click on Journal Citation Reports**.**

Web of Science   InCites   Journal Citation Reports   Essential Science Indicators   EndNote   Publons   Kopernio   Master Journal List

Web of Science

Select a database	Web of Science Core Collection ▾

Basic Search   Author Search^BETA   Cited Reference Search   Advanced Search

Example: oil spill* mediterranean ⊗	Topic
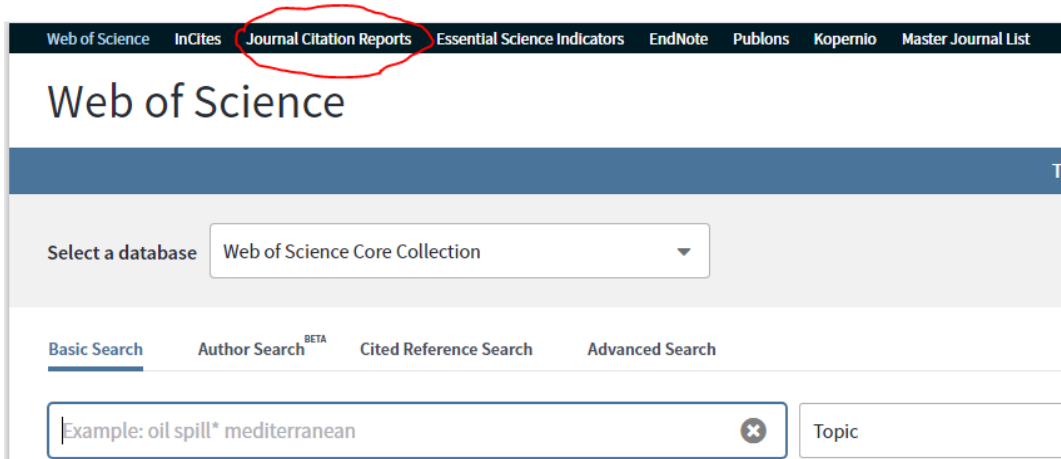
6. Retrieve Journal Information from Relative Citation Ratio Excel spreadsheet.

Journal
J Athl Train
J Clin Sleep Med
Acad Pathol
J Athl Train

7. Select Browse by Journal
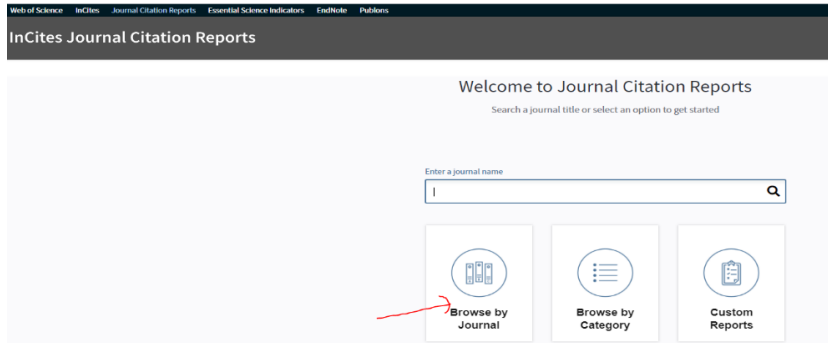
8. Type the name of the journal in the "Enter a Journal Name" field. The entry will populate for selection**.**
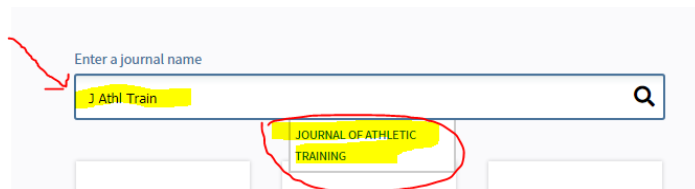
9. To view the **Journal's Impact Factor**-click on the magnifying glass, which is the search option, once deployed, you will see the profile for the Journal's Impact Factor. (See figure 24). The Journal Impact Factor will appear as illustrated.
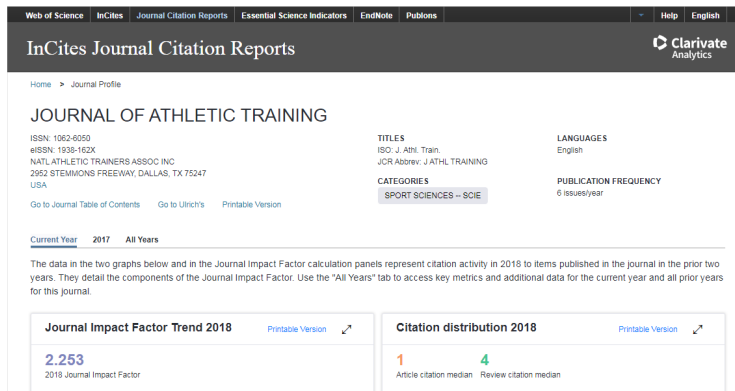
10. Scroll down to the key indicators section and select the article influence score

11. Group the articles by the research question and rank the article influence scores in values from smallest to largest.

Journal Impact Factor

Complete Steps 1-9 listed above (Article Influence Scores), then list and rank the Journal Impact Factors in a table from smallest to largest.

Readability

The following steps were taken to examine the readability levels of HIPAA's five tenets and the articles found in the study's search results.

1. Go to the site to locate the information. https://www.govinfo.gov/app/details/PLAW-104publ191

2. Use the copy command to select the text to apply to the readability calculator.

TITLE I—HEALTH CARE ACCESS, PORTABILITY, AND RENEWABILITY

Subtitle A—Group Market Rules

3. Go to the Online-Utility.Org Website: https://www.online-utility.org/english/readability_test_and_improve.jsp

4. Use the paste command to insert the text into the field for review. **(**See figure 27**).**

Enter text (copy and paste is fine) here:

or read it from a website (only plain text .TXT) :

Process text

5. Click on the Process Text button to generate the results.

6. The results will generate the readability levels for Gunning Fog index, Coleman Liau index, Flesch Kincaid Grade level, ARI (Automated Readability Index), and Flesch Reading Ease as illustrated below:

Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading	
Gunning Fog index:	35.16

Approximate representation of the U.S. grade level needed to comprehend the text:	
Coleman Liau index:	13.82
Flesch Kincaid Grade level:	31.15
ARI (Automated Readability Index):	36.11
SMOG:	24.91

Flesch Reading Ease: -8.90

APPENDIX B

QUANTITATIVE CONTENT ANALYSIS DATA TABLES

Table B.1

RQ 1.1 Results

Article	Legal	Terminology	Understand	HIPAA	Medical	Providers
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders	7	4	4	4	12	56
Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training	7	2	4	0	5	4
A Qualitative Analysis of Health Literacy Issues among Women with Visual Impairments	2	1	16	0	10	37
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia	0	0	6	1	10	5
Elder Orphans Hiding in Plain Sight: A Growing Vulnerable Population	9	1	1	1	40	8
Totals	**25**	**8**	**31**	**6**	**77**	**110**

Table B.2

RQ 2.1 Results

Article	Literacy	Abilities	Understand	HIPAA	Medical	Providers
Specialty-care access for community health clinic patients: processes and barriers	13	1	5	1	21	19
Patient-Reported Use of Personalized Video Recordings to Improve Neurosurgical Patient-Provider Communication	7	1	16	2	41	8
A Qualitative Analysis of Health Literacy Issues among Women with Visual Impairments	109	3	16	0	10	37
Mobile Tele-Mental Health: Increasing Applications and a Move to Hybrid Models of Care	2	0	0	3	6	3
Sociotechnical Challenges and Progress in Using Social Media for Health	1	2	6	3	6	11
Disparate Inclusion of Older Adults in Clinical Trials: Priorities and Opportunities for Policy and Practice Change	11	1	4	3	17	3

(table continues)

Article	Literacy	Abilities	Understand	HIPAA	Medical	Providers
Digital Medicine: A Primer on Measurement	2	10	6	1	86	6
Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare	1	5	1	3	2	23
A Qualitative Study of Providers' Perception of Adherence of Women Living with HIV/AIDS in Puerto Rico	5	2	2	1	79	78
Personalized Telehealth in the Future: A Global Research Agenda	4	2	2	1	7	20
Digital interventions for people living with non-communicable diseases in India: A systematic review of intervention studies and recommendations for future research and development	2	1	2	0	0	8
Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care	2	2	2	0	19	1
Leveraging routine clinical materials and mobile technology to assess CBT fidelity: the Innovative Methods to Assess Psychotherapy Practices (imAPP) study	2	2	3	2	2	2
Evaluation of a Technology-Based Survivor Care Plan for Breast Cancer Survivors: Pre-Post Pilot Study	1	0	4	0	7	7
mHealth and telemedicine apps: in search of a common regulation	3	0	1	1	22	1
ASHP–PPAG Guidelines for Providing Pediatric Pharmacy Services in Hospitals and Health Systems	2	2	1	0	20	12
CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes	2	1	2	0	9	1
Paper trails, trailing behind: improving informed consent to IVF through multimedia applications	1	4	24	3	42	36
Dynamic-informed consent: A potential solution for ethical dilemmas in population sequencing initiatives	3	0	10	1	12	2
Implementing a medical student interpreter training program as a strategy to developing humanism	3	5	1	1	91	11
Psychosocial factors and 30-day hospital readmission among individuals receiving maintenance dialysis: a prospective study	31	1	3	0	11	6
Glaucoma patient-provider communication about vision quality-of-life	1	1	2	1	10	32

(table continues)

81

Article	Literacy	Abilities	Understand	HIPAA	Medical	Providers
Internet-Based Approaches to Collaborative Therapeutic Assessment: New Opportunities for Professional Psychologists	1	1	2	4	1	1
APRN Usability Testing of a Tailored Computer-Mediated Health Communication Program	5	0	0	1	2	13
Reading in Children with Orofacial Clefts versus Controls	1	0	0	4	5	1
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia	1	3	6	4	21	3
Online information seeking by patients with bipolar disorder: results from an international multisite survey	0	2	6	0	39	7
Technology and Caregiving: Emerging Interventions and Directions for Research	3	2	5	1	5	5
Personal health records: a scoping review	1	2	1	0	25	14
Care Partnerships: Toward Technology to Support Teens' Participation in Their Health Care	3	1	13	1	14	2
Totals	**223**	**57**	**146**	**42**	**632**	**373**

Table B.3

RQ 3.1 Results

Article	Institutional	HIPAA	Training	Abilities	Medical	Providers	Understand
Training Pathology Residents to Practice 21st Century Medicine A Proposal	0	0	84	1	47	1	0
Institutional Oversight of Occupational Health and Safety for Research Programs Involving Biohazards	28	2	35	1	18	6	1
A Failure to "Do No Harm" -- India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	4	32	2	2	26	13	5
Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research	19	4	1	0	14	1	3

(table continues)

Article	Institutional	HIPAA	Training	Abilities	Medical	Providers	Understand
Executive functioning in TBI from rehabilitation to social reintegration: COMPASS goal, a randomized controlled trial (grant: 1I01RX000637-01A3 by the VA ORD RR&D, 2013–2016)	3	5	9	1	30	1	3
Exploring the Perceptions of Newly Credentialed Athletic Trainers as They Transition to Practice	2	1	35	1	2	3	6
Buying and selling human eggs: infertility providers' ethical and other concerns regarding egg donor agencies	1	2	0	1	28	39	1
Targeted versus tailored multimedia patient engagement to enhance depression recognition and treatment in primary care: randomized controlled trial protocol for the AMEP2 study	1	2	2	2	18	1	1
Sociotechnical Challenges and Progress in Using Social Media for Health	0	3	0	1	14	11	9
Specialty-care access for community health clinic patients: processes and barriers	1	1	1	1	1	18	5
Inter-Association Consensus Statement on Best Practices for Sports Medicine Management for Secondary Schools and Colleges	4	3	13	0	51	16	3
Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare	1	3	1	2	2	21	2
Digital Medicine: A Primer on Measurement	1	1	0	1	85	6	6
Health Information Management Leaders and the Practice of Leadership through the Lens of Bowen Theory	1	3	16	1	5	1	2
Sharing and reuse of individual participant data from clinical trials: principles and recommendations	2	1	1	1	21	4	1
Personalized Telehealth in the Future: A Global Research Agenda	1	0	1	1	7	21	3
Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice	3	0	34	1	1	3	5
Comparative Effectiveness on Cognitive Asthma Outcomes of the SHARP Academic Asthma Health Education and Counseling Program and a Non-Academic Program	1	2	7	5	3	1	3
Exploring Vocational Evaluation Practices following Traumatic Brain Injury	1	0	0	4	4	7	2

