

Review Article

A Systematic Review of Ethics Knowledge in Audiology Literature: A Follow-Up Study (2011–2020)

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ABSTRACT

Purpose: This systematic review aimed to update and explore the extant literature (2011–2020) regarding ethics knowledge in audiology and to compare the findings to an earlier study (2001–2010).

Method: This systematic review employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

Results: MEDLINE, CINAHL, ERIC, MasterFILE Premier, E-Journals, Africa-Wide information and Academic Search Premier electronic databases, and non-peer-reviewed papers in Seminars in Hearing yielded a total of 63 papers. Following systematic screening using inclusion and exclusion criteria, a total of 12 full-text papers were included in this review. Pertinent data and findings from the review were tabulated and analyzed using a qualitative, deductive approach. Results showed that the 12 papers were published in nine peer-reviewed journals with a predominantly social scientific approach. This differs from the earlier review that reported only five papers with a predominantly philosophical approach. However, both the current and earlier studies focused on the rehabilitation/management role of the audiologist. In the earlier study, the focus was on moral judgment (as one of the components of moral behavior), whereas this was the focus of only half of the papers identified in this study, with the remaining papers focusing on moral sensitivity and moral motivation.

Conclusions: The focus of papers had evolved and continued to include more elements related to the multiple perspectives used to analyze and describe ethics research. The body of knowledge of ethics in audiology specifically expanded in the area of social scientific research, focusing on beneficence and nonmaleficence, including moral motivation and basing research on moral judgment with the emphasis on the rehabilitation/management and education/research/administration role of audiologists.

Health care in the 21st century is characterized by growing specialist expertise relying on expanding evidence-based knowledge, heightened accountability, expanding global standards, and changing client relationships, which ultimately results in an ever-increasing complex ethical climate in which audiologists and other health care professionals deliver their services (Kinsella et al., 2015). The flexible and fast-paced nature of health care professionals' practices poses considerable challenges to professionally

responsible actions. These challenges are contextually unique and frequently result in conflicting struggles regarding values and ethical stances (Resnik & Elliott, 2016). In line with this complexity, psychologist James Rest developed a Four-Component Model of Ethical Action, wherein he states that ethical action is the product of four subprocesses, namely, moral sensitivity, moral judgment, moral motivation, and moral character (Rest, 1994). These four processes are highly interdependent and should all be in tandem before ethical behavior can occur.

So, what is ethics? This complex construct (also known as moral philosophy) dates back to Aristotle and ancient Greece and is concerned with the right and wrong in human behavior. According to Williams (2009), ethics

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involves thorough reflection on and consideration of moral decisions and conduct. When studying ethics, the field is typically divided into philosophical ethics and social scientific ethics (Thiroux, 1995). The former, also referred to as *normative ethics*, involves developing or appraising moral standards. It is concerned with questions of human morality by defining concepts such as right and wrong, virtue and vice, and justice and crime. The goal of philosophical ethics is to prescribe action and highlight how people should conduct themselves, as well as the rational basis for ethical decision making. The philosophical approach to ethics embraces deontological, utilitarian, care, virtue, and principles approaches (Beauchamp & Childress, 1994).

Social scientific ethics, on the other hand, involves describing how people behave as well as their perceptions of right and wrong conduct (Cline, 2020). This branch of ethics attempts to develop conceptual models and test those models empirically in order to enhance our understanding of ethical or moral behavior and decision making (Doyle, 2020). Clinical decision making is a contextual, continuous, and evolving process during which a course of action is selected (Tiffen et al., 2014). The way in which clinicians make decisions about client care provides insight into their style of practice as well as identifying needs for continued professional development opportunities. Popular research designs in this area can be classified into two categories, depending on the goal of the study. Firstly, positivist designs are used to test theory and seek generalized patterns based on an objective view of reality (Bhattacharjee, 2012). Some examples of positivist designs include experiments, surveys, secondary data analysis, and case research. Secondly, interpretive designs are used to build theory and seek subjective interpretations of social phenomena from the perspectives of the subjects involved (Bhattacharjee, 2012). Some examples of interpretive designs include case research, phenomenology, and ethnography. The category of social scientific ethics allows not only for deeper insight into ethical dilemmas in a given profession but also for identifying and understanding moral distress more fully (Simpson, 2018).

