

Medical Ethical Practices and the Rights of Health Care Receivers: A Case Study of Charles Henry Rennie Government Hospital in Kakata Margibi County, Liberia

Josephine Brent Yeanga^{1*} and Kenichi Matsui²

¹Graduate School of Science and Technology, University of Tsukuba, Ibaraki 305-8577, Japan

²Faculty of Life and Environmental Sciences, University of Tsukuba, Japan *E-mail: s2330330@u.tsukuba.ac.jp; matstui.kenichi.gt@u.tsukuba.ac.jp

Abstract

Medical ethics have long embodied a set of common values that guide actions for medical doctors and other healthcare professionals in serving the community. However, internationally accepted ethical codes are not always interpreted or practiced among all hospitals, especially when they face such critical challenges as HIV/AIDs, Ebola, and COVID-19 outbreaks. Even though many case studies revealed how hospitals responded to these emergency situations, we still do not know the extent to which African hospitals observe ethical practices such as beneficence, non-maleficence, autonomy, and justice in facing these outbreaks. This paper demonstrates how healthcare professionals at a Liberia's hospital followed ethical practices. The primary data were collected by administering a questionnaire survey among 100 healthcare professionals, including doctors, nurses, midwives, and administrative personnel, in July 2022. The analysis was done using Microsoft Excel. We found that almost all the healthcare professionals in the survey had observed mandates to protect patient confidentiality and privacy. However, about 65% agreed that patients were entitled to have autonomy to decide on possible treatment options. Considering possible discrimination against patients in case of Ebola or COVID-19 outbreaks, 94% agreed that patients' admission to the hospital had been based on illness types. In securing the safety of healthcare professionals in dealing with Ebola and COVID-19 patients, about 81% and 69% of the respondents said that they had had adequate PPEs and complied with safety protocols, respectively. These results show some weakness of the hospital in terms of eliminating discrimination against some patients with a particular illness despite the overall good availability of protective measures.

Keywords: Confidentiality; Medical ethics; Patients; Healthcare professionals; Liberia

DOI: 10.7176/JHMN/116-01 **Publication date:** May 30th 2024

1. Introduction

Medical ethical practices represent a set of universally expected professional values that ensure good practices of healthcare professionals and the community (Haidt & Graham, 2007), including patient relationships (Van Mook et al., 2009; Women et al., 1992). Four guiding principles for medical ethics-autonomy, non-maleficence, beneficence, and justice are widely adopted (Beauchamp & Childress, 2019; Sivaraman, 2019; Varkey, 2021). Even so, each nation or institution interprets them differently due to traditions, beliefs, social standards, and legal systems (Dunfee & Warren, 2001). Hospitals in low-income nations have difficulties in executing these four principles due partly to severe resource shortages and insufficient capacity. Time, training, and available specific ethical decision-making guidelines affect clinicians' ability to practice the principles (Kapiriri, 2016).

Within an institution, various forms of discrimination affect how medical practitioners deal with patients and how patients perceive hospitals. In Nigeria, Reis et al. (2005) found discriminatory attitudes and practices against HIV/AIDS workers and patients (Reis et al., 2005). Some patients experienced discrimination because of their association with supernatural beliefs and stigma (McCollum et al., 2022; Ambe & Kombe, 2019). A survey on ethical problems at hospitals in Romania (Cosma et al., 2020) found that 17% of the respondents had never used the Romanian healthcare system, and 58% of them did not trust it. In Liberia, half of rural people did not fully trust medical treatments (Svoronos et al., 2014).

Liberia's Public Health Law covers matters related to discrimination, confidentiality, security of records, and informed consent. It requires every health institution to attend to those in need without discrimination



(Kanagasabai et al., 2022). All healthcare facilities must respond to patients' immediate and urgent medical needs before asking about payment (Kruk et al., 2010). The privacy and confidentiality of patient information may only be disclosed when necessary for delivery, payment, management, or law enforcement (Gwaikolo, 2017; Newell, 2013). For informed consent, healthcare providers must give the patient relevant information about the state of health and necessary treatment (Rutta et al., 2015). This communication should be done in a language that a layperson understands. The Liberian Minister of Health or a county health director must ensure that health care services provide accurate, complete, and timely information regarding health services (Alonge et al., 2019).

