



ARTICLE CATEGORY: Original Article

Poor compliance with private nursing and midwifery practice guidelines in urban settings in Uganda**Dan Muramuzi^{1*}, Edson Atwine², Barbara Okiror³, Mercy Muwema Mwanja⁴, Christine Nimwesiga³, Laban Muteebwa⁵**¹School of Public Health, College of Health Sciences, Makerere University, Kampala, Uganda²Makerere University Business School, Faculty of Graduate Studies and Research, Kampala, Uganda³Uganda Nurses and Midwives Council, Kampala, Uganda⁴Aga Khan University, Kampala, Uganda⁵School of Medicine, College of Health Sciences, Makerere University, Kampala, Uganda

Abstract**Background:**

Optimal compliance with private practice guidelines is one of the core components of quality improvement in nursing and midwifery professions. Private nursing and midwifery practice guidelines in Uganda were introduced in 2019. However, little has been documented about compliance with these guidelines, despite playing a crucial role in ensuring safe nursing and midwifery practice and maintenance of professional standards. We assessed the compliance with private nursing and midwifery practice guidelines of Uganda (2019) and explored barriers to optimal compliance with these guidelines in private health facilities licensed by the Uganda Nursing and Midwifery Council (UNMC) in Kampala Metropolitan Area (KMA).

Methods:

We utilized a parallel convergent mixed-method design to enroll 52 health facilities in the quantitative study, and 11 nurses and midwives in private practice were selected purposively in the qualitative study between March and June, 2023. Quantitative data were collected using an audit checklist to assess the 21 elements of the private nursing and midwifery practice guidelines of 2019. The primary outcome was compliance with private practice guidelines, and a health facility was regarded as compliant if it had 90% of the 21 elements assessed. An interview guide was used to collect qualitative data from nurses and midwives in private practice. Descriptive statistics were used to summarize the quantitative findings, and inductive thematic analysis was used to analyze the qualitative data.

Results:

The private health facilities studied had been operational for a median period of 11 (interquartile range (IQR): 4, 22) years. Most of the facilities were maternity centers (82.7%), and about half of the facility managers had the highest academic qualification of a diploma (55.8%). Only 9.6% of the health facilities complied with the private nursing and midwifery practice guidelines. Barriers to compliance with the guidelines included a lack of awareness about guidelines, limited resources, and inadequate engagement with the regulators. Enablers of optimal compliance with the guidelines included simplifying administrative procedures and adequate dissemination of guidelines.

Conclusion:

There are critical gaps in compliance with private nursing and midwifery practice guidelines in urban settings in Uganda, with low overall compliance driven by lack of awareness, resource constraints, and weak regulatory engagement.

Keywords: Compliance, Guidelines, Licensing, Midwifery, Nursing, Private practice**Corresponding Author:** Dan Muramuzi**Email:** dmuramuzi@musph.ac.ug**Submitted:** 15th May 2024 **Accepted:** 19th March 2026 **Published:** 29th May 2026**Open Access Statement:** This is an open-access article distributed under the Creative Commons Attribution License

Background

The regulation and licensing of private practice for nurses and midwives globally is a complex and evolving process, influenced by a range of factors including national legislation, changing professional roles, and the growing need for standardization (Jefferson et al., 2021; Kennedy et al., 2015; Ralph, 1993). The concepts of professional regulation and licensing emerged during the late 19th and early 20th centuries, during the era of great innovations and industrialization of great nations (Stievano et al., 2019). The International Council of Nurses has been a key player in advocating for the regulation of nursing standards worldwide, with a focus on empowering the nursing and midwifery professionals (Ralph, 1993). However, individual countries are obliged to develop practice regulations for nurses and midwives in their jurisdictions so as to ensure safe nursing and midwifery practice. For example, in the United States, state governments play a central role in determining the scope of practice and licensure requirements for nurses and midwives, leading to several regulations (Jefferson et al., 2021). The regulation of the scope of practice and decision-making frameworks for nursing and midwifery are, therefore, ongoing processes, fulfilled through the effective implementation of the existing guidelines (Kennedy et al., 2015).

