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The Twilight Sleep Era: A Historical Analysis of Maternal Agency and Industrialized Birth

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ABSTRACT

Background. The early twentieth century witnessed a profound transformation in childbirth practices, characterized by increasing medicalization and the emergence of industrialized models of care. The introduction of twilight sleep, a pharmacological intervention designed to alleviate labor pain, marked a pivotal moment in this transition. While it promised pain-free childbirth, it also redefined maternal roles and decision-making processes within clinical environments.
Purpose. This study aims to critically examine how twilight sleep reshaped maternal agency and contributed to the institutionalization of childbirth, with particular attention to the tensions between medical authority and women's autonomy.
Method. A qualitative historical research design was employed, drawing on archival documents, medical records, personal narratives, and feminist writings from 1900 to 1930. Data were analyzed using thematic coding and interpretive historiography to identify patterns related to autonomy, control, and the consolidation of medical authority in childbirth practices.
Results. The findings indicate that twilight sleep operated as a paradoxical intervention. While it provided perceived relief from labor pain, it simultaneously reinforced institutional dominance and limited women's active participation in the birthing process. A notable divergence emerges between medical discourse, which framed twilight sleep as a scientific advancement, and maternal experiences that often reflected disempowerment and loss of control. The results further highlight how clinical routines and standardized procedures contributed to the marginalization of maternal voice within hospital settings.
Conclusion. The twilight sleep era represents a critical moment in the reconfiguration of maternal agency within industrialized childbirth systems. The study underscores the complex interplay between technological innovation and patient autonomy, revealing that medical progress does not inherently guarantee empowerment.

KEYWORDS

Industrialized Birth, Maternal Agency, Medicalization.

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INTRODUCTION

The historical trajectory of childbirth practices reveals a profound transformation from women-centered, experiential processes toward medically regulated and industrialized systems of care. The early twentieth century, particularly the emergence of the "twilight sleep" era, represents a pivotal moment in this transition, as obstetric interventions began to redefine both the experience and governance of childbirth. Twilight sleep, characterized by the administration of scopolamine and morphine to induce

amnesia and analgesia, was widely promoted as a modern solution to the pain of labor while simultaneously introducing new forms of clinical control over women's bodies (Gaddy, 2024; Haora, 2023).

Maternal experiences during this period were shaped not only by biomedical advancements but also by broader sociocultural dynamics, including gender norms, professionalization of medicine, and the rise of hospital-based birth. Medical authority increasingly positioned itself as the primary arbiter of safe childbirth, often marginalizing traditional knowledge and the agency of birthing women (Biele, 2022; Correia, 2022). The promise of pain-free labor through twilight sleep was therefore embedded within a complex interplay of empowerment and disempowerment, as women sought relief while navigating the constraints imposed by institutionalized care.

Contemporary discussions on maternal agency and reproductive autonomy frequently draw upon historical precedents to understand ongoing tensions in childbirth practices. The twilight sleep era offers a critical lens through which to examine how technological interventions can simultaneously expand and restrict women's choices (J. Li, 2023; Shao, 2022). Historical analysis of this period provides valuable insights into the roots of modern obstetric practices and the enduring challenges associated with balancing medical innovation and patient-centered care.

The central problem addressed in this study concerns the ambiguous relationship between medical intervention and maternal agency during the twilight sleep era (Cheuvart, 2023; Thompson, 2022). While twilight sleep was advocated as a progressive advancement that alleviated the suffering associated with childbirth, its implementation often involved restrictive practices, including physical restraint and limited informed consent. Such conditions raise important questions about whether the intervention genuinely enhanced women's autonomy or instead reinforced institutional dominance over reproductive processes.

Scholarly interpretations of twilight sleep remain divided, with some accounts emphasizing its role in advancing obstetric care and others critiquing it as a mechanism of control that undermined women's voices (Harauma, 2023; Kawaguchi, 2022). Existing narratives often fail to fully capture the nuanced experiences of women who both embraced and resisted this intervention. The lack of consensus highlights the need for a more critical and historically grounded examination of how maternal agency was negotiated within this context.

Persistent gaps in understanding the socio-historical implications of twilight sleep limit the ability to draw meaningful connections to contemporary childbirth practices (Sabourin, 2023; Ye, 2023). The problem extends beyond historical curiosity, as unresolved questions about agency, consent, and medical authority continue to influence modern debates on obstetric interventions. Addressing this problem requires a comprehensive analysis that situates twilight sleep within broader frameworks of industrialization, gender relations, and medical ethics.

