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Understanding human participant research ethics: The perspectives of social scientists in Central Asia

Roza Sagitova *, Markhabat Ramazanova, Elaine Sharplin, Aipara Berekeyeva, Lynne Parmenter

Graduate School of Education, Nazarbayev University, Astana, Kazakhstan

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ABSTRACT

Central Asian (CA) countries have been actively developing their research and knowledge production systems. However, inconsistent alignment with international research ethics norms creates challenges for researchers in CA to equally participate in global knowledge production. Based on quantitative survey responses of 296 social science researchers from Kazakhstan, Uzbekistan, and Kyrgyzstan, this paper explores social scientists' understandings of international principles and practices of human participant research ethics. The findings show that CA social science researchers focus on a broad understanding of research integrity, focused on academic and professional integrity. The respondents highlighted the importance of individual researcher values such as honesty, responsibility, and respectfulness. With only 35 % of the respondents reporting the existence of a research ethics committee (REC) at their institutions, most respondents believe that human participant research ethics are an individual rather than an institutional responsibility in Central Asia. This study has implications for developing research and policy in other post-Soviet and emerging research contexts.

1. Introduction

Social science human participant research ethics have come into focus in three Central Asian (CA) countries, Kazakhstan, Kyrgyzstan, and Uzbekistan, as a result of national reform agendas for increased knowledge production in higher education. Recently, CA has been identified as a regional hub for higher education in the global south in which neighbouring countries collaborate to advance shared interests in higher education and research (Chankseliani & Sopromadze, 2023). Unlike the global north, CA countries do not have national research ethics regulations, for fields other than biomedicine (MoH RK, 2006). Only some higher education institutions (HEIs) in Kazakhstan (Jonbekova, 2020), Uzbekistan, and Kyrgyzstan (Sagitova et al., under review) have research ethics procedures and research ethics committees (RECs). Likewise, research ethics issues have received little attention in the discussions of research development in other post-Soviet countries (Chankseliani et al., 2022, p. 320). This can be explained by the "seven-decade-long isolation" of higher education institutions in the region from cross-border partnerships (Chankseliani & Sopromadze, 2023, p. 2). This can also explain why the majority of institutions with RECs are transnational universities or private international HEIs (Gafu &

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* Corresponding author.
E-mail address: roza.sagitova@nu.edu.kz (R. Sagitova).

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Collins, under review). In this context, this mixed-methods study explores the understanding of research ethics by social scientist researchers, in three countries of CA, to inform the development of future, contextually relevant policy and to increase capacity for CA knowledge production.

1.1. Background

The national reform agendas in Kazakhstan, Kyrgyzstan, and Uzbekistan emphasize the development of research in Higher Education. For example, the Kazakh government prioritized the expansion of research to achieve a ranking in the top 30 most-developed countries (Strategy Kazakhstan 2050, 2020). In Kyrgyzstan, the National Development Strategy of the Kyrgyz Republic for 2018–2040 (2018) identified applied research as the basis for social and economic development, and The Development Program of the Kyrgyz Republic for the period 2018–2022 Unity. Trust. Creation" states the intention to contribute to "research activities … using internationally recognized methods" (2017, p. 34). In Uzbekistan, Presidential Decree (2019) identified the aim of placing 10 national universities in the Top-1000 world universities' rankings. These policy developments signal Central Asian ambitions for increased knowledge production and engagement in the global research arena. To achieve these goals, CA countries need to build stronger research cultures, supported by research and policy infrastructures.

The socio-cultural landscape of CA is characterized by the interplay between nomadic culture, soviet imperialism, and post-Soviet nation-building which acknowledges its Muslim religious heritage and secular values. Unlike Muslim-majority nations that are primarily governed by Sharī'ah law, the sources of authority guiding researchers' ethical choices in Central Asian countries diverge (Collins and Sharplin, under review). It is not known whether or how these contextual factors impact researchers' understanding of research ethics.

Many of the challenges for social science researchers in Central Asian countries are related to the perception that these countries are closed or authoritarian (Ahram & Goode, 2016; Collins et al., 2023; Economist Intelligence Unit, 2022; Freedom House, 2017; Sordi, 2016). The countries are characterised by high levels of bureaucracy, surveillance, and censorship, where safety concerns exist for researchers and participants (Janenova, 2019). The heightened interest of authorities in the activities of researchers is often termed "spy-mania" (CESS, 2016, p. 11; Meyer, 2016). Consequently, researchers report a range of hurdles. Securing access to participants and data (Bekmurzaev et al., 2018; Jonbekova, 2020; Meyer, 2016), coping with restricted access to critical information (Kurambayev & Friedman, 2019), and obtaining informed consent during data collection (Jonbekova, 2020; Whitsel & Merrill, 2021) have been noted as challenges in CA. In the absence of RECs, the process of gaining ethics approval is a recurring obstacle for researchers (Bekmurzaev et al., 2018; Merrill & Whitsel, 2017).

In sum, it is likely that these multifaceted issues collectively shape the research ethics landscape of CA, necessitating the exploration of how research ethics are understood and navigated in this context.

2. Literature review

The theoretical framework employed in this study was constructed by integrating Morris and Morris' (2016) Elements of Research Oversight conceptual framework with Bandura's (1976) Knowledge, Attitudes, and Practices (KAP) theory. In particular, Morris and Morris' model of research oversight (2016), consisting of three parts: virtue ethics, ethical principles, and research regulations (see Fig. 1), was used to deconstruct the "knowledge" part of the KAP theory (Bandura, 1976) into operational elements. At the base of the pyramid, regulations provide some standards to ensure that research is conducted ethically. Principles guide the behaviours of researchers and inform decision-making, especially when researchers experience ethical issues. Virtue ethics are values-based and provide a reference point when neither regulations nor principles can solve ethical dilemmas. The three pieces complement each other and may guide the work of researchers and those involved in institutional review board processes. Each of these elements will be discussed below.

