Research Article
Received: 13.06.2023
Accepted: 09.09.2023
Published: 31.12.2023

Citation*:* Larrotta, C., & Meneses, E. (2023). Ethical research principles: Documenting Latin American faculty perspectives through Q-sort. *International Journal of Scholars in Education 6*(2), 167-180. https://doi.org/10.52134.ueader.1313694

Ethical Research Principles: Documenting Latin American Faculty Perspectives Through Q-sort*

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Abstract: The ethical principles in research are universal and serve as a humanizing guide throughout the research process. Their application requires keeping in mind the local health, socio-cultural, and economic conditions where research is conducted. Higher education institutions and researchers share the responsibility of ensuring application of ethical research principles in science, technology, and innovation activities. This article reports findings from a mixed methods study on the perspectives of university faculty regarding the application of research ethical principles to research endeavors. Utilizing a Q-method approach to capturing subjectivity, 52 faculty-researchers participated in an online Q-sort exercise which also included an open-ended questionnaire. The study looked at similarities and differences in viewpoints regarding the application of ethical research principles. The study research questions included: (1) what are the participants' perspectives applying research ethical principles? (2) what are the similarities and differences in viewpoints when looking at the participants' years of research experience, research ethics preparation, and field of expertise? This article presents the results analyzing the responses of the participating faculty researchers. Similarities and differences of their perspectives were documented by looking at years of research experience, research ethics background, and field of expertise. Study findings point to the need to offer more opportunities for training to better prepare experienced and less experienced researchers on how to anticipate and plan for ethical dilemmas that may arise while conducting research. Emerging and experienced researchers can benefit from such training and self-awareness.

Keywords: Q-sort, Ethical Research, Ethical Dilemmas, Scientific Research, Faculty Perspectives.

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Introduction

Ethics refers to standards of human conduct that distinguish appropriate from inappropriate behavior (Espinosa & Alger, 2014). Research ethics seeks to reflect on social responsibility, relevance, scientific integrity, and techno-scientific quality in science, technology, and innovation activities (Departamento Administrativo de Ciencia, Tecnología e Innovación, 2018). Research ethics has been generally oriented towards respect and protection of individuals (Guraya, London, & Guraya, 2014); however, the relationship with the environment and the care for life from different scientific fields have established an ethic of life that goes beyond the exclusive relationship with human beings or bioethics.

Research ethics emerged in the context of biomedicine after World War II, as a response to the abuses committed by the Nazi regime in the name of science. Cases such as the Tuskegee Syphilis study and Willowbrook Hepatitis provoked greater awareness and regulation of the protection of the rights, dignity, and welfare of research participants, and were crucial to the creation of universal ethical codes, the development of modern research ethics and the flourishing of public health ethics (Gallardo Miranda et al., 2008). Today, research ethics is applied to all fields of science and education.

The Nuremberg Code of 1947 was the first document to establish fundamental ethical principles such as informed consent and researcher qualification. The Helsinki Declaration of 1964 prioritized the interests of the research subject and the benefit/risk balance centered on the principle of beneficence. The Belmont Report of 1979 provided an ethical framework for both research and clinical bioethics based on three fundamental principles: respect for persons, beneficence and justice (Gallardo Miranda et al., 2008). It is important to clarify that research ethics is not limited to the biomedical field, but also encompasses other scientific disciplines, and involves not only the formulation of research but also its implementation, data management, and publication (Stepke, 2002). Thus, ethical considerations should be considered in all steps and phases of the research process from beginning to end.

Based on the ethical principles established in the Nuremberg Code, the Declaration of Helsinki, the Belmont Report, and the UNESCO Universal Declaration on Bioethics and Human Rights, ethics committees built a normative framework that seeks to limit and control abuse in the use of science and technologies associated with biotechnologies, limit invasive market trends, and promote and protect the fundamental rights of individuals (Zavala & Mantilla, 2011). These ethics committees aim to protect life and human rights, as well as promote good research practices.

There are many reasons why researchers avoid requesting approval from their institutions to conduct research. As Domenech-Rodríguez et al. (2017) explain, “lengthy forms may be dismissed as tedious, or they may be considered a great support to ensure a thorough review of the research activities” (p. 83). Therefore, gaining an understanding of researchers’ perspectives of ethical responsibility while investigating, collecting data, and disseminating research results is paramount.