In Uganda, nursing and midwifery practice is regulated by the Uganda Nurses and Midwifery Council (UNMC) (Government of Uganda, 1996), a statutory government body housed under the Ministry of Health. The overall mandate of the UNMC is to regulate the standards of nursing and midwifery practice in Uganda, ensuring public safety by setting training and practice standards. The UNMC has developed and enforced private nursing and midwifery practice guidelines since 2019 to streamline private practice for nurses and midwives in Uganda. The UNMC is mandated with issuing an annual private practice license to nurse/midwifery-led health facilities in compliance with these guidelines. That notwithstanding, various challenges associated with private practice have been highlighted in previous studies (Murray, 2002; Okuonzi et al., 2023). For example, most of these facilities are understaffed, some relocate to other places without notifying the UNMC, and even change the facility ownership, and yet these are some of the key procedures and processes that are supposed to be reported to the regulator. Moreover, studies have further indicated that to a larger extent, there is minimal support from the private practice regulators (Tarja Poikkeus et al., 2018). Since the introduction of guidelines for private nursing and midwifery practice in Uganda in 2019, there have been no published studies that have assessed the level of compliance with these guidelines. In this study, we sought to assess the level of compliance with private nursing and midwifery practice guidelines and to explore the challenges in compliance with these

guidelines by the nurses and midwives in private practice.

METHODS

Study design and setting

We conducted a parallel convergent mixed methods study among private health facilities licensed by the UNMC in Kampala Metropolitan Area (KMA), Uganda. The quantitative study adopted a cross-sectional design, and the qualitative study utilized an exploratory descriptive qualitative study design. KMA is the largest urbanized area in Uganda that forms part of the Kampala Capital City. It includes Wakiso, Kampala, Mpigi, and Mukono districts, and has a daytime population of over 2.5 million people (UBOS, 2024). This is a largely congested area, with a poor road network, especially in informal settlements, and access to public health facilities can be a challenge. KMA has about 215 private health facilities licensed by UNMC as per the register from the council. These facilities are managed by nurses and midwives, and are categorized into nursing clinics, maternity homes, and general clinics.

Study population

For the quantitative study, 52 health facilities registered and licensed by the UNMC by January 2021/22, whose managers gave written informed consent, were enrolled. For the qualitative study, the in-depth interviews were conducted among health facility managers or their designees who had been at the facility for at least one year preceding data collection. Health facilities (and their managers) that were found closed and their managers not reachable using the locator/contact information on the UNMC licensed private health facilities database during the period of data collection were excluded.

Sampling and data collection procedure

For the quantitative data, we accessed the master list of the private health facilities with the locator/contact information of facility managers from the UNMC database. The health facility managers were approached through a telephone call to seek their verbal consent to visit their health facilities. The health facility managers were chosen consecutively, and a structured health facility audit tool was used to capture the data obtained by observations and interviewing the health facility manager or designee. The audit tool was developed in Kobo Collect version v2021.2.4 with logic checks and validation criteria, and data was captured directly in the Kobo Collect software while in the field.

For the qualitative data, health facility managers (or their designees) were selected purposively. An in-depth interview guide with open-ended questions was used to guide the data collection. All interviews were conducted in English, audio-recorded, and thereafter transcribed verbatim. The transcripts were then uploaded to Open Code version 4.03 for data analysis.

Primary outcome

The primary outcome was compliance with private nursing and midwifery practice guidelines. This was assessed using an audit checklist consisting of 21 audit areas where the presence of an audit item (for example, a license from UNMC) or evidence of a procedure being done by the facility was scored "1" or otherwise "0". The percentage score, with the denominator being 21 and the numerator being the total sum of the scores from each audit item, was computed. The health facilities that scored at least the 90% were regarded as having optimal compliance with the private practice guidelines for Nurses and midwives.

Data analysis

The quantitative data were analyzed using STATA 17.0 (Texas, USA). The descriptive statistics were used to summarize the data. Continuous variables were summarized using the median and the interquartile range (IQR), while the categorical variables were summarized using frequencies and percentages. The primary outcome was the level of compliance, and this

was computed as the proportion of the studied health facilities that scored above 90% of all the audit items. Furthermore, the proportions of private health facilities that scored above 75% and 50%, respectively, are presented.

