

Human Rights and Bioethical Principles in Correctional Settings: A Systematic Review of the Evidence

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Abstract

Safeguarding human rights and adhering to bioethical principles in prisons are essential for society and directly influence the overall health of the wider population. However, such principles are often inadequately upheld in correctional facilities, leaving prisoners exposed to abuse that severely impacts their physical and mental well-being. A systematic review was conducted using a MESH-based search strategy with the following terms: (bioethics) AND (prison), (ethics) AND (prison), (bioethics) AND (jail), (ethics) AND (jail), (bioethics) AND (penitentiary), (ethics) AND (penitentiary), (prison) AND (human rights). After applying predefined inclusion and exclusion criteria in accordance with PRISMA guidelines, 17 studies were included. Among the 17 selected publications, the majority were prevalence studies (n=5) and surveys (n=4), followed by cross-sectional studies (n=3), one qualitative study, one retrospective study, and one explanatory sequential mixed-methods design. Most works examined the relationship between bioethics and prisoners' access to healthcare for conditions such as vaccination, tuberculosis, hepatitis, and HIV. Other studies highlighted ethical concerns related to mental health, disability, ageing, women's health, suicide risk, and end-of-life requests. Overall, the findings point to systemic deficiencies in upholding bioethical standards and respecting human rights within prisons. Prisoners frequently face barriers to healthcare, elevated risks of suicide and disability, exploitation as organ donors, and restricted autonomy that undermines their ability to make decisions regarding end-of-life care. To address these shortcomings, prison personnel—including healthcare providers, security staff, and administrators—should engage in continuous training to promote compliance with ethical norms and the protection of human rights.

Keywords: Bioethics, Human rights, Prison, Torture, Public health, Ethics

Background

The prison system inherently raises ethical concerns due to the conditions under which inmates are held. Detention often fails to ensure privacy and confidentiality, while limited access to healthcare can adversely affect prisoners' physical and mental well-being. Ethical issues extend across multiple areas, including the conduct of

clinical trials involving inmates. Prisoners have historically been enrolled in research without proper informed consent, raising questions about the voluntariness and validity of their participation [1, 2]. Notably, during World War II, over 400 prisoners in the USA were intentionally infected with malaria to test new treatments. Despite the Nuremberg Code, prisoner exploitation continued into the 1960s and early 1970s, prompting federal regulations in 1983 to govern research on incarcerated populations, and in some cases, prohibiting experimentation entirely [3].

Hunger strikes by prisoners present another ethical challenge, particularly regarding physicians' responsibilities. Doctors must inform striking inmates of associated health risks, ideally with support from a multidisciplinary team, yet they often face dilemmas

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between respecting the prisoner's autonomy and providing care [4–6]. The growing population of female prisoners also introduces specific ethical considerations. Women have unique healthcare needs, including reproductive and sexual health, treatment for infectious diseases, pregnancy management, and childcare responsibilities, all of which must be ethically addressed [7].

The COVID-19 pandemic further highlighted ethical shortcomings in prisons, exposing weaknesses in both security and the protection of human rights [8–10]. Prisons should uphold core principles such as human dignity, rehabilitation, mental health support, and freedom from torture or inhumane treatment [11]. Healthcare personnel are central to enforcing these principles, and correctional nurses, in particular, require specialized training in mental health, substance abuse, emergency care, primary healthcare, and public health [12, 13].

This systematic review aims to examine the primary bioethical implications of the prison system, emphasizing issues that affect prisoner well-being and social reintegration. Respecting human rights and ethical standards is crucial to ensure that incarceration does not perpetuate stigma and that inmates can eventually re-enter society.

Methods

A systematic review was conducted following the updated PRISMA guidelines [14]. Rayyan (<http://rayyan.qcri.org>), a free web and mobile application, was used for initial screening of abstracts and titles, performed independently by the authors [15].

PubMed, Scopus, and Web of Science were searched for articles published between 1 January 1950 and 1 January 2024. Keywords included: (bioethics) AND (prison), (ethics) AND (prison), (bioethics) AND (jail), (ethics) AND (jail), (bioethics) AND (penitentiary), (ethics) AND (penitentiary), and (prison) AND (human rights). The term “detainees” was excluded due to limited search results.

Inclusion and exclusion criteria

Exclusion criteria were: (1) non-English articles, (2) conference papers, (3) reviews, (4) books, (5) conference reviews, (6) editorials, and (7) notes. Inclusion criteria included: (1) English-language original articles, (2) surveys, (3) longitudinal studies, (4) prevalence studies, (5) cross-sectional studies, (6) retrospective studies, and (7) sequential explanatory mixed-methods studies.