Ethical practice is complex, and it does not only involve the action of an individual, in this case, the audiologist. Workplace culture plays an important role in ethical action and can lead to moral distress. Moral distress occurs when the individual knows the ethically correct action to take but is prevented from doing so. This could, for example, be due to pressure from an employer (McCarthy & Deady, 2008). Increased levels of moral distress have been associated with burnout, compassion fatigue, errors in client care, and withdrawing or distancing from clients (Simpson, 2018).

As with other health care professions, in the field of audiology, ethics is considered to be agreed upon values that form the relationship between the client and the

audiologist (Schein & Schein, 2017). In clinical practice, ethics is not so much concerned with right and wrong, as, by virtue of their training, practitioners usually understand the ethical principles related to their profession that they committed themselves to. It does, however, involve deciding between conflicting values, each representing something good in itself. As practitioners in a professional discipline, audiologists are expected to perform in a manner consistent with specific high ethical standards often described as professional integrity (American Speech-Language-Hearing Association, 2016). The public enters into this relationship in the expectation that their best interests will be protected. Clients trust audiologists to act with professional integrity, to provide expert services, and to commit themselves to acting in the best interests of their clients (Pera, 2011). The perception of ethical behavior can increase trust, which forms the basis of successful and effective health care relationships (Oosthuizen, 2011). It is, therefore, essential for the future of audiology as a profession to maintain and protect this public trust.

Professionalism is defined as the acting out of the values and beliefs of individuals who serve those whose well-being is entrusted to them, by putting the clients' interests first (Kirk, 2007). To a large extent, being client centered entails finding the delicate balance between self-interest and social responsibility (Resnick, 1993). Any behavior or action perceived as unethical by the client will strain the relationship and damage the reputation of not only the audiologist but also the work establishment and potentially the profession as a whole. The risk that unethical behavior will cause reputational damage is arguably much greater than in the past, as behavior is more easily shared online via social media platforms.

As ethics is based on relationships and the expectations of individuals within those relationships, ethical standards do not remain static, but transform in response to evolving situations (Evans, 2018). This does not imply that ethical behavior is relative; it simply acknowledges that neither the perceptions of the profession nor those of the public are stagnant. Professional ethics can also shift due to changes within the profession. In audiology, one of the driving forces resulting in ethical shifts relates to the Fourth Industrial Revolution and the dramatic shift in the core technology used in amplification that embraces Machine Learning and Artificial Intelligence (Loi et al., 2019). In addition to technological advances, COVID-19 social distancing regulations have necessitated audiologists to explore innovative service delivery avenues such as teleaudiology.

Although these technological advances and other innovations present beneficial opportunity for development in the field of audiology, these opportunities should be balanced against the professional ethics principles in order to protect the professional and the client. Specifically, the ethical and privacy issues related to online

technology and data collection have been a topic of growing interest (Hagendorff, 2019). Although audiologists prescribe to a code of ethics and ethical guidelines, these documents have not kept abreast of the rapid advances and innovations in the field. This raises a call for more accountable use of data to ensure that audiologists adhere to ethical expectations of their clients (Naudé & Bornman, 2021).

Seemingly simple ethical principles of health care such as autonomy, beneficence, nonmaleficence, and justice prove far more complex when considering the context of rapidly advancing technology, constant budget constraints, and new health threats such as COVID-19. How we think about difficult ethical issues when resources are strained will play a significant role in the future of the audiology profession. It is important that ethical thinking be measured over time, deliberated, and opened to examination. Self-regulation, potentially including the development of ethical codes and guidelines as well as gaining information from case-based research publications, can be one way of approaching new ethical challenges in the dynamic discipline of audiology.

It is with this in mind that we present a follow-up study to our earlier systematic review of ethics knowledge in audiology (1980–2010) for the next decade, from 2011 to 2020, to describe the current focus of and trends in ethics research related to the field of audiology. The main questions that will be answered in this review are how the focus in research has changed in the last decade in terms of the multiple perspectives used to analyze and describe ethics research, including ethical approach, topics, principles, components of moral behavior, and the role of the audiologist. Although the previous review published in 2014 spans 1980–2010, only the information related to the time period 2001–2010 was used to compare study results as the previous decade's had already been compared in the earlier systematic review.