A recurrent issue relates to the lack of awareness of the procedures and rules governing the requirements established by the Institutional Review Board (IRB) or Independent Ethics Committee (IEC) at the faculty member’s institution. Likewise, misunderstanding the role of IRB committees creates distrust and adds confusion to the IRB review process. This can also be aggravated by a lack of knowledge regarding ethical research principles that a researcher must follow while conducting research. Having clarity and conviction, as well as understanding the importance of applying these principles, are crucial to research integrity. As an example, Christians (2000) states that “ensuring that data are accurate is a cardinal principle in social science codes. Fabrications, fraudulent materials, omissions, and contrivances are both unscientific and unethical" (p. 140). Fabrication of data and results which may not reflect the reality of the setting and/or participants or that do not contribute to solving a previously identified problem can certainly be issues of concern. Misrepresentation of the reality and setting when the object of study is other than human subjects (e.g., environmental research, animals and plants, and technology) is certainly a possibility. Therefore, the reliability and validity of the data are at risk when the principles of ethical research are not applied. In addition, receiving financial support or pressure related to social practices and politics can create a conflict of interests for the researcher.

Institutions that generate knowledge through research, and their researchers, are responsible for enforcing scientific integrity (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica, 2019). This implies promoting good research practices, training ethical researchers, ensuring quality and credibility of results, and adopting a system that allows for filing grievances on violation of ethical research principles (Departamento Administrativo de Ciencia, Tecnología e Innovación, 2018). Researchers must be aware of the consequences and impact of their actions.

According to Drane (2004), the history of research ethics shows us that transgressions did not occur only because of a lack of standards, but also because of the loss of the researcher's moral character and lack of commitment to ethical principles. Therefore, it is necessary to foster a culture of ethics that promotes research integrity, researcher responsibility, and respect for human subjects, plants, animals, and all living organisms.

Ethical Regulations and Research Principles

The Nuremberg Code (Nuremberg International Military Tribunal, 1947), internationally recognized, is the pioneer document in regulating experimentation on human beings and in pointing out the obligation to have the consent of the patients. Subsequently, the Declaration of Helsinki (1964) clarifies aspects of biomedical research on human subjects and establishes ethical guidelines for the evaluation of projects by RECs (WMA, 2013). Due to the little impact of these regulations in the medical community, the Belmont Report (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978) showed the need to establish universal ethical principles to guide the development of research with human subjects and ensure their protection. The UNESCO Declaration on Bioethics (2005) included new topics related to the development and the protection of human rights, such as the environment, equity, justice, and peace, among others.

The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research was created as a result of the National Research Act of 1974. The role of the Commission was to identify basic ethical principles (e.g., protect the rights of research participants, enhance research validity, maintain scientific and academic integrity) that should underlie the implementation of biomedical and behavioral research involving human subjects. The Commission also established guidelines to ensure that research is conducted in accordance with these principles. In addition, Christians (2000, pp. 138-140) describes four guidelines to apply the codes of ethics. These are: Informed consent for research participants, deception as morally unacceptable, safeguards to protect people's privacy and confidentiality, and ensuring the accuracy of data.

Conducting Ethical Research

Scientific integrity involves promoting good research practices. Thus, researchers should be aware of research pitfalls to prevent them and achieve credibility; they should follow ethical research guidelines established by their institutions. Institutional Review Boards (IRBs) are charged with the task to approve research procedures and safeguard the appropriate implementation of ethical research principles as well as regulatory norms for the protection of human subjects and institutions from harm. "Modern-day IRBs function as independent bodies for research review and oversight. Many IRBs are affiliated with universities, medical centers, and research centers" (Domenech-Rodríguez et al., 2017, p. 78). Each institution, where research is a required activity, has its own procedures in place to monitor and approve research activities.

The work of researchers such as Creswell (2016), Domenech-Rodríguez et al. (2017), Lincoln and Guba (1985), and Shenton (2004) are helpful to explain the measures researchers must take to ensure ethical considerations and accountability in research with human subjects. Thus, Creswell (2016) provides suggestions on how to anticipate ethical issues during each phase of research such as thinking of issues that can arise before, during, and after the research is finished since ethical issues can also arise during the publication process. Domenech-Rodríguez et al. (2017) describe IRB officials as allies, collaborators, and expert consultants in the research enterprise: "Researchers and IRB staff/members are working different pieces of the same common goal to "do good" (p. 83). In turn, Lincoln and Guba (1985) recommend qualitative researchers in pursuit of a trustworthy study to observe the following four constructs: (a) credibility (internal validity), (b) transferability (external validity and generalizability), (c) confirmability (objectivity), and (d) dependability (reliability). Shenton (2004) suggests provisions that the qualitative researcher may employ to meet these four criteria. His article provides a robust list of strategies that may be adopted by investigators in response to these issues.