(table continues)

Article	Institutional	HIPAA	Training	Abilities	Medical	Providers	Understand
Cyberbiosecurity Implications for the Laboratory of the Future	3	2	15	16	16	1	3
Longitudinal Research on Aging Drivers (LongROAD): study design and methods	2	1	4	31	31	1	5
Understanding multifactorial influences on the continuum of maternal weight trajectories in pregnancy and early postpartum: study protocol, and participant baseline characteristics	1	1	0	1	1	2	1
Patient experience after kidney transplant: a conceptual framework of treatment burden	4	2	3	20	20	0	0
Leveraging routine clinical materials and mobile technology to assess CBT fidelity: the Innovative Methods to Assess Psychotherapy Practices (imAPP) study	8	3	17	2	2	2	3
The social life of health records: Understanding families' experiences of autism	3	1	0	2	20	8	2
Engagement-focused care during transitions from inpatient and emergency psychiatric facilities	2	2	2	0	2	9	1
Racism and Health II: A Needed Research Agenda for Effective Interventions	9	0	6	0	18	6	6
Everything that I thought that they would be, they weren't:" Family systems as support and impediment to recovery	2	2	0	1	1	9	2
Prospective, Blinded Exploratory Evaluation of the PlayWisely Program in Children with Autism Spectrum Disorder	2	2	1	1	1	1	2
Association between lesion location and language function in adult glioma using voxel-based lesion-symptom mapping	1	1	0	7	4	3	2
Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2012	1	1	1	0	0	9	1
Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: a physical activity intervention for black women	1	0	0	0	1	0	1
Disaster Preparedness and Awareness of Patients on Hemodialysis after Hurricane Sandy	3	0	1	1	22	6	1
Physician Interactions with Electronic Health Records in Primary Care	1	1	6	3	4	2	1

(table continues)

Article	Institutional	HIPAA	Training	Abilities	Medical	Providers	Understand
Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care	1	0	2	0	19	1	8
Willingness of older adults to share data and privacy concerns after exposure to unobtrusive in-home monitoring	1	1	5	0	4	1	1
Environmental Enrichment Therapy for Autism: Outcomes with Increased Access	1	0	1	6	2	2	1
Adolescents with Depressive Symptoms and their Challenges with Learning in School	2	1	1	1	1	1	0
CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes	1	0	7	1	12	1	1
Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist	1	0	2	1	46	6	4
Implementing a medical student interpreter training program as a strategy to developing humanism	3	0	54	5	75	9	2
Exploring synergistic effects of aerobic exercise and mindfulness training on cognitive function in older adults Protocol for a pilot randomized controlled trial Protocol for a pilot randomized control trial	2	1	29	0	4	1	0
Paper trails, trailing behind: improving informed consent to IVF through multimedia applications	1	3	1	1	38	33	51
Improving the Pharmacologic Management of Pain in Older Adults: Identifying the Research Gaps and Methods to Address Them	0	2	0	2	26	16	2
A Model for Partnering First-Year Student Pharmacists with Community-Based Older Adults	1	2	6	1	10	3	1
Trust and Sharing in an Interprofessional Environment: A Thematic Analysis From Child Development Support Work in the Community	1	2	4	14	8	25	8
Promoting Cancer Prevention and Control in Community-Based HIV/AIDS Service Organizations: Are They Ready?	1	1	7	2	5	6	4
The Feasibility, Acceptability, and Efficacy of Delivering Internet-Based Self-Help and Guided Self-Help Interventions for Generalized Anxiety Disorder to Indian University Students: Design of a Randomized Controlled Trial	1	1	7	1	5	1	1

(table continues)

Article	Institutional	HIPAA	Training	Abilities	Medical	Providers	Understand
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia	1	4	6	3	11	3	6
Transitioning HIV-Positive Adolescents with HIV to Adult Care: Lessons learned from twelve adolescent medicine clinics	1	1	5	1	9	18	1
Implementation of a stroke self-management program A randomized controlled pilot study of veterans with stroke	1	1	2	2	13	12	3
Bridging the Gap After Physical Therapy: Clinical–Community Linkages with Older Adult Physical Activity Programs	1	1	1	4	6	2	6
Best Practices for Ethical Sharing of Individual-Level Health Research Data from Low- and Middle-Income Settings	2	0	1	1	1	1	1
Online information seeking by patients with bipolar disorder: results from an international multisite survey	1	0	0	2	0	5	6
Mental health functioning among children and adolescents with perinatal HIV infection and perinatal HIV exposure	1	1	0	1	8	3	0
Glaucoma patient-provider communication about vision quality-of-life	1	1	0	1	6	2	2
The Impact of Pain Catastrophizing on Outcomes: A Developmental Perspective across Children, Adolescents and Young Adults with Chronic Pain	1	1	0	1	1	1	2
When More Than Exercise Is Needed to Increase Chances of Aging in Place: Qualitative Analysis of a Telehealth Physical Activity Program to Improve Mobility in Low-Income Older Adults	1	1	0	0	7	2	1
The "graying" of infertility services: an impending revolution nobody is ready for	1	1	0	2	1	2	1
Psychosocial factors and 30-day hospital readmission among individuals receiving maintenance dialysis: a prospective study	1	1	1	1	9	3	3
Executive Function in Adolescents With Type 1 Diabetes: Relationship to Adherence, Glycemic Control, and Psychosocial Outcomes	1	1	0	4	3	1	2
Totals	**150**	**112**	**440**	**170**	**815**	**394**	**604**

Table B.4

RQ 3.2 Results

Article	Institutional	HIPAA	Training	Abilities	Affects	Nonclincial	Understand
Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research	13	2	9	0	1	1	6
Totals	**13**	**2**	**9**	**0**	**1**	**1**	**6**

Table B.5

RQ 4.1 Results

Article	Credentialing	Affects	Abilities	Medical	Providers	Understand	HIPAA
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders	2	1	3	30	55	2	4
Training Pathology Residents to Practice 21st Century Medicine	3	1	1	14	2	0	0
Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice	0	2	1	1	3	4	0
Inter-Association Consensus Statement on Best Practices for Sports Medicine Management for Secondary Schools and Colleges	1	0	0	50	16	1	3
Totals	**6**	**4**	**5**	**95**	**76**	**7**	**7**

Table B.6

RQ 5.1 Results

Article	Religious	Perspective	Medical	Providers	Affects	Abilities	Understand	HIPAA
A Failure to "Do No Harm": India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	2	1	10	2	1	1	8	14
Sociotechnical Challenges and Progress in Using Social Media for Health	1	1	8	11	0	1	6	4
Racism and Health II: A Needed Research Agenda for Effective Interventions	2	2	12	6	3	0	6	0
Strangers and Friends: Residents' Social Careers in Assisted Living	3	0	2	1	0	4	4	3
Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: a physical activity intervention for black women	17	0	1	0	0	0	1	0
Paper trails, trailing behind: improving informed consent to IVF through multimedia applications	1	3	39	33	2	1	24	3
Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist	1	33	1	5	0	1	4	0
Totals	**27**	**40**	**73**	**58**	**6**	**8**	**53**	**24**

APPENDIX C

ARTICLE LEVEL METRICS DATA TABLES AND FIGURES

Table C.1

*Relative Citation Ratios and NIH Percentile for RQ 1.1 Articles (*n = 5)

Article	RCR	NIH
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders.	4.7	93
Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training.	2	75.2
A Qualitative Analysis of Health Literacy Issues among Women with Visual Impairments	0.38	20.1
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	0.37	20
Elder Orphans Hiding in Plain Sight: A Growing Vulnerable Population.	1.53	66.3

Figure C.1

*National Institutes of Health iCite Query for Set of RQ 1.1 Articles (*n = 5)

Cites Per Year				Relative Citation Ratio (RCR)				Weighted RCR
MEAN	SEM	MED	I	MAX	MEAN	SEM	MED	
2.81	1.25	2.50	I	3.83	1.68	0.64	1.61	8.40
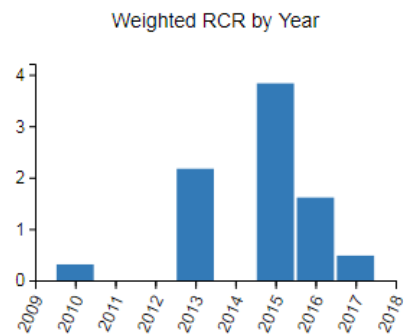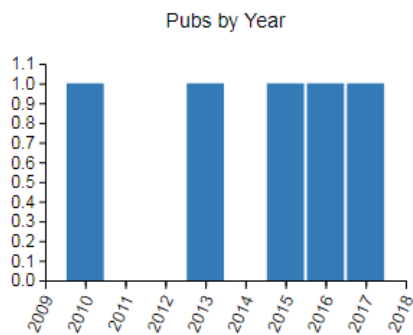
Table C.2

*Relative Citation Ratios and NIH Percentile for RQ 2.1 Articles (*n *= 30)*

Article	RCR	NIH
Evaluation of a Technology-Based Survivor Care Plan for Breast Cancer Survivors: Pre-Post Pilot Study.	0	0
Internet-Based Approaches to Collaborative Therapeutic Assessment: New Opportunities for Professional Psychologists.	0.22	11
Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	0.28	14.9
Advanced practice registered nurse usability testing of a tailored computer-mediated health communication program.	0.36	19
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	0.37	20
Health literacy issues among women with visual impairments.	0.38	20.1
Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care.	0.45	24.2
A Qualitative Study of Providers' Perception of Adherence of Women Living with HIV/AIDS in Puerto Rico.	0.53	28.7
Leveraging routine clinical materials and mobile technology to assess CBT fidelity: the Innovative Methods to Assess Psychotherapy Practices (imAPP) study.	0.57	30.6
Glaucoma patient-provider communication about vision quality-of-life.	0.67	36.1
Care Partnerships: Toward Technology to Support Teens' Participation in Their Health Care.	0.77	40.5
Patient-Reported Use of Personalized Video Recordings to Improve Neurosurgical Patient-Provider Communication.	0.78	41.1
ASHP-PPAG Guidelines for Providing Pediatric Pharmacy Services in Hospitals and Health Systems.	0.81	42.4
Sociotechnical challenges and progress in using social media for health.	1.19	57
Specialty-care access for community health clinic patients: processes and barriers.	1.42	63.6
Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare.	1.54	66.3
Reading in children with orofacial clefts versus controls.	1.68	69.4
mHealth and telemedicine apps: in search of a common regulation.	1.76	71
Online information seeking by patients with bipolar disorder: results from an international multisite survey.	1.81	72.1

(table continues)

Article	RCR	NIH
CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes.	1.85	72.6
Psychosocial Factors and 30-Day Hospital Readmission among Individuals Receiving Maintenance Dialysis: A Prospective Study.	2.13	77
Mobile Tele-Mental Health: Increasing Applications and a Move to Hybrid Models of Care.	2.54	81.9
Disparate inclusion of older adults in clinical trials: priorities and opportunities for policy and practice change.	3.02	85.9
Implementing a medical student interpreter training program as a strategy to developing humanism.	3.07	86.3
Digital Medicine: A Primer on Measurement.	5.72	95
Personalized Telehealth in the Future: A Global Research Agenda.	8.32	97.5
Personal health records: a scoping review.	10.11	98.3
Digital interventions for people living with non-communicable diseases in India: A systematic review of intervention studies and recommendations for future research and development.	–	–
Technology and Caregiving: Emerging Interventions and Directions for Research.	–	–
Dynamic-informed consent: A potential solution for ethical dilemmas in population sequencing initiatives.	–	–