Despite these promises, observed practices at Liberian hospitals differed from what the law says. We still do not know the extent to which Liberian hospitals observe ethical practices such as beneficence, non-maleficence, autonomy, and justice in dealing with the rights of healthcare receivers. Based on this, this paper investigates how medical professionals observe ethical practices at Liberian hospitals.

2. Methodology

2.1 Study Area

Our survey was conducted at Charles Henry Rennie Government Hospital in Margibi County, Liberia. The County covers an area of 2,616 km2 (Hartwig, 2005), about the size of Luxembourg. Administratively, it is divided into ten subdivisions, two districts (Gibi and Mambahn), two cities (Kakata and Marshall), and six townships (Cinta, Borlorla, Larkayta, Schieffelin, Charlesville, and Lloydsville) (Figure 1). According to the 2022 Census, it had a population of 304,946, making it the fifth most populous county in Liberia. About 90% of them were Christians. Another 10% was divided equally into Muslims and the Animists. Liberia has recognized 16 ethnic groups, including the dominant Bassa and the Kpelle (Jibao, 2009).

Charles Henry Rennie Government Hospital is the only government referral hospital in Margibi County and its surroundings. The government employs certified healthcare professionals who earn degrees from an accredited university and valid licenses. As of 2022, the hospital had seven doctors, 15 physician assistants, 160 nurses, 45 midwives, seven laboratory technicians, and 103 ward beds. It receives about 25,000 patients every month, according to the monthly report by the county's health team (New Dawn, 2022).

This hospital was one of the hardest-hit medical facilities during the Ebola Virus Disease (EVD) outbreak in 2014 and 2015 (Sieka, 2019). Liberia had 10,678 confirmed Ebola cases and 4810 deaths in 2015. In Margibi County the outbreak killed many healthcare professionals. During the outbreak, the United States National Institute of Health established its research branch in this hospital to monitor the new vaccine administered to Ebola survivors (Sieka, 2019; NIH, 2015).

This hospital experienced some moral dilemmas in accepting and treating pre-exposure prophylaxis (PrEP) and HIV/AIDS patients (USAID, 2023). The HIV/AIDS patient admission rate remains high today, but the retention rate is low. To improve healthcare services for these patients, Patience Mhlanga, Country Program Coordinator for the West Africa Region at USAID's Bureau for Global Health, and the Office of HIV/AIDS Liberia initiated PrEP treatments in health facilities across four counties, including Margibi County, in April 2022. Despite an annual target of enrolling 403 persons in PrEP, USAID in Liberia exceeded expectations by registering almost 1,200 clients. As of January 8, 2023, 2,590 patients had started PrEP treatments, with 1,170 returning for refills (USAID, 2023).

Despite the effort, HIV/AIDS remains a significant public health concern, notably in Grand Bassa, Margibi, and Montserrado, which collectively account for almost 70% of the nation's HIV cases. Theodosia Kolee, National AIDS Commission chairperson, noted that stigma and discrimination had deterred patients from seeking refills. This posed a challenge to Liberia's goal of eliminating the disease by 2030 or achieving SDG-3 (Daily Observer News Paper, 2022).