According to Fuentes-Delgado et al. (2020), during the COVID-19 pandemic, research ethics committees faced two major challenges. One of the challenges was related to implementing remote operational processes such as collecting and protecting data, using technology, and including contactless human interaction. The second challenge had to do with making sure that the rights of the participants were not being violated in any way, as to protect their integrity and provide humane treatment in the social context of the pandemic. Thus, during and after the pandemic, technology and world events have had an impact on how ethical research principles are implemented.

There is plenty of research documenting the measures that researchers must follow to conduct ethical and high-quality research. However, research documenting how researchers adhere to ethical research principles is scarce. This is the gap in the literature that the present study aims to address.

Methodology

Q-methodology, also known as Q-sort, is the systematic study of people's viewpoints. The goal is to investigate the perspectives of research participants who represent different stances on an issue, by having them sort and rank a series of statements that focus on the same topic. Q-sort is a set of connected techniques that allow the systematic study of subjectivity - people's viewpoint, opinion, beliefs, or attitudes (Brown, 1996). In a Q-sort exercise, people are presented with a carefully selected sample of statements about a topic. Individually, they rank-order the statements according to some preference, judgment, or feeling about them, mostly using a quasi-normal distribution. Through this process people assign their meaning to the statements and reveal their subjective viewpoint or personal profile (Brown 1996, Cross, 2005). Once they are done sorting and raking the statements, they answer open-ended questions to explain their decisions and viewpoints. Thus, Q-sort combines quantitative and qualitative tools to study the subjective views of those directly involved in a topic.

Utilizing referrals and snowball sampling (Patton, 2002), nearly 200 researchers from several Latin American countries were invited to participate in the study and 52 complete survey responses were collected. Thus, faculty researchers from five Latin American countries participated in an online Q-sort exercise which also included an open-ended questionnaire. The research questions guiding the overall study included:

1. What are the participants' perspectives applying research ethical principles?
2. What are the similarities and differences in viewpoints when looking at the participants' years of research experience, professional credentials, and field of expertise?

Participants

Latin-American university faculty involved in conducting research at their respective institutions were invited to participate in the study. Participants were recruited by sending an email to directors of research centers and research groups in different public and private universities. To become a study participant, an important requirement was to have at least 3 years of experience conducting research. In addition, referrals and snowball sampling strategies were utilized to reach a larger pool of potential participants.

Data Collection

Qualtrics®, an online data collection tool, was utilized to create a mixed methods instrument, which was split into four sections: (1) Introduction to the study, (2) demographic questions, (3) Q-sort exercise, and (4) open-ended questions. To be able to gather enough responses, data were collected for a period of six months.

First, the introduction included an explanation of the purpose of the study and a request for consent to participate. Participants were reminded that taking part in the study was voluntary.

Second, the participants were presented with a few demographic questions to gather data on their years of experience conducting research, credentials or training related to ethics and ethical research, and their area of expertise. However, to protect confidentiality, no personal identifiable information was collected.

Third, the Q-sort exercise presented the participants with 23 statements (Q-set) to sort and rank order according to their professional opinion. Participants classified the statements into five categories: Strongly Agree, Agree, Neutral/Indifferent, Disagree, and Strongly Disagree. They dragged each statement to the respective box labeled with the selected category. The focal question guiding the Q-sort exercise was: To what extent do you agree with the list of statements as they relate to conducting ethical research? (see Appendix A). The Q-set represented a wide range of viewpoints and covered the application of ethics and ethical principles at different stages of the research process (design, implementation, results, and publication). The Q-set came from a larger number of statements lifted (and polished) from journal articles and book chapters related to the topic. Once the Q-set (23 statements) was ready it was sent to a couple of experienced researchers to pilot for clarity. Their feedback was incorporated to reexamine and edit the statements for meaning and relevance and were tested a second time before sending the survey to actual research participants.