Method

This systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) parameters (Page et al., 2021). The systematic review protocol was neither made publicly available, nor was it registered in a registry such as Prospective Register of Systematic Reviews.

Search Strategy and Selection Criteria

Studies had been selected using the same methodology as for the earlier study (Naudé & Bornman, 2014) to which this study was compared. Terms and combinations of words were prepared and adapted for the following electronic databases: MEDLINE, CINAHL, ERIC, MasterFILE Premier,

E-Journals, Africa-Wide Information, and Academic Search Premier to identify peer-reviewed journal papers published between 2011 and 2020. In addition, a hand search was performed in *Seminars in Hearing*, a professional non-peer-reviewed journal. The search terms included *audiology* as well as ethical-related terms by using the truncation symbol * (e.g., *ethic**, *moral**, *autonomy**, *confidentiality*, *informed consent*, *moral reason**, *moral judgment*, *justice*, *paternalism*, *care*, *duty*, *responsibility*, *discrimination*, *attitude**, *value**, *best practice*, *problem solving*, *decision making*). Multiple search terms were required due to the lack of agreement on the terms *ethics* and *morality*, the paucity of literature using the keyword *ethics*, and the desire to include appropriate publications from different ethical approaches. The initial search of the databases was performed on August 12, 2021. In order to prevent omitting relevant articles, a repetition of the systematic searches was conducted on September 15, 2021. After the elimination of duplicates ($n = 8$), the screening commenced by employing two independent raters who used specific inclusion and exclusion criteria as shown in Table 1.

Firstly, papers that did not meet the inclusion criteria were eliminated at title and abstract level. The interrater agreement at this level was 100%. Thereafter, eligibility for inclusion was determined at full-text level, using the same procedure.

Data Extraction and Analysis

A two-phase mixed quantitative and qualitative research method, using a custom-designed data extraction tool, was used for data analysis. After reading the included full-text papers, data extraction was performed,

Table 1. Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
(a) publication in an indexed and peer-reviewed journal between 2011 and 2020 (including early online papers), which was later expanded to also include professional journals	(a) published outside of these dates, (after December 2020, or before January 2011)
(b) published in English	(b) full-text not published in English despite abstract being available in English
(c) audiology ethics as an explicit major subject, topic, or keyword	(c) major topic not related to audiology ethics, e.g., in other health care disciplines such as speech therapy
(d) primary target audience being audiologists;	(d) nonaudiology target audience, e.g., hearing aid acousticians
(e) peer-reviewed scientific papers	(e) letters to the editor, editorials; and routine publication of professional codes of ethics, standards, or position statements

which solicited the following: background information (e.g., research origin of country, authors, year of publication, and name of journal) ethical approach, topic and ethical principles, components of morality, and the audiologist's role. We made notes on each publication related to the descriptive categories and assigned a qualitative code to each one. After the initial analysis, a second rater independently analyzed the articles. The percentage of interrater agreement was calculated by dividing the number of observations that agreed by the total number of observations. An interrater agreement of 100% related to approach and components of morality was found; 98% agreement related to the audiologist role and 97% agreement in terms of topic/principles. The two raters discussed the data until 100% interrater agreement had been reached for all components. Both raters shared the same professional background (i.e., registered with the Health Professions Council of South Africa as audiologists and speech-language pathologists). The first rater had 20 years' clinical practice in the field of audiology and frequently presented seminars and workshops in the field of ethics. The second rater had 14 years' experience, initially clinically and currently in academia.

Results

Study Selection

The initial search of databases identified 63 papers, with 55 remaining after removing the eight duplicates. After screening at the titles and abstracts level, 14 papers were considered potentially relevant and included at full-text level to determine eligibility. After reading the full texts, two papers did not meet the inclusion criteria and were consequently eliminated. This resulted in a systematic review that analyzed 12 papers addressing ethical aspects in audiology. The PRISMA flowchart summarizes the search results and reasons for exclusion (see Figure 1).