For the qualitative data, an inductive thematic analysis approach was used in Open Code version 4.03. The data were summarized into codes, and the similar codes were aggregated into the sub-themes. The subthemes were summarized into themes, and the codes, themes, and sub-themes were presented together with participant quotes.

Results**Characteristics of health facilities that participated in the study**

About half of the private health facilities were in Wakiso district (51.9%), and most of them were maternity homes (82.4%). The median (Interquartile range (IQR)) years of operation of the health facilities was 11.5 (4, 22) years. At least two thirds 71.2% (37/52) of the facilities were operating for 24 hours (Table 1).

Table 1: Shows the number of health facilities assessed by the level of care and the level of training of the facility owners.

Variable	Categories	Frequency (N-52)	Percentage (%)
District	Kampala	20	38.5
	Wakiso	27	51.9
	Mukono	5	9.6
Facility type	Maternity Home	43	82.7
	General Clinic	7	13.5
	Nursing Clinic	2	3.8
Operational hours	12 Hours	15	28.8
	24 Hours	37	71.2
Years of operation since first registration	Median (IQR)	11.5 (4, 22)	

Characteristics of health facility managers who own private health facilities

About half (55.8%) of the facility managers had attained a diploma as their highest level of training; most of them were registered Midwives (44.2%), and the median years of private practice were 11.5 (IQR: 4, 22) years. Only 15.4% of participants had an advanced academic qualification after starting private practice (Table 2)

Table 2: Characteristics of healthcare workers from the health facilities that participated in the study

Variable	Category	Frequency (N=52)	Percentage (%)
Highest level of education	Certificate	16	30.8
	Diploma	29	55.8
	Bachelor’s degree	7	13.4
Cadre	Enrolled Nurse	2	3.9
	Enrolled Midwife	12	23.1
	Registered Nurse	15	28.8
	Registered Midwife	23	44.2
Years of private practice	Median (IQR*)	11.5 (4, 22)	
Advanced qualification after the start of private practice	Yes	8	15.4
	No	44	84.6

*IQR-Interquartile Range

Compliance with UNMC guidelines for private practice

Only 9.6% of the private health facilities studied were compliant with the private nursing and midwifery

practice guidelines of 2019. However, 44.2% of the health facilities complied with 50% of the UNMC guidelines for private practice, while 19.2% complied with 75% of the guidelines (Figure 1).

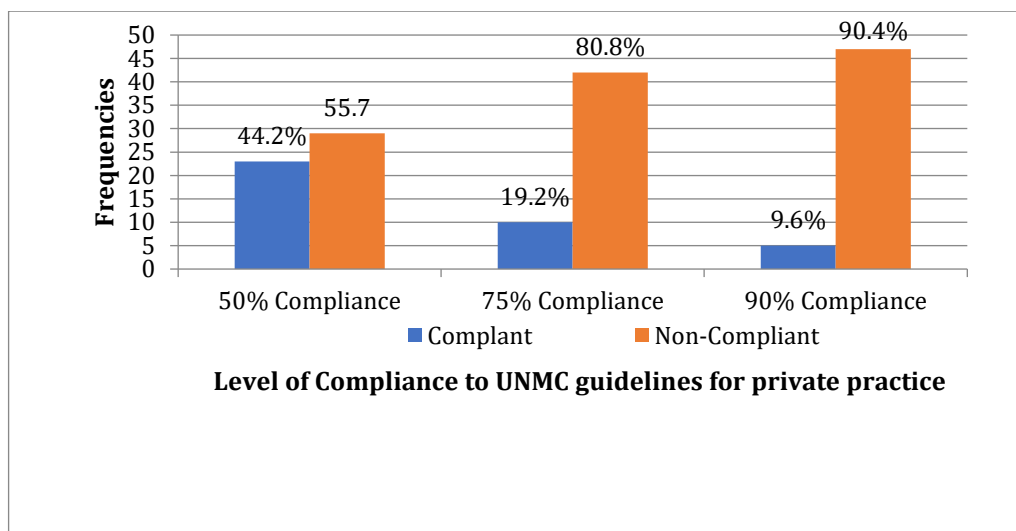


Figure 1: Level of compliance with the UNMC guidelines for private practice for Nurses and midwives

Compliance with the administrative requirements guidelines for Private practice.