2.1. Virtue ethics

Virtue ethics derive from Aristotle's virtue theory (Mertens & Ginsberg, 2009; Israel & Hay, 2006; Resnik, 2012). The theory argues that a human's innate ability to develop personal morality guides action. This theory reflects the notion of ordinary moral sense

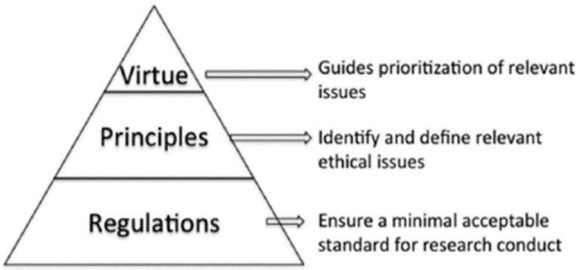

Fig. 1. Elements of Research Oversight (Morris & Morris, 2016).

guiding an individual's everyday ethical actions, based on their moral character (Kitchener & Kitchener, 2009). We argue that virtue ethics is about the development of ordinary moral sense and is heavily dependent upon the researchers' upbringing and life experiences. As a result, there is a view that virtue ethics cannot ensure ethical research due to differences in personal and professional experiences (Mertens & Ginsberg, 2009, p. 17). Additionally, the potential for conflicts in virtues complicates the application of virtue ethics in research practice (Resnik, 2012). However, MacFarlane (2009) defends virtue ethics by arguing that people resolve ethical dilemmas through moral intuition rather than principle-based guidelines. Beecher (1966), a pioneer in medical research ethics, prioritized the personal traits of an investigator over ethical procedures. Others claim that virtue ethics can address the limitations of a principle-based approach (Morris & Morris, 2016; Resnik, 2012).

2.2. Ethical principles

Ethical principles emerged to realize in practice the virtue ethics that shaped the Belmont Report (U.S. Department of Health & Human Services, 1979), as advocated by Beauchamp and Childress (2001), Kitchener (2000), and Sales and Folkman (2000). Their development of ethical principles was an attempt to provide a common language for ethical debates in research (Kitchener & Kitchener, 2009). The theory of Principlism, as it has become known, consists of four principles: respect for autonomy, non-maleficence, beneficence, and justice. These principles provide practicality and transparency for real ethical decision-making. Some scholars describe Principlism as culturally neutral and non-religiously oriented, while others criticize it as tied to the dominant individualistic Western ideology (Clouser & Gert, 1990; Gordon, 2011).

In response to the view that Principlism is culturally biased, alternative views have advocated for the adaption of the principles to non-Western contexts. Ethnorelativistic positions argue that no culture is superior to another (Gray et al., 2017) and that "mainstream" research ethics should consider the cultural and historical background of the place of study (Gray et al., 2017). This argument was highlighted by Zhakupova et al. (2022) in a review of Western research ethics and their connection with the nomadic history of Kazakhstan and neighbouring Central Asian countries and Collins and Sharplin (under review) about Muslim-majority, secular contexts. Zhakupova et al. (2022) conclude that simply "cloning modern Western codes" (p. 41) may rapidly internalize higher education but may negatively impact research processes. Earlier, Adams (1999) called for cross-cultural understanding not only for ethical relationships with research participants but also for the deeper comprehension of epistemological knowledge.

2.3. Regulations

The regulation of research ethics emerged in response to notorious examples of participants' abuse by researchers. The earliest efforts to standardize and assign responsibilities include the Nuremberg Code (1947), the Helsinki Code (1964), and the Belmont Report (U.S. Department of Health & Human Services, 1979). The development of national codes and regulations of research has become widely accepted (International Compilation of Human Research Standards, 2021). The three CA countries are included in the listing of countries with ethics regulations. The documents and national committees guiding ethical research in Kazakhstan, Kyrgyzstan, and Uzbekistan are summarised in Table 1.

Kazakhstan's main research ethics governing bodies are the Ministry of Healthcare and Social Development and the Ministry of Education (International Compilation of Human Research Standards, 2021). The relevant standards are Guidelines on Ethics in Health Research (2007), Local Ethics Committees: Policy, Rules and Procedures (2014), and Guidelines on Ethics in Biomedical Research (2015). Biomedical research is regulated in compliance with international standards, however, there is no national document that oversees social science research. On the institutional level, only 12 universities from 65 universities' websites analyzed indicated the presence of documents regulating research ethics (Sharplin et, al., under review).

According to the International Compilation of Human Research Standards (2021), Kyrgyzstan's main research ethics governing bodies are the Ministry of Health and the Ministry of Justice of the Kyrgyz Republic. Relevant standards include the Constitution of the Kyrgyz Republic (2021), the Law on Health Protection of the Kyrgyz Republic (2005), the Code of Professional Ethics of Medical Workers of the Kyrgyz Republic (2004), and the Code of Administrative Responsibility of the Kyrgyz Republic (2008). Unlike Kazakhstan, there is a National Ethics Committee, at the Ministry of Health, that reviews social science research with human

Table 1
National committees and standards guiding research ethics in Kazakhstan, Kyrgyzstan and Uzbekistan.

	Kazakhstan	Kyrgyzstan	Uzbekistan
National Committee	Central Committee on Bioethics at the Ministry of Health[1]	Ethics Committee at the Ministry of Health	National Committee of Bioethics under Ibn Sina Fund
Documents/ Policies[2]	- Guidelines on Ethics in Health Research (2007) - Local Ethics Committees: Policy, Rules and Procedures (2014) ○ - Guidelines on Ethics in Biomedical Research (2015)	- The Constitution of the Kyrgyz Republic 2021 - The Law on Health Protection of the Kyrgyz Republic (2005) - The Code of Professional Ethics of Medical Workers of the Kyrgyz Republic (2004) - - The Code of Administrative Responsibility of the Kyrgyz Republic (2008)	- The Constitution of Republic of Uzbekistan, Articles 24, 26, 40, 44 (1992) - Law on Protection of Citizens' Health (1997)

[1] https://amu.edu.kz/upload/iblock/a6c/a6ca1bb585f87c78bd266cc9fffb8057.pdf.
[2] The information on the documents and policies is taken from the International Compilation of Human Research Standards (2021).

participants. The number of reviewed social science research projects is relatively small at 3 % compared to medical research (Sagitova et al., under review). On the institutional level, most Kyrgyzstani HEIs do not have ethics approval processes (Jonbekova, 2020).