Study Characteristics

The included studies were published between 2011 and 2020 and represented three of the seven continents (i.e., North America, Europe, and Oceania). Their places of origin included Australia, Belgium, Canada, Samoa, Solomon Islands, the United States of America (Arkansas, Minnesota, Missouri, Oregon, Texas, and Wisconsin), and New Zealand.

Papers were published in nine peer-reviewed journals (i.e., *American Journal of Audiology*; *International Journal of Audiology*; *Journal of Allied Health*; *Journal of Bioethical Inquiry*; *Journal of Medical Ethics*; *Journal of Speech, Language, and Hearing Research*; *Seminars in Speech and*

Language; The Clinical Supervisor, and Trials) and in one professional non-peer-reviewed journal (i.e., *Seminars in Hearing*). Table 1 depicts a summary of the results. Papers are presented chronologically, from oldest to most recent, and include a reference to the author, the year of publication, journal name, the ethical approach followed, the topics and principles addressed, the specific components of morality according to Rest's (1994) Four-Component Model of Ethical Action, and the primary role of the audiologist. In total, these 12 papers were produced by 50 authors.

Approach

Sorting publications into the two a priori categories of ethical approach (philosophical and social scientific) indicated that only 33% of the papers ($n = 4$) published between 2011 and 2020 were based on a philosophical approach (see Table 2). Specifically, two papers employed a deontological approach, one a principle approach and the other a utilitarian approach. The authors in the social scientific category (67%; $n = 8$) adopted various approaches including case studies ($n = 4$), surveys ($n = 3$), and interviews ($n = 1$).

Issue or Topic

The main topics were identified for each paper, and the results are depicted in Figure 2. The two topics that occurred most often are related to beneficence (67%; $n = 8$) and nonmaleficence (58%; $n = 7$), followed by informed consent (42%; $n = 5$). Autonomy, justice, and research integrity were each identified in three (25%) of the papers. Confidentiality and trust were only mentioned in two papers (17%) with conflict of interest and veracity each only mentioned once (8%).

Four Components of Morality

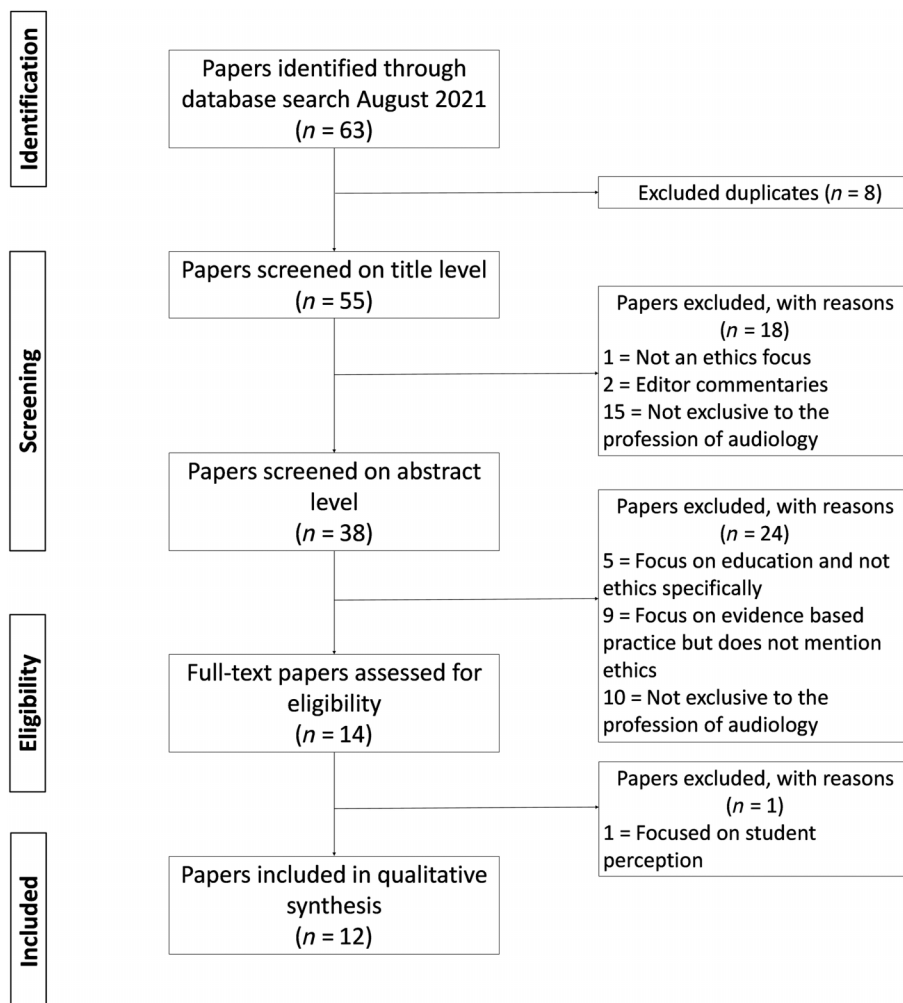
Three of Rest's four components of morality were identified across the selected papers. Half of the papers ($n = 6$; 50%) emphasized moral judgment, four (33%) papers moral sensitivity, and two (17%) moral motivation. Moral courage was not discussed in any of the papers.