Quality assessment and data extraction

M.E. and F.S. initially screened all articles by title, abstract, and full text, with K.S. independently reviewing the selected studies. Discrepancies were resolved through re-evaluation by M.S.

Study selection

The search yielded 6,617 articles, of which 4,416 duplicates were removed. Of the remaining 2,201 articles, 2,120 were excluded based on the criteria. After abstract review, 33 studies were excluded. Forty-seven full-text articles were assessed, resulting in 17 studies included in the final review (**Figure 1**).

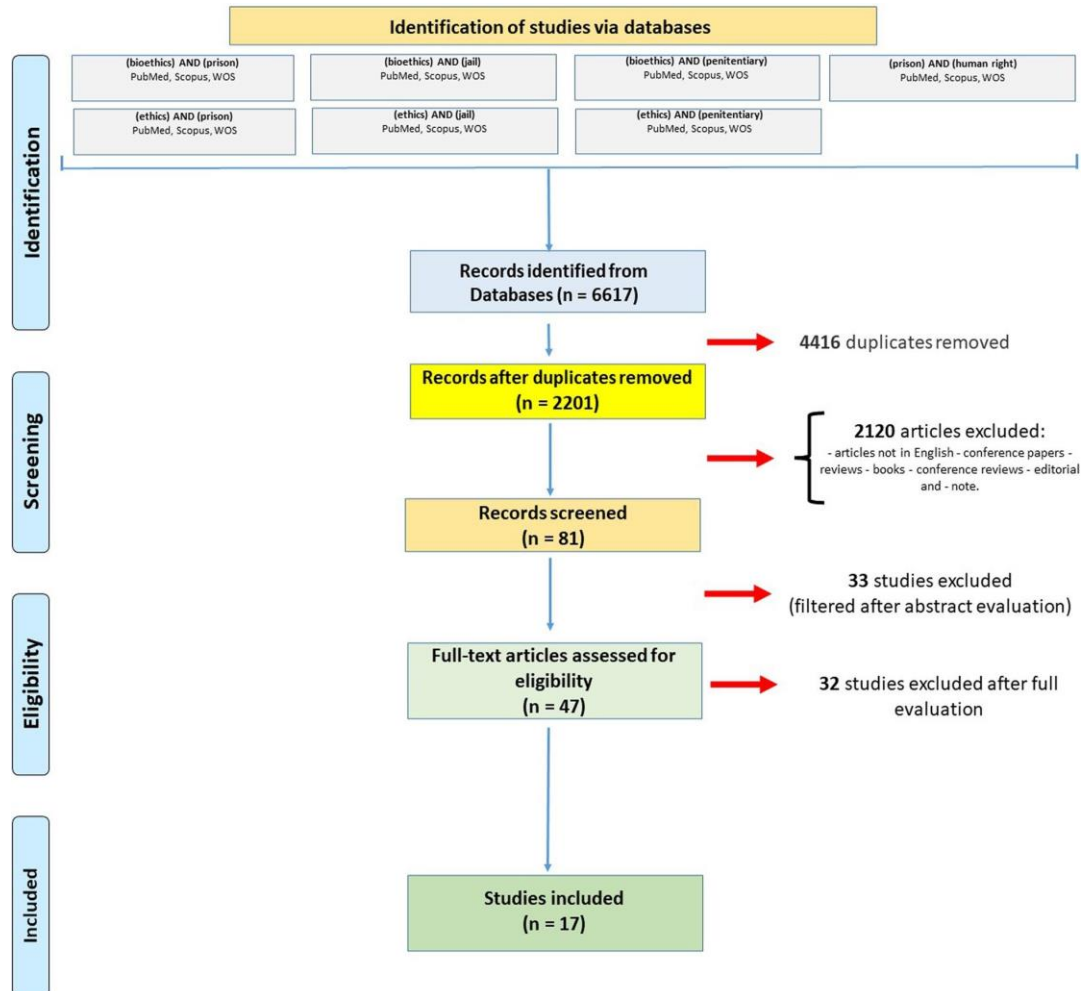


Figure 1. Flow diagram illustrating included and excluded studies in this systematic review

Results

Seventeen articles met the inclusion criteria for this systematic review. Although the initial search encompassed publications from all years, the included studies were published between 2013 and 2022, as earlier works were predominantly literature reviews or editorials rather than original research. Among the 17 studies, the majority were prevalence studies (n=5) and surveys (n=4), followed by cross-sectional studies (n=3), one qualitative study, one retrospective study, and one sequential explanatory mixed-methods study.