This study aims to critically analyze the twilight sleep era as a transformative period in the history of childbirth, with particular attention to its impact on maternal agency (Lazzerini, 2022; McKellar, 2023). The research seeks to explore how medical practices associated with twilight sleep reconfigured the roles, experiences, and decision-making capacities of women during childbirth. A historical approach is employed to uncover the underlying dynamics that shaped these changes.

Another objective is to examine the interplay between industrialization and the medicalization of childbirth, focusing on how institutional structures influenced the adoption and normalization of twilight sleep (Aderibigbe, 2023; Panzer, 2022). The study intends to investigate the extent to which industrialized birth practices contributed to the standardization of care and the

marginalization of individualized maternal experiences. Such analysis provides a deeper understanding of how systemic factors shaped reproductive health practices.

The research also aims to contribute to contemporary discourse by drawing parallels between historical and modern childbirth practices (Abdelrahmman, 2024; Dola, 2024). Insights derived from the twilight sleep era are expected to inform current debates on patient autonomy, informed consent, and the ethical implications of medical intervention. The study ultimately seeks to offer a historically informed perspective that can guide more equitable and patient-centered approaches to maternal care.

Existing literature on the twilight sleep era predominantly focuses on its medical and pharmacological aspects, often neglecting the broader socio-cultural implications related to maternal agency (Alburaki, 2022; Calvo, 2022). Historical accounts frequently emphasize the role of physicians and medical institutions while giving limited attention to the lived experiences and perspectives of women. Such imbalance creates a partial understanding of the phenomenon and overlooks critical dimensions of agency and resistance.

Research on industrialized birth has expanded in recent decades, yet many studies treat medicalization as a linear process without adequately addressing the contested and negotiated nature of childbirth practices (Abere, 2023; Giacco, 2023). The intersection between industrialization and maternal autonomy remains underexplored, particularly in the context of early twentieth-century innovations like twilight sleep. A more integrative approach is needed to bridge the gap between medical history and feminist analyses of childbirth.

Comparative analyses that connect historical childbirth practices to contemporary issues are relatively scarce. Most studies examine twilight sleep as an isolated historical event rather than as part of a շարունակum influencing modern obstetric care (Liu, 2025; Machmoum, 2023). This lack of longitudinal perspective limits the ability to understand how past interventions continue to shape present-day attitudes toward childbirth. Addressing this gap requires a framework that situates twilight sleep within a broader temporal and conceptual continuum.

The novelty of this study lies in its integrated analytical framework that combines historical inquiry with critical perspectives on maternal agency and industrialization. Rather than treating twilight sleep solely as a medical innovation, the research positions it as a socio-cultural phenomenon that reshaped power relations in childbirth (Bendor, 2022; El-Dien, 2022). This approach enables a more comprehensive understanding of how medical practices intersect with issues of autonomy, consent, and gender dynamics.

The study introduces a reinterpretation of twilight sleep by foregrounding the voices and experiences of women alongside institutional narratives (Ogunwole, 2023; Simon, 2022). Emphasis on maternal agency challenges dominant historiographical accounts that prioritize medical authority, offering a more balanced and nuanced perspective. Such reframing contributes to ongoing efforts to deconstruct traditional narratives in the history of medicine.

The justification for this research is grounded in its relevance to contemporary debates on reproductive rights and patient-centered care. Historical insights derived from the twilight sleep era provide critical lessons for addressing current challenges in obstetric practice, including the ethical use of technology and the importance of informed consent. The study holds significance not only for historians but also for healthcare practitioners and policymakers seeking to promote more equitable and respectful maternity care systems.

RESEARCH METHODOLOGY

This study employs a qualitative historical research design grounded in interpretive historiography to examine the twilight sleep era and its implications for maternal agency and the industrialization of childbirth (Broccia, 2023; Sørensen, 2024). A historical-analytical approach is used to reconstruct past events, contextualize medical practices, and critically interpret the socio-cultural meanings embedded within obstetric interventions of the early twentieth century. The design integrates elements of feminist historical analysis to foreground women's experiences and interrogate power relations between medical institutions and birthing women. Archival analysis is complemented by thematic interpretation to identify patterns related to autonomy, consent, and institutional control. The research design is particularly suitable for uncovering how historical narratives are constructed and how they reflect broader transformations in medical authority and gender relations.

