

Factors that Promote Health System Research Utilization by Health Policy-Makers

Jacob K Abebrese

Presbyterian University Ghana, P. O. Box 59, Kwahu, Abetef

Corresponding E-mail: abebresejacob@gmail.com

Abstract: This research evaluates the determinants influencing the adoption of health system research by health policymakers. Utilizing a non-interventional approach, the study combined both qualitative and quantitative methodologies. A descriptive cross-sectional survey was implemented. The subject pool included the Ghana Health Service (GHS) management and staff from three research centers, totaling 300 participants. This group comprised the Director-General of the GHS, the Director of the Research and Information Management System (RSIM) at the Ministry of Health (MoH), the GHS's Research Director, the heads of the three institutions, and 294 staff members. Data was processed using the SPSS software. Field findings indicated that funding does not significantly drive the use of health system research by policymakers. The term 'health research utilization' in this context refers to the application of research findings to shape health policies and practices. The process of discovering and applying knowledge is distinct, and often, this linkage is not straightforward. In Ghana, there is a significant disconnect between research discoveries and their application, with many research outcomes remaining unused in enhancing health policies and practices. The study suggests the need for more robust legislation and a clear mandate for research institutions, aimed at improving their performance in health systems research.

Keywords: health policy-makers, monitoring and evaluation, utilization of research

1. INTRODUCTION

Most health researchers and those who fund health research would like to believe that the work they produce and support is influencing practice and policy and consequently leading to actual improvements in health care delivery. The study of research's influence on policy has had a long and rich background, from early work on the utilization of social science knowledge in government and public policy (Stuijzand et al., 2020), to more recent inquiries into the utilization of systematic reviews by policy-makers (Ashtari et al., 2015). While the various models of policy-processes that have emerged in this field demonstrate that there are many ways in which research may be influencing policy (Griebel et al., 2015), it is widely recognized that the level of research utilization by policy-makers is lower than it could be (Abebrese et al., 2023).

The body of literature examining the factors influencing the utilization of research findings by policy-makers is increasing. From the two systematic reviews on the

subject, common factors are emerging such as: interactions and personal contact between researchers and policy-makers, timeliness and relevance of the research findings, the inclusion of summaries with clear recommendations, mistrust between researchers and policy-makers, and power and budget struggles (Ali et al., 2018). Most of these findings are however based on studies from industrialized countries, and thus more research is needed into the factors that affect the linkage between research and policy in developing countries. With their limited resources these countries have much to gain from well-informed health policies (Gao & Sunyaev, 2019).

Funding for research has become a challenge as well as the capacity to prepare grant-winning applications and to implement them. Thus, strengthening the capacity of these institutions will enable them to better conduct Health Systems Research that is context-specific and can address local health system challenges (Houghton et al., 2020)

Despite a clear appreciation of the role of health system research for policy-makers in improving health systems performance, especially in low-income countries, academic and research, institutions have limited capacity for health system research (Peltzer & Pengpid, 2011). This situation might not be different from the Ghana Health Service research institutions and so a challenge that calls for deliberate interventions to build the required capacity for the sector.(Tutu et al., 2023)

What is worrying is the fact that, there are no dedicated annual budget funds for health system research in Ghana's health sector. Instead, research institutions of Ghana Health Service have to find their own funding sources to conduct research, which might not necessarily be a priority area for the health sector directly. This situation is certainly not good for the country and so something urgent ought to be done about it. It is therefore imperative for this study to unravel the real difficulties or challenges confronting the institutions to make appropriate recommendations to address them.

2. MATERIAL AND METHODS

Research Type

The research methodology employed in this study was non-interventional in nature, primarily focusing on quantitative approaches. These quantitative strategies were carefully selected to address and compensate for any potential limitations encountered during the data collection process, ensuring a more robust and comprehensive dataset. Moreover, the methodology was designed to facilitate triangulation, thereby enhancing the validity and reliability of the research findings. In an effort to achieve a more thorough and nuanced understanding of the research subject, the study integrated both qualitative and quantitative approaches. This

blended methodology allowed for a more detailed and comprehensive analysis, capturing a wide spectrum of data and perspectives.

Research Design

The study utilized a descriptive cross-sectional survey design, which was meticulously crafted to align with the study's objectives. This approach involved collecting data at a single point in time to analyze various variables and draw correlations. By focusing on a snapshot of the population, the design facilitated an in-depth exploration of the current state of the phenomena under investigation. It provided valuable insights into patterns and trends without the need for longitudinal tracking. The survey questions and methodology were carefully structured to capture a comprehensive view of the respondents' experiences, attitudes, and behaviors, ensuring that the data gathered was both relevant and robust, directly serving the study's primary goals.