Most studies examined the relationship between bioethics and prisoners' access to healthcare for conditions such as vaccinations, tuberculosis, hepatitis, and HIV. Other research explored ethical considerations related to prisoners' mental health, disability, aging,

women's conditions, suicide risk, and requests for end-of-life care.

Beijersbergen *et al.* [16] demonstrated that ethical treatment of inmates positively influenced both prison order and prisoners' psychological well-being. Similarly, Cook Earl Prison *et al.* [17] highlighted that justice reforms during the COVID-19 pandemic could enhance prisoners' human rights. Additional studies emphasized challenges in accessing care, including screening and treatment pathways, revealing gaps in the protection of human rights within correctional settings [18–20]. Furthermore, ethical concerns were noted regarding the mental health of prisoners, the specific needs of women in prison, and end-of-life requests for terminally ill inmates [21–28].

Geographically, most studies were conducted in the United States, followed by European countries, with fewer studies from Africa and South America.

Table 1 summarizes all articles included in this systematic review.

Table 1. Summary of the details of the systematic review

References	Country of the Study	Kind of Study	Topic	Main Findings
Beijersbergen <i>et al.</i> [16]	Netherlands	Longitudinal Study	Mental Health and Bioethics in Prisons	Respectful and fair treatment of inmates predicts better prison order, rule compliance, and improved psychological well-being among prisoners.
Reinhart <i>et al.</i> [29]	Illinois (Chicago)	Longitudinal Study	Pandemic and Bioethics in Prisons	Research at Cook County Jail showed that justice reforms during the COVID-19 pandemic enhanced prisoners' human rights.
Puglisi <i>et al.</i> [18]	Connecticut	Sequential Explanatory Mixed-Methods Study	Cancer Incidence and Bioethics in Prisons	Incarceration correlates with lower cancer screening rates, increased risk of hospitalization, and higher cancer mortality post-release, with disparities linked to socioeconomic status, race, and ethnicity during detention.
Sasso <i>et al.</i> [19]	Italy	Qualitative Descriptive Study	Health Treatment and Bioethics in Prisons	Analysis of 31 penitentiary nurses across seven northern Italian prisons revealed that restraints on prisoners hinder nurses' ability to build therapeutic relationships, raising ethical concerns.
Elger <i>et al.</i> [20]	Switzerland	Prevalence Study	Tuberculosis Screening and Bioethics in Prisons	Prisons show high rates of tuberculosis, including multidrug-resistant and extensively drug-resistant strains, with poor treatment outcomes. Prisoners should have access to community-equivalent tuberculosis care as a human right.
Alemayehu <i>et al.</i> [21]	Ethiopia	Cross-Sectional Study	Mental Health and Bioethics in Prisons	Depression was prevalent among prisoners, particularly those with poor health, long sentences, or concerns about their children, underscoring the need for enhanced mental health services in prisons.
Blue <i>et al.</i> [22]	North Carolina	Survey	HIV Treatment/Prevention and Bioethics in Prisons	Incarceration negatively impacts HIV treatment access and continuity, increases stigma, and reduces privacy. External resources from health departments are needed to ensure timely HIV medication access for incarcerated individuals with disabilities.
Green <i>et al.</i> [23]	Ontario	Survey	Access to Care in Prisons and Bioethics	Many inmates enter prison with unmet healthcare needs, and incarceration offers an opportunity to provide primary care to address these needs.
Dogbe <i>et al.</i> [24]	Ghana	Survey	Disability in Prisons and Bioethics	Interviews with 99 detained individuals with disabilities (physical, visual, auditory, linguistic, mental, or albinism) highlighted significant challenges faced during incarceration in Ghana.
Shaw <i>et al.</i> [25]	Switzerland	Survey	Assisted Suicide in Prisons and Bioethics	Six inmates expressed interest in assisted suicide, motivated by medical conditions or the perceived indignity of lifelong imprisonment, sparking ethical debates about this option in prisons.
Wangmo <i>et al.</i> [26]	Switzerland	Retrospective Study	Aging in Prisons and Bioethics	Older inmates require more healthcare due to poorer health, raising ethical questions about providing adequate care for aging prisoners.
Jones <i>et al.</i> [27]	Ontario	Cross-Sectional Study	Women's Mental Health in Prisons and Bioethics	3.4% of female inmates in an Ontario prison required intensive psychiatric care, with ongoing ethical debates about the deterioration of women's mental health in prison.
Shrestha <i>et al.</i> [30]	Nepal	Cross-Sectional Study	Risk of Suicide and Depression in Prisons and Bioethics	2.3% of inmates reported suicidal ideation, and 0.9% attempted suicide in prison, linked to prior