At least three-quarters (78.8%) of health facilities had a valid facility license; however, only 56.9% had their licenses displayed at the facility as required by the private practice guidelines. The majority of the clinical staff (92.3%) at the private health facilities in this study had their valid practicing licenses. Less than half of the

health facility managers (46.2%) had attended at least one continuous professional development session in the past 12 months. The majority of the facilities (84.6%) had a visible signpost; however, just a quarter of them (25.0%) had a suggestion box. Notably, 9/52 private health facilities studied had changed their physical address since their most recent licensure, but only 3/9 facilities had notified the UNMC as required by the

guidelines. Furthermore, only 15.4% of the private health facilities were registered with the Uganda Registration Service Bureau (URSB) (Table 3).

Table 3: Health facility compliance with administrative items of the private practice guidelines for Nurses and Midwives of Uganda

Variable	Category	Frequency (N=52)	Percentage (%)
Had Facility License	Yes	41	78.8
	No	11	21.2
Facility License displayed	Yes	31	59.6
	No	21	40.4
All clinical staff have a valid practicing license	Yes	48	92.3
	No	4	7.7
Registration with URSB*	Yes	8	15.4
	No	44	84.6
Attending CPD by supervising staff (past 12 months)	Yes	24	46.2
	No	28	53.8
Attending CPD by other staff (past 12 months)	Yes	20	38.5
	No	32	61.5
Had a suggestion box	Present	13	25.0
	Absent	39	75.0
Had a visible signpost	Yes	44	84.6
	No	8	15.4
Ever changed location	Yes	9	17.3
	No	43	82.7
Notified UNMC about the change of location [@]	Yes	3	33.3
	No	6	66.7

* URSB-Uganda Registration Services Bureau

[@]N=9, those that changed location

Compliance with the guidelines on private health facility operations in Uganda.

Only half of the private health facilities (51.9%) had routine staff meetings (evidenced by minutes), and a similar proportion had clinical reference books for guiding diagnosis and management of clinical conditions. Only about a quarter of private health

facilities (23.1%) had no supervising medical office; however, more than three-quarters (82.7%) had HMIS forms for reporting data to the national database. And less than a fifth (19.2%) of clinical staff at the private health facilities had formal employment contracts, and over two-thirds (71.1%) of the health facilities had referral forms (Table 4).

Table 4: Health facility compliance with operational items of the private practice guidelines for Nurses and Midwives in Uganda.

Variable	Category	Frequency (N=52)	Percentage (%)
Routinely have regular Staff meetings	Yes	27	51.9
	No	25	48.1
Staff have Contracts	Yes	10	19.2
	No	42	80.8
Staff have Uniforms	Yes	39	75.0
	No	13	25.0
Had referral forms	Yes	37	71.1
	No	15	28.9
Has HMIS reporting tools	Yes	43	82.7
	No	9	17.3
Had clinical reference materials*	Yes	27	51.9
	No	25	48.1
Appraisal of supervising staff by a medical officer	Yes	12	23.1
	No	40	76.9

*UGC, Maternity handbook, BNF

Characteristics of the participants of the qualitative study

Most of the participants (6/11) were at a level of Registered Nurse/midwife, 100% of all the participants were females, and almost two-thirds (63.6%) of the participants were from Wakiso district (Table 5).

Table 5: The characteristics of the study participants who participated in the in-depth interviews

Variable	Categories	Frequency n=11	Percentage (%)
Level of education	Enrolled	5	45.6
	Registered	6	54.5
District of operation	Kampala	3	27.3
	Wakiso	7	63.6
	Mukono	1	9.1
Gender	Females	11	100
Facility type	Maternity Home	6	54.5
	General clinic	3	27.3
	Nursing clinic	2	18.2

Theme 1: Awareness of guidelines**Sub-theme 1.1: Lack of awareness of UNMC guidelines for private practice.**

There was a considerable lack of awareness about the private nursing and midwifery practice guidelines of 2019 among the nurses and midwives interviewed. This grossly affected the compliance with the guidelines at the private health facilities. For example, a participant reported that, "I am completely unfamiliar with and not informed about the new 2019 guidelines" (IDI 1). Another participant reported that, "I am unaware of major changes like the requirement to promptly inform the UNMC about registration changes, and relocation of the facility premises" (IDI 2).