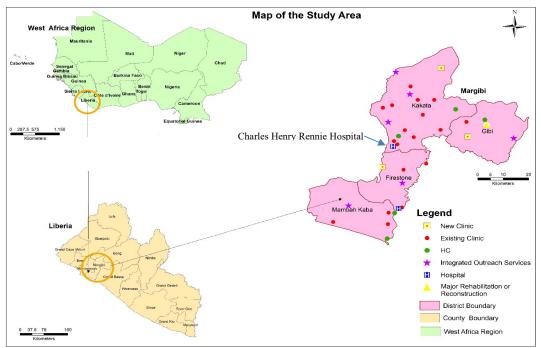


Figure 1: Map of Margibi County Showing the Study Location with Healthcare Service Locations (Dadzie, 2022; NHSWPP, 2011)

2.2 Research Design, Sampling, and Data Analysis

Our study adopted a quantitative research method using the questionnaire survey to understand healthcare professionals' perceptions about ethical medical practices at Charles Henry Rennie Government Hospital. The first author had 11 years of medical practice experience as a nurse at this Hospital and obtained its permission to conduct the survey. The questionnaire was conducted among 100 healthcare workers from July 10 to 22, 2022. The questionnaire was given to them at a specific time in-person and online. We received 96 valid answers. The targeted respondents were medical doctors, pharmacists, midwives, nurses, administrators, and physician assistants. The questionnaire consisted of six sections: (1) the socio-demographic characteristics of the respondents, (2) healthcare professionals' knowledge of medical ethics, (3) patients' privacy, (4) patients' knowledge about health progress, (5) patients' decision-making on treatment options, and (6) the availability of hospital ethical guidelines and supervision. It includes open-ended, close-ended, multiple-choice, and 5-point Likert scale questions.

As mentioned earlier, about 236 healthcare professionals were employed at Charles Henry Rennie Government Hospital at the time of our survey. Due to the COVID-19 pandemic, we obtained permission from the Hospital to allow two healthcare professionals to administer the questionnaire. They had worked for about ten years in Liberia's health sector. We estimated the sample size for the study using the Yamane 1973 formula. We adjusted the sample size to 100 to account for selection biases. After the data collection, we obtained 96 valid responses for the analysis.

$$n=N/1+n(e)=236/(1+236(0.08)^2=94$$

n=Sample size, N=population of healthcare professionals in Charles Henry Government Hospital (236), e=margin of error (0.08)

The analysis was done using Microsoft Excel and SPSS version 26 to perform descriptive statistics of the respondents. This was represented by a percentage and means. We then performed a descriptive analysis again to find out the job position of each of these respondents (Table 2). Lastly, we conducted a Chi-square analysis to determine the significant correlations between socio-demographic characteristics and healthcare professionals' perceptions about ethical practices (Table 3). We selected the following independent variables: age, gender, education, and experience. We examine the patterns in the data to understand how different socio-demographic



characteristics may influence ethical practice perceptions among healthcare professionals. The data was coded and depicted in tables and graphs.

3. Results and Discussions

3.1 Socio-Demographic Characteristics of the Respondents

An analysis of the socio-demographic data we collected showed that almost 80% of the respondents belonged to the age bracket of 40-49 (41%) and 30-39 (38%). The primary employment age for healthcare professionals in Liberia ranges from 24 to 60 years old. About 47% had bachelor's degrees but only 4% and 6% possessed doctoral degrees and nurse aid certificates, respectively (Table 1). A past study on healthcare providers showed that those with higher education tended to have adequate knowledge about medical ethics (Amuzie et al., 2021). Education can lead to the improvement of healthcare professionals (Aiken et al., 2008).

Table 1: Socio-Demographic Characteristics of the Respondents (n=96)

Variable	Category	Frequency	Percentage (%)
Age	24-29	11	11
	30-39	36	38
	40-49	39	41
	50-59	10	10
Gender	Male	32	33
	Female	64	67
Education	Certificate	5	6
	Diploma	33	34
	Bachelor's Degree	45	47
	Masters	9	9
	PhD	4	4
Experience	Less than 5 Years	14	15
	5-10 Years	44	45
	11-20 Years	34	34
	More than 21	4	4

Regarding gender and job positions, about 70% of the respondents were female healthcare employees. Most of these female respondents were nurses (52%) and midwives (23%) although about 33% of nurses were males. There were nine pharmacists, of which six were males. Medical doctors, physician assistants, and administrators constituted 6%, 6%, and 3% of the total respondents, both males and females (Table 2). This Hospital considers gender equality in the recruitment process.