Study Population

The role encompasses the comprehensive management of General Health Services (GHS) and the staff working across the three distinct research centres. This involves not only ensuring the efficient operation of health services within these facilities but also overseeing the welfare and professional development of the staff. Each research centre, while operating under the umbrella of the GHS, has its unique challenges and demands, necessitating tailored approaches to management. The position requires a strategic oversight to maintain high standards of healthcare delivery, while simultaneously fostering a supportive and collaborative environment for the staff. This dual focus is critical in promoting excellence in both healthcare services and research outputs.

Study Site

The research landscape in Ghana is enriched by the presence of three significant research centers, each located in a distinct and culturally diverse region of the country. In the heart of the Brong-Ahafo region lies the Kintampo research center, known for its dynamic approach to regional health and environmental studies. Moving to the northern part of Ghana, in the Upper-East region, is the Navrongo research center. This center has gained prominence for its work in epidemiology and public health, reflecting the unique challenges and opportunities of the area. Lastly, the Dodowa research center in the Greater Accra region stands out for its urban and demographic studies, contributing vital data and insights in Ghana's most populous region. Each center, with its unique geographical and cultural context, plays a pivotal role in advancing research and development within Ghana.

Sampling Technique

In conducting the research, a non-probability sampling technique was chosen due to the study's dual nature, incorporating both qualitative and quantitative methodologies. This approach allowed for a more flexible and pragmatic selection of

participants, which is particularly effective in mixed-methods research. To facilitate this, convenience sampling was employed, a method where participants are selected based on their accessibility and proximity to the researcher, thereby streamlining the data collection process while still gathering relevant and substantial information for the study.

Sample Size

A representative sample of the staff of the three centres were employed in the determination of the sample size. A total of 300 people were enrolled in the research. That is the Director-General of Ghana Health Service, the Director Research and Information Management System (RSIM) of the Ministry of Health (MoH), the Director of Research at GHS, three heads of the intuitions and 294 staff members of the three institutions

Data Collection Techniques

A structured self-administered questionnaire and in-depth interview was used, where 295 research officers of the three institutions participated. Four research assistants were trained to assist in data collection, and entry.

Data analysis

The process of data analysis was carried out with the aid of SPSS software, a renowned statistical analysis tool. This sophisticated software enabled the efficient handling and interpretation of complex data sets, ensuring accuracy and reliability in the results. By leveraging SPSS, we were able to conduct a range of statistical tests, from basic descriptive analytics to more advanced inferential techniques. The software's intuitive interface and robust functionality facilitated a thorough exploration of the data, allowing for insightful conclusions to be drawn. Through this meticulous approach, we ensured that our analysis was both comprehensive and precise, providing a solid foundation for our research findings.

Ethical consideration

Ethical approval for the study was obtained following a thorough review by the GHS Ethical Review Committee, ensuring compliance with all relevant ethical standards. Additionally, explicit permission was secured from the heads of the involved research institutions, affirming their consent and support for the research activities.

Societal and Scientific Relevance

This study delves into a range of critical matters, offering insights that are highly relevant and beneficial to both the academic research community and health care stakeholders. By doing so, it bridges a vital gap between theoretical research and practical health care applications. The outcomes of this research are particularly significant as they promise to reinforce the operational effectiveness of the three involved research institutions. This enhancement is expected to be seen in various

facets of their work, from the quality of research produced to the efficiency of their processes, ultimately leading to more impactful contributions in their respective fields.

3. RESULTS

To identify the elements that enhance the use of health system research within organizations, as perceived by the employees, a study was conducted involving 300 participants. The insights gathered from these interviews were meticulously examined, leading to the following findings:

Factors that promote health system research utilisation by health policy-makers

Participants in the survey were asked to pinpoint five major factors that facilitate Health Systems Research (HSR) in their respective organizations or centers. The collated responses led to the formation of nine overarching categories. These include the International Health Research Agenda, which highlights global research directives; National Priorities for Health Research, focusing on country-specific research needs; a Sector-wide Health Research Agenda that spans various health sectors; the Health Research Policy of the Agency, detailing the internal research guidelines; Management Priorities towards Research, emphasizing the role of organizational leadership in research; Funding, which is crucial for research endeavors; Information and Communication Technology (ICT), pivotal in modern research methodologies; various Policies that govern research activities; and the Knowledge Base, which forms the foundational understanding for all research activities.

Ranking of factors that promote health research agenda.