Fourth, the last section of the survey presented the participants with five open-ended questions to elaborate on their Q-sort responses. These questions invited them to explain their choices and viewpoints when sorting and ranking the Q-set statements. There was no time limit to complete the online survey. However, they could only submit their responses once to avoid duplicates.

Ethical Considerations

IRB approval (protocol number 7784) was granted by the Institutional Review Board at Texas State University. An email with details related to scope, purpose, objectives of the study, as well as the nature of their participation was sent to potential participants. They were debriefed on the nature and purpose of the study as well as the voluntary nature of their participation. Consent was established by clicking on the survey link and by submitting their survey responses. They were presented with the following two sentences: "If you would prefer not to participate in the study, please stop here. If you consent to participate, please complete the survey by clicking on the following link." All references to potentially identity-revealing details were removed from the data and the Qualtrics® survey was submitted anonymously.

Limitations

Administering the Q-sort exercise online via a survey platform was a limitation to collecting richer qualitative data. Not having face-to-face contact or an interview with the participants limited the explanations of their choices when conducting the Q-sort exercise. In addition, the survey platform also presented limitations in the tools it has available to design the Q-sort exercise to make it more user-friendly. For example, sorting and ranking 23 statements can be a difficult exercise depending on the size of the computer screen, or the device selected by the participant (tablet or a cell phone) to complete the survey.

Analysis of Data

The Qualtrics platform allowed for easy retrieval and organization of data. The respondents' rankings of the Q-sort statements were subject to Q-factor analysis and the resulting factors indicated segments of subjectivity. Correlation between participant profiles indicated similar viewpoints or segments of subjectivity. By correlating people's responses, Q-factor analysis provided information about similarities and differences in viewpoint on the topic at hand (Brown 1996, Cross, 2005). It was important to examine the impact that being a novice or experienced researcher had on the participants' responses.

The qualitative data collected (the open-ended questionnaire responses) were coded using conventional content analysis (Hsieh & Shannon, 2005). This analysis included reading the data repeatedly to make sense of the whole, coding for key concepts, and grouping codes into categories to come up with meaningful clusters. Knowledge generated from content analysis is based on participants' unique perspectives and grounded in the actual data (Hsieh & Shannon, 2005, p. 12). Several tables and visuals were created to summarize and synthesize the findings.

Findings

Study findings are organized according to the research questions formulated for the study. Thus, the first section presents the participants' perspectives in applying research ethical principles and discusses three major findings: ethical dilemmas, participants' concerns, and conflictive views. The second section illustrates the similarities and differences in viewpoints when looking at the participants' years of research experience, professional credentials, and field of expertise.

RQ#1

What are the Participants' Perspectives Applying Research Ethical Principles?

Ethical Dilemmas

62% of the participants disagreed that "conducting ethical research implies bending the rules sometimes." However, 68% are "willing to compromise certain ethical principles if it means saving a life or protecting a human being from harm." In the open-ended questionnaire, only 40% of the survey respondents provided examples of ethical dilemmas and the remaining 60% expressed denial or reported not having faced ethical dilemmas while conducting research. For example, 28% of the participants agreed that "my research topic is straightforward. I do not anticipate any ethical issues." Only 40% of the faculty researchers reported taking measures to prepare and anticipate ethical dilemmas to occur and how to resolve them. To summarize, the participant responses revealed that the Q-statements related to ethical dilemmas resonated with them. Yet, analysis of the Q-sort responses indicated contradictions pointing to lack of understanding of what constitutes or has potential to become an ethical dilemma.

Participants' Concerns

Truth in research, consent, and ethical obligation were the most relevant concerns identified by the study participants. 46% believed that conducting research will allow them to report on the participants' truth. 64% worried that the participants will not tell the truth. 79% agreed that being honest and defending the truth is their main goal as researchers. Concerning consent, 18% agreed and 71% disagreed that "the consent process is a formality, what counts is that participants understand the research goals." Only 7% agreed that "emphasizing the right to withdraw participation makes them feel nervous because study participants may see it as their first option." 50% disagreed with that statement and 43% did not see it as a concern. Regarding ethical obligation, 93% stated that "obtaining IRB approval is important but, in the end, the researcher is responsible for ethical research implementation." 93% agreed that "upholding individuals' rights to confidentiality and privacy are central to ethical research." 61% agreed that "even if required, reporting confidential information to courts can also cause moral dilemmas." 39% agreed that "moral duty and personal viewpoint can be stronger than legal requirements." In conclusion, the Q-sort responses pointed to participants' concerns about reporting the truth, defending the truth, and gathering truthful data when conducting research. Emphasizing the voluntary nature of participation was not a concern for most, and the majority were aware of their ethical obligation to protect the participants' confidentiality and privacy.