In Uzbekistan, the authorities responsible for human participant research are the Government of the Republic of Uzbekistan and the Ministry of Health with relevant standards being the Constitution of the Republic of Uzbekistan (1992) and the Law on Protection of Citizens' Health (1997). These provide only biomedical research regulation. On the institutional level, analysis of the websites of 81 HEIs revealed an absence of institutionalized research ethics procedures, with only one international university branch having a REC (Sharplin et, al., under review).

2.4. Knowledge, attitudes, and practices (KAP) theory

Bandura's KAP theory (1976) conceptualizes research ethics in health and the social sciences (Liao et al., 2022). This framework is used to measure understandings, attitudes, and practices of research ethics and research ethics committees in the Middle East, India, and Singapore (El-Dessouky et al., 2011; Kandeel et al., 2011; Malela et al., 2015; Rababa'h et al., 2021; Than et al., 2020). These studies collectively highlight positive attitudes toward RECs and research ethics principles. However, there were variations in participants' knowledge of research ethics principles. Malela et al. (2015) reported the lowest awareness of international ethical guidelines (8–35 %) by Indian dentistry faculty, while El-Dessouky et al. (2011) found less than half of participants from two Middle-East universities were knowledgeable about research ethics principles. On the other hand, Kandeel et al. (2011) reported 60 % awareness of ethical principles governing the conduct of research by faculty from four universities in Egypt, and Rababa'h et al. (2021) claimed nearly everyone from one Jordanian university knew about research ethics. However, a significant minority (20 % and above) did not fully understand REC/IRB responsibilities and expressed concerns about potential delays caused by committee revisions (Rababa'h et al., 2021). All studies referenced knowledge of research ethics based on principlist theory.

These studies emphasize the importance of education and training to enhance ethical research practices and understanding among researchers and faculty. Thus, the participants from all five studies supported the mandatory inclusion of research ethics in the curriculum for students and as a course for faculty members (with 78 % to 100 % agreement).

2.5. Integration of two frameworks

The KAP theoretical framework by Bandura (1976) is a popular instrument in social sciences used to measure and assess the associations among knowledge, attitudes and practices (see e.g.: Andrade et al., 2020; Liao et al., 2022; Nguyen et al., 2019). According to Zagzebski (2017, p. 93), knowledge is "a relation between a conscious subject and a portion of reality". Knowledge is a vast umbrella concept needing deconstruction to operationalize its elements. In this paper, we deconstruct the knowledge "reality" of participants toward research ethics through elements of Morris and Morris' (2016) Research Oversight - virtues, principles, and regulations (see Fig. 2). Participants provided insight into the values they believed underpinned ethical conduct, principles, and the practices they use, in the absence of institutional regulation through RECs.

3. Methodology

The study reported here is part of a larger project, using an evolving, sequential, mixed methods design (Creswell, 2003). This paper reports on some of the results of the online quantitative survey examining the extent and nature of research ethics practices being used in the social sciences in Kazakhstan, Kyrgyzstan, and Uzbekistan. The research questions addressed in this paper are:

- What are the understandings of research ethics principles and practices by social science researchers in Kazakhstan, Kyrgyzstan, and Uzbekistan?
- What is the image of an ethical researcher held by social science researchers in Kazakhstan, Kyrgyzstan, and Uzbekistan?

The study was approved by the Nazarbayev University Institutional Research Ethics Committee as compliant with institutional research ethics requirements. The research survey obtained ethical clearance from the Institutional Research Ethics Committee at Nazarbayev University under approval number 433/07082021. Data collection took place between October 2021 and January 2022.

KAP theory (Bandura, 1976; Roger, 1995) was used to develop the survey instrument. Our research was informed by five studies (see Table 2) that employed this theory to measure understandings, attitudes, and practices of research ethics and research ethics committees in the Middle East, India, and Singapore. In this paper, only the knowledge part of the survey is presented. The survey asked questions on the availability of RECs at the participants' institutions and knowledge of REC's functions. In the absence of RECs, principles guide the behaviours of researchers and inform researchers' decision-making. The survey asked about participants' knowledge of research ethics principles. We asked participants to describe an ethical researcher to understand what virtues they attribute to an ethical researcher. The three pieces of the oversight model complement each other and guide the work of researchers. Each of these elements will be discussed below.

Quantifiable scales have been used for data related to attitudes and practices, whereas in the knowledge section, we tried to avoid the implicit bias of socially desirable answers by not suggesting a ready scale (see e.g.: Greene et al., 1989). In contrast, a series of open-ended questions were suggested. The inclusion of open-ended questions allowed us to go beyond the predicted data output, to see the "complementary", expanded side of the responses (Harland & Holey, 2011, p. 484).

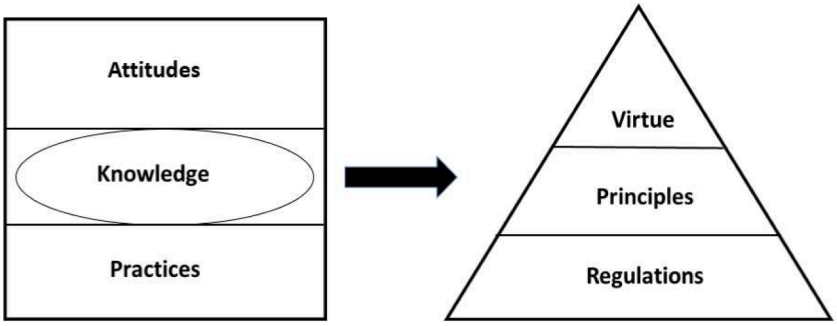

Fig. 2. Integration of the KAP framework (Bandura, 1976) with the Research Oversight model (Morris & Morris, 2016).