Table 2: Job Position According to the Gender of the Respondents

Staff	Male (n)	Percentage	Female (n)	Percentage	Total (n)
Administrator	1	3.3	2	3.0	3
Doctor	5	16.7	1	1.5	6
Midwife	6	13.3	16	27.3	22
Nurse	10	33.3	40	60.6	50
Physician Assistant					
	4	13.3	2	3.0	6
Pharmacist	6	20.0	3	4.5	9
Total	32	100	64	100	96

3.2 Ethical Practices and Knowledge among Healthcare Professionals

To better understand the extent to which ethical practices were observed by healthcare practitioners at Charles Henry Rennie Government Hospital, the respondents were asked to rate the level of their agreement with three types of statements (Figure 2). One asked about patients' privacy and equality as well as protection from discrimination. Another set of statements focused on service quality and economic factors. The third type of statement focused on issues of medical practitioners' safety and preparedness for handling outbreaks or other urgent medical conditions. To measure the level of their agreement, we used a 5-point Likert-scale question, in which 1 means a strong disagreement, and 5 means a firm agreement.

Regarding patients' experience at the Hospital, more than 98% of the respondents agreed or strongly agreed that patients should be given sufficient information about their health conditions and recovery progress. In terms of non-discrimination, about 91% agreed or strongly agreed that patients were to be treated equally with respect. More than 80% agreed or strongly agreed with the importance of protecting patient's privacy. This last finding aligns with Tegegne et al. (2022), who highlighted the importance of confidentiality in keeping health records. Reflecting on this point from the first author's experience as an HIV/AIDS clinician at this Hospital a few years before this survey period, the Hospital experienced a situation, in which a healthcare provider revealed a patient's confidential health status. This resulted in traumatizing the patient who had to leave the community because of discrimination.

Regarding statements germane to service quality, about 86% of the respondents agreed or strongly agreed that monetary returns from medical services would determine how medical practices are prioritized. One notable remark here is that about 10% remained undecided, possibly indicating their dilemma about the function of public hospitals being open to all regardless of economic status. Similarly, 85% agreed or strongly agreed that patients should pay for their drugs and operations while 15% disagreed. On the contrary, those respondents who agreed or strongly agreed with giving patients room to make decisions consist of 65% with 27% disagreement or strong disagreement. (Figure 2). This indicates varied perspectives among the respondents about the extent to which patients should have autonomy in making decisions.

In response to the statements about medical practitioners' safety and preparedness, 97% agreed or strongly agreed that their safety was the highest priority. Considering this result, about 71% agreed or strongly agreed that they had received safety training whereas 26% disagreed or strongly disagreed. Although a significant majority recognizes having participated in safety training, the fact that a considerable minority disagrees or strongly disagrees raises concerns about the adequacy and impact of the current safety training initiatives. This result shows that safety training for a certain proportion of medical practitioners may not be sufficient. This point is important in improving medical services at this Hospital and beyond, especially in consideration of emergency responses to outbreaks and unknown diseases.



Healthcare practices and Ethics

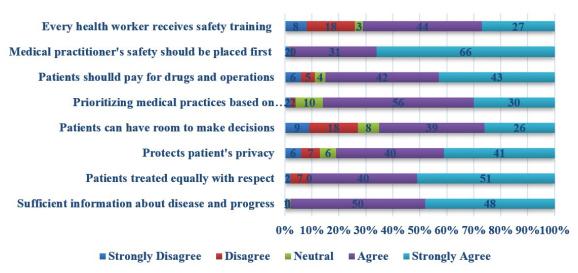


Figure 2: Responses about Healthcare Practices and Ethical Considerations

3.3 Existing Ethical Guidelines for Safety Protocols

We asked our respondents if the Hospital had ethical guidelines to help them take care of patients properly. Guidelines are always part of the treatment process in all Liberian hospitals. Our results from the survey showed that 75% of the respondents agreed that the Hospital had good ethical guidelines. To further explore our respondents' awareness and knowledge of these guidelines, we asked if the respondents had clear knowledge about the guidelines. In response, about 25% was negative.