Conflictive Views

75% disagreed that "research is a complex process and ethical principles are just a small part of it." 39% agreed that "planning on how to address potential ethical dilemmas is a big concern" 43% did not see this as part of the study design process, prior to conducting research. 29% agreed that "research benefits are difficult to predict during the study design phase" and 25% said this was not a concern for them. In the open-ended questionnaire, participants were asked to describe ethical dilemmas they had faced in their research practice. Out of 52, only 29 of the respondents answered this open-ended question, and out of those 20 (29%) provided examples of ethical dilemmas that they have faced. However, most responses attributed responsibility to the institution, the state, or the research sponsor for why they had faced an ethical dilemma in the past. Sixteen (31%) of survey respondents denied having faced any ethical dilemmas. To summarize, analysis of the Q-sort and open-ended questionnaire responses suggests that study participants need to gain knowledge, develop a higher level of awareness, and plan for ethical dilemmas that may arise in the process of designing, conducting, and reporting research.

RQ#2

What are the Similarities and Differences in Viewpoints When Looking at the Participants' Years of Research Experience, Professional Credentials, and Field of Expertise?

Table 1 shows that 56% of the study participants were experienced researchers with 5+ and 10+ years of research experience. Table 2 describes the participants' research ethics credentials. Table 3 illustrates study participants' field of expertise.

Table 1
Years of research experience

Experience	%
3 years	17%
3+ years	27%
5+years	29%
10+ years	27%

Table 2
Ethics preparation

Research Ethics Credentials	%
Took at least one university course where topics related to ethical research were discussed	40%
Participated in professional development related to ethical research	30%
Took courses on ethical research as a requirement to obtain IRB approval	10%
None of the above	20%

Table 3
Field of expertise

Faculty Researchers' Fields	%
Agronomy & Veterinary Medicine	13%
Education	22%
Social Science & Humanities	27%
Accounting & Business Administration	20%
Mathematics & Science	11%
Engineering	7%

Results of the Q-factor analysis revealed the participants' similarities and differences in viewpoints. Thus, when comparing results illustrated in Figure 1 (responses of less experienced researchers, 3-5 years of research experience) and Figure 2 (responses of experienced researchers, 5+ and 10+ years of research experience) statements 11, 19, and 21 show differences in opinion.

11. My research topic is straightforward. I do not anticipate any ethical issues
19. Planning on how to address potential ethical dilemmas is a big concern of mine
21. Even if required, reporting confidential information to courts can also cause ethical dilemmas