Figure C.2

*National Institutes of Health iCite Query for Set of RQ 2.1 Articles (*n = 30*)*

Cites Per Year					Relative Citation Ratio (RCR)			Weighted RCR
MEAN	SEM	MED		MAX	MEAN	SEM	MED	
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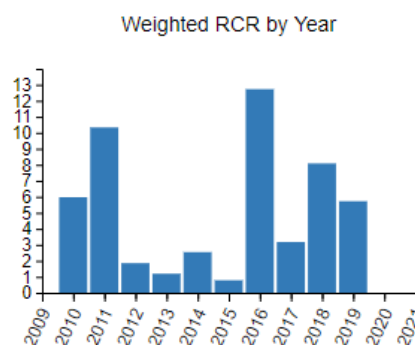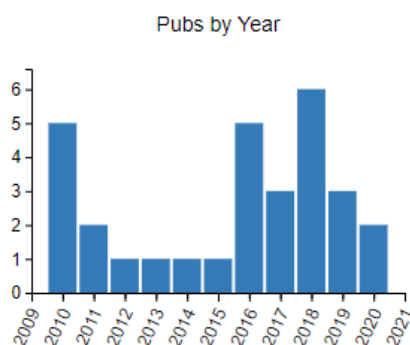
Table C.3

*Relative Citation Ratios and NIH Percentile for RQ 3.1 Articles (*n = 60)

Article	RCR	NIH
Prospective, blinded exploratory evaluation of the PlayWisely program in children with autism spectrum disorder.	0	0
Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research.	0	0
Engagement-focused care during transitions from inpatient and emergency psychiatric facilities.	0	0
Exploring synergistic effects of aerobic exercise and mindfulness training on cognitive function in older adults: Protocol for a pilot randomized controlled trial.	0	0
Promoting cancer prevention and control in community-based HIV/AIDS service organizations: are they ready?	0.25	12.7
Exploring Vocational Evaluation Practices following Traumatic Brain Injury.	0.26	13.6
Executive functioning in TBI from rehabilitation to social reintegration: COMPASS (goal,) a randomized controlled trial (grant: 1I01RX000637-01A3 by the VA ORD RR&D, 2013-2016).	0.28	14.4
Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	0.28	14.9
Understanding multifactorial influences on the continuum of maternal weight trajectories in pregnancy and early postpartum: study protocol, and participant baseline characteristics.	0.31	16.4
Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	0.37	20
Trust and Sharing in an Interprofessional Environment: A Thematic Analysis From Child Development Support Work in the Community.	0.37	19.5
A Failure to "Do No Harm" -- India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	0.4	21.2
Comparative Effectiveness on Cognitive Asthma Outcomes of the SHARP Academic Asthma Health Education and Counseling Program and a Non-Academic Program.	0.41	22.2
When More Than Exercise Is Needed to Increase Chances of Aging in Place: Qualitative Analysis of a Telehealth Physical Activity Program to Improve Mobility in Low-Income Older Adults.	0.47	25.3
Cyberbiosecurity Implications for the Laboratory of the Future.	0.51	27.4

(table continues)

Article	RCR	NIH
Health Information Management Leaders and the Practice of Leadership through the Lens of Bowen Theory.	0.52	28.3
Leveraging routine clinical materials and mobile technology to assess CBT fidelity: the Innovative Methods to Assess Psychotherapy Practices (imAPP) study.	0.57	30.6
A model for partnering first-year student pharmacists with community-based older adults.	0.62	33.5
Glaucoma patient-provider communication about vision quality-of-life.	0.67	36.1
Institutional Oversight of Occupational Health and Safety for Research Programs Involving Biohazards.	0.71	37.9
Targeted versus tailored multimedia patient engagement to enhance depression recognition and treatment in primary care: randomized controlled trial protocol for the AMEP2 study.	0.74	39.5
Adolescents with depressive symptoms and their challenges with learning in school.	0.91	46.9
Environmental Enrichment Therapy for Autism: Outcomes with Increased Access.	0.95	48.4
Training Pathology Residents to Practice 21st Century Medicine: A Proposal.	0.96	48.7
The social life of health records: understanding families' experiences of autism.	0.99	49.9
Sociotechnical challenges and progress in using social media for health.	1.19	57
Physician Interactions with Electronic Health Records in Primary Care.	1.27	59.5
Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a better life: a physical activity intervention for black women.	1.32	60.7
Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice.	1.39	62.8
Specialty-care access for community health clinic patients: processes and barriers.	1.42	63.6
Patient experience after kidney transplant: a conceptual framework of treatment burden.	1.44	64
Implementation of a stroke self-management program: A randomized controlled pilot study of veterans with stroke.	1.52	66.1
Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare.	1.54	66.3
Bridging the Gap After Physical Therapy: Clinical-Community Linkages With Older Adult Physical Activity Programs.	1.55	66.7
Disaster Preparedness and Awareness of Patients on Hemodialysis after Hurricane Sandy.	1.59	67.5
"Everything that I thought that they would be, they weren't:" family systems as support and impediment to recovery.	1.65	68.8

(table continues)

Article	RCR	NIH
The "graying" of infertility services: an impending revolution nobody is ready for.	1.66	69.1
Best Practices for Ethical Sharing of Individual-Level Health Research Data From Low- and Middle-Income Settings.	1.81	72
Online information seeking by patients with bipolar disorder: results from an international multisite survey.	1.81	72.1
CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes.	1.85	72.6
Psychosocial Factors and 30-Day Hospital Readmission among Individuals Receiving Maintenance Dialysis: A Prospective Study.	2.13	77
Exploring the Perceptions of Newly Credentialed Athletic Trainers as They Transition to Practice.	2.19	77.9
Willingness of older adults to share data and privacy concerns after exposure to unobtrusive in-home monitoring.	2.77	84
Improving the pharmacologic management of pain in older adults: identifying the research gaps and methods to address them.	2.9	85
Implementing a medical student interpreter training program as a strategy to developing humanism.	3.07	86.3
Executive Function in Adolescents With Type 1 Diabetes: Relationship to Adherence, Glycemic Control, and Psychosocial Outcomes.	3.16	86.8
The Effect of Pain Catastrophizing on Outcomes: A Developmental Perspective Across Children, Adolescents, and Young Adults With Chronic Pain.	3.22	87.2
Inter-association consensus statement on best practices for sports medicine management for secondary schools and colleges.	3.43	88.4
Transitioning HIV-Positive Adolescents to Adult Care: Lessons Learned From Twelve Adolescent Medicine Clinics.	3.54	88.9
Longitudinal Research on Aging Drivers (LongROAD): study design and methods.	4.06	91.1
Sharing and reuse of individual participant data from clinical trials: principles and recommendations.	4.27	91.8
Mental health functioning among children and adolescents with perinatal HIV infection and perinatal HIV exposure.	4.56	92.7
Digital Medicine: A Primer on Measurement.	5.72	95
Personalized Telehealth in the Future: A Global Research Agenda.	8.32	97.5
Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist.	11.5	
Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2012.	13.82	99.1
Racism and Health: Evidence and Needed Research.	44.99	100

Figure C.3

*National Institutes of Health iCite Query for Set of RQ 3.1 Articles (*n = 60)

	Cites Per Year					Relative Citation Ratio (RCR)				Weighted RCR
MAX	**MEAN**	**SEM**	**MED**	|	**MAX**	**MEAN**	**SEM**	**MED**	
81.00	5.03	1.46	2.25	|	44.99	2.64	0.78	1.32	161.19

Pubs by Year

Weighted RCR by Year
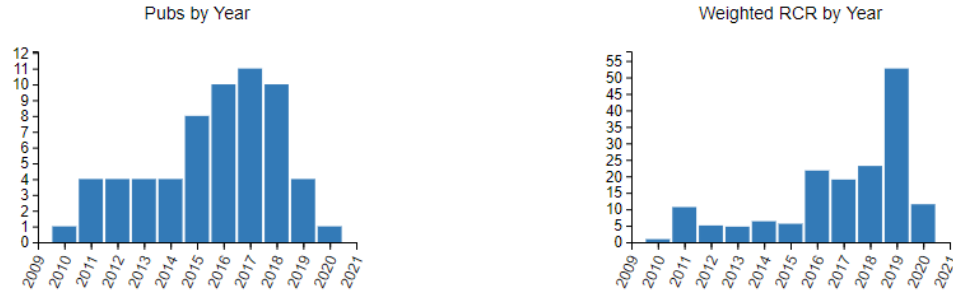
Table C.4

*Relative Citation Ratios and NIH Percentile for RQ 3.2 Article (*n = 1)

Article	RCR	NIH
Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research.	0	0

Figure C.4

*National Institutes of Health iCite Query for RQ 3.2 Article (*n = 1)

	Cites Per Year					Relative Citation Ratio (RCR)				Weighted RCR
MAX	**MEAN**	**SEM**	**MED**	|	**MAX**	**MEAN**	**SEM**	**MED**	
1.50	1.50	0.00	1.50	|	0.50	0.50	0.00	0.50	0.50

Pubs by Year

Weighted RCR by Year
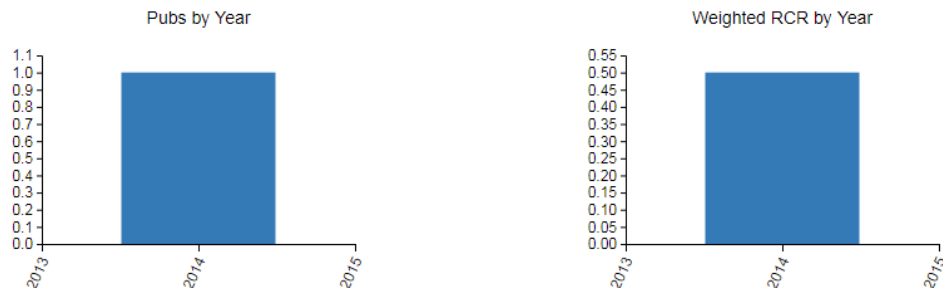
Table C.5

*Relative Citation Ratios and NIH Percentile for RQ 4.1 Articles (*n = 4*)*

Article	RCR	NIH
Training Pathology Residents to Practice 21st Century Medicine: A Proposal.	0.96	48.7
Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice.	1.39	62.8
Inter-association consensus statement on best practices for sports medicine management for secondary schools and colleges.	3.43	88.4
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders.	4.7	93

Figure C.5

*National Institutes of Health iCite Query for Set of RQ 4.1 Articles (*n = 4*)*

	Cites Per Year					Relative Citation Ratio (RCR)				Weighted RCR
MAX	MEAN	SEM	MED		MAX	MEAN	SEM	MED		
7.40	3.79	1.48	3.38		3.83	2.58	0.68	2.77		10.32
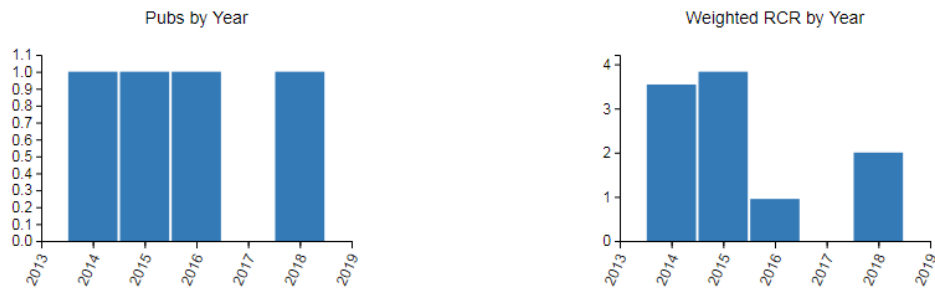
Table C.6