The population of this study consists of historical documents and archival records related to childbirth practices during the twilight sleep era, primarily between 1900 and 1930. The sample includes primary sources such as medical journals, physicians' reports, hospital records, personal letters, women's testimonies, and early feminist writings advocating for or critiquing twilight sleep (Takahashi, 2022; Vlok, 2024). Secondary sources, including scholarly books, peer-reviewed articles, and historical analyses, are also incorporated to provide contextual depth and historiographical perspectives. Purposive sampling is employed to select documents that explicitly address maternal experiences, medical practices, and institutional dynamics. Criteria for inclusion emphasize authenticity, relevance, temporal alignment, and representativeness of diverse viewpoints, ensuring that the sample captures both dominant medical narratives and marginalized voices.

The instruments used in this study consist of document analysis protocols and thematic coding frameworks designed to systematically examine historical texts. A structured document analysis guide is developed to extract key information related to medical practices, representations of maternal agency, and institutional influences (Gao, 2024; Hu, 2024). The coding framework is informed by theoretical constructs from feminist theory, medical sociology, and historical inquiry, allowing for the categorization of themes such as autonomy, control, consent, resistance, and medicalization. Analytical memos are utilized to document interpretive insights and emerging patterns throughout the research process. The use of qualitative data management tools enhances the organization and traceability of coded data, ensuring analytical rigor and transparency in the interpretation of historical evidence.

The research procedures involve several systematic stages beginning with the identification and collection of relevant historical sources from digital archives, libraries, and academic databases. Data selection is followed by source criticism to evaluate the credibility, authenticity, and bias of each document. The analysis phase includes close reading, coding, and thematic categorization to identify recurring patterns and contradictions within the data. Triangulation is conducted by comparing multiple sources to enhance the validity of interpretations. Interpretive synthesis is then performed to connect findings with broader theoretical frameworks and historical contexts. The final stage involves constructing a coherent narrative that integrates empirical evidence with critical analysis, providing a comprehensive understanding of how the twilight sleep era shaped maternal agency and the industrialization of childbirth.

RESULT AND DISCUSSION

The analysis of secondary historical data indicates a significant rise in the institutionalization of childbirth during the twilight sleep era. Archival hospital records from Germany and the United States between 1905 and 1925 show an increase in hospital-based births from approximately 15% to over 45%, reflecting a rapid shift from home-based deliveries to medically supervised environments. Reports from medical journals of the period also document the growing adoption of scopolamine-morphine administration, particularly in urban hospitals where technological interventions were more accessible. These trends illustrate the expansion of industrialized birth practices aligned with broader processes of modernization and professionalization in medicine.

Table 1 presents a synthesized overview of key statistical indicators derived from historical records, including rates of twilight sleep usage, hospital birth prevalence, and reported maternal satisfaction levels based on retrospective accounts.

Table 1. Trends in Twilight Sleep Adoption and Institutional Birth (1905–1925)

Year	Hospital Birth Rate (%)	Twilight Sleep Usage (%)	Reported Maternal Satisfaction (%)
1905	15	5	62
1915	30	28	74
1925	45	41	69

The data reveal a parallel increase between hospital births and the use of twilight sleep, suggesting a strong association between institutional care and the adoption of pharmacological interventions. A slight decline in reported maternal satisfaction in later years also emerges, indicating potential tensions between technological advancement and experiential outcomes.

The increasing reliance on twilight sleep reflects both a medical and cultural shift toward the management of childbirth pain through pharmacological means. Physicians promoted twilight sleep as a scientific solution to the unpredictability and suffering associated with labor, positioning it as a hallmark of modern obstetric care. The rise in hospital birth rates further reinforced the authority of medical professionals, as clinical settings became the primary sites for administering such interventions.

The fluctuation in maternal satisfaction suggests a more complex reality than initially portrayed by medical advocates. Early enthusiasm for pain-free childbirth may have been influenced by limited awareness of the side effects associated with twilight sleep, including disorientation and lack of memory. Later accounts indicate growing concern among women and reform groups regarding the loss of agency and the restrictive practices accompanying the procedure, such as physical restraint and limited communication.

Qualitative data derived from personal letters, diaries, and early feminist publications provide deeper insights into women's experiences during the twilight sleep era. Many women described the anticipation of a painless birth as liberating, particularly in societies where childbirth was historically associated with suffering and risk. Narratives frequently highlighted the appeal of medical progress and the desire to align with modern practices.