Role of the Audiologist

Half (50%) of the included papers described more than one role of the audiologist within the respective papers. The results are depicted in Figure 3.

The main focus centered around the rehabilitation/management role of the audiologist. Altogether, 50% ($n = 6$) of the papers emphasized this role (either explicitly or implicitly) in terms of evidence-based practice, tinnitus, cochlear implant explanation, dispensing hearing aids, and volunteer work.

Figure 1. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses Flowchart with search results and reasons for exclusion.



The second highest focus related to the audiologist's role in education/research/administration, advocacy/consultation, assessment, and identification. Prevention was mentioned in five papers (42%).

The role of the audiologist in terms of advocacy/consultation was only identified in 25% ($n = 3$) of the papers. Two roles, namely, assessment and identification, were mentioned in two (17%) of the papers, with the role of prevention and diagnosis only referred to once (8%; $n = 1$). None of the papers referred to the role of the audiologist in counseling.

Discussion and Conclusions

In this systematic review spanning the previous decade (i.e., 2011–2020), we analyzed the literature on ethics in audiology and compared the results to the last

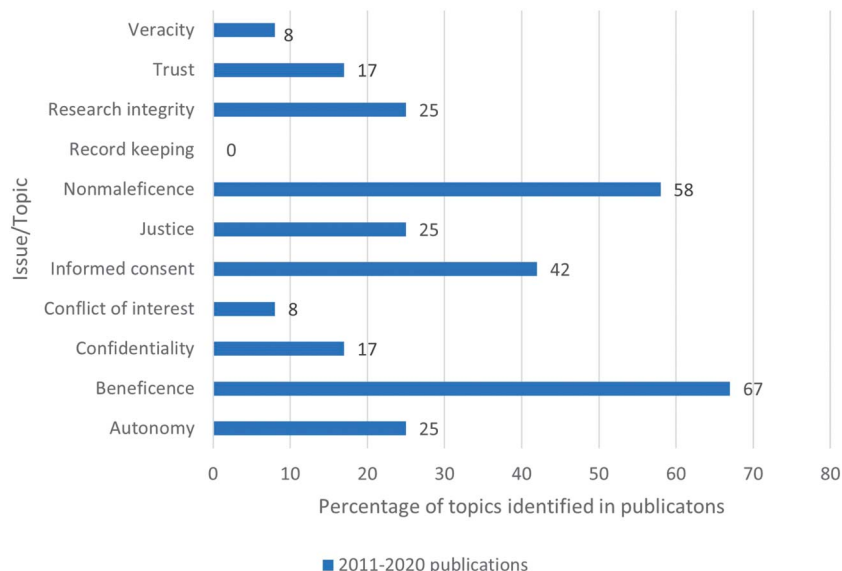
decade of our earlier systematic review, spanning 2001–2010 (Naudé & Bornman, 2014).

The majority of the papers ($n = 11$; 92%) originated from high-income countries with only one paper originating from a lower/middle-income country (i.e., Samoa), despite the fact that audiologists also deliver services in low- and middle-income country (LMIC) contexts. One reason could be related to the well-documented fact that scientific contribution in high-impact journals is disproportionate from authors affiliated with institutions in high-income countries (Ferris et al., 2015; Rohra, 2011). The reasons for these inequalities have been well rehearsed in the literature. Researchers from LMICs are often constrained by limited access to literature and the Internet, as well as the time they can dedicate to research at work (Bezuidenhout et al., 2017). Other potential reasons for the underrepresentation of LMICs in leading journals include lack of researchers and supervisors, weak peer

Table 2. Results presented chronologically, highlighting the identified categories.