Sub-theme 1.2: Challenges obtaining and accessing guidelines.

The participants displayed concerns about not having access to the hard copy guidelines from which they would learn about the requirements. The gap in accessing the guidelines contributes to sub-optimal implementation of these important details and ensures that they are adhered to. For example, one participant said that "I do not have a physical copy of the full 2019 guidelines and yet I would use it for reference during my day-to-day operations of this facility" (IDI 4). Much as the guidelines are intended to reach all nurses and midwives in private practice, participants recounted that such public documents usually come with a cost, and therefore, such guidelines don't reach them. This was affirmed by participant (IDI 8), "I didn't receive the updated printed copy that was supposed to be distributed by UNMC during the registration process. But also I registered this facility a long time ago when the said

guidelines were not in place, and neither have we been contacted by the council for these updates" (IDI 8).

Theme 2: Communication and linkage with UNMC

Sub-theme 2.1: Lack of communication from UNMC.

Nearly all participants expressed very limited or no communication from UNMC regarding the changes and updated requirements in the 2019 guidelines. Much as the UNMC issues annual private health facility licenses through the licensed professional (health facility manager), such information about the guidelines is not often conveyed to them. Furthermore, the UNMC, which is supposed to give support and supervision to private health facilities, this supervision is most often does not do so. Participant (IDI 10) reported that *"there are no recent visits, phone calls, or updates of any kind from council about the new 2019 guidelines [even when you want to contact them, there is no dedicated contact]"*.

Sub-theme 2.2: Challenges reaching and connecting with UNMC.

Participants revealed that they face significant challenges connecting with UNMC staff when they have questions or issues related to private practice, including obtaining the annual license for private health facilities. For example, one participant recounted that *"it is extremely difficult to reach designated personnel at the council who could provide definitive answers about some requirements in the 2019 guidelines"* (IDI 3).

Theme 3: Compliance challenges and enablers

Sub-theme 3.1: Barriers to compliance with guidelines.

A range of barriers to successful compliance with the 2019 guidelines were cited, including resource limitations and administrative burdens like too much paperwork. Participant (IDI 3) stated that *"We're constantly struggling to keep up with all the documentation requirements, the space where we have to keep all the files, but we try as a facility. With limited staff and tight budgets, these administrative demands are making it incredibly challenging to fully implement the new guidelines. Our facilities are small, and we don't have a lot of patients, which affects our revenue too."*

Sub-theme 3.2: Enablers of compliance with guidelines.

To improve compliance levels, participants suggested more frequent reminders, training, and monitoring/supervision from UNMC in line with key areas of the 2019 guidelines for private practice. Participants also feel that the UNMC needs to have enhanced consultation on unclear aspects of the 2019 guidelines. Participant (IDI 4) stated that *"We need more support from UNMC in our work. They should provide clearer guidance through regular training sessions "because most of the training sessions come from the*

association of private midwives, send frequent reminders about the guidelines, and help us understand the tricky parts we're struggling with in our day-to-day practice."

Discussion

Our study assessed compliance with the UNMC guidelines for private nursing and midwifery practice (2019) and explored the barriers and facilitators influencing compliance with these guidelines. The study findings revealed a low level of overall compliance, with only 1 in 10 health facilities meeting optimal compliance standards. However, compliance with specific administrative and operational guidelines varied, with higher adherence to licensing requirements but lower compliance with facility registration, staff supervision, and documentation standards.

Compliance with private practice guidelines

The observed low compliance with the private practice guidelines can be partly explained by the qualitative findings, which highlighted a lack of awareness and accessibility of the guidelines among private practitioners. Many health facility managers reported not receiving or being informed about the private practice guidelines, thus limiting their ability to adhere to them. The lack of communication and inadequate dissemination of updated regulations by the UNMC further exacerbated this issue, making it difficult for private practitioners to stay informed of their responsibilities. This is consistent with other studies showing that limited guideline circulation hinders their compliance in decentralized health systems (Panda & Thakur, 2016; Sheikh et al., 2015).