Strodel <i>et al.</i> [31]	Washington, D.C.	Prevalence Study	COVID-19 Vaccination in Prisons and Bioethics	incarceration, poor health, and weight loss, highlighting a significant ethical and social issue. Prisoners faced challenges accessing COVID-19 vaccines, revealing ethical concerns about equitable treatment access during vaccination campaigns.
de Araújo <i>et al.</i> [32]	Brazil	Prevalence Study	Women in Prisons and Bioethics	39% of incarcerated women with children in Brazil had children under 10 entrusted to others' care. Overcrowded prisons (most sharing cells with 6+ inmates) and lack of cervical/breast cancer screening in the past three years were reported.
Crowley <i>et al.</i> [33]	Ireland	Prevalence Study	HCV Treatment in Prisons and Bioethics	Barriers to hepatitis C virus (HCV) treatment in prisons were identified, yet incarceration could serve as an opportunity to improve HCV care and strengthen community health linkages.
Liu <i>et al.</i> [34]	Northern California	Prevalence Study	COVID-19 Treatment in Prisons and Bioethics	Limited mask access in prisons was associated with higher COVID-19 cases and worsening mental health, underscoring challenges in infection control and upholding human rights in prison settings.

Discussion

A fundamental principle in modern detention systems is that prisons should serve as facilities where criminals are confined as a consequence of their actions, not as a form of punitive suffering. While this notion may seem straightforward, it raises important ethical questions, particularly when prison administrations fail—or are unable—to ensure humane detention conditions [35]. This framework can contribute to the development of a repressive prison culture, particularly for individuals convicted of serious crimes, and prompts reflection on whether prisoners should be treated differently based on the nature of their offenses. Ethically, detention standards should be consistent for all inmates, regardless of their crimes [36].

Another ethical concern relates to hunger strikes undertaken by prisoners. The role of physicians in these situations is complex. According to the International Committee of the Red Cross, medical intervention is warranted only if the strike is unintentional due to mental health conditions, such as depression or dementia. In cases where the strike is deliberate and informed, the physician should respect the prisoner's decision [37]. Nevertheless, Caenazzo *et al.* [38] note that courts sometimes mandate compulsory feeding, highlighting the critical role of doctors and ethical advisors in facilitating communication and helping prisoners understand the implications of their actions.

Prisoners face a markedly higher risk of intentional self-harm and suicide than the general population [39]. For example, Australian data indicate that nearly half of adult inmates report lifetime suicidal ideation [40], often exacerbated by inadequate mental healthcare [41]. The United Nations' Standard Minimum Rules for the Treatment of Prisoners (the "Nelson Mandela Rules") stipulate that prisoners are entitled to healthcare standards equivalent to those available outside prison [42]. Violence among inmates and restrictive practices, such as solitary confinement, further increase suicide risk.

Within this review, Shrestha *et al.* [30] reported that 2.3% of prisoners experienced suicidal thoughts during incarceration, with 0.9% attempting suicide. Key risk factors included prior incarceration, poor self-rated health, and weight loss, underscoring the persistent ethical and social concerns surrounding prisoner welfare. Shaw *et al.* [25] highlighted ethical dilemmas regarding requests for assisted suicide, which some prisoners seek for medical reasons or to avoid living undignified lives in prison. Della Croce [43] argued that access to assisted suicide should be recognized as an individual right, rather than a decision determined by the State. However, consensus on this issue remains elusive [43, 44].

Women in prison represent another population facing acute ethical challenges. A systematic review in sub-Saharan Africa assessed conditions for incarcerated women with children, examining the physical environment, nutrition, basic necessities, and healthcare access. The study revealed severe deficits, including poor

hygiene, unsafe drinking water, overcrowding, inadequate nutrition, insufficient clothing and bedding, and limited pediatric care, all of which have detrimental effects on children's health and violate human rights [45]. Self-harm is also prevalent among incarcerated women; in 2016, approximately 7,657 incidents were reported, marking a 4% increase from the previous year, with cutting, scratching, and self-strangulation being the most common methods [46].