Author(s)	Year	Journal	Approach	Topic/principles	Components of morality	Audiologist role
Chabon et al.	2011	Seminars in Speech and Language	Philosophical: Principle	<ul style="list-style-type: none"> • Autonomy • Beneficence • Informed consent • Confidentiality • Justice • Nonmaleficence 	Moral judgment	<ul style="list-style-type: none"> • Advocacy/consultation • Assessment • Diagnosis • Rehabilitation/management
Franklin et al.	2014	Journal of Allied Health	Social: Survey	<ul style="list-style-type: none"> • Beneficence • Confidentiality • Research integrity • Veracity 	Moral judgment	<ul style="list-style-type: none"> • Education/research/administration
Bosteels & Vandebroek	2017	Journal of Bioethical Inquiry	Social: Case study	<ul style="list-style-type: none"> • Beneficence • Informed consent • Nonmaleficence 	Moral motivation	<ul style="list-style-type: none"> • Identification • Prevention
Dudding et al.	2017	The Clinical Supervisor	Philosophical: Deontological	<ul style="list-style-type: none"> • Beneficence • Nonmaleficence 	Moral judgment	<ul style="list-style-type: none"> • Education/research/administration
Ainscough et al.	2018	American Journal of Audiology	Social: Case study	<ul style="list-style-type: none"> • Beneficence • Confidentiality • Informed consent • Nonmaleficence 	Moral judgment	<ul style="list-style-type: none"> • Rehabilitation/management
Owoc et al.	2018	Journal of Medical Ethics	Social: Case study	<ul style="list-style-type: none"> • Beneficence • Informed consent • Nonmaleficence 	Moral judgment	<ul style="list-style-type: none"> • Advocacy/consultation • Rehabilitation/management
Simpson et al.	2018	International Journal of Audiology	Social: Survey	<ul style="list-style-type: none"> • Trust 	Moral sensitivity	<ul style="list-style-type: none"> • Rehabilitation/management
Ng et al.	2019	International Journal of Audiology	Social: Interviews	<ul style="list-style-type: none"> • Conflict of interest • Trust 	Moral sensitivity	<ul style="list-style-type: none"> • Education/research/administration
Wiley	2019	Journal of Speech, Language, and Hearing Research	Philosophical: Deontological	<ul style="list-style-type: none"> • Research integrity 	Moral judgment	<ul style="list-style-type: none"> • Education/research/administration
Clark	2020	Seminars in Hearing	Philosophical: Utilitarian	<ul style="list-style-type: none"> • Autonomy • Beneficence • Justice • Nonmaleficence 	Moral motivation	<ul style="list-style-type: none"> • Advocacy/consultation • Assessment • Identification • Rehabilitation/management
Kaspar et al.	2020	Journal of Medical Ethics	Social: Case study	<ul style="list-style-type: none"> • Autonomy • Beneficence • Justice • Nonmaleficence 	Moral sensitivity	<ul style="list-style-type: none"> • Rehabilitation/management
Francis-Auton et al.	2020	Trials	Social: Survey	<ul style="list-style-type: none"> • Informed consent • Confidentiality • Research integrity 	Moral sensitivity	<ul style="list-style-type: none"> • Education/research/administration

Figure 2. Number of topics identified in the current systematic review (alphabetically arranged from the bottom).



network, poor salaries, no career structure, limited funding, and underrepresentation of LMICs on the editorial and advisory boards of academic journals (Jahangir et al., 2011; Pike et al., 2017; Smith et al., 2014). Another potential reason could relate to the professional code of ethics for audiologists that originate from high-income countries.