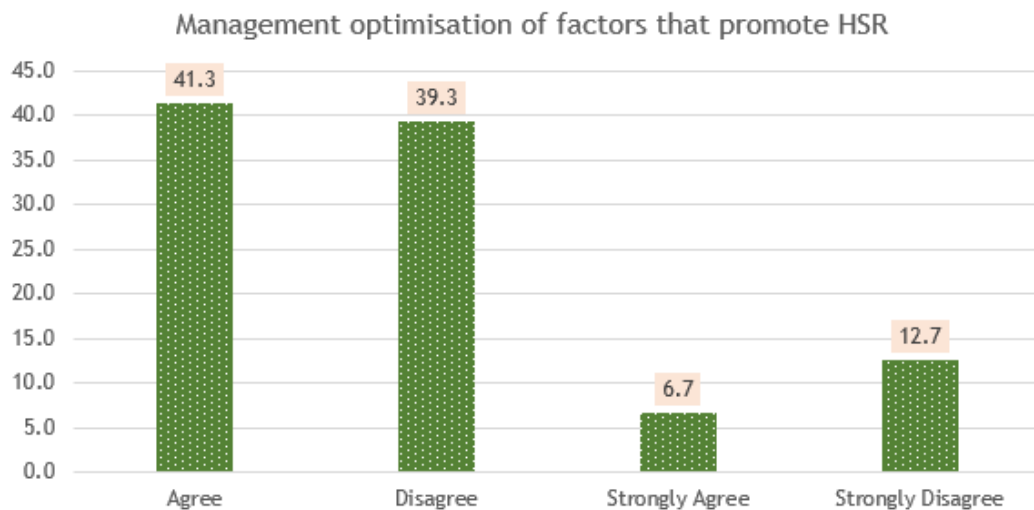
Respondents were asked to rank the factors they had mention in the previous question. The highest ranked factor was national priorities for health research (18.4%) and the least ranked was international health research agenda (0.5%). Other prominent factors that respondents considered as most effective in influencing health system research their organisation in the order of their ranking include funding, policy, ICT, knowledge base among others. The factors according their order of ranking are shown in a table below.

Factor	Responses		Percent of Cases
	N	Percent	
National Priorities for Health research	218	18.4%	72.7%
Funding	195	16.5%	65.0%
Policies	162	13.7%	54.0%
ICT	145	12.3%	48.3%
Knowledge Base	141	11.9%	47.0%
Management priority towards health	125	10.6%	41.7%

Health research policy of the Agency	119	10.1%	39.7%
Sector-wide health research Agenda	52	4.4%	17.3%
International Health Research Agencda	19	1.6%	6.3%
V10	6	.5%	2.0%
	1182	100.0%	394.0%

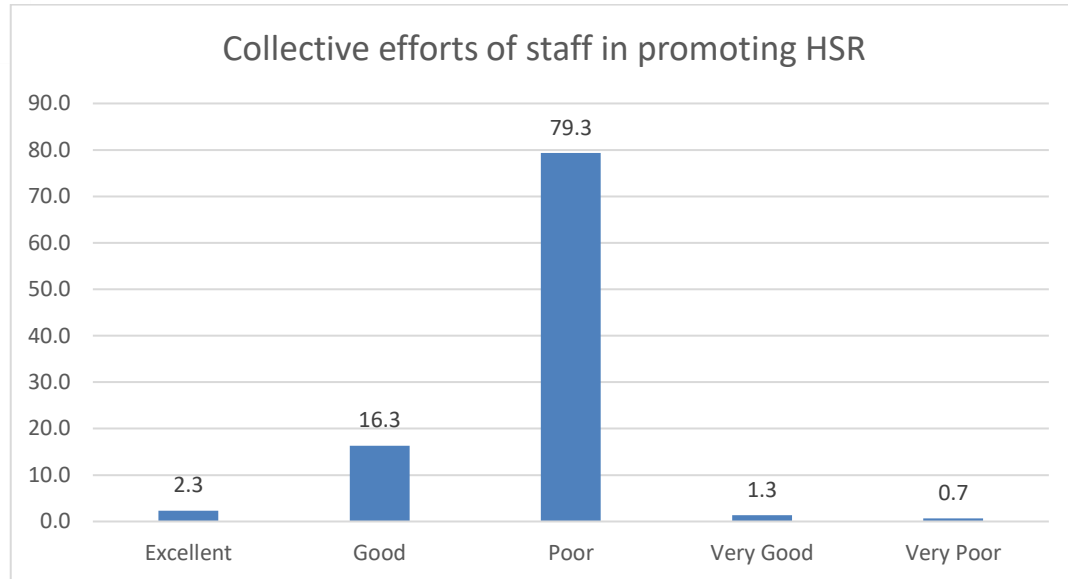
Management optimization of factors that promote Health Systems Research

About 48% of respondents were of the opinion that, management and staff optimizes these factors to promote HSR while 52 percent thinks otherwise as indicated in the graph below.