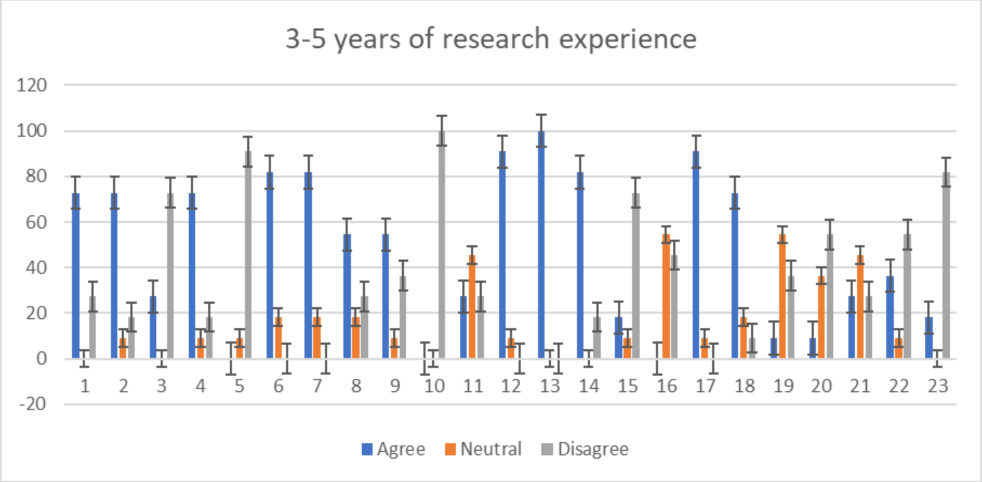

Figure 1. Responses of Less Experienced Researchers

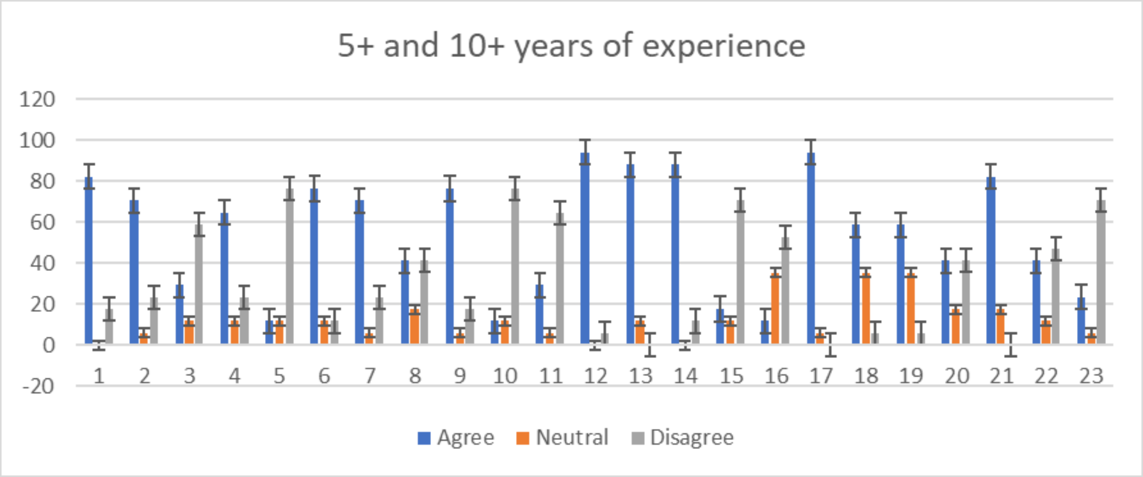

Figure 2. Responses of Experienced Researchers

For statement 11 (My research topic is straightforward. I do not anticipate any ethical issues), 53% of seasoned researchers (5+ and 10 + years) agreed with the statement, whereas 45% of the less experienced researchers (3-5 years) sorted it as Neutral/Indifferent.

Regarding statement 19 (Planning on how to address potential ethical dilemmas is a big concern of mine), 59% of the experienced researchers agreed and 55% of the less experienced researchers classified it as Neutral/Indifferent.

For statement 21 (Even if required, reporting confidential information to courts can also cause ethical dilemmas), 82% of the experienced researchers agreed and 45% of the less experienced researchers sorted it as Neutral/Indifferent.

To summarize, experienced researchers reported stronger beliefs regarding ethical dilemmas while conducting research. Opinions of experienced and less experienced researchers were split. However, both groups should gain better understanding of what constitutes ethical dilemmas and the importance of preparing for facing and resolving them during the different stages of the research process (i.e., research design, data collection, and publication of results).

Next, Figures 3 and 4 illustrate similarities and differences in viewpoints in connection to the participants' research ethics preparation or lack thereof.