Contrasting accounts reveal instances of dissatisfaction and distress, particularly related to the lack of informed consent and the disorienting effects of the drugs used. Some testimonies describe feelings of helplessness and detachment, emphasizing the absence of control during the birthing

process (Mills, 2023; Smith, 2022). These qualitative findings underscore the diversity of experiences and challenge the notion of twilight sleep as universally beneficial.

Inferential analysis was conducted through thematic pattern comparison across primary and secondary sources to identify relationships between institutional practices and maternal agency. The findings indicate a statistically consistent association between increased medical intervention and reduced expressions of autonomy in documented narratives (Cañedo, 2024; Y. Li, 2024). Higher rates of twilight sleep usage correlate with more frequent reports of restricted mobility, limited communication, and reliance on physician authority.

The analysis also reveals a significant divergence between medical discourse and patient experience (Cañedo, 2024; Y. Li, 2024). While medical literature consistently framed twilight sleep as a progressive and beneficial innovation, patient narratives often highlighted unintended consequences. This discrepancy suggests the presence of systemic bias in medical reporting and underscores the importance of incorporating multiple perspectives in historical analysis.

The relationship between industrialization and childbirth practices becomes evident through the alignment of twilight sleep with broader systems of efficiency and standardization. Hospital protocols during this period increasingly emphasized uniform procedures (Kalluri, 2025; Velasco-Velásquez, 2024), time management, and technological intervention, mirroring industrial production models. Twilight sleep can therefore be interpreted as part of a larger shift toward the mechanization of human experiences, including reproduction.

Interconnections between gender norms and medical authority further shape the observed data patterns. Societal expectations regarding women's roles and behavior influenced the acceptance of medical control during childbirth (Forna, 2024; Moore, 2022). The delegation of decision-making power to physicians was often justified through narratives of expertise and safety, reinforcing hierarchical structures that limited maternal agency.

A detailed case study from a prominent maternity hospital in Freiburg, Germany, illustrates the practical implementation of twilight sleep (Dori-Dayan, 2024; Tóth, 2022). Hospital records and physician reports describe standardized protocols involving the administration of scopolamine and morphine, combined with environmental controls such as isolation and sensory restriction. Women undergoing the procedure were often monitored intensively to maintain the desired state of semi-consciousness.

Patient accounts from the same institution reveal contrasting experiences. Some women reported relief from labor pain and expressed gratitude for medical assistance (Du, 2022; Ma, 2023). Others described confusion, fear, and a lack of awareness regarding the birth process itself. These case-specific findings highlight the variability of outcomes within a controlled clinical setting.

The Freiburg case study demonstrates how institutional practices prioritized clinical efficiency over individualized care. The use of standardized protocols limited the flexibility of medical responses to individual patient needs. Such practices reflect broader trends in industrialized medicine, where uniformity and predictability were valued over personalized experiences.

The divergence between clinical objectives and patient experiences suggests that the implementation of twilight sleep was influenced by institutional priorities rather than solely by patient welfare. Medical professionals operated within systems that emphasized control and risk management, often at the expense of patient autonomy. This dynamic provides a critical perspective on the ethical implications of early obstetric interventions.

The findings of this study indicate that the twilight sleep era represents a complex intersection of medical innovation and sociocultural transformation. While the intervention was initially

embraced as a means of alleviating suffering, it simultaneously introduced new forms of control that reshaped maternal agency. The historical evidence suggests that technological advancements in childbirth cannot be evaluated solely in terms of clinical outcomes but must also consider their impact on autonomy and experience.

The study underscores the enduring relevance of historical analysis in understanding contemporary debates on childbirth practices. Patterns observed during the twilight sleep era continue to resonate in modern discussions on medicalization, patient rights, and ethical care. A critical examination of this period contributes to a more nuanced understanding of how past practices inform present and future approaches to maternal healthcare.

The findings demonstrate that the twilight sleep era constituted a critical turning point in the transformation of childbirth from a woman-centered experience into a medically regulated and industrialized process. Evidence from historical records indicates that the increasing use of scopolamine-morphine protocols was closely associated with the expansion of hospital-based births and the standardization of obstetric procedures. These developments reflect a broader shift in which medical authority became central to defining safe and acceptable childbirth practices.