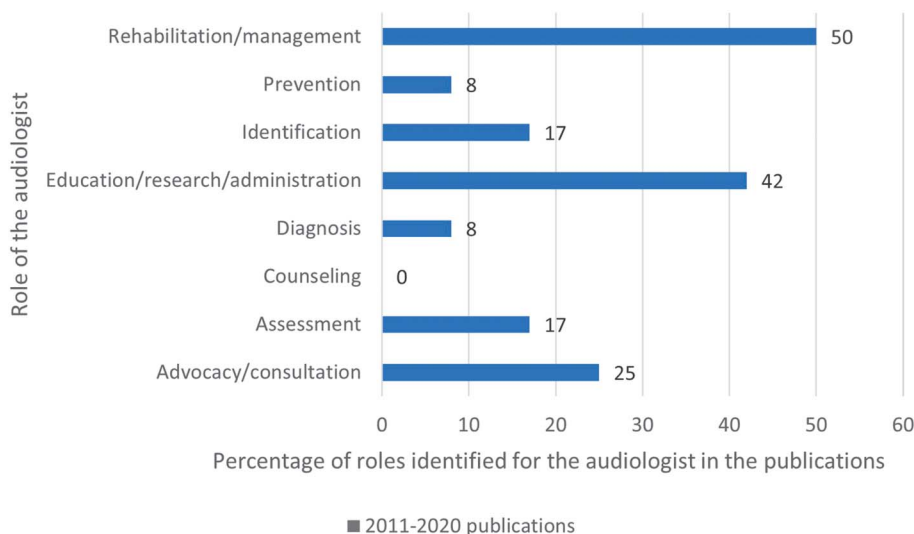
Comparing Publications Between 2001–2010 and 2011–2020

This comparison revealed that the number of papers published in the current review ($n = 12$) was slightly less

than the 16 published in the earlier review. Interestingly, the current review included 50 authors compared to the 22 authors in the previous decade. This could be an indication of increased interest into the topic of ethics in audiology as well as larger groups of researchers working collaboratively. The current review articles included up to nine authors per paper, whereas the previous review included a maximum of three authors per paper.

In the work of Naudé and Bornman (2014), it was noted that the research approach was shifting from a predominantly philosophical approach to a social scientific approach in the 21st century. The papers published between

Figure 3. The role(s) of the audiologist and frequency of mentioning these roles.



2011 and 2020 continued on this trajectory, with the majority focusing on a social scientific approach. Not only was this approach favored, but it was also diversified to include surveys and interviews in addition to case studies. This approach is in line with the strong research focus on perceptions of audiologists noted in these papers. The shift to a social scientific approach could be in response to the changing landscape in which audiologists are practicing. Professional ethical rules and guidelines provide a framework for ethical decision making when combined with the information that is gleaned from the situation. However, it simply cannot provide information regarding every possible situation associated with professional life (Nichols, 2011). Therefore, social science research, together with critical thinking, could facilitate increased awareness of ethical issues experienced in day-to-day activities by focusing on ethical decision making (Purtilo, 1999). The ethical decision-making process should be guided by this awareness as well as ways to balance different values in terms of their importance to that specific situation (Hundert, 2003). These results also correlate with the increased focus of moral sensitivity in the current review when compared with the results from the earlier review.

In comparing the current review to the earlier one, a strong contrast in the focus of the papers became evident. Although the focus was starting to shift toward a more social scientific approach, the majority of the papers ($n = 13$; 81%) were based on a philosophical principle approach, with only 19% ($n = 3$) based on the social scientific case study approach.

The majority of the papers from the current review are related to the ethical principles beneficence and nonmaleficence, which indicates a shift in focus in the published ethics research field. Previously, autonomy presented as the most frequently mentioned principle in more than half of the papers (56%; $n = 9$). This was followed by conflict of interest, veracity, and trust, which each occurred in seven papers (44%). In the current review, nonmaleficence was identified as a main theme in six papers (38%), beneficence in five (31%), and justice and informed consent each in four (25%) papers. Confidentiality was only central to three (19%) of the papers, with research integrity and record keeping mentioned in only two (13%) separate papers.