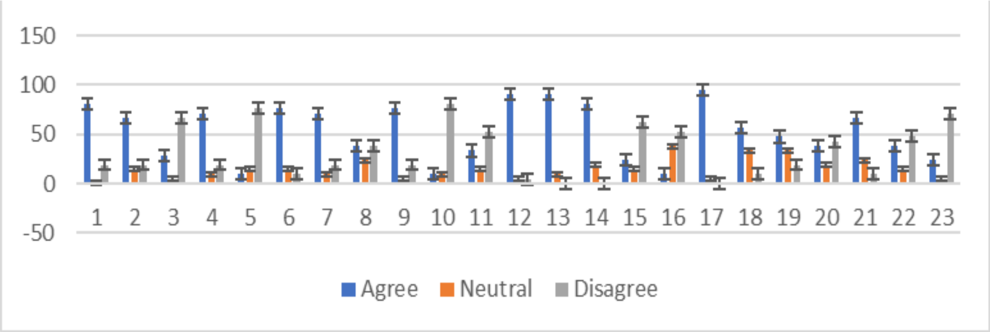

Figure 3. Responses of Participants with Research Ethics Credentials/Preparation

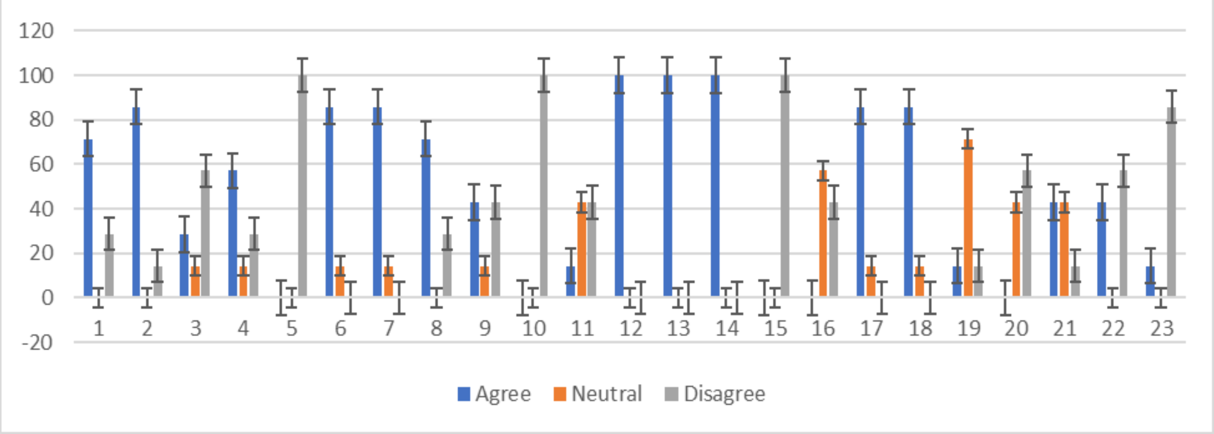

Figure 4. Responses of Participants with No Research Ethics Credentials/Preparation

Comparing results illustrated in Figures 3 and 4, statements 16 and 19 show differences in opinion. For statement 16 (Emphasizing the right to withdraw participation makes me feel nervous that participants may see it as their first option), 52% of the participants with research ethics preparation/credentials disagreed with the statement and 57% of the participants with no research ethics preparation classified the statement as Neutral/Indifferent. This result suggests a similar opinion between both groups.

Concerning statement 19 (Planning on how to address potential ethical dilemmas is a big concern of mine), 48% of the participants with research ethics preparation/credentials agreed with the statement and 71% of the participants with no research ethics preparation sorted the statement as Neutral/Indifferent. This result indicates a different viewpoint between both groups of participants. It also suggests that less experienced researchers need to gain a better understanding of the importance of planning for ethical dilemmas and how to resolve them before, during, and after research implementation.

Conclusions

The main goal of the study was to document the perspectives of Latin American university faculty regarding the application of research ethical principles to research endeavors.

Analysis of the data collected were presented by discussing ethical dilemmas, participants' concerns, and conflictive views. Similarities and differences of their perspectives were documented by looking at years of research experience, research ethics background, and field of expertise.

Regarding ethical dilemmas, the data revealed that both sets of participants, experienced and less experienced researchers, need to participate in further training to be better prepared to anticipate and plan for ethical dilemmas that may arise during the different stages of the research process. Developing an ability to anticipate and plan for how to face ethical dilemmas is crucial for researchers from all fields of expertise. Creswell (2016) highlights the importance of anticipating ethical issues during each phase of the research process, even after study results are published. Study findings stress the importance of recognizing ethical dilemmas as inevitable while conducting research.

Participants' concerns included the study participants' preoccupation with reporting the truth, defending the truth, and gathering truthful data when conducting research. As Meriam (2009) explains, a key concern is understanding the phenomenon of interest from the participants' perspectives, not the researcher's (p. 14). This was a point of agreement for study participants. They were convinced that research results should report on the truth as it is presented by the research subjects. In addition, emphasizing the voluntary nature of participation was not a concern for most, and the majority were aware of their ethical obligation to protect the participants' confidentiality and privacy. However, as Patton (2002) states, informed consent does not automatically mean confidentiality; it can mean that participants understand the risks and benefits of participation. A few respondents were concerned about disclosing the voluntary nature of participation; but for the most part they did not see this as an issue. Christians (2000) speaks to these issues: "Subjects must agree voluntarily to participate - that is, without physical or psychological coercion...their agreement should be based on full and open information" (pp. 138-139). Christians further states that research participants must be told about the duration, methods, possible risks, purpose, and aim of the study in which they are expected to take part.