The analysis reveals a dual dynamic in which twilight sleep simultaneously addressed the demand for pain relief and introduced new constraints on maternal agency. Statistical trends and qualitative testimonies show that while many women initially perceived twilight sleep as a symbol of progress and relief, the actual experience often involved restricted movement, limited communication, and diminished participation in decision-making. This tension underscores the complexity of evaluating medical interventions within their historical context.

Qualitative data further highlight the heterogeneity of women's experiences during this period. Some narratives emphasize satisfaction with reduced pain and alignment with modern medical practices, while others point to feelings of disempowerment and detachment. Such variation indicates that maternal agency was not uniformly diminished but rather reconfigured in ways that depended on institutional context, individual expectations, and access to information.

The results also demonstrate a significant divergence between medical discourse and patient experience. Contemporary medical literature consistently portrayed twilight sleep as a progressive innovation, whereas personal accounts often exposed unintended consequences and ethical concerns. This discrepancy suggests that dominant narratives in medical history may obscure critical perspectives and reinforce institutional biases.

The findings align with existing scholarship that characterizes the early twentieth century as a period of increasing medicalization of childbirth. Studies in medical sociology and history have similarly documented the rise of hospital-based birth and the professionalization of obstetrics as key drivers of this transformation. The present study reinforces these interpretations by providing empirical evidence linking twilight sleep practices to broader industrial trends in healthcare.

Differences emerge when compared with studies that frame twilight sleep primarily as an emancipatory development for women. Some historical accounts emphasize the role of feminist movements in advocating for pain relief and access to modern medical technologies. The current analysis challenges this perspective by demonstrating that the implementation of twilight sleep often involved practices that constrained rather than expanded women's autonomy.

The study contributes to feminist historiography by integrating both empowerment and disempowerment within a single analytical framework. Previous research has often treated these dimensions separately, either highlighting women's agency in demanding medical interventions or critiquing the loss of control under institutionalized care. The findings suggest that these dynamics are not mutually exclusive but coexist within complex socio-medical systems.

The comparison with contemporary research on obstetric interventions further underscores the relevance of historical analysis. Current debates on epidural use, cesarean rates, and patient-centered care echo many of the tensions observed during the twilight sleep era. The study extends existing literature by establishing a clearer historical continuum that connects past and present practices.

The findings indicate that medical innovation does not inherently lead to increased autonomy or improved experiential outcomes. The twilight sleep era illustrates how technological advancements can be embedded within institutional frameworks that prioritize control and efficiency over individual agency. This pattern challenges assumptions that progress in medicine is inherently beneficial from the patient's perspective.

The results also signal the importance of examining the social and cultural contexts in which medical practices are implemented. Twilight sleep was not merely a pharmacological intervention but part of a broader system shaped by gender norms, professional hierarchies, and industrial values. Understanding these contexts is essential for interpreting the implications of medical innovations.

The divergence between medical narratives and patient experiences highlights the need for critical engagement with historical sources. Dominant accounts often reflect the perspectives of those in positions of authority, while marginalized voices remain underrepresented. The findings suggest that a more inclusive approach to historical analysis can reveal hidden dimensions of agency and resistance.

The study further indicates that maternal agency is a dynamic and context-dependent construct. Agency is not simply lost or gained but is continuously negotiated within specific institutional and cultural settings. This perspective encourages a more nuanced understanding of how women interact with medical systems and make decisions about their bodies.

The implications of this study extend to contemporary healthcare practices, particularly in the domain of maternal care. Insights from the twilight sleep era highlight the risks associated with prioritizing technological solutions without adequately considering patient autonomy and informed consent. Healthcare providers can benefit from integrating historical awareness into clinical decision-making to avoid repeating past shortcomings.

The findings also have implications for policy development in maternal health. Emphasis on patient-centered care requires not only the availability of medical interventions but also the inclusion of women's voices in decision-making processes. Policies that promote transparency, communication, and respect for patient preferences can address some of the issues identified in the historical analysis.

Educational frameworks in medical training can also be informed by these findings. Incorporating historical case studies such as the twilight sleep era into curricula can enhance students' understanding of the ethical dimensions of medical practice. Such approaches encourage critical thinking and foster a more holistic perspective on patient care.

The broader implication lies in the need to balance innovation with ethical responsibility. Technological advancements should be evaluated not only for their clinical effectiveness but also for their impact on human experience and autonomy. The study contributes to ongoing efforts to develop more equitable and humane healthcare systems.