Additionally, although most health facilities had valid licenses (8 in 10 facilities), only 5 in 10 facilities displayed them as required, which indicates gaps in adherence to administrative transparency. Nonetheless, the health facilities without valid licenses pose a significant risk to the populations they serve. While the clinical staff had valid practicing licenses in 9 in 10 private health facilities, the low proportion of facilities registered with the URSB (2 in 10 facilities) suggests that many facilities operate without full regulatory recognition.

Barriers to compliance with private practice guidelines

Several barriers to compliance with private practice guidelines emerged from the qualitative findings. Inadequate resources to implement all required items and procedures in the guidelines were a major challenge, with participants citing financial limitations and administrative burdens as key deterrents to full compliance. Many facilities struggle with the costs associated with licensing, acquiring necessary documentation, acquiring the recommended physical items, and maintaining required reporting standards.

Similarly others studies have linked the unavailability of tools and personnel to poor compliance with the regulatory guidelines. (Christensen et al., 2020; Herd & Moynihan, 2019). Moreover, there was minimal support and supervision from UNMC, which was a significant contributor to low levels of compliance with the private practice guidelines. The nurses and midwives in private practice reported difficulty in reaching the UNMC to seek guidance and support. The lack of routine engagement, support, supervision, and clear communication channels further limited compliance efforts.

Enablers of compliance with private practice guidelines

Several opportunities to successful guideline implementation were identified. For example, the nurses' and midwives' willingness to comply with the guidelines could be leveraged by increasing awareness about the private practice guidelines through targeted education and training. Participants recommended that UNMC conduct regular training sessions and disseminate guidelines more effectively to ensure that all private practitioners (nurses and midwives) are well-informed. Studies have shown that education and sensitization significantly improve compliance with health regulations.(Jefferson et al., 2021). On the other hand, enhancing communication and support supervision from UNMC was highlighted as a crucial enabler. Regular engagement, site visits, and responsive communication channels would foster better compliance to the guidelines. A previous study has reported that active regulatory support to nurses leads to higher levels of compliance with guidelines in healthcare facilities(T. Poikkeus et al., 2018).

Lastly, simplifying administrative procedures and reducing bureaucratic burdens were recommended to enhance compliance with private practice guidelines. For instance, digitalization of licensing and reporting processes could streamline operations and reduce paperwork. Leveraging technology for regulatory processes has been shown to improve compliance in various health systems by reducing administrative inefficiencies. (Kennedy et al., 2015).

Conclusions

There are critical gaps in compliance with private nursing and midwifery practice guidelines in urban settings in Uganda, with low overall compliance driven by lack of awareness, resource constraints, and weak regulatory engagement. Addressing these challenges through targeted education, improved communication, and streamlined administrative processes could enhance compliance and strengthen private nursing and midwifery practice in Uganda.

Limitations

The study was cross-sectional in nature and thus, compliance changes over time weren't assessed. Some aspects of the guidelines were assessed retrospectively and by self-report, and this may have introduced misclassification from recall and social desirability biases.

Ethical considerations

Ethical approval was sought from the Mildmay Uganda Research and Ethics Committee (MUREC) under reference number: MUREC-2023-209. Written Informed consent was also sought from all participants and health facility managers after explaining the study procedures to them.

Consent to publication

Not applicable

Availability of data and materials

The data and materials will be available on request from the corresponding author.

Funding

This research study received funding from the Uganda Nurses and Midwives Council as part of the Research Seed Grants.

Authors' statement

All authors DM, EA, BO, MMM, CN, LM participated in the conceptualization of the study, Methods, interpretation of the findings. LM, EA, and DM participated in data collection, data analysis, and writing of the draft manuscript, and all authors reviewed the manuscript. All authors read and approved this manuscript.

Conflict of interest

The authors declare that there was no conflict of interest in the conduct of this research.

Acknowledgements

We are highly indebted to the research participants and the research assistant who participated in this study. We equally thank the management of UNMC and the facility managers who provided great insight during the conduct of the study.