We then asked the respondents that in case of the Ebola outbreak whether they would have adequate PPE and safety protocols (Figure 4). In response, more than 80% of the respondents agreed (55%) or strongly agreed (25%). We also ask the same question regarding their response to the COVID-19 pandemic. Somewhat contrary to the Ebola outbreak result, 69% of the respondents agreed (45%) and strongly agreed (24%) that the Hospital had PPEs for COVID-19 (Figure 4).

To place the results (Figure 4) in a broader perspective, it is important to look at the 2020 interim WHO guidance on the use of PPE. It emphasized three strategies: (1) minimizing the need for PPE by, for example, using telemedicine and physical barriers; (2) ensuring rational and appropriate use by selecting appropriate types (e.g., gown, glove, mask) and avoiding its overuse; (3) coordinating PPE supply chain through rational quantification models, centralized management, and end-to-end monitoring. The decision to use PPE should be based on such factors as the specific healthcare setting, individuals involved, exposure risk, and pathogen transmission dynamics. For COVID-19, the type of PPE needed may vary by transmission, personnel type, and specific activities (WHO, 2020). At Rennie Hospital, going to a ward 3-4 times for food service or medication required healthcare providers to wear PPE 3-4 times per day for each patient. Without having access to more treatment records, which we could not have due to confidentiality, it is difficult to understand if the Hospital carefully monitored and minimized the use of PPEs.

Despite these uncertainties in interpreting the true extent of the Hospital's rational use of PPEs, it is safe to say that those who strongly agreed with the availability of PPE in response to Ebola and COVID-19 appeared to have had sufficient access to safety resources at this Hospital. The level of agreement conveys a positive perception regarding the Hospital's readiness to ensure healthcare providers' safety amid outbreaks. Only a few respondents (13% for Ebola and 21% for COVID-19) disagreed with the availability and provision of PPEs and Safety Protocols for Ebola and COVID-19 (Figure 4). Nevertheless, it has been reported that an appropriate PPE for each procedure was not always available in Liberian hospitals (Wachekwa et al., 2024).



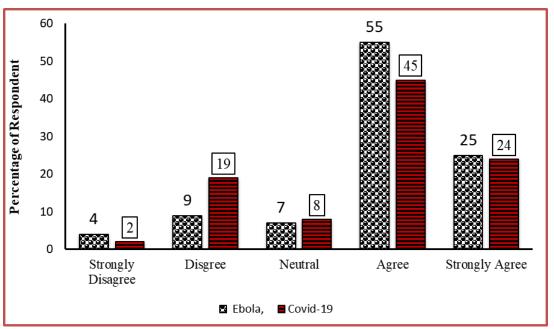


Figure 4: Respondents' Perceptions about PPE Availability at the Hospital during Ebola and COVID-19 Outbreaks

3.5 Factors Influencing Healthcare Professionals on Medical Ethical Practices

After finding these results, we performed a Chi-square analysis to determine the significant correlations between socio-demographic characteristics and healthcare professionals' perceptions of ethical practices (Table 3). We correlated their perceptions with gender, age, education, and experience. Age (p = 0.001), education (p = 0.001), and experience (p = 0.001) indicated statistically significant impacts.

The significant correlation with age indicates that older healthcare workers were more aware of issues related to ethical guidelines, service quality, safety, and discrimination. As age increases, there is also a discernible impact on making ethical decisions for handling patients and safety practices within the hospital. Older professionals, with their accumulated experience and knowledge, tend to exhibit a more in-depth understanding of ethical guidelines and safety protocols. This aligns with observations in Iran, where older healthcare workers tended to adhere to established norms, while younger professionals favored innovative approaches (Borhany et al., 2023).

Higher educational attainment and longer professional experience among healthcare workers meant a heightened understanding and awareness of ethical practices and safety precautions. Healthcare workers with more experience exhibit a more pronounced impact on medical ethics decisions. Practical experience in diverse patient scenarios and ethical dilemmas contributes to a deeper understanding of ethical and safety practices. This aligns with broader findings, emphasizing that experienced healthcare professionals have encountered and navigated various ethical challenges that have shaped their ethical capabilities (Henrik et al., 2022).