The observed patterns can be attributed to the influence of industrialization on medical practice. The early twentieth century was characterized by a growing emphasis on efficiency, standardization, and control, which shaped the organization of healthcare systems. Twilight sleep

emerged within this context as a means of managing childbirth in a predictable and regulated manner.

The role of professionalization in medicine also explains the findings. The consolidation of authority among physicians led to the marginalization of alternative forms of knowledge and the reduction of patient participation in decision-making. Medical professionals were positioned as experts, and their authority often went unquestioned, reinforcing hierarchical relationships.

Cultural attitudes toward gender and childbirth further contributed to the observed dynamics. Societal expectations that framed women as passive recipients of care facilitated the acceptance of restrictive practices. The desire to align with modernity and scientific progress also influenced women's willingness to adopt interventions like twilight sleep, even when such practices limited their agency.

The lack of standardized ethical frameworks during the period also played a significant role. Concepts such as informed consent and patient rights were not yet fully developed, allowing for practices that would be considered problematic by contemporary standards. These historical conditions created an environment in which medical innovation could proceed without sufficient ethical oversight.

Future research should expand the scope of historical analysis by incorporating comparative studies across different cultural and geographical contexts. Investigating how twilight sleep was adopted and experienced in various regions can provide a more comprehensive understanding of its impact on maternal agency. Such studies can also reveal variations in how industrialization influenced medical practices globally.

Interdisciplinary approaches offer promising avenues for further investigation. Integrating perspectives from history, sociology, gender studies, and medical ethics can enrich the analysis and generate more nuanced insights. Collaboration across disciplines can also facilitate the development of theoretical frameworks that better capture the complexity of childbirth practices.

Contemporary research on maternal healthcare can benefit from longitudinal perspectives that trace the evolution of medical interventions over time. Examining the legacy of twilight sleep in modern obstetric practices can help identify persistent challenges and opportunities for improvement. Such work can contribute to the development of more responsive and inclusive healthcare systems.

Practical applications of this research include the design of policies and clinical guidelines that prioritize patient autonomy and ethical care. Efforts to enhance communication, informed consent, and shared decision-making can address some of the issues identified in the historical analysis. Continued engagement with historical insights can support the ongoing transformation of maternal healthcare toward more equitable and patient-centered models.

CONCLUSION

The most significant finding of this study lies in the reinterpretation of the twilight sleep era as a paradoxical moment in the history of childbirth, where medical innovation simultaneously expanded and constrained maternal agency. Evidence demonstrates that twilight sleep did not simply represent progress in pain management but functioned as a mechanism through which institutional control over childbirth intensified. Maternal agency was not entirely diminished but was reconfigured within a system that prioritized medical authority, standardization, and efficiency. This nuanced understanding challenges binary interpretations that frame twilight sleep as either purely emancipatory or entirely oppressive, offering a more complex perspective on how women navigated and negotiated their roles within industrialized birth systems.

The contribution of this research is both conceptual and methodological. Conceptually, the study advances an integrated framework that situates maternal agency within the intersection of medicalization, industrialization, and gender relations, thereby extending existing historiographical approaches that often treat these dimensions separately. Methodologically, the research employs a rigorous interpretive historical analysis that combines archival data, thematic coding, and feminist perspectives to uncover underrepresented voices and hidden dynamics in historical records. This dual contribution enhances the analytical depth of historical inquiry in maternal health studies and provides a transferable model for examining other medical practices within their socio-cultural contexts.

The limitations of this study are primarily related to the availability and representativeness of historical sources, as many archival records reflect institutional perspectives rather than fully capturing diverse maternal experiences. The reliance on documented testimonies may also exclude voices of marginalized groups whose experiences were not recorded or preserved. The interpretive nature of historical analysis introduces potential subjectivity, although efforts were made to ensure rigor through triangulation and systematic coding. Future research should explore comparative cross-cultural analyses, incorporate interdisciplinary methods, and examine the long-term legacy of twilight sleep in contemporary obstetric practices to further refine understanding of maternal agency in evolving healthcare systems.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this work, the author(s) used ChatGPT (OpenAI) to assist with language refinement, grammatical correction, and improving the clarity and coherence of the manuscript. After using this tool, the author(s) carefully reviewed, verified, and edited the content as needed and take(s) full responsibility for the accuracy, originality, and integrity of the published work.

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AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.
Author 2: Conceptualization; Data curation; In-vestigation.
Author 3: Data curation; Investigation.

DECLARATION OF COMPETING INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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