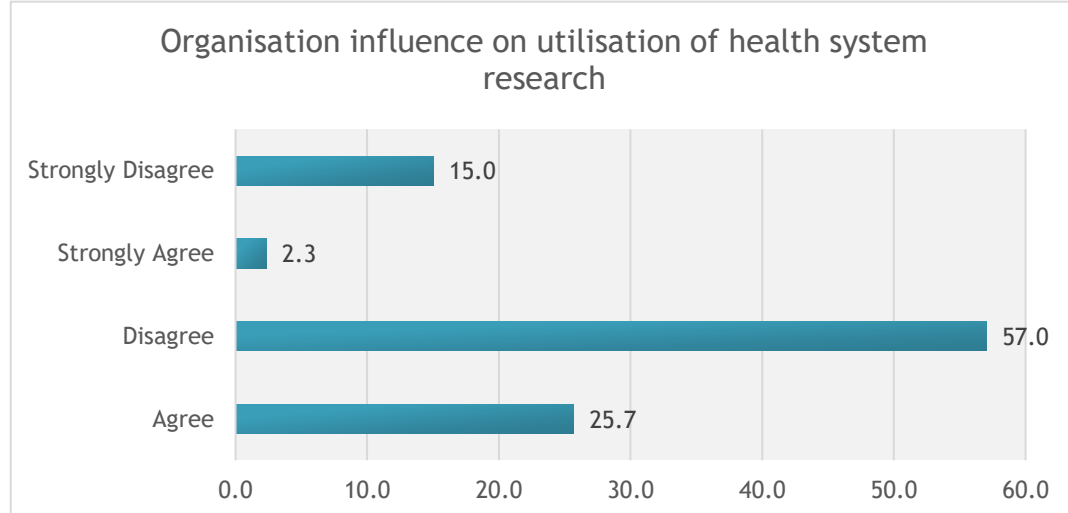
Rating of staff efforts in promoting health system research

Respondents were asked to rate their collective efforts in promoting health system research. About 51.6% their have a positive collective in promoting health system research in their organization while about 48.4% thinks otherwise.



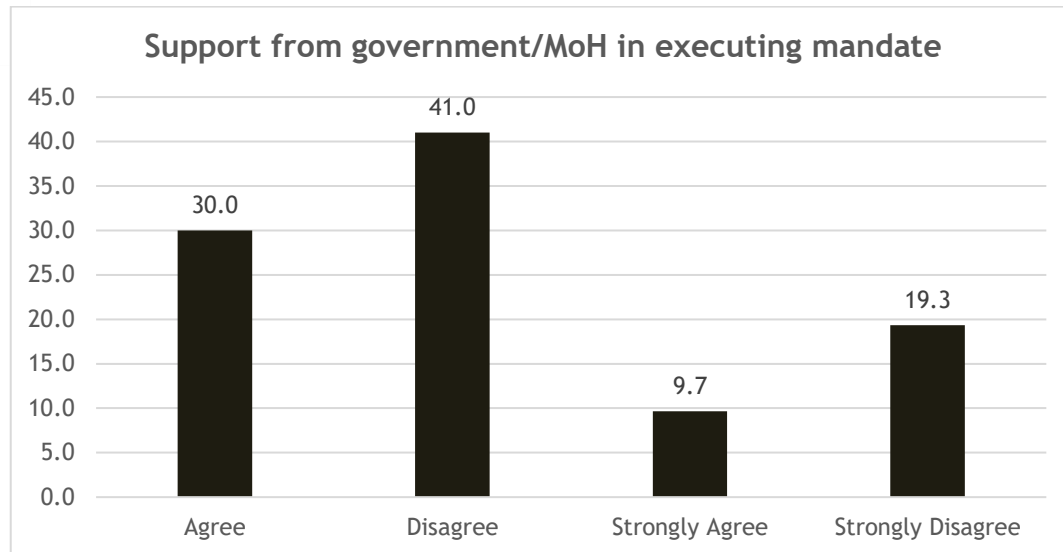
Organization influences the utilization of health system research

Respondents were asked the question whether they agree that their organization has over the years influence the utilization of health system research in the country. About 28% indicated that their organization has over the years influenced the utilization of health system research in the country while the rest of 72% of respondents showed disagreement. This is indicated in the analysis in the figure below.



Support from government/MoH in executing mandate

The researcher enquired to know whether the institutions receive support from government/MoH in executing their mandate. About 60.3% of respondents have agreed that their institutions receive some support from government in executing its mandate. This is indicated in the graph below



4. DISCUSSION

The survey responses have shed light on a diverse array of factors that are essential for the advancement and effectiveness of Health Systems Research (HSR). At the forefront is the alignment of HSR with the national health research priorities. This alignment underscores the need for HSR to be relevant and significant at a national level, ensuring that the research undertaken addresses the most pressing health issues faced by the country. Alongside this, the importance of adequate funding emerges as a critical factor. Funding is not just necessary for kick-starting HSR initiatives; it's also crucial for their ongoing development and success. Without sufficient financial resources, sustaining meaningful progress in HSR can be challenging. In addition to financial resources, the role of policies in HSR is also highlighted