Table 3: Factors Influencing Healthcare Workers' Perceptions of Medical Ethics

Variables	Chi-square value	p-value	
Gender	17.076	.314	
Age	209.902	.001**	
Education	201.277	.001**	
Experience	172.307	.001**	

^{**}Significant at 95% level, (Source: Field survey, 2022).



4. Conclusion

This paper has examined Liberia's healthcare workers' perceptions about their safe and ethical practices in dealing with the Ebola outbreak and the COVID-19 pandemic at C.H. Rennie Hospital in Liberia. It has shown a complex and mixed picture of practices in compliance with the national public health law for anti-discrimination, confidentiality, informed consent, medical service safety and security as well as international guidelines and ethical principles. Their age, experience, and education were found to have a significant influence on their perceptions. A considerable proportion of healthcare professionals fell within the age brackets of 30-39 and 40-49, with a majority holding bachelor's degrees. These socio-demographic characteristics suggested their relatively high awareness of ethical principles and safety protocols.

Ethical practices were examined through questions about privacy and anti-discrimination (autonomy, justice), service quality (benevolence, non-maleficence), and workers' safety/preparedness (benevolence, justice). In terms of autonomy, the respondents had properly observed practices of informed consent (90%), equal treatment (91%), and privacy protection (80%).

However, these high agreement results showed some discrepancies with the results from questions about service quality and economic factors. About 86% agreed that monetary returns would determine the priority of their services whereas only 10% remained ambivalent. We also discussed about one case, in which a patient's privacy was revealed and this resulted into the alienation of this patient from the community.

Above all, the respondents were primarily concerned about their safety. About 97% placed their highest priority on their safety whereas 26% had not received proper safety training. Their perceptions about having access to PPEs and safety protocols differed by Ebola and COVID-19. In dealing with the Ebola outbreak, 80% were found to have adequate access to PPEs and safety protocols, partly because of strong international support. During the COVID-19 pandemic, only 69% had access to adequate safety measures.

In Liberia and other similar Western African countries, past studies agreed that government hospitals play essential roles in addressing major health issues like Ebola and COVID-19 outbreaks. Whereas past studies identified such factors as resource shortage, insufficient capacity, time limitation, training shortage, and lack of ethical guidelines as the reasons for poor ethical and safety protocols in African hospitals, our study found a slightly more complex picture. Whereas insufficient capacity and training can explain Liberia's situation, the availability of PPE and ethical guidelines for handling Ebola or HIV/AIDS were reasonable. We observed minor cases of discrimination and a breach of confidentiality, but, overall, patients' records were treated properly. Perhaps, in the near future, Liberia's hospitals and those healthcare facilities in West Africa need more guidelines and training for handling patients with new infectious diseases like the COVID-19 pandemic.

To help advance our knowledge of healthcare professionals' behavior concerning ethical practices future studies should be done to better understand situational context, and further explore factors affecting healthcare providers' commitment in Liberia.