In the present systematic review, two studies specifically highlighted ethical challenges faced by female prisoners. Jones *et al.* [27] discussed ongoing ethical debates surrounding the worsening of psychiatric conditions among incarcerated women. Similarly, de Araújo *et al.* [32] reported that in Brazil, 39% of incarcerated women with children under the age of 10 had their children placed in the care of others. The prisons were overcrowded, with over two-thirds of inmates sharing cells with six or more individuals, and women had not undergone cervical or breast cancer screening in the preceding three years.

Ethical concerns were also evident during the COVID-19 pandemic, particularly regarding the care and treatment of prisoners experiencing SARS-CoV-2 symptoms [8, 47–49]. A cross-sectional study in a juvenile prison in Portugal revealed heightened anxiety and fear among this vulnerable population during the pandemic [50]. Prisoners faced higher infection rates compared to the general population, delays in vaccination, and reduced hospitalization, highlighting ethical questions about healthcare accessibility. These challenges were echoed in a recent systematic review, which proposed prevention strategies within correctional facilities [51], and are not limited to prisoners but also extend to migrants in reception centers [52]. Forrester *et al.* [53] similarly noted ethical challenges during the pandemic due to increased infection, hospitalization, and mortality rates. In Italy, early pandemic management raised further concerns, with riots resulting in deaths, property damage, and escapes. These findings align with this review, which found that prisoners faced difficulty accessing COVID-19 vaccines, underscoring an ethical issue in treatment and highlighting the need for justice system reform [17, 31].

Geographically, most studies included in this review were conducted in the USA, followed by Europe, Africa, and South America. These findings indicate that bioethics in prisons has received more attention in some regions, while it remains under-discussed in others,

including Central and South America, Asia, Australia, and Russia. This suggests a need for greater global awareness and standardization of ethical practices in correctional settings.

Organ transplantation from prisoners sentenced to death represents another significant ethical concern. In China, due to a shortage of donated organs, death-row prisoners were historically subjected to organ donation, raising critical questions about the voluntariness and validity of consent [54]. A key milestone occurred on January 1, 2015, when Huang Jiefu, director of the China Organ Donation and Transplant Committee, formally ended this practice [55]. Scholars argue that the physical and psychological stress of incarceration compromises prisoners' ability to provide truly informed consent, a point emphasized by Lin *et al.* The American Society of Transplant Surgeons similarly asserts that using organs from executed prisoners violates the principle of voluntary donation [56]. Santiago-Delpin *et al.* [57] further note that organ transplantation in prison raises numerous bioethical concerns, including the prisoner's autonomy and capacity for informed decision-making.

Another ethical issue highlighted by Isailă *et al.* [58] is prisoners' difficulty in reporting medical malpractice, reflecting both a lack of awareness and limited access to justice. Overall, the review demonstrates that numerous ethical dilemmas persist in prisons, including informed consent, palliative and end-of-life care, COVID-19 management, and women's health.

To address these challenges, continuous training, ongoing support programs, and the development of specific skills are essential for all prison staff, including guards, medical personnel, and administrative staff [59, 60]. Some authors [61] note that maintaining a positive prison social climate enhances rehabilitation outcomes, while health campaigns within prisons can further improve the overall social and health conditions of inmates [62].

Limitations and strengths of the study

This systematic review has several strengths and limitations. Among the limitations, the first is the relatively small number of included studies ($n = 17$), which reflects the scarcity of longitudinal research within the prisoner population. A second limitation is the lack of studies conducted in countries with similar penal systems, limiting the generalizability of findings.

The study also presents notable strengths. The search strategy incorporated a comprehensive set of keywords across three major databases (PubMed, Web of Science, and Scopus), which were cross-referenced to ensure completeness. Article screening and selection were performed independently by multiple co-authors, enhancing reliability. Importantly, this is the first systematic review specifically addressing bioethics in prisons, filling a significant gap in the literature.

Conclusion

Ethical considerations in prisons are of critical importance and reflect the broader cultural and moral development of society. Incarcerated individuals often face physical and psychological suffering, and, in some cases, death may be perceived as an escape from intolerable conditions. Access to care and support in prisons is frequently inadequate, with prisoners' needs unmet or addressed below acceptable standards. In some instances, judicial intervention has been required to restore minimum standards of care; for example, California courts mandated costly renovations to the prison healthcare system. Instances of torture and physical abuse remain prevalent, often resulting in severe neurological and psychiatric consequences for prisoners. This systematic review highlights significant gaps in the respect for bioethical principles within prisons. Moreover, it demonstrates that awareness and enforcement of bioethics in correctional facilities are not uniformly global but are largely confined to a few countries. These findings underscore the urgent need for broader, worldwide attention and action to promote ethical standards and protect human rights in prison systems.

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