*Relative Citation Ratios and NIH Percentile for RQ 5.1 Articles (*n = 7*)*

Article	RCR	NIH
Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	0.28	14.9
A Failure to "Do No Harm" -- India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	0.40	21.2

(table continues)

98

Article	RCR	NIH
Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: A Church-Based Physical Activity Intervention - Baseline Participant Characteristics.	0.42	22.8
Sociotechnical challenges and progress in using social media for health.	1.19	57
Strangers and friends: residents' social careers in assisted living.	2.05	75.9
Racism and Health II: A Needed Research Agenda for Effective Interventions.	3.79	90.1
Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist.	11.5	

Figure C.6

*National Institutes of Health iCite Query for Set of RQ 5.1 Articles (*n = 7)*

Cites Per Year					Relative Citation Ratio (RCR)				Weighted RCR
MAX	MEAN	SEM	MED		MAX	MEAN	SEM	MED	
39.00	6.56	5.42	0.67		19.59	4.01	3.13	0.91	24.07
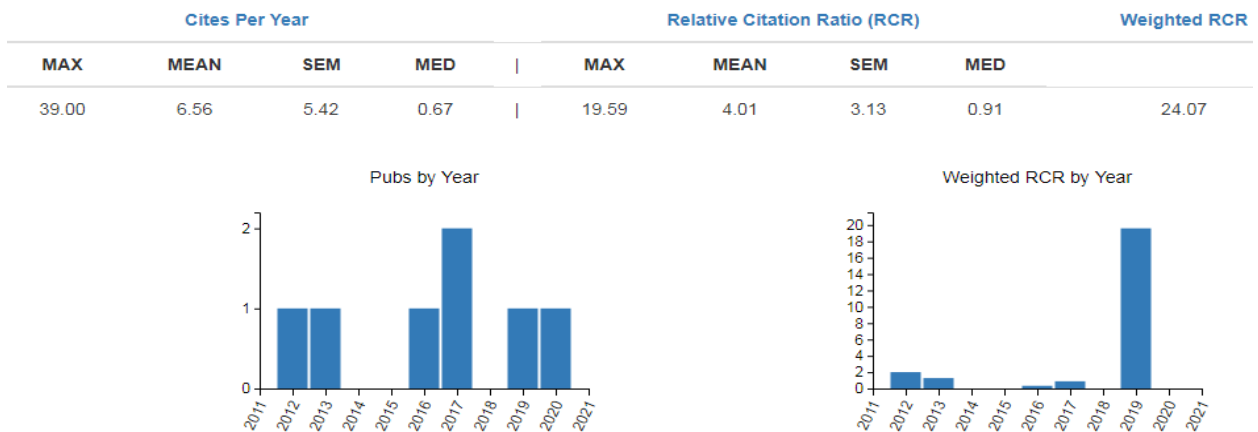
APPENDIX D

ARTICLE INFLUENCE SCORES DATA

Source :Web of Science

RQ #	Article	Score
1.1 (*n* = 5)	Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training.	0.253
	A Qualitative Analysis of Health literacy issues among women with visual impairments.	0.324
	Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	0.665
	American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders.	1.216
	Dynamic-informed consent: A potential solution for ethical dilemmas in population sequencing initiatives.	n/a
	Elder Orphans Hiding in Plain Sight: A Growing Vulnerable Population.	n/a
2.1 (*n* = 30)	Advanced practice registered nurse usability testing of a tailored computer-mediated health communication program.	0.322
	Health literacy issues among women with visual impairments.	0.324
	Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care.	0.584
	Implementing a medical student interpreter training program as a strategy to developing humanism.	0.595
	Internet-Based Approaches to Collaborative Therapeutic Assessment: New Opportunities for Professional Psychologists.	0.622
	Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	0.665
	Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare.	0.747
	Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	0.859
	Glaucoma patient-provider communication about vision quality-of-life.	0.989
	Reading in Children with Orofacial Clefts versus Controls	1.11
	Psychosocial Factors and 30-Day Hospital Readmission among Individuals Receiving Maintenance Dialysis: A Prospective Study.	1.141
	Technology and Caregiving: Emerging Interventions and Directions for Research.	1.371

(table continues)

RQ #	Article	Score
	Sociotechnical challenges and progress in using social media for health.	1.43
	Personalized Telehealth in the Future: A Global Research Agenda.	1.43
	Personal health records: a scoping review.	1.459
	Leveraging routine clinical materials and mobile technology to assess CBT fidelity: the Innovative Methods to Assess Psychotherapy Practices (imAPP) study.	2.002
	CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes.	2.002
	Disparate inclusion of older adults in clinical trials: priorities and opportunities for policy and practice change.	2.574
	ASHP-PPAG Guidelines for Providing Pediatric Pharmacy Services in Hospitals and Health Systems.	n/a
	A Qualitative Study of Providers' Perception of Adherence of Women Living with HIV/AIDS in Puerto Rico.	n/a
2.1 (con't.)	Care Partnerships: Toward Technology to Support Teens' Participation in Their Health Care.	n/a
	Patient-Reported Use of Personalized Video Recordings to Improve Neurosurgical Patient-Provider Communication.	n/a
	mHealth and telemedicine apps: in search of a common regulation.	n/a
	Specialty-care access for community health clinic patients: processes and barriers.	n/a
	Online information seeking by patients with bipolar disorder: results from an international multisite survey.	n/a
	Mobile Tele-Mental Health: Increasing Applications and a Move to Hybrid Models of Care.	n/a
	Evaluation of a Technology-Based Survivor Care Plan for Breast Cancer Survivors: Pre-Post Pilot Study.	n/a
	Digital interventions for people living with non-communicable diseases in India: A systematic review of intervention studies and recommendations for future research and development.	n/a
	Digital Medicine: A Primer on Measurement.	n/a
	Dynamic-informed consent: A potential solution for ethical dilemmas in population sequencing initiatives.	n/a
3.1 (n = 60)	A model for partnering first-year student pharmacists with community-based older adults.	0.236
	The social life of health records: understanding families' experiences of autism.	0.351
	Adolescents with depressive symptoms and their challenges with learning in school.	0.403

(table continues)

RQ #	Article	Score
3.1 (con't.)	Transitioning HIV-Positive Adolescents to Adult Care: Lessons Learned From Twelve Adolescent Medicine Clinics.	0.451
	Best Practices for Ethical Sharing of Individual-Level Health Research Data From Low- and Middle-Income Settings.	0.469
	Exploring synergistic effects of aerobic exercise and mindfulness training on cognitive function in older adults: Protocol for a pilot randomized controlled trial.	0.506
	Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: A Church-Based Physical Activity Intervention - Baseline Participant Characteristics.	0.525
	Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care.	0.584
	Exploring Vocational Evaluation Practices following Traumatic Brain Injury.	0.585
	Engagement-focused care during transitions from inpatient and emergency psychiatric facilities.	0.587
	Implementing a medical student interpreter training program as a strategy to developing humanism.	0.595
	Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	0.665
	Comparative Effectiveness on Cognitive Asthma Outcomes of the SHARP Academic Asthma Health Education and Counseling Program and a Non-Academic Program.	0.691
	Promoting cancer prevention and control in community-based HIV/AIDS service organizations: are they ready?	0.709
	Mental health functioning among children and adolescents with perinatal HIV infection and perinatal HIV exposure.	0.746
	Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare.	0.747
	Targeted versus tailored multimedia patient engagement to enhance depression recognition and treatment in primary care: randomized controlled trial protocol for the AMEP2 study.	0.795
	Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	0.859
	Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice.	0.925
	Exploring the Perceptions of Newly Credentialed Athletic Trainers as They Transition to Practice.	0.925

(table continues)

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RQ #	Article	Score
3.1 (con't.)	Inter-association consensus statement on best practices for sports medicine management for secondary schools and colleges.	0.925
	Buying and selling human eggs: infertility providers' ethical and other concerns regarding egg donor agencies.	0.936
	Improving the pharmacologic management of pain in older adults: identifying the research gaps and methods to address them.	0.938
	The "graying" of infertility services: an impending revolution nobody is ready for.	0.94
	Understanding multifactorial influences on the continuum of maternal weight trajectories in pregnancy and early postpartum: study protocol, and participant baseline characteristics.	0.962
	Glaucoma patient-provider communication about vision quality-of-life.	0.989
	Environmental Enrichment Therapy for Autism: Outcomes with Increased Access.	1.012
	Sharing and reuse of individual participant data from clinical trials: principles and recommendations.	1.034
	Implementation of a stroke self-management program: A randomized controlled pilot study of veterans with stroke.	1.072
	Executive Function in Adolescents With Type 1 Diabetes: Relationship to Adherence, Glycemic Control, and Psychosocial Outcomes.	1.11
	Psychosocial Factors and 30-Day Hospital Readmission among Individuals Receiving Maintenance Dialysis: A Prospective Study.	1.141
	Sociotechnical challenges and progress in using social media for health.	1.43
	Personalized Telehealth in the Future: A Global Research Agenda.	1.43
	"Everything that I thought that they would be, they weren't:" family systems as support and impediment to recovery.	1.491
	The Effect of Pain Catastrophizing on Outcomes: A Developmental Perspective Across Children, Adolescents, and Young Adults With Chronic Pain.	1.808
	Leveraging routine clinical materials and mobile technology to assess CBT fidelity: The Innovative Methods to Assess Psychotherapy Practices (imAPP) study.	2.002
	CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes.	2.002

(table continues)

RQ #	Article	Score
3.1 (con't.)	Association between lesion location and language function in adult glioma using voxel-based lesion-symptom mapping.	2.24
	Disaster Preparedness and Awareness of Patients on Hemodialysis after Hurricane Sandy.	3.235
	Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist.	3.457
	Racism and Health: Evidence and Needed Research.	7.519
	Prospective, blinded exploratory evaluation of the PlayWisely program in children with autism spectrum disorder.	n/a
	When More Than Exercise Is Needed to Increase Chances of Aging in Place: Qualitative Analysis of a Telehealth Physical Activity Program to Improve Mobility in Low-Income Older Adults.	n/a
	Executive functioning in TBI from rehabilitation to social reintegration: COMPASS (goal,) a randomized controlled trial (grant: 1I01RX000637-01A3 by the VA ORD RR&D, 2013-2016).	n/a
	A Failure to "Do No Harm" -- India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	n/a
	The Feasibility, Acceptability, and Efficacy of Delivering Internet-Based Self-Help and Guided Self-Help Interventions for Generalized Anxiety Disorder to Indian University Students: Design of a Randomized Controlled Trial.	n/a
	Trust and Sharing in an Interprofessional Environment: A Thematic Analysis From Child Development Support Work in the Community.	n/a
	Health Information Management Leaders and the Practice of Leadership through the Lens of Bowen Theory.	n/a
	Training Pathology Residents to Practice 21st Century Medicine: A Proposal.	n/a
	Physician Interactions with Electronic Health Records in Primary Care.	n/a
	Bridging the Gap After Physical Therapy: Clinical-Community Linkages With Older Adult Physical Activity Programs.	n/a
	Specialty-care access for community health clinic patients: processes and barriers.	n/a
	Online information seeking by patients with bipolar disorder: results from an international multisite survey.	n/a
	Willingness of older adults to share data and privacy concerns after exposure to unobtrusive in-home monitoring.	n/a

(table continues)

RQ #	Article	Score
3.1 (con't.)	Longitudinal Research on Aging Drivers (LongRoad): Study Design Methods	n/a
	Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2012.	n/a
	Patient experience after kidney transplant: a conceptual framework of treatment burden.	n/a
	Cyberbiosecurity Implications for the Laboratory of the Future.	n/a
	Digital Medicine: A Primer on Measurement.	n/a
	Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research.	n/a
	Institutional Oversight of Occupational Health and Safety for Research Programs Involving Biohazards.	n/a
4.1 (n = 4)	Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice	0.925
	Inter-Association Consensus Statement on Best Practices for Sports Medicine Management for Secondary Schools and Colleges	0.925
	American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders	1.216
	Training Pathology Residents to Practice 21st Century Medicine	n/a
5.1 (n = 7)	Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: A Church-Based Physical Activity Intervention - Baseline Participant Characteristics.	0.538
	Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	0.859
	Racism and Health II: A Needed Research Agenda for Effective Interventions.	1.006
	Strangers and friends: residents' social careers in assisted living.	1.319
	Sociotechnical challenges and progress in using social media for health.	1.43
	Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist.	3.457
	A Failure to "Do No Harm" -- India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	n/a