References

- Aiken, L. H., Clarke, S. P., Sloane, D. M., Lake, E. T., & Cheney, T. (2009). Effects of hospital care environment on patient mortality and nurse outcomes. *Journal of Nursing Administration*, 39(7/8), S45–S51. https://doi.org/10.1097/nna.0b013e3181aeb4cf
- Alonge, O., Sonkarlay, S., Gwaikolo, W., Fahim, C., Cooper, J. L., & Peters, D. H. (2019). Understanding the role of community resilience in addressing the Ebola virus disease epidemic in Liberia: a qualitative study (community resilience in Liberia). *Global Health Action/Global Health Action. Supplement*, 12(1), 1662682. https://doi.org/10.1080/16549716.2019.1662682
- Ambe, J. R., & Kombe, F. K. (2019). Context and ethical challenges during the Ebola outbreak in West Africa. In Springer eBooks (pp. 191–202). https://doi.org/10.1007/978-3-030-17474-3_14
- Amuzie, C. I., Odini, F., Kalu, K. U., Izuka, M., Nwamoh, U., Emma-Ukaegbu, U., & Onyike, G. (2021). COVID-19 vaccine hesitancy among healthcare workers and its socio-demographic determinants in Abia State, South-East Nigeria: a cross-sectional study. *Pan African Medical Journal*, 40(10). https://doi.org/10.11604/pamj.2021.40.10.29816
- Andersson, H., Svensson, A., Frank, C., Rantala, A., Holmberg, M., & Bremer, A. (2022). Ethics education to support ethical competence learning in healthcare: an integrative systematic review. *BMC Medical Ethics*, 23(1), 1-26. https://doi.org/10.1186/s12910-022-00766-z



- Beauchamp, T., & Childress, J. (2019). Principles of Biomedical Ethics: Marking Its Fortieth Anniversary. *The American journal of bioethics*, 19(11), 9–12. https://doi.org/10.1080/15265161.2019.1665402
- Borhany, H., Golbabaei, S., Jameie, M., & Borhani, K. (2023). Moral decision-making in healthcare and medical professions during the COVID-19 pandemic. *Trends in Psychology*, 31(1), 210-230. http://doi.org/10.1007/s43076-021-00118-7.
- Cosma, S. A., Bota, M., Fleşeriu, C., Morgovan, C., Văleanu, M., & Cosma, D. (2020). I am measuring patients' perceptions and satisfaction with the Romanian healthcare system. *Sustainability*, *12*(4), 1612. https://doi.org/10.3390/su1204161
- Dadzie, J. E., & Kanagasabai, U. (2022). A Policy Analysis of the Primary Health Care Approach in Liberia. *Hygiene*, 2(1), 44-62. https://doi.org/10.3390/hygiene2010004
- Dunfee, T. W. and Warren, D. E. (2001). Is guanxi ethical? A normative analysis of doing business in China. *Journal of Business Ethics*, 32(3), 191-204. https://doi.org/10.1023/A:1010766721683
- Gwaikolo, W. S., Kohrt, B. A., & Cooper, J. L. (2017). Health system preparedness for integration of mental health services in rural Liberia. *BMC health services research*, 17, 1-10. https://doi.org/10.1186/s12913-017-2447-1
- Haidt, J. and Graham, J. (2007). When morality opposes justice, Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20(1), 98-116. https://doi.org/10.1007/s11211-007-0034-z.
- Hartwig, C. W. (2005). Peacekeeping in Liberia: ECOMOG and the Struggle for Order. *Liberian Studies Journal*, 30(2), 94-105.
- https://frontpageafricaonline.com/human-rights/liberia-nac-establishes-legal-office-to-address-stigma-and-rights-violations. Retrieved in December 2022.
- National Institute of Health. (2015). Study of Ebola Survivors Opens in Liberia. Press release, June 17. Retrieved on March 11, 2024 at https://www.nih.gov/news-events/news-releases/study-ebola-survivors-opens-liberia
- Jibao, S. S. (2009). Property Taxation in Anglophone West Africa: Case Study of Liberia. Lincoln Institute of Land Policy. Retrieved from https://www.lincolninst.edu/sites/default/files/pubfiles/1616 833 WP09AWA4.pdf
- Kanagasabai, U., & Ballah, J. B. (2022). A Historical Review of Liberia's Public Health Evolution—Past, Present & Future. Hygiene, 2(4), 251-266. https://doi.org/10.3390/hygiene2040023
- Kapiriri, L. (2016). Medical ethics and bedside rationing in low-income countries: challenges and opportunities. *Bioethics-medical, ethical, and legal perspectives. InTech: Croatia*, 199-213.
- Kruk, C., Huszar, V. L., Peeters, E. T., Bonilla, S., Costa, L., Lürling, M., & Scheffer, M. (2010). A morphological classification capturing functional variation in phytoplankton. *Freshwater Biology*, *55*(3), 614-627. https://doi.org/10.1111/j.1365-2427.2009.02298.x.
- McCollum, R., Berrian, H., Theobald, S., Zaizay, Z., Kollie, K., & Dean, L. (2022). Barriers and Enablers to Health-Seeking for People Affected by Severe Stigmatizing Skin Diseases (SSSDs): A Scoping Review. *Social Sciences*, 11(8), 332. https://doi.org/10.3390/socsci11080332.
- Menjor, D. (2021). Margibi Authorities Strategize for C.H. Rennie Hospital's Reconstruction. Daily Observer. Accessed February 3, 2024 www.liberianobserver.com
- Newell, C. (2013). Applications of queueing theory (Vol. 4). Springer Science & Business Media 11, 12
- Reis, C., Heisler, M., Amowitz, L. L., Moreland, R. S., Mafeni, J. O., Anyamele, C., & Iacopino, V. (2005). Discriminatory attitudes and practices by health workers toward patients with HIV/AIDS in Nigeria. *PLoS medicine*, *2*(8), e246. https://doi.org/10.1371/journal.pmed.0020246
- Sieka, J. M. (2019). Exploring Caregiving Experiences During the 2014-2016 Ebola Outbreak in Liberia (Order No. 28478380). Available from ProQuest Dissertations & Theses Global. (2533323193). https://www.proquest.com/dissertations-theses/exploring-caregiving-experiences-during-2014-2016/docview/2533323193/se-2
- Sivaraman, M. A. F. (2019). Ethical guiding principles of "no harm" and the "intention to save lives" about human embryonic stem cell research: finding common ground between religious views and principles of medical ethics. *Asian Bioethics Review*, 11(4), 409-435. https://doi.org/10.1007/s41649-019-00103-4