Table 2
Theoretical basis used for the development of research instrument.

Study by	Approach	Survey instrument	Data analysis
Rababa'h et al. (2021)	Awareness	3 sections: demography, awareness and attitude, awareness of REC	Descriptive, bivariate
Than et al. (2020)	Knowledge, awareness, attitudes and practices	5 sections: demography, awareness, attitudes, attitudes towards REC, informed consent practices	Descriptive, bivariate, multivariate
Mallela et al. (2015)	Knowledge, attitudes and practice	4 sections: demography, knowledge, attitudes, practice	Descriptive
Kandeel et al. (2011)	Awareness and attitudes	4 sections: demography, awareness, attitudes to RE, attitudes to REC	Descriptive, bivariate, multivariate
El-Dessouky et al. (2011)	Knowledge, Awareness, and Attitudes	5 sections: demography, awareness, knowledge, attitudes to RE, attitudes to REC, attitudes towards certain practices	Descriptive, bivariate, multivariate

3.1. Research instrument

The online survey was disseminated to participants as a Qualtrics link. Participants completed a consent statement before accessing the survey. The survey was available in the five dominant languages used within the targeted countries: Kazakh, Uzbek, Kyrgyz, Russian, and English. The second part of the survey instrument assesses knowledge of research ethics principles and practices through 12 multiple-choice and open-ended questions.

The "knowledge" section was measured in terms of participants' familiarity with internationally dominant, principlist research ethics concepts, research ethics practices, and REC functions. The principles used to measure understanding of research ethics are based on the principlist concepts (Beauchamp & Rauprich, 2016), respect for persons, beneficence, and justice, however, other generic values were included in the multiple response set to examine whether the participants distinguished between research ethics principles, common human values, and academic integrity principles. Moreover, to overcome the focus on "Western" understandings of research ethics, open-ended questions were included to develop a contextually informed understanding of research ethics. Items such as "In your own words, explain what you understand by the term "research ethics?" and "What are the qualities of an ethical researcher in your opinion?" were used to enable respondents to reference their understandings.

3.2. Data analysis

The quantitative data was analyzed in the SPSS 23 program. Multiple response analysis was used to map the participants' understanding of research ethics principles and practices. Open-ended questions were thematically analyzed in NVivo. The NVivo frequency query option was used to generate word clouds of the most used words to describe the qualities of an ethical researcher.

4. Results

4.1. Socio-demographic information

The sample consisted of 296 participants[1] from Kazakhstan (71.6 %, $N = 212$), Uzbekistan (15.2 %, $N = 45$), and Kyrgyzstan (13.2 %, $N = 39$) (See Table 3). The disproportionate representation of research participants from three countries can be explained by the level of research productivity in each country. For example, in terms of education research, Kazakhstan surpasses both Kyrgyzstan and

[1] The majority of the research participants (N = 203, 68.6%) took the survey in Russian, 13.2% (39) in Kazakh, 8.4% (25) in English, 6.4% (19) in Uzbek, and 3.4% (10) in Kyrgyz languages.

Uzbekistan (Hernandez-Torrano et al., 2021). The majority of the participants were females 73 % (216) and males 26.4 % (78) with a mean age of 42 years ($M = 42$). Most of the participants hold a Master's degree (41.6 %, $N = 123$), followed by Candidate of Sciences[2] (28 %, $N = 83$), PhD (17.2 %, $N = 51$), and Doctor of Sciences (4.1 %, $N = 12$). On average, the participants have 15 years of working experience in HEIs ($M = 15$) and 12 years of research experience ($M = 12$). The participants are engaged in teaching and research 63.2 % (187), in research only 6.1 % (18), in teaching only 18.6 % (55), and are members of academic administration 6.4 % (19). As can be seen in Table 3, most of them hold positions of Senior Lecturers (36.8 %, $N = 109$) or Associate Professors (25 %, $N = 74$).

Most participants work in public education institutions 74.7 % (221) and only 18.6 % (55) work in private HEIs. Most of the participants worked in interdisciplinary fields 18.6 % (55); the other most common disciplines were Education 18.2 % (54), Economics 16 % (48), and Languages/Philology 15.2 % (45), with other fields represented in small numbers. The majority of participants have received their highest academic degrees in CIS (Commonwealth of Independent States) countries (Kazakhstan, Russia, Uzbekistan, Kyrgyzstan, Ukraine) (85.5 %, $N = 253$); whereas, only a few participants received their highest degrees in Western countries (USA, UK, Germany, Bulgaria) (4.7 %, $N = 14$) or other countries (China, Malaysia, Korea, Turkey) (3 %, $N = 9$).

4.2. Knowledge of research ethics principles

In regards to research ethics training, 68.6 % (203) of the participants reported that their institutions provide training related to research ethics. Only 57.1 % (169) of participants reported taking a course on research ethics.

Awareness of research ethics principles regulating human participant research was indicated by 79.7 % (236) of participants. Fig. 3 shows the four most frequently identified research ethics concepts: academic integrity - 67.1 %, respect - 65.4 %, honesty - 62.9 %, and non-plagiarism - 57.4 %. Only respect is identified as a component of Principlism theory as defined by Beauchamp and Childress (2001). The other concepts are more generic components of research integrity.

Many of the top-ranking responses represented generic ethical and humanistic values such as honesty (62.9 %) and patience (33 %). Beneficence and autonomy from the four principlist concepts were in the bottom third of responses, considered as ethical principles by less than 25 % of participants. Generic concepts associated with moral values were not distinguished from the concepts of Principlism on which international research ethics are developed.