APPENDIX E

JOURNAL IMPACT FACTOR DATA

Source :Web of Science

Rank	Journal	JIF
A	Pakistan Journal of Medical Sciences	0.754
	AORN Journal	0.850
	Research in Gerontological Nursing	0.964
B	Training and Education in Professional Psychology	1.028
	Social Science Journal	1.033
	Journal of Empirical Research on Human Research Ethics	1.253
	Computers Informatics Nursing CIN	1.321
	Journal of Pediatric Nursing-Nursing Care of Children & Families	1.495
	AIDS EDUCATION AND PREVENTION	1.524
	Medicine	1.552
	Journal of Racial and Ethnic Health Disparities	1.661
	Journal of School Nursing	1.694
	BMC Medical Education	1.831
	AIDS CARE-PSYCHOLOGICAL AND SOCIO-MEDICAL ASPECTS OF AIDS/HIV	1.894
	Journal of Multidisciplinary Healthcare	1.913
	Healthcare Basel Switzerland	1.916
	Patient Preference and Adherence	1.946
	BMC Health Services in Research	1.987
C	BEHAVIOURAL NEUROLOGY	2.093
	Applied Clinical Informatics	2.147
	Research in Nursing Health	2.163
	Military Medical Research	2.235
	BMC Pregnancy and Childbirth	2.239
	Journal of Law and the Biosciences	2.275
	Journal of Law and the Biosciences	2.290
	JOURNAL OF CHILD AND ADOLESCENT PSYCHOPHARMACOLOGY	2.290
	AMERICAN JOURNAL OF PHARMACEUTICAL EDUCATION	2.398
	Journal of Athletic Training	2.416
	Journal of Athletic Training	2.416

(table continues)

Rank	Journal	JIF
C (con't.)	BMC Medical Ethics	2.451
	BMJ Open	2.496
	PAIN MEDICINE	2.513
	JOURNAL OF PEDIATRIC PSYCHOLOGY	2.587
	Patient Education and Counseling	2.607
	PATIENT EDUCATION AND COUNSELING	2.607
	Translational Behavioral Medicine	2.864
	International Journal of Bipoloar Disorders	2.966
	International Journal of Bipolar Disorders	2.966
D	Neural Plasticity	3.093
	Applied Ergonomics	3.145
	Reproductive Biology and Endocrinology	3.235
	Gerontologist	3.286
	American Journal of Nephrology	3.411
	Journal of Clinical Sleep Medicine	3.456
	JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY	3.457
	YALE JOURNAL OF BIOLOGY AND MEDICINE	3.549
	Social Science and Medicine	3.616
	Frontiers in Bioengineering and Biotechnology	3.644
E	Journal of the American Medical Informatics Association	4.112
	Journal of Pain	4.621
F	Journal of Medical Internet Research	5.034
	Implementation Science	5.531
	Neuroimage	5.902
G	Computational and Structural Biotechnology Journal	6.018
	American Journal of Public Health	6.464
H	JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY	9.274
I	JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY	10.228
J	Annual Review of Public Health	16.463
(n/a)	Academic Pathology	nf*

(table continues)

Rank	Journal	JIF
(n/a)	AHIMA Perspectives in Health Information Management	nf*
(n/a)	American Journal of Health System Pharmacy	nf*
(n/a)	AMIA Annual Symposium Proceedings	nf*
(n/a)	BMC Injury Epidemiology	nf*
(n/a)	Comparative Medicine	nf*
(n/a)	Cureus Journal of Medical Science	nf*
(n/a)	Current Gerontology and Geriatrics Research	nf*
(n/a)	Digital Biomarkers	nf*
(n/a)	Digital Health	nf*
(n/a)	Ecancermedicalscience	nf*
(n/a)	Gerontechnology : official journal of the International Society for Gerontechnology	nf*
(n/a)	Health and Technology	nf*
(n/a)	Health Systems	nf*
(n/a)	Hospital Pharmacy	nf*
(n/a)	Innovation in Aging	nf*
(n/a)	JMIR AGING	nf*
(n/a)	JMIR Cancer	nf*
(n/a)	JMIR Research Protocols	nf*
(n/a)	Journal of Multidisciplinary Healthcare	nf*
(n/a)	Journal of Patient-Reported Outcomes	nf*
(n/a)	Morbidity and Mortality Week Report. Surveillance Summaries	nf*
(n/a)	Proceedings of the SIGCHI Conference on Human Factors in Computing Systems	nf*
(n/a)	Qualitative Report Online	nf*

*nf = Journal title not found in Web of Science

APPENDIX F

READABILITY DATA

RQ #	Article Title	Readability Results
1.1	American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 17.45 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 16.62 Flesch Kincaid Grade level: 15.12 ARI (Automated Readability Index): 14.82 SMOG: 16.07 Flesch Reading Ease: 18.66
1.1	Suicide Risk Assessment Training for Psychology Doctoral Programs: Core Competencies and a Framework for Training	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.62 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.06 Flesch Kincaid Grade level: 11.34 ARI (Automated Readability Index): 11.00 SMOG: 12.96 Flesch Reading Ease: 37.90
1.1	A Qualitative Analysis of Health literacy issues among women with visual impairments.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.02 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.40 Flesch Kincaid Grade level: 12.04 ARI (Automated Readability Index): 11.85 SMOG: 13.68 Flesch Reading Ease: 42.48

RQ #	Article Title	Readability Results
1.1	Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.95 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.39 Flesch Kincaid Grade level: 10.87 ARI (Automated Readability Index): 10.35 SMOG: 12.79 Flesch Reading Ease: 44.49
1.1	Elder Orphans Hiding in Plain Sight: A Growing Vulnerable Population	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.57 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.01 Flesch Kincaid Grade level: 10.42 ARI (Automated Readability Index): 8.87 SMOG: 12.10 Flesch Reading Ease: 42.04
2.1	Specialty-care access for community health clinic patients: processes and barriers.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.38 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.55 Flesch Kincaid Grade level: 11.01 ARI (Automated Readability Index): 10.49 SMOG: 12.85 Flesch Reading Ease: 39.75
2.1	Patient-Reported Use of Personalized Video Recordings to Improve Neurosurgical Patient-Provider Communication	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.74 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 11.18 Flesch Kincaid Grade level: 9.74 ARI (Automated Readability Index): 8.28 SMOG: 11.93 Flesch Reading Ease: 47.32

RQ #	Article Title	Readability Results
2.1	Mobile Tele-Mental Health: Increasing Applications and a Move to Hybrid Models of Care	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.67 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.38 Flesch Kincaid Grade level: 9.99 ARI (Automated Readability Index): 8.86 SMOG: 10.83 Flesch Reading Ease: 37.05
2.1	Sociotechnical Challenges and Progress in Using Social Media for Health	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.57 Flesch Kincaid Grade level: 9.30 ARI (Automated Readability Index): 8.83 SMOG: 11.20 Flesch Reading Ease: 47.39
2.1	Disparate Inclusion of Older Adults in Clinical Trials: Priorities and Opportunities for Policy and Practice Change	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.57 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.02 Flesch Kincaid Grade level: 11.18 ARI (Automated Readability Index): 9.93 SMOG: 12.33 Flesch Reading Ease: 33.49
2.1	Digital Medicine: A Primer on Measurement	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.04 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.11 Flesch Kincaid Grade level: 10.95 ARI (Automated Readability Index): 9.80 SMOG: 12.49 Flesch Reading Ease: 38.58

RQ #	Article Title	Readability Results
2.1	Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.91 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 15.96 Flesch Kincaid Grade level: 15.10 ARI (Automated Readability Index): 15.28 SMOG: 15.71 Flesch Reading Ease: 22.93
2.1	A Qualitative Study of Providers' Perception of Adherence of Women Living with HIV/AIDS in Puerto Rico	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.29 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.57 Flesch Kincaid Grade level: 12.11 ARI (Automated Readability Index): 11.59 SMOG: 13.68 Flesch Reading Ease: 36.85
2.1	Personalized Telehealth in the Future: A Global Research Agenda	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.41 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.79 Flesch Kincaid Grade level: 11.37 ARI (Automated Readability Index): 11.09 SMOG: 12.70 Flesch Reading Ease: 35.19
2.1	Digital interventions for people living with non-communicable diseases in India: A systematic review of intervention studies and recommendations for future research and development.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.74 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.81 Flesch Kincaid Grade level: 10.84 ARI (Automated Readability Index): 9.52 SMOG: 12.68 Flesch Reading Ease: 39.12

RQ #	Article Title	Readability Results
2.1	Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.67 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.78 Flesch Kincaid Grade level: 11.84 ARI (Automated Readability Index): 10.19 SMOG: 13.75 Flesch Reading Ease: 35.43
2.1	Leveraging routine clinical materials and mobile technology to assess CBT fidelity: the Innovative Methods to Assess Psychotherapy Practices (imAPP) study.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.21 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.34 Flesch Kincaid Grade level: 10.89 ARI (Automated Readability Index): 9.87 SMOG: 12.39 Flesch Reading Ease: 38.34
2.1	Evaluation of a Technology-Based Survivor Care Plan for Breast Cancer Survivors: Pre-Post Pilot Study	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.17 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 10.82 Flesch Kincaid Grade level: 8.69 ARI (Automated Readability Index): 7.02 SMOG: 10.79 Flesch Reading Ease: 48.82
2.1	mHealth and telemedicine apps: in search of a common regulation.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.50 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.89 Flesch Kincaid Grade level: 12.08 ARI (Automated Readability Index): 12.03 SMOG: 13.86 Flesch Reading Ease: 37.92

RQ #	Article Title	Readability Results
2.1	ASHP–PPAG Guidelines for Providing Pediatric Pharmacy Services in Hospitals and Health Systems	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.49 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 16.64 Flesch Kincaid Grade level: 13.33 ARI (Automated Readability Index): 12.68 SMOG: 14.38 Flesch Reading Ease: 21.73
2.1	CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.93 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.52 Flesch Kincaid Grade level: 11.87 ARI (Automated Readability Index): 11.19 SMOG: 13.39 Flesch Reading Ease: 37.07
2.1	Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.33 Flesch Kincaid Grade level: 12.55 ARI (Automated Readability Index): 12.16 SMOG: 14.01 Flesch Reading Ease: 37.02
2.1	Dynamic-informed consent: A potential solution for ethical dilemmas in population sequencing initiatives.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 9.96 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 9.51 Flesch Kincaid Grade level: 8.49 ARI (Automated Readability Index): 6.25 SMOG: 9.00 Flesch Reading Ease: 42.61

RQ #	Article Title	Readability Results
2.1	Implementing a medical student interpreter training program as a strategy to developing humanism.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.40 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.60 Flesch Kincaid Grade level: 12.11 ARI (Automated Readability Index): 11.47 SMOG: 13.40 Flesch Reading Ease: 32.57
2.1	Psychosocial factors and 30-day hospital readmission among individuals receiving maintenance dialysis: a prospective study.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.99 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.76 Flesch Kincaid Grade level: 10.30 ARI (Automated Readability Index): 8.78 SMOG: 11.90 Flesch Reading Ease: 38.89
2.1	Glaucoma patient-provider communication about vision quality-of-life.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.35 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 10.94 Flesch Kincaid Grade level: 8.93 ARI (Automated Readability Index): 7.22 SMOG: 10.92 Flesch Reading Ease: 47.89
2.1	Internet-Based Approaches to Collaborative Therapeutic Assessment: New Opportunities for Professional Psychologists	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.38 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.70 Flesch Kincaid Grade level: 12.37 ARI (Automated Readability Index): 12.09 SMOG: 13.81 Flesch Reading Ease: 33.22