- Svoronos, T., Macauley, R. J., & Kruk, M. E. (2015). Can the health system deliver? Determinants of rural Liberians' confidence in health care. *Health policy and planning*, 30(7), 823–829. https://doi.org/10.1093/heapol/czu065
- Tegegne, M. D., Melaku, M. S., Shimie, A. W., Hunegnaw, D. D., Legese, M. G., Ejigu, T. A., & Chanie, A. F. (2022). Health professionals' knowledge and attitude towards patient confidentiality and associated factors in a resource-limited setting: a cross-sectional study. *BMC Medical Ethics*, 23(1), 26. https://doi.org/10.1186/s12910-022-00765-0
- Van Mook, W. N., van Luijk, S. J., O'Sullivan, H., Wass, V., Zwaveling, J. H., Schuwirth, L. W., and Van der Vleuten, C. P. (2009). The concepts of professionalism and professional behavior: conflicts in definition and learning outcomes. *European Journal of Internal Medicine*, 20(4), 85-89. https://doi.org/10.1016/j.ejim.2008.10.006
- Varkey, B. (2021). Principles of clinical ethics and their application to practice. *Medical Principles and Practice*, 30(1), 17-28. https://doi.org/10.1159/000509119
- Wachekwa, I., Camanor, S. W., Moses, J. S., & Bartekwa-Gwaikolo, J. W. (2024). A review of the John F. Kennedy Medical Center's response to the COVID-19 pandemic in Liberia. *Frontiers in Public Health*, 11: 1258938. https://doi.org/10.3389/fpubh.2023.1258938
- Women, P., Yawn, B., Yawn, R. and Uden, D. (1992). American Medical Association diagnostic and treatment guidelines on domestic violence. *Archives of Family Medicine*, 1, 39-47. https://doi.org/10.1001/archfami.1.1.39
- World Health Organization. (2020). Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19): interim guidance, 19 March 2020 (No. WHO/2019-nCoV/IPC PPE_use/2020.2). https://www.who.int/publications/i/item/rational-use-of-personal-protective-equipment-for-coronavirus-disease-(covid-19)-and-considerations-during-severe-shortages. Retrieved on March 9, 2024.