4.3. Understandings of research ethics

The thematic analysis of the open-ended question "In your own words, explain what you understand by the term "research ethics?" (210 responses) revealed three major themes reflecting participants' understanding of research ethics: academic integrity (64 participants), international human participant research ethics principles (62 participants), and generic personal ethics (53 participants). Human participant research ethics principle responses represented 30 % of all responses.

4.3.1. Academic integrity

The theme of academic integrity (64 participants) appeared in the analysis of open-ended questions, supporting the results of the multiple-response questions. The research participants believe researchers must be considerate of research originality, avoid plagiarism, and acknowledge the use of sources. Respondents stressed the importance of reliable research results. However, it is noteworthy that academic integrity, i.e. intellectual honesty and personal honesty in doing research, are dominant in participants' responses as shown in the example responses (see Table 4). The table includes the code, the number of participants who provided the answer, and an example of a response.

4.3.2. International research ethics principles

The open-ended responses showed some alignment with the concepts of Principlism, unlike the multiple-response questions, where the research participants more frequently selected other answers. Responses mentioned principles of non-maleficence (21 participants), informed consent (13 participants), confidentiality and anonymity (17 participants), and respect (9 participants) (see Table 5). The principles of justice and autonomy were mentioned once each.

4.3.3. Generic personal ethics

The theme of personal ethics unfolds in a researcher's ability to adhere to moral principles in the process of research (24 participants). In particular, to be responsible for his or her actions in the research process (8 participants), to be honest and truthful (12 participants), to be patient (1 participant), conscientious (1 participant), and humanistic (2 participants) (see Table 6). References to generic personal ethics principles represented 25 % of all responses.

4.4. Familiarity with practices of research ethics

The overwhelming majority of the research participants reported being familiar with research ethics practices 70.6 % (209). Participants were most well-informed about confidentiality procedures (62.3 %), the use of consent forms (56 %), and anonymity

[2] Candidate of Science is an academic degree of the first of two (below Doctor of Science) postgraduate levels in the Russian Federation, a number of CIS countries and in the USSR.

Table 3
Socio-demographic characteristics of the sample.

	Kazakhstan ($N = 212$)	Kyrgyzstan ($N = 39$)	Uzbekistan ($N = 45$)	Total sample ($N = 296$)
Characteristic	**Mean value (SD)**			
Age (years)	41.07 (10.49)	43.34 (8.73)	40.73 (11.4)	42.03 (10.41)
Prior research experience (years)	13.29 (10.57)	12.04 (9.12)	11.23 (10.06)	12.79 (10.3)
Prior working experience (years)	15.25 (10.10)	15.76 (7.86)	13.55 (11.08)	15.06 (9.99)
Number of publications (International journals)	2.64 (3.8)	2.6 (2.87)	5.14 (10.96)	3.07 (5.7)
Number of publications (Local journals)	13.88 (20.92)	17.88 (19.84)	25.53 (39.65)	16.46 (25.44)
Number (% of total)				
Gender				
Female	164 (77.7 %)	29 (74.4 %)	22 (48.9 %)	215 (72.9 %)
Male	45 (21.3 %)	10 (25.6 %)	23 (51.1 %)	78 (26.4 %)
Don't wish to say	2 (0.9 %)	0 (0 %)	0 (0 %)	2 (0.7 %)
Academic Degree				
Bachelor	10 (4.7 %)	1 (2.6 %)	1 (2.2 %)	12 (4.1 %)
Master	98 (46.2 %)	7 (17.9 %)	18 (40 %)	123 (41.6 %)
PhD	34 (16 %)	4 (10.3 %)	13 (28.9 %)	51 (17.2 %)
Candidate of Sciences	55 (26 %)	20 (51.3 %)	8 (17.8 %)	83 (28 %)
Doctor of Sciences	7 (3.3 %)	2 (5.1 %)	3 (6.7 %)	12 (4.1 %)
Other	8 (3.8 %)	5 (12.8 %)	2 (4.4 %)	15 (5.1 %)
Academic role				
Faculty - teaching only	49 (23.4 %)	2 (5.1 %)	4 (8.9 %)	55 (18.8 %)
Faculty -research only	12 (5.7 %)	4 (10.3 %)	3 (6.7 %)	19 (6.5 %)
Faculty - teaching and research	125 (59.8 %)	25 (64.1 %)	36 (80 %)	186 (63.5 %)
Academic Administrator	13 (6.2 %)	4 (10.3 %)	2 (4.4 %)	19 (6.5 %)
Other	10 (4.7 %)	4 (10.3 %)	0 (0 %)	14 (4.8 %)
Academic position				
Instructor	4 (1.9 %)	1 (2.6 %)	1 (2.2 %)	6 (2 %)
Lecturer	36 (17 %)	8 (20.5 %)	6 (13.3 %)	50 (16.9 %)
Senior Lecturer	90 (42.5 %)	2 (5.1 %)	17 (37.8 %)	109 (36.8 %)
Assistant Professor	2 (0.9 %)	1 (2.6 %)	4 (8.9 %)	7 (2.4 %)
Associate Professor	44 (20.8 %)	23 (59 %)	7 (15.6 %)	74 (25 %)
Professor	8 (3.8 %)	1 (2.6 %)	4 (8.9 %)	13 (4.4 %)
Other	28 (13.2 %)	3 (7.7 %)	6 (13.3 %)	37 (12.5 %)