This shift in focus could possibly be due to the decrease in papers focused on hearing aid dispensing and the increasing focus on defining the responsibility of the audiologist to make decisions on patient care in different settings. These decisions involve more than selecting the appropriate intervention or management. Ethics is an inherent part of clinical practice, where the audiologist has an ethical obligation to benefit the client, avoid or minimize harm, and to respect the values of the client (Varkey, 2021). Beneficence and nonmaleficence as principles of ethics have practical application in clinical practice, specifically in relation to clinical assessment and client management

(Jonsen et al., 2015). An increased focus on rehabilitation/management could therefore potentially increase the focus on beneficence and nonmaleficence.

In order to implement ethical action, audiologists must know what ethical behavior looks like (moral sensitivity), be able to evaluate the situation by carefully weighing the evidence based on their line of moral reasoning (moral judgment), and then prioritize possible actions (moral motivation) as well as persevere until the action is completed (moral character; Nichols, 2011). Moral judgment is the foundation of social scientific ethics (Sachdeva et al., 2011). Hence, with the rise in social scientific ethics papers, it is not surprising that half of the papers focused on moral judgment.

Comparing the results of the current review to that of the previous review highlighted an increased focus beyond moral judgment with a sharp rise—from 12% to 33%—in moral sensitivity. Moreover, papers also focused on moral motivation, a component that was absent in the previous review. The inclusion of moral motivation in the 2011–2020 review shows that research is starting to focus more on elements related to ethical decision-making. However, moral courage was neither discussed in the current nor in the earlier review.

The focus of the papers in the current review in terms of the role of the audiologist was on rehabilitation/management, followed by education/research/administration, advocacy/consultation, assessment, identification, and lastly prevention. The focus of the papers included in the two reviews does not differ much in terms of the audiologist's role. In comparing the results between the current and the previous review, it was noted that the main focus of papers remained the same. However, the topic distribution in terms of frequency at which the roles are addressed differs substantially. The role of the audiologist in diagnosis received less attention in the current review than in the earlier review, whereas there was no mention of the counseling role in the current review.

The most prominent shift in focus in terms of the audiologist's role between the two reviews relates to the increased focus on rehabilitation/management and education/research/administration. New devices and advances in technology have contributed to the changes in hearing health care and the role of the audiologist. However, aspects such as counseling and aural rehabilitation remain areas in which audiologists can distinguish themselves, as communication strategies and competencies cannot be attained through amplification only (Krumm, 2016). It is also important that these changes in hearing health care inform the ongoing education and support of audiologists in terms of related ethics, particularly as amplification devices are a source of funding and research for dispensing audiologists, which raises potential ethical, educational, and research questions. Ethics is an integral part of the profession of audiology and key to releasing

thoughtful therapists who act morally as a result of problem solving through ethical reflection. It is, therefore, vital that these questions translate into practice and improved preparedness through curricula used in training preservice audiologists that address theoretical approaches to ethics as well as ongoing engagement through practical examples that students may face during their training.

Although the focus of papers during 2011–2020 evolved to include additional elements related to ethical decision, none of the publications in the sample addressed the perspective of the client on ethical issues in audiology. With the focus in audiology on client-centered care to provide the best service, the ethical issues have significance only if clients are indeed benefited by audiologists' concerns with such issues. As expressed in the earlier systematic review, we maintain that future research should, therefore, include the client's view. It should, however, be noted that in the current systematic review, the ethical views of students were included, adding valuable information to the field of ethics that was not previously available.

We initiated this article by posing the question "How has the focus in research changed in the last decade in terms of the multiple perspectives used to analyze and describe ethics research including ethical approach, topics, principles, components of moral behavior and the role of the audiologist?" The body of knowledge of ethics in audiology continued to expand, specifically in the area of social scientific research, focusing on beneficence and non-maleficence, including moral motivation and basing research on moral judgment. The emphasis regarding the role of the audiologist in rehabilitation/management and education/research/administration provides valuable support to especially educators and mentors in the field of audiology. Despite the expanded view regarding ethics in audiology, the results of this review revealed the need for further investigation into the audiology ethics field. Research, especially regarding the role of the audiologists as well as the public perspective, is crucial to inform clinical and ethical decision making in everyday practice.

Limitations of This Study

Papers written as part of interprofessional collaborative teams, without a distinct focus on the profession of audiology, was not included in this study. Including these studies could potentially add additional insight into the current subject focus.

Data Availability Statement

The authors confirm that the data supporting the findings of this study are available within the article.

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