Disclaimer

The views, opinions, and conclusions expressed in articles published in the Uganda Journal of Nursing and Midwifery (UJNM) are solely those of the respective authors and do not necessarily reflect the official policy, position, or opinions of the editorial board, publisher, reviewers, affiliated institutions, or partners of the journal. While every effort is made to ensure the accuracy, reliability, and integrity of the information published, the Uganda Journal of Nursing and Midwifery (UJNM) and its publisher shall not be held responsible

for any errors, omissions, or consequences arising from the use of the information contained in this publication. Readers are encouraged to independently verify clinical practices, drug dosages, procedures, and research findings before application in professional practice.

References

- Christensen, J., Aarøe, L., Baekgaard, M., Herd, P., & Moynihan, D. P. (2020). Human capital and administrative burden: The role of cognitive resources in citizen-state interactions. *Public Administration Review*, 80(1), 127-136. <https://doi.org/10.1111/puar.13134>
- Government of Uganda. (1996). CHAPTER 274 THE NURSES AND MIDWIVES ACT, 1996. <https://www.businesslicences.go.ug/kcfinder/upload/files/The%20Nurses%20and%20Midwives%20Act%2C%201996%20%281%29.pdf>
- Herd, P., & Moynihan, D. P. (2019). *Administrative burden: Policymaking by other means*. Russell Sage Foundation. <https://doi.org/10.7758/9781610448789>
- Jefferson, K., Bouchard, M. E., & Summers, L. (2021). The regulation of professional midwifery in the United States. *Journal of Nursing Regulation*, 11(4), 26-38. [https://doi.org/10.1016/S2155-8256\(20\)30174-5](https://doi.org/10.1016/S2155-8256(20)30174-5)
- Kennedy, C., O'Reilly, P., Fealy, G., Casey, M., Brady, A. M., McNamara, M.,...Hegarty, J. (2015). Comparative analysis of nursing and midwifery regulatory and professional bodies' scope of practice and associated decision-making frameworks: a discussion paper. *J Adv Nurs*, 71(8), 1797-1811. <https://doi.org/10.1111/jan.12660>
- Murray, M. K. (2002). The nursing shortage: past, present, and future. *JONA: The Journal of Nursing Administration*, 32(2), 79-84. <https://doi.org/10.1097/00005110-200202000-00005>
- Okuonzi, S., Mwizerwa, J., Lyavala, M., Kabayambi, J., & Mpanga, T. (2023). Challenges and Priorities of Nursing Profession and Services in Uganda: A Mixed Methods Study for Strategic Planning. *J Nurs Health Stud*, 8(6), 101. <https://doi.org/10.21203/rs.3.rs-3507633/v1>
- Panda, B., & Thakur, H. P. (2016). Decentralization and health system performance-a focused review of dimensions, difficulties, and derivatives in India. *BMC Health Services Research*, 16(6), 1-14. <https://doi.org/10.1186/s12913-016-1784-9>
- Poikkeus, T., Suhonen, R., Katajisto, J., & Leino-Kilpi, H. (2018). Organisational and individual support for nurses' ethical competence: A cross-sectional survey. *Nurs Ethics*, 25(3), 376-392. <https://doi.org/10.1177/0969733016642627>
- Poikkeus, T., Suhonen, R., Katajisto, J., & Leino-Kilpi, H. (2018). Organisational and individual support for nurses' ethical competence: a cross-sectional survey. *Nursing ethics*, 25(3), 376-392. <https://doi.org/10.1177/0969733016642627>
- Ralph, C. (1993). Regulation and the empowerment of nursing. *International nursing review*, 40 2, 58-61.
- Sheikh, K., Saligram, P. S., & Hort, K. (2015). What explains regulatory failure? Analysing the architecture of health care regulation in two Indian states. *Health Policy and Planning*, 30(1), 39-55. <https://doi.org/10.1093/heapol/czt095>
- Stievano, A., Caruso, R., Pittella, F., Shaffer, F., Rocco, G., & Fairman, J. (2019). Shaping nursing profession regulation through history-a systematic review. *International nursing review*, 66(1), 17-29. <https://doi.org/10.1111/inr.12449>
- UBOS. (2024). NATIONAL POPULATION AND HOUSING CENSUS 2024. <https://www.ubos.org/wp-content/uploads/2024/12/National-Population-and-Housing-Census-2024-Final-Report-Volume-1-Main.pdf>