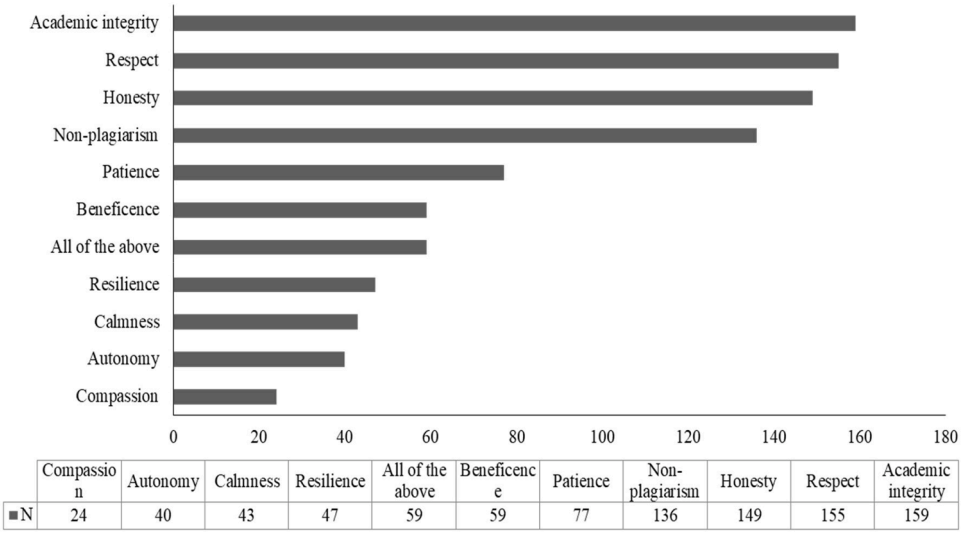

Fig. 3. Knowledge of research ethics principles.

(52.8 %). The least chosen research ethics practice relates to ethical approval processes (37.7 %) (Fig. 4). A third of participants, 35.1 % (104), reported that their HEIs have RECs. While 28.4 % (84) reported that their HEIs do not have a REC, 14.5 % (43) answered they do not know what a REC is, and 22 % (65) of the respondents did not provide any answers. The survey results reveal a variety of responses regarding the presence of a Research Ethics Committee (REC) in respondents' institutions. Notably, 28.4 % (84) of participants reported the absence of a REC, while 14.5 % (43) admitted being unfamiliar with the concept of a REC. Additionally, 22 % (65) of respondents opted not to provide any response, leaving room for interpretation. Considering these findings, it is possible to

Table 4
Research Ethics and Academic Integrity (parent code).

Child codes	Participants $N = 64$	Example Response
Intellectual honesty (Avoid plagiarism, respect for other researchers)	42	*An equally important principle of scientific ethos is the requirement of scientific honesty in the presentation of research results. A scientist can make mistakes but has no right to manipulate the results, he can repeat a discovery already made but has no right to plagiarize. References as a prerequisite for the design of a scientific monograph and article are designed to fix the authorship of certain ideas and scientific texts and provide a clear selection of what is already known in science and new results.*
Personal honesty in doing research (validity and reliability, avoid data falsification and fabrication)	22	*Research-based on compliance with intellectual property rules, information collection standards, reliability and non-distortion of the results.*

Table 5
International research ethics principles (parent code).

Child codes	Participants $N = 62$	Example Response
Non-maleficence	21	*Doing no harm and allowing them to skip uncomfortable questions - this is how I understand research ethics.*
Confidentiality and anonymity	17	*Researcher takes all of the measures to ensure anonymity and confidentiality of a research participant.*
Informed consent	13	*Before any experiment, you have to take participant's consent either in written or verbal form.*
Respect	9	*Treating research participants with respect and honouring their wishes to voluntarily participate, having full information about what the research entails. Then after data collection honoring the promises made about the research data and how it would be used.*

Table 6
Generic personal ethics (parent code).

Child codes	Participants $N = 53$	Example Response
Use of moral principles in research	24	*As we know, ethics are moral principles that a person must follow, regardless of place or time. Ethical human behaviour involves doing the right thing at the right time. Research ethics focuses on the moral principles that researchers in their fields should follow.*
Being honest	12	*To be honest in relation to your own research.*
Responsibility for his/her actions	8	*Total responsibility under your research groups/ partners/ colleagues.*
Being reflective of the context	5	*A process of reflection on doing ethical research and being an ethical researcher in whichever context you are working on, on the assumption that contexts differ and present new issues for ethical reflection and/or new opportunities to reflect on ethical practice.*
Being humanistic	2	*Being humanistic and altruistic*

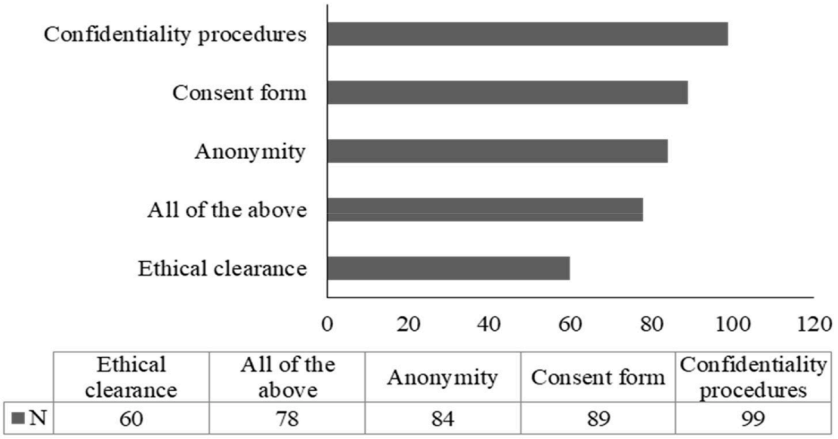

Fig. 4. Familiarity with research ethics practices.

hypothesize that the lack of response might signify an absence of such processes or a lack of familiarity with the concept of a REC, although, this assumption requires further investigation.

The percentage of respondents providing answers on REC functions was 33.8 % (100). Of these participants, the most commonly selected functions of RECs were: ensuring that research is conducted following scientific and ethical principles (61 %), caring for and protecting the rights of the research participants (48 %), and raising awareness of ethical issues in research (43 %). Some participants selected answers more commonly aligned with issues of academic integrity such as the need to punish students and faculty for academic misconduct (21 %) and ensuring students do not cheat during exams (27 %) (Fig. 5). This may again suggest that participants have a more integrated understanding of research ethics which does not include strong distinctions between human participant research ethics principles and general ethics and academic integrity.