In relation to conflictive views, a large percentage of study participants (43%) did not see ethical dilemmas as an aspect of the research design process, prior to conducting research. Their views regarding what constitute an ethical dilemma were split. Some of them even denied having faced any ethical dilemmas while conducting research. Others did not see this as part of their responsibility as researchers and attributed this duty to the institution, the state, or the research sponsor. However, dealing with people in the real world, all kinds of complications can arise (Patton, 2002, p. 407). Ethical dilemmas can arise from the least expected circumstances. Shenton (2004) speaks directly to those who teach research courses compelling them to prepare future researchers to be cognizant of the provisions which can be made to address matters such as credibility, transferability, dependability, and confirmability. So that "prospective researchers can then assess the extent to which they are able to apply these generic strategies to their particular investigation" (p. 73). Shenton provides examples and strategies on how to plan and implement high-quality research that keeps ethical considerations in mind.

Clarity and conviction upholding ethical research principles are crucial to research integrity. Gaining understanding of researchers' perspectives of ethical responsibility collecting data and disseminating research results is paramount. Thus, the information presented in this article is beneficial to all scholars and researchers, not just the population sample who participated in the study. Bringing attention to the complexities that researchers face when applying ethical research principles is a must for the different disciplines where they conduct research. Being prepared to respond to challenges posed by ethical dilemmas impacts both qualitative and quantitative researchers.

Recommendations

Study findings point to the need to provide more preparation on ethical research principles at different stages of the researcher's career. Undergraduate and graduate programs preparing future researchers should offer more options and credentials to prepare future researchers. Institutions and organizations requiring their employees to conduct research should continue to offer training on ethical research principles to be applied before, during, and after the implementation of research. Carefully studying ethical principles and examining scenarios of unethical behavior can sensitize emergent and seasoned researchers to situations in which ethical issues arise. This practice may help them identify the extent of their ethical obligations.

Research involving human subjects should be people-oriented, not process-centered. In other words, research participants should be debriefed on all the specifics of a study prior to asking them to participate in research. Thus, obtaining informed consent is crucial to the investigation, it is not a formality. Obtaining consent is not just about informing participants of the goals of the study; it is also about clearly identifying risks and benefits of participation.

No research study is 100% safe for human subjects. Some degree of risk and vulnerability is always possible. As an example, anonymity is difficult to achieve. Therefore, the researcher should take great measures to protect study participants' identities and data. Risk can manifest at different levels, emotional, professional, psychological, physical, just to mention a few examples. Thus, it is important that researchers spend more time planning and identifying possible ethical issues and risks during the entire research process, data collection, analysis, and dissemination of findings.

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Appendix A
Q-Sort Exercise

To what extent do you agree with the following statements as they relate to conducting ethical research?

1. Ethics are the moral principles that a person must follow, irrespective of the place or time.
2. Research ethics focus on the moral principles that researchers must follow in their respective fields of research.
3. Conducting ethical research implies bending the rules sometimes.
4. I am willing to compromise certain ethical principles if it means saving a life or protecting a human being from harm.
5. All types of research involve some degree of deception of participants.
6. Being honest and defending the truth is my main goal as a researcher.
7. Research ethics promote mutual respect and fairness between researchers and participants.
8. By conducting research, I will be able to report on the participants' truth.
9. Research is a necessary evil in academia.
10. It is OK to break the rules from time to time if it benefits the majority.
11. My research topic is straightforward. I do not anticipate any ethical issues.
12. Obtaining IRB approval is important but in the end the researcher is responsible for ethical research implementation.
13. Even the best plans can go wrong because people look at the same situation differently.
14. Researchers also need to meet ethical obligations once the research is published.
15. The consent process is a formality, what counts is that participants understand the research goals.
16. Emphasizing the right to withdraw participation makes me feel nervous that participants may see it as the first option.
17. Upholding individuals' rights to confidentiality and privacy are central to ethical research.
18. Research participants may not tell the truth and that makes me feel uncomfortable.
19. Planning on how to address potential ethical dilemmas is a big concern of mine.
20. Research benefits are difficult to predict when creating a hypothesis, especially in qualitative research.
21. Even if required, reporting confidential information to courts can also cause ethical dilemmas.
22. Moral duty and personal viewpoint can be stronger than legal requirements.
23. Research is a complex process and ethical principles are just a small part of it.