RQ #	Article Title	Readability Results
2.1	APRN Usability Testing of a Tailored Computer-Mediated Health Communication Program	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.77 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.15 Flesch Kincaid Grade level: 10.49 ARI (Automated Readability Index): 8.93 SMOG: 12.19 Flesch Reading Ease: 41.32
2.1	Reading in Children with Orofacial Clefts versus Controls	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 10.06 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 10.43 Flesch Kincaid Grade level: 8.58 ARI (Automated Readability Index): 6.57 SMOG: 10.22 Flesch Reading Ease: 48.26
2.1	Online information seeking by patients with bipolar disorder: results from an international multisite survey.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 10.97 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 10.21 Flesch Kincaid Grade level: 8.55 ARI (Automated Readability Index): 6.58 SMOG: 10.64 Flesch Reading Ease: 50.19
2.1	Technology and Caregiving: Emerging Interventions and Directions for Research	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.13 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.83 Flesch Kincaid Grade level: 11.84 ARI (Automated Readability Index): 10.29 SMOG: 12.25 Flesch Reading Ease: 26.78

RQ #	Article Title	Readability Results
2.1	Personal health records: a scoping review.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.17 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.29 Flesch Kincaid Grade level: 11.03 ARI (Automated Readability Index): 9.96 SMOG: 12.52 Flesch Reading Ease: 38.02
2.1	Care Partnerships: Toward Technology to Support Teens' Participation in Their Health Care	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.68 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.83 Flesch Kincaid Grade level: 10.80 ARI (Automated Readability Index): 10.47 SMOG: 12.51 Flesch Reading Ease: 40.08
2.1	A Qualitative Analysis of Health Literacy Issues among Women with Visual Impairments	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.95 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.39 Flesch Kincaid Grade level: 10.87 ARI (Automated Readability Index): 10.35 SMOG: 12.79 Flesch Reading Ease: 44.49
2.1	Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.22 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.12 Flesch Kincaid Grade level: 11.20 ARI (Automated Readability Index): 10.64 SMOG: 12.60 Flesch Reading Ease: 36.89

RQ #	Article Title	Readability Results
3.1	A model for partnering first-year student pharmacists with community-based older adults.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.53 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.27 Flesch Kincaid Grade level: 12.53 ARI (Automated Readability Index): 16.84 SMOG: 12.73 Flesch Reading Ease: 29.75
3.1	The social life of health records: understanding families' experiences of autism.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.14 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.73 Flesch Kincaid Grade level: 13.12 ARI (Automated Readability Index): 17.80 SMOG: 13.25 Flesch Reading Ease: 28.30
3.1	Adolescents with depressive symptoms and their challenges with learning in school.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.10 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 19.40 Flesch Kincaid Grade level: 11.20 ARI (Automated Readability Index): 15.72 SMOG: 11.66 Flesch Reading Ease: 41.03
3.1	Transitioning HIV-Positive Adolescents to Adult Care: Lessons Learned from Twelve Adolescent Medicine Clinics	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.80 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 23.65 Flesch Kincaid Grade level: 13.60 ARI (Automated Readability Index): 19.49 SMOG: 13.46 Flesch Reading Ease: 25.50

RQ #	Article Title	Readability Results
3.1	Best Practices for Ethical Sharing of Individual-Level Health Research Data From Low- and Middle-Income Settings	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.27 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.05 Flesch Kincaid Grade level: 12.33 ARI (Automated Readability Index): 18.91 SMOG: 12.35 Flesch Reading Ease: 30.43
3.1	Exploring synergistic effects of aerobic exercise and mindfulness training on cognitive function in older adults: Protocol for a pilot randomized controlled trial.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 15.91 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.09 Flesch Kincaid Grade level: 14.70 ARI (Automated Readability Index): 20.75 SMOG: 14.35 Flesch Reading Ease: 21.57
3.1	Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: A Church-Based Physical Activity Intervention - Baseline Participant Characteristics	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.22 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.79 Flesch Kincaid Grade level: 12.55 ARI (Automated Readability Index): 19.21 SMOG: 12.12 Flesch Reading Ease: 27.44
3.1	Going Mobile: Resident Physicians' Assessment of the Impact of Tablet Computers on Clinical Tasks, Job Satisfaction, and Quality of Care	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.67 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.78 Flesch Kincaid Grade level: 11.84 ARI (Automated Readability Index): 10.19 SMOG: 13.75 Flesch Reading Ease: 35.43

RQ #	Article Title	Readability Results
3.1	Exploring Vocational Evaluation Practices following Traumatic Brain Injury	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.13 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.20 Flesch Kincaid Grade level: 10.46 ARI (Automated Readability Index): 7.96 SMOG: 11.40 Flesch Reading Ease: 34.42
3.1	Engagement-focused care during transitions from inpatient and emergency psychiatric facilities.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.91 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.61 Flesch Kincaid Grade level: 12.67 ARI (Automated Readability Index): 17.87 SMOG: 12.99 Flesch Reading Ease: 32.24
3.1	Implementing a medical student interpreter training program as a strategy to developing humanism.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.34 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 25.16 Flesch Kincaid Grade level: 12.58 ARI (Automated Readability Index): 19.54 SMOG: 12.22 Flesch Reading Ease: 27.36
3.1	Human factors in mental healthcare: A work system analysis of a community-based program for older adults with depression and dementia.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.52 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 23.35 Flesch Kincaid Grade level: 13.70 ARI (Automated Readability Index): 19.46 SMOG: 13.40 Flesch Reading Ease: 25.73

RQ #	Article Title	Readability Results
3.1	Comparative Effectiveness on Cognitive Asthma Outcomes of the SHARP Academic Asthma Health Education and Counseling Program and a Non-Academic Program	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.44 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.06 Flesch Kincaid Grade level: 10.01 ARI (Automated Readability Index): 9.12 SMOG: 11.42 Flesch Reading Ease: 41.60
3.1	Promoting cancer prevention and control in community-based HIV/AIDS service organizations: are they ready?	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.09 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.80 Flesch Kincaid Grade level: 13.53 ARI (Automated Readability Index): 18.53 SMOG: 13.36 Flesch Reading Ease: 28.27
3.1	Mental health functioning among children and adolescents with perinatal HIV infection and perinatal HIV exposure.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.59 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.66 Flesch Kincaid Grade level: 12.98 ARI (Automated Readability Index): 18.62 SMOG: 12.68 Flesch Reading Ease: 29.62
3.1	Technological Considerations for the Delivery of Real-Time Child Telemental Healthcare	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.91 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 15.96 Flesch Kincaid Grade level: 15.10 ARI (Automated Readability Index): 15.28 SMOG: 15.71 Flesch Reading Ease: 22.93

RQ #	Article Title	Readability Results
3.1	Targeted versus tailored multimedia patient engagement to enhance depression recognition and treatment in primary care: randomized controlled trial protocol for the AMEP2 study.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.63 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.75 Flesch Kincaid Grade level: 11.51 ARI (Automated Readability Index): 10.47 SMOG: 13.41 Flesch Reading Ease: 39.16
3.1	Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.33 Flesch Kincaid Grade level: 12.55 ARI (Automated Readability Index): 12.16 SMOG: 14.01 Flesch Reading Ease: 37.02
3.1	Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.94 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.10 Flesch Kincaid Grade level: 10.00 ARI (Automated Readability Index): 8.46 SMOG: 11.73 Flesch Reading Ease: 42.28
3.1	Exploring the Perceptions of Newly Credentialed Athletic Trainers as They Transition to Practice	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.79 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.14 Flesch Kincaid Grade level: 12.34 ARI (Automated Readability Index): 17.80 SMOG: 12.96 Flesch Reading Ease: 35.91

RQ #	Article Title	Readability Results
3.1	Inter-association consensus statement on best practices for sports medicine management for secondary schools and colleges.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 15.71 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.64 Flesch Kincaid Grade level: 13.96 ARI (Automated Readability Index): 19.17 SMOG: 14.27 Flesch Reading Ease: 25.03
3.1	Buying and selling human eggs: infertility providers' ethical and other concerns regarding egg donor agencies.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.04 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.72 Flesch Kincaid Grade level: 10.71 ARI (Automated Readability Index): 9.58 SMOG: 12.39 Flesch Reading Ease: 40.71
3.1	Improving the pharmacologic management of pain in older adults: identifying the research gaps and methods to address them.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 15.57 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 23.09 Flesch Kincaid Grade level: 14.67 ARI (Automated Readability Index): 20.11 SMOG: 14.23 Flesch Reading Ease: 22.43
3.1	The "graying" of infertility services: an impending revolution nobody is ready for.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.26 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.89 Flesch Kincaid Grade level: 13.80 ARI (Automated Readability Index): 19.63 SMOG: 13.32 Flesch Reading Ease: 27.31

RQ #	Article Title	Readability Results
3.1	Understanding multifactorial influences on the continuum of maternal weight trajectories in pregnancy and early postpartum: study protocol, and participant baseline characteristics.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.22 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.79 Flesch Kincaid Grade level: 12.55 ARI (Automated Readability Index): 19.21 SMOG: 12.12 Flesch Reading Ease: 27.44
3.1	Glaucoma patient-provider communication about vision quality-of-life.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.92 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.38 Flesch Kincaid Grade level: 11.94 ARI (Automated Readability Index): 17.06 SMOG: 12.19 Flesch Reading Ease: 34.58
3.1	Environmental Enrichment Therapy for Autism: Outcomes with Increased Access	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 10.27 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.38 Flesch Kincaid Grade level: 10.28 ARI (Automated Readability Index): 16.16 SMOG: 9.81 Flesch Reading Ease: 36.27
3.1	Sharing and reuse of individual participant data from clinical trials: principles and recommendations.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.83 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.69 Flesch Kincaid Grade level: 12.13 ARI (Automated Readability Index): 11.31 SMOG: 13.41 Flesch Reading Ease: 35.05

RQ #	Article Title	Readability Results
3.1	Implementation of a stroke self-management program: A randomized controlled pilot study of veterans with stroke.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.06 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.66 Flesch Kincaid Grade level: 11.23 ARI (Automated Readability Index): 17.21 SMOG: 11.43 Flesch Reading Ease: 35.26
3.1	Executive Function in Adolescents With Type 1 Diabetes: Relationship to Adherence, Glycemic Control, and Psychosocial Outcomes	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 10.88 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 20.35 Flesch Kincaid Grade level: 9.82 ARI (Automated Readability Index): 14.84 SMOG: 10.60 Flesch Reading Ease: 42.22
3.1	Psychosocial Factors and 30-Day Hospital Readmission among Individuals Receiving Maintenance Dialysis: A Prospective Study	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.55 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.44 Flesch Kincaid Grade level: 12.48 ARI (Automated Readability Index): 17.34 SMOG: 12.68 Flesch Reading Ease: 31.81
3.1	Sociotechnical challenges and progress in using social media for health.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.41 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.79 Flesch Kincaid Grade level: 11.37 ARI (Automated Readability Index): 11.09 SMOG: 12.70 Flesch Reading Ease: 35.19

RQ #	Article Title	Readability Results
3.1	Personalized Telehealth in the Future: A Global Research Agenda	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.45 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.29 Flesch Kincaid Grade level: 13.74 ARI (Automated Readability Index): 19.32 SMOG: 13.15 Flesch Reading Ease: 21.39
3.1	"Everything that I thought that they would be, they weren't:" family systems as support and impediment to recovery.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.06 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.34 Flesch Kincaid Grade level: 13.02 ARI (Automated Readability Index): 17.98 SMOG: 13.35 Flesch Reading Ease: 31.11
3.1	The Impact of Pain Catastrophizing on Outcomes: A Developmental Perspective Across Children, Adolescents, and Young Adults with Chronic Pain	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.36 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 23.01 Flesch Kincaid Grade level: 13.69 ARI (Automated Readability Index): 19.76 SMOG: 13.25 Flesch Reading Ease: 28.22
3.1	Leveraging routine clinical materials and mobile technology to assess CBT fidelity: The Innovative Methods to Assess Psychotherapy Practices (imAPP) study.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.21 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.34 Flesch Kincaid Grade level: 10.89 ARI (Automated Readability Index): 9.87 SMOG: 12.39 Flesch Reading Ease: 38.34

RQ #	Article Title	Readability Results
3.1	CONNECT for quality: protocol of a cluster randomized controlled trial to improve fall prevention in nursing homes.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.93 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.52 Flesch Kincaid Grade level: 11.87 ARI (Automated Readability Index): 11.19 SMOG: 13.39 Flesch Reading Ease: 37.07
3.1	Association between lesion location and language function in adult glioma using voxel-based lesion-symptom mapping.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.18 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 16.24 Flesch Kincaid Grade level: 12.80 ARI (Automated Readability Index): 12.13 SMOG: 12.96 Flesch Reading Ease: 24.33
3.1	Disaster Preparedness and Awareness of Patients on Hemodialysis after Hurricane Sandy	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.76 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.59 Flesch Kincaid Grade level: 12.68 ARI (Automated Readability Index): 17.79 SMOG: 12.77 Flesch Reading Ease: 31.83
3.1	Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.35 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.29 Flesch Kincaid Grade level: 12.34 ARI (Automated Readability Index): 17.18 SMOG: 12.32 Flesch Reading Ease: 28.78

RQ #	Article Title	Readability Results
3.1	Racism and Health: Evidence and Needed Research	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 15.92 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.22 Flesch Kincaid Grade level: 14.84 ARI (Automated Readability Index): 20.50 SMOG: 14.29 Flesch Reading Ease: 19.06
3.1	Prospective, blinded exploratory evaluation of the PlayWisely program in children with autism spectrum disorder.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.99 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.76 Flesch Kincaid Grade level: 10.30 ARI (Automated Readability Index): 8.78 SMOG: 11.90 Flesch Reading Ease: 38.89
3.1	The Feasibility, Acceptability, and Efficacy of Delivering Internet-Based Self-Help and Guided Self-Help Interventions for Generalized Anxiety Disorder to Indian University Students: Design of a Randomized Controlled Trial	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.86 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.87 Flesch Kincaid Grade level: 13.00 ARI (Automated Readability Index): 18.34 SMOG: 12.81 Flesch Reading Ease: 27.39
3.1	Health Information Management Leaders and the Practice of Leadership through the Lens of Bowen Theory	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.53 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.77 Flesch Kincaid Grade level: 11.93 ARI (Automated Readability Index): 11.30 SMOG: 13.56 Flesch Reading Ease: 36.17

RQ #	Article Title	Readability Results
3.1	Training Pathology Residents to Practice 21st Century Medicine: A Proposal	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.93 Flesch Kincaid Grade level: 14.98 ARI (Automated Readability Index): 21.70 SMOG: 14.68 Flesch Reading Ease: 20.69
3.1	Physician Interactions with Electronic Health Records in Primary Care	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.48 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.21 Flesch Kincaid Grade level: 13.08 ARI (Automated Readability Index): 18.08 SMOG: 13.20 Flesch Reading Ease: 28.02
3.1	Bridging the Gap After Physical Therapy: Clinical-Community Linkages with Older Adult Physical Activity Programs	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.61 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.13 Flesch Kincaid Grade level: 11.61 ARI (Automated Readability Index): 16.63 SMOG: 11.69 Flesch Reading Ease: 31.72
3.1	Specialty-care access for community health clinic patients: processes and barriers.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.38 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.55 Flesch Kincaid Grade level: 11.01 ARI (Automated Readability Index): 10.49 SMOG: 12.85 Flesch Reading Ease: 39.75

RQ #	Article Title	Readability Results
3.1	Online information seeking by patients with bipolar disorder: results from an international multisite survey.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.43 Flesch Kincaid Grade level: 11.97 ARI (Automated Readability Index): 18.60 SMOG: 11.43 Flesch Reading Ease: 29.87
3.1	Willingness of older adults to share data and privacy concerns after exposure to unobtrusive in-home monitoring.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.95 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.39 Flesch Kincaid Grade level: 10.87 ARI (Automated Readability Index): 10.35 SMOG: 12.79 Flesch Reading Ease: 44.49
3.1	Longitudinal Research on Aging Drivers (LongROAD): Study Design Methods	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 12.66 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.64 Flesch Kincaid Grade level: 11.99 ARI (Automated Readability Index): 17.77 SMOG: 11.91 Flesch Reading Ease: 32.88
3.1	Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years - Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2012	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.28 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 18.80 Flesch Kincaid Grade level: 10.48 ARI (Automated Readability Index): 14.89 SMOG: 11.13 Flesch Reading Ease: 44.58

RQ #	Article Title	Readability Results
3.1	Patient experience after kidney transplant: a conceptual framework of treatment burden.	Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading Gunning Fog index: 12.36 Approximate representation of the U.S. grade level needed to comprehend the text: Coleman Liau index: 21.51 Flesch Kincaid Grade level: 11.43 ARI (Automated Readability Index): 16.93 SMOG: 11.86 Flesch Reading Ease: 37.20
3.1	Cyberbiosecurity Implications for the Laboratory of the Future	Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading Gunning Fog index: 15.42 Approximate representation of the U.S. grade level needed to comprehend the text: Coleman Liau index: 16.71 Flesch Kincaid Grade level: 13.49 ARI (Automated Readability Index): 12.74 SMOG: 13.63 Flesch Reading Ease: 20.61
3.1	Digital Medicine: A Primer on Measurement	Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading Gunning Fog index: 13.04 Approximate representation of the U.S. grade level needed to comprehend the text: Coleman Liau index: 13.11 Flesch Kincaid Grade level: 10.95 ARI (Automated Readability Index): 9.80 SMOG: 12.49 Flesch Reading Ease: 38.58
3.1	Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research	Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading Gunning Fog index: 13.04 Approximate representation of the U.S. grade level needed to comprehend the text: Coleman Liau index: 19.97 Flesch Kincaid Grade level: 12.07 ARI (Automated Readability Index): 15.78 SMOG: 12.48 Flesch Reading Ease: 32.94

RQ #	Article Title	Readability Results
3.1	Institutional Oversight of Occupational Health and Safety for Research Programs Involving Biohazards	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.62 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.60 Flesch Kincaid Grade level: 14.82 ARI (Automated Readability Index): 19.33 SMOG: 14.98 Flesch Reading Ease: 19.73
3.2	Navigating the Institutional Review Board (IRB) Process for Pharmacy-Related Research	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.04 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 19.97 Flesch Kincaid Grade level: 12.07 ARI (Automated Readability Index): 15.78 SMOG: 12.48 Flesch Reading Ease: 32.94
4.1	Training Pathology Residents to Practice 21st Century Medicine	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.93 Flesch Kincaid Grade level: 14.98 ARI (Automated Readability Index): 21.70 SMOG: 14.68 Flesch Reading Ease: 20.69
4.1	Orientation Process for Newly Credentialed Athletic Trainers in the Transition to Practice	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.79 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.14 Flesch Kincaid Grade level: 12.34 ARI (Automated Readability Index): 17.80 SMOG: 12.96 Flesch Reading Ease: 35.91

RQ #	Article Title	Readability Results
4.1	Inter-Association Consensus Statement on Best Practices for Sports Medicine Management for Secondary Schools and Colleges	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 15.71 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 22.64 Flesch Kincaid Grade level: 13.96 ARI (Automated Readability Index): 19.17 SMOG: 14.27 Flesch Reading Ease: 25.03
5.1	A Failure to "Do No Harm" -- India's Aadhaar biometric ID program and its inability to protect privacy in relation to measures in Europe and the U.S.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.68 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 14.53 Flesch Kincaid Grade level: 13.36 ARI (Automated Readability Index): 12.50 SMOG: 14.65 Flesch Reading Ease: 28.56
5.1	Racism and Health II: A Needed Research Agenda for Effective Interventions	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 15.92 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 24.22 Flesch Kincaid Grade level: 14.84 ARI (Automated Readability Index): 20.50 SMOG: 14.29 Flesch Reading Ease: 19.06
5.1	Strangers and Friends: Residents' Social Careers in Assisted Living	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.55 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.63 Flesch Kincaid Grade level: 12.42 ARI (Automated Readability Index): 17.23 SMOG: 12.86 Flesch Reading Ease: 31.03

RQ #	Article Title	Readability Results
5.1	Learning and Developing Individual Exercise Skills (L.A.D.I.E.S.) for a Better Life: a physical activity intervention for black women.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.25 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 21.55 Flesch Kincaid Grade level: 13.15 ARI (Automated Readability Index): 17.31 SMOG: 13.13 Flesch Reading Ease: 26.46
5.1	Paper trails, trailing behind: improving informed consent to IVF through multimedia applications.	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 13.33 Flesch Kincaid Grade level: 12.55 ARI (Automated Readability Index): 12.16 SMOG: 14.01 Flesch Reading Ease: 37.02
5.1	Clinician Wellness During the COVID-19 Pandemic: Extraordinary Times and Unusual Challenges for the Allergist/Immunologist	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.53 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 19.05 Flesch Kincaid Grade level: 12.71 ARI (Automated Readability Index): 16.35 SMOG: 12.49 Flesch Reading Ease: 34.21
5.1	Sociotechnical Challenges and Progress in Using Social Media for Health	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 11.31 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.57 Flesch Kincaid Grade level: 9.30 ARI (Automated Readability Index): 8.83 SMOG: 11.20 Flesch Reading Ease: 47.39

RQ #	Article Title	Readability Results
5.1	The Five Tenets of HIPAA: HIPAA Title I	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 16.14 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 12.00 Flesch Kincaid Grade level: 13.02 ARI (Automated Readability Index): 12.38 SMOG: 15.40 Flesch Reading Ease: 38.87
5.1	The Five Tenets of HIPAA: HIPAA Title II	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.43 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 11.60 Flesch Kincaid Grade level: 12.15 ARI (Automated Readability Index): 11.03 SMOG: 14.27 Flesch Reading Ease: 40.92
5.1	The Five Tenets of HIPAA: HIPAA Title III	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.11 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 11.25 Flesch Kincaid Grade level: 12.11 ARI (Automated Readability Index): 11.09 SMOG: 14.26 Flesch Reading Ease: 42.63
5.1	The Five Tenets of HIPAA: HIPAA Title IV	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 14.26 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 11.05 Flesch Kincaid Grade level: 11.61 ARI (Automated Readability Index): 10.47 SMOG: 14.18 Flesch Reading Ease: 44.28

RQ #	Article Title	Readability Results
5.1	The Five Tenets of HIPAA: HIPAA Title V	*Indication of the number of years of formal education that a person requires in order to easily understand the text on the first reading* Gunning Fog index: 13.95 *Approximate representation of the U.S. grade level needed to comprehend the text:* Coleman Liau index: 10.33 Flesch Kincaid Grade level: 11.99 ARI (Automated Readability Index): 10.64 SMOG: 14.06 Flesch Reading Ease: 44.61

REFERENCES

HHS Seeks Public Input on HIPAA Rules. (2020). *Pharmacy and Therapeutics: Management, 44*(3), pp. 145-147. Retrieved March 26, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6385737/

AHIMA Book of Knowledge . (2018). *CCA Frequently Asked Questions* . Retrieved from http://bok.ahima.org/doc?oid=60473#.X2Iw_WhKiUk

AHIMA. (n.d.). *Certified in Healthcare Privacy and Security (CHPS) Examination Content Outline.* Chicago: AHIMA. Retrieved March 2017, from file:///C:/Users/Office%20Study%20HP/Downloads/CHPS_exambleprint_final_formatt ed%20(2).pdf

Abid, I., Kuppusamy, K., Ajit, K., & Ojha, P. K. (2019, October). Connect the Dots: Accessibility, Readability and Site Ranking – An Investigation with Reference to Top Ranked Websites of Government of India. *Journal of King Saud University-Computer and Information Scientists, 31*(4), 528-540. Retrieved November 6, 2020, from https://www.sciencedirect.com/science/article/pii/S1319157816301550?via%3Dihub

Amin, M. Y. (2017). Communication Strategies and Gender Differences; A Case Study. *International Journal of Humanities and Cultural Studies (IJHCS), 4*(3), 226-238. Retrieved March 24, 2020, from http://www.ijhcs.com/index.php/ijhcs/article/view/3175/3038

Beaver, N., Wyatt, S., & Jackman, H. (2018). *Early Education Curriculum.* Boston: Cengage Learning.

Belskey, J. (2015). *Experiencing the Life Span.* New York: Worth Publishers.

Bre'mault-Phillips, S., Olson, J., Brett-Mac Lean, P., Oneschuk, D., Sinclair, S., Magnus, R., . . . Puchalski, C. M. (2016). *Integrating Religion and Spirituality into Clinical Practice.* Basel: Religions. Retrieved from https://books.google.com/books?id=yR1bDwAAQBAJ&pg=PA3&dq=Bre%27+mault-Phillips&hl=en&newbks=1&newbks_redir=0&sa=X&ved=2ahUKEwiwh7qChrroAhVLnq0K Hc-nDYcQ6wEwAXoECAEQAQ#v=snippet&q=spiritual%20care%20professionals&f=false

Bureau, U. C. (2017, March 31). *United States Census Bureau.* Retrieved March 26, 2020, from Educational Attainment in the United States: https://www.census.gov/data/tables/2016/demo/education-attainment/cps-detailed-tables.html

Canzona, R. M., Peterson, E. B., Villagran, M. M., & Seehusen, D. A. (2015, September 25). Constructing and Communicating Privacy Boundaries: How Family Medicine Physicians

Manage Patient Requests for Religious Disclosure in the Clinical Interaction. *Health Communication, 30*(10), pp. 1001-1012. doi: DOI: 10.1080/10410236.2014.913222

Communicating Privacy Boundaries: How Family Medicine Physicians Manage Patient Requests for Religious Disclosure in the Clinical Interaction. *Health Communication, 30*(10), pp. 1001-1012. doi: DOI: 10.1080/10410236.2014.913222

Central Texas College Professional Development. (2017, August 16). Retrieved from https://www.ctcd.edu/students/continuing-education/career-training/professional-development/

Chinen, M. (2019). *Laws and Autonomous Machines.* Northampton: Edward Elgar.

Ciment, J. (Ed.). (2015). *Social Issues in America: An Encyclopedia.* New York: Routledge, Taylor& Francis Group.

Cooper, N., Frain, A., & Frain, J. (Eds.). (2017). *ABC of Clinical Professionalism.* Hoboken.

Davis, N. A. (2020). *Foundations of Health Information Management.* St. Louis: Elsevier.

Des Moines University Library. (2019, August 1). Retrieved from A-Z Databases: ebscohost: https://lib.dmu.edu/az.php?q=ebscohost

DeVore, A. M. (2015). *The Electronic Health Record for the Physician's Office.* St. Louis: Elsevier Saunders.

DeVore, A. M. (2017). *How to Use and Understand Flesch-Kincaid Readability Statistics in Microsoft Word.* Ontario: Queens University. Retrieved November 04, 2020, from https://www.queensu.ca/urs/sites/webpublish.queensu.urswww/files/files/HSREB/2019/JAN/FAQs/HSREB%20How%20to%20Use%20and%20Understand%20Readability%20Statistics%20in%20Microsoft%20Word%202017DEC13%20(1).pdf

Dewan, N. A., Luo, J. S., & Lorenzi, N. M. (Eds.). (2015). *Mental Health Practice in a Digital World: A Clinicians Guide.* New York.

Dictionary.com. (2020). Retrieved January 1, 2020, from https://www.dictionary.com/browse/anomaly?s=t

Educational, T. K. (2015). *2015 Summary of Findings.* Menlo Park: The Henry J. Kaiser Foundation and Health Research & Educational Trust. Retrieved from http://files.kff.org/attachment/summary-of-findings-2015-employer-health-benefits-survey

English Oxford Living Dictionary. (2018). Retrieved December 4, 2018, from https://en.oxforddictionaries.com/definition/baptist 61

Engs, R. C. (2019). *Health and Medicine through History: From Ancient Practices to 21st-Century Innovations.* Santa Barbara: Greenwood.

Fisher, K. E., Erdelez, S., & McKechnie, L. E. (2015). *Theories of Information Behavior.* Medford: Information Today.

Fordney, M. (2017). *Insurance Handbook for the Medical Office.* St. Louis: Elseivier.

Galanti, G.-A. (2015). *Caring for Patients from Different Cultures.* Philadelphia: University of Pennsylvania Publishing.

Green, M. (2020). *Understanding Health Insurance.* Boston: Cengage.

Gumus, R., & Sahin, A. (2015). A Research About Job Satisfaction of Medical Secretaries Working in a Public Hospital in the City Center of Diyarbakir, Turkey. *Journal of Hospital Administration, 4*(5), 90-94. Retrieved March 18, 2019, from http://dx.doi.org/10.5430/jha.v4n5p90

Harman, L. B., & Corneilus, F. H. (2017). *Ethical Health Informatics.* Burlington: Jones and Bartlett Learning.

Hendrik, A. (2018). *Christian Norberg-Schulz's Interpretation of Heidegger's Philosophy Care, Place, and Architecture.* New York: Routledge: Taylor and Francis.

Heyes, C. (2015). *When Does Social Learning become Cultural Learning?* doi: https://doi.org/10.1111/desc.12350

Johnson, B., & Christensen, L. (2019). *Educational Research Quantitative, Qualitative, and Mixed Approaches*. Los Angeles. Sage.

Kearney, R. (2004). *On Paul Ricoeur: The Owl of Minerva.* New York: Routledge.

Keeley, M. P. (Ed.). (2017). *Family Communication at the End of Life.* Basel: MDPI.

Klocker, P. (2015). *Resistance Behavior to National eHealth Implementation Programs.* New York: Springer.

Kloss, L. L., Brodnik, M. S., & Rinehart-Thompson, L. A. (2018). Access and Disclosure of Personal Health Information: A Challenging Privacy Landscape in 2016-2018. *Yearbook of Medical Informatics*, 60-66. Retrieved March 19, 2020, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6115206/

Koenig, H. G., & Mccall, J. B. (2018). *Health and Medicine.* Binghamton: Haworth Pastoral Press.

Krager, D., & Krager, C. (2018). *HIPAA for Health Care Professionals.* Boston: Cengage Learner.

Law Insider. (2020). Retrieved March 3, 2020, from
    https://www.lawinsider.com/dictionary/protected-health-information?cursor=MTMw

Legal Information Institute. (2018, December 4). Retrieved December 4, 2018, from 29 CFR
    825.125 - Definition of Health Care Provider:
    https://www.law.cornell.edu/cfr/text/29/825.125

Levine, L. E., & Munsch, J. (2019). *Child Development from Infancy to Adolescence: An Active
    Learning Approach.* Thousand Oaks: Sage.

Linares, O., Daly, D. T., & Daly, G. (2017). *Plain English for Doctors and Other Medical
    Scientists. .* New York: Oxford University Press .

Lundy, K. S., & Janes, S. (Eds.). (2016). *Community Health Nursing: Caring for the Public's Health.*
    Burlington: Jones and Bartlett Learning.

Machi, L. A., & McEvoy, B. T. (2016). *The Literature Review Six Steps to Success.* Thousand Oaks:
    Corwin.

Madero, P. B. (2021). *The Complete RHIT and RHIA Prep.* Jones and Bartlett Learning.

Marting, R. (2018, March-April). HIPAA: Answers to Your Frequently Asked Questions .
    American Academcy of Family Physicians, 25(2), 12-16. Retrieved November 11, 2020,
    from https://www.aafp.org/fpm/2018/0300/p12.html

Masters, K. (2020). *Role Development in Professional Nursing Practice.* Burlington: Jones and
    Bartlett Learning.

Medicaid (2020, March 11). Are You a Covered Entity? Washington, D.C. Retrieved March 2,
    2020, from https://www.cms.gov/Regulations-and-Guidance/Administrative-
    Simplification/HIPAA-ACA/AreYouaCoveredEntity

Merrian-Webster. (2018). Retrieved from https://www.merriam-
    webster.com/dictionary/hermeneutic

Murphy, S. (2015). *Healthcare Information Security and Privacy.* New York: McGraw Hill.

National Institutes of Health Portfolio Analysis. (2020). *iCite.* Retrieved from
    https://icite.od.nih.gov/analysis

National Research Council, D. O. (1996). *National Science Education Standards.* District of
    Columbia: National Academy Press.

Packer, M. J. (2018). *The Science of Qualitative Research.* New York: Cambridge University
    Press. 62

Pessin, A., & Engel, M. (2015). *The Study of Philosophy: A Text with Readings.* Lanham: Rowan and Littlefield.

Pierce, D. W., & Cheney, C. D. (2017). *Behavior Analysis and Learning: A Biobehavioral Approach.* New York: Taylor and Francis.

Tovino, S. (2017). *"Teaching the HIPAA Privacy Rule".* Scholarly Works. Retrieved March 27, 2020, from https://scholars.law.unlv.edu/facpub/1028/

U.S. Department of Health and Human Services. (2017, June 16). Health Information Privacy. Retrieved March 19, 2020, from https://www.hhs.gov/hipaa/for-professionals/covered-entities/index.html

U.S. Department of Health and Human Services/ Office of Civil Rights. (n.d.). MODEL NOTICES OF PRIVACY PRACTICES. District of Columbia. Retrieved from http://www.hhs.gov/ocr/privacy/hipaa/q_and_i-use_of_model_notices.pdf

U.S. Department of Labor. (2016, March 3). Bureau of Labor Statistics, U.S. Department of Labor, The Economics Daily, Employment by industry, 1910 and 2015. NE Washington, D.C. doi: https://www.bls.gov/opub/ted/2016/employment-by-industry-1910-and-2015.htm

U.S. Department of Veterans Affairs. (2020, February 5). *Online Training Management System Training.* Retrieved from https://www.tms.va.gov/SecureAuth35/

Urden, L. D., Stacy, K. M., & Lough, M. E. (2016). *Priorities in Critical Care Nursing - E-Book.* St. Louis: Elsevier Mosby.

What is Understanding? A Deeper Look. (n.d.). Harvard University Graduate School of Education and Project Zero. Retrieved December 4, 2018, from https://www.learner.org/workshops/socialstudies/pdf/session1/1.WhatIsUnderstanding.pdf

Wilson, R. F. (2018). *The Contested Place of Religion in Family Law.* New York: Cambridge University Press.

Wu, D. T., Hanauer, D. A., Qiaozha, M., Clark, P. M., Lawrence, C. A., Proulx, J., . . . Zheng, K. (2016, March). Assessing the Readability of ClinicalTrials.Gov. *Journal of the American Medical Informatics Association, 23*(2), 269-275. doi:https://doi.org/10.1093/jamia/ocv062

Wulfovich, S., & Meyers, A. (2020). *Digital Health Entrepreneurship.* (S. Wulfovich, & A. Meyers, Eds.) Switzerland: Springer.

Yeshaya, J., & Hollander, E. (Eds.). (2017). *Exegisis and Poetry in Medieval Karaite and Rabbanitie Texts.* Leiden: Koninklijke Brill.

York, T. W., & MacAlister, D. (2015). *Hospital and Healthcare Security.* Waltham: Elsevier. 63

Zimmermann, J. (2015). *Hermeneutics: A very short Introduction.* Oxford: Oxford Press