In responses to the open-ended questions (96 participants) about who should be responsible for the ethical conduct of research involving human participants, 45 % (43) of the participants believed this to be the individual responsibility of researchers, or particular positions within institutions such as vice-rectors, research supervisors, heads of departments, and principal investigator. Only 20 % (19) of the respondents believed there has to be a collective responsibility through research or community councils, special commissions, and committees for the ethical conduct of research activities. The remaining 35 % (34) did not answer that question. This again suggests that there is a lack of understanding of REC's functions because of the absence of RECs at the universities.

4.5. Qualities of an ethical researcher

The frequency query to the question about the qualities of an ethical researcher is shown in Picture 1. The participants consider such qualities as honesty (51 participants), responsibility (21 participants), and respect (18 participants) to be the most important qualities of an ethical researcher. Other qualities include integrity, objectivity, openness, tolerance, and decency. This suggests that the participants describe ethical researchers in terms of their morality to be honest, responsible, and respectful.

5. Discussion

The findings of the present study, viewed through the conceptual framework of the knowledge component of Banduras KAP Theory, and the Elements of the Research Oversight Model (Morris & Morris, 2016) show that while all of the pyramid elements are present to varying extents within the context of the three CA countries, their relative significance is reversed (See Fig. 6). Thus, for example, the bottom of the original model represented institutional regulations as the foundation for ethical decision-making. However, within the context of the three countries, there was little development of this element with only 35 % of the respondents reporting the existence of a research ethics committee (REC) at their institutions. These findings are consistent with the findings of Sharplin et al. (under review) who concluded that RECs are mostly present in selected internationalised universities.

The second element of the model - principles, on the other hand, revealed research participants' comprehensive understanding of human participants' research ethics principles that are aligned with Beauchamp and Childress' (2001) record of principles. This

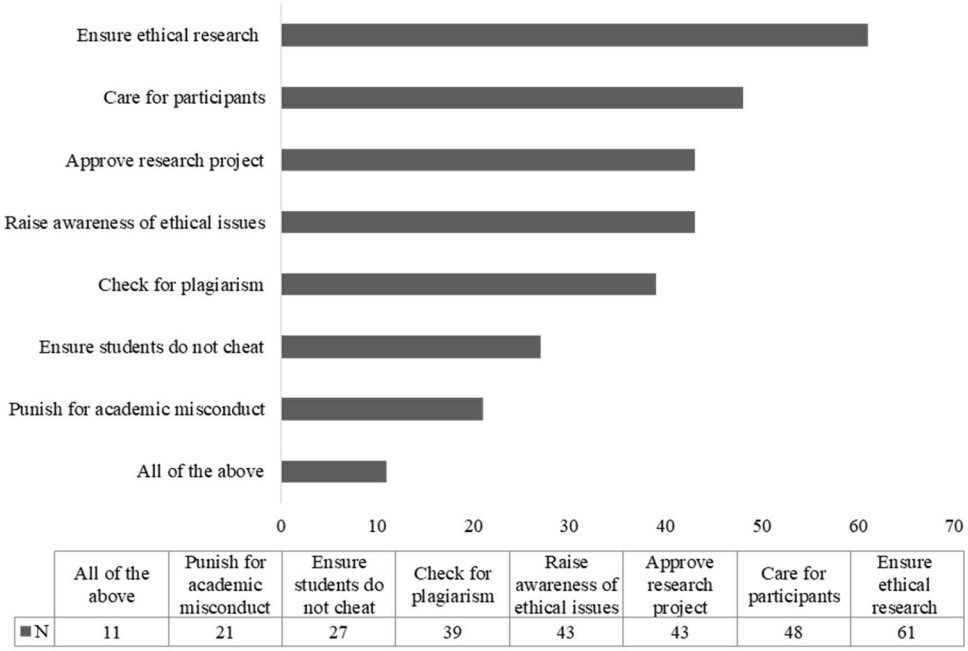

Fig. 5. Familiarity with REC functions.

finding supports the claim of scholars who describe research ethics principles as culturally neutral and non-religiously oriented (Gordon, 2011). However, according to the thematic analysis, it is also elevated by other generic moral principles (see Fig. 4). This could imply that the issue does not stem from the research participants confusing research ethics principles with common human or academic integrity values. Instead, it emphasizes the significance of common human and academic integrity values within the specific context of these three countries.

The third element - the personal virtues of a researcher, seem to be the most important element of the pyramid, serving as a basis, within the context of the three CA countries. The research participants stressed the individual responsibility of a researcher in conducting ethical research with human participants, referring to such personal virtues as honesty, responsibility, and respect. Thus, these research findings support those researchers (Kitchener & Kitchener, 2009; MacFarlane, 2009) who believe that virtue ethics plays a significant role in making decisions regarding ethical dilemmas by researchers while opening a space for discussion for those who believe that both the principlist approach and virtue ethics can complement each other (Morris & Morris, 2016; Resnik, 2012).

This study has implications for the development of research ethics in other post-Soviet and emerging regional spaces like Caucasus. There are a lot of similarities between these spaces. Thus, just like in CA, Universities in the Caucasus, Armenia, Azerbaijan, and Georgia, have embraced various international influences and are now affiliated with multiple higher education spaces, notably the European space (Chankseliani & Sopromadze, 2023).

The development of regulative infrastructure may support the development of research ethics and an internationalised approach to research ethics. The development of any regulations would require a commitment to an extensive program of education to ensure that research ethics are understood as a complex decision-making process, rather than a bureaucratic compliance process. This would involve the development of a research ethics curriculum within the student curriculum and professional learning opportunities for faculty (Sharplin et al., under review).

While research ethics remain unregulated, the recognition of the individual responsibility of researchers is vital. In the current context, researchers perceived oversight of ethical research to be an individual responsibility rather than a collective one. This relies on researchers enacting their virtues when conducting research. For these people, honesty, respect, and responsibility play a significant role and define one as a professional, dignified and ethical researcher. However, given the well-documented history of researcher abuse of participants, the question is whether these personal virtues and principles provide sufficient protection.

5.1. Limitations

While the study has adopted a comprehensive approach to understanding the knowledge and understandings of research ethics by social scientists in three CA countries, it is important to acknowledge its limitations. One of the limitations is sampling bias and generalizability. The present findings cannot be easily generalizable to other CA countries besides Kazakhstan, Kyrgyzstan, and Uzbekistan due to the cultural, social and academic specificities of each country. The sample may not fully represent all social science researchers in the three selected countries for several reasons, including the majority being from Kazakhstan (71.6 %), with less than 30 % from Kyrgyzstan and Uzbekistan combined, and the use of non-probability purposive and snowball sampling techniques in participant selection. Moreover, the study attempts to navigate between exploring internationally defined research ethics concepts and practices, while seeking to unpack alternative conceptions within the targeted countries. The study tries to integrate open-ended questions into the survey, they do not allow respondents to fully uncover their experiences of research ethics and as a result, require more in-depth investigation with the help of qualitative interviews.

6. Conclusion

This paper proposes a revised model of the Elements of Research Oversight in the context of Kazakhstan, Kyrgyzstan and Uzbekistan. This is based on the analysis of descriptive statistics which explored the participants' knowledge of research ethics principles, participants' familiarity with human participant research ethics practices, and participants' familiarity with the functions of research ethics committees.

Half of the research participants have had some form of institutional learning related to research ethics; however, the participants have diverse understandings of a constellation of terms related to research integrity, professional conduct, personal character and academic integrity. The analysis of multiple response questions showed that participants did not distinguish between human participant research ethics, academic integrity and generic human values. This finding is also supported by the thematic analysis of open-ended questions. Participants' understanding of research ethics is explained in terms of the researcher's commitment to personal humanistic values (Generic personal ethics) and academic integrity values in doing research (Academic integrity).

There is a paucity of studies of research ethics in the Social Sciences, and none of the identified studies have focused on the knowledge component of the KAP theory. However, there are findings from different case-studies, conducted in other Post-Soviet countries on research universities, showing that most of their study participants, when discussing research ethics with human participants, referred to plagiarism and academic integrity (Chankseliani et al., 2022, p. 321).

At the same time, thematic analysis revealed that 31 % (62) of participants had considerable knowledge of human participant research ethics, aligned to Principlism, the dominant international approach to human participant research ethics. Participants referenced concepts such as non-maleficence, informed consent, confidentiality, anonymity, respect, justice and autonomy, however, the participants in the context of these three countries emphasised common human and academic integrity values.

Given the small number of participants that identified the presence of research ethical approval processes related to institutional infrastructure, like a research ethics committee, it is not surprising that participants lacked familiarity with processes of institutional

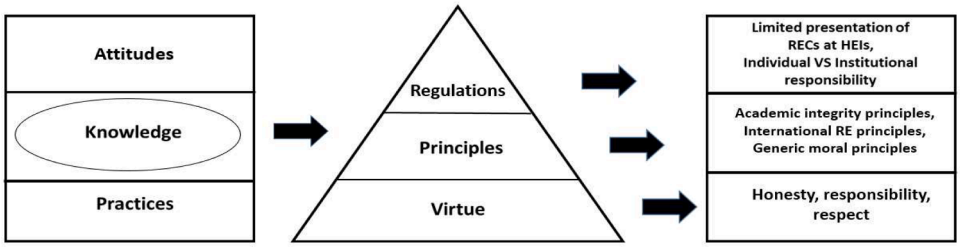

Fig. 6. Understandings of Research Ethics for Kazakhstan, Kyrgyzstan and Uzbekistan: Elements of Research Oversight Revised.

Picture 1. Word cloud for the qualities of an ethical researcher (NVIVO frequency query).

ethical review of research. Despite this, participants showed familiarity with human subject research ethics practices, which were considered to be an individual responsibility (45 %). Only 20 % believe this has to be a collective responsibility. Again such an emphasis on individual responsibility can be explained by the image of an ethical researcher whom they sincerely view as an honest, responsible, and respectful individual with strong moral qualities.

This paper has highlighted that research ethics in these three countries is seen as an amalgamation of academic integrity, professional integrity and personal values, with moral values providing a foundation for guiding principles, with only a third of researchers operating in environments with regulatory frameworks. While research ethics are currently seen as the responsibility of individual researchers, institutions should consider the development of collective mechanisms to support and enhance the role of individual researchers. Finally, having a systemic approach to research ethics education should be given priority in the countries.

There is a need for further research to explore researchers' understandings and ways of enhancing knowledge of research ethics in the social sciences through CA. Its attractive geopolitical and geo-strategic position has been making this context a promising, prospective hub in educational, political, and regional cooperation. It is crucial to acknowledge the rich historical and cultural context that has laid the foundation for higher education in Central Asia. As noted by Chankseliani (2022), Central Asia boasts a vibrant cultural and philosophical environment that precedes the establishment of its first universities. This historical perspective adds depth to the contemporary discussions on regional collaboration and underscores the region's longstanding intellectual heritage.

CRediT authorship contribution statement

Roza Sagitova: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing. **Markhabat Ramazanova:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Resources, Visualization, Writing – original draft, Writing – review & editing. **Elaine Sharplin:** Conceptualization, Funding acquisition, Methodology, Project administration, Resources, Supervision, Validation, Writing – review & editing. **Aipara Berekeyeva:** Data curation. **Lynne Parmenter:** Conceptualization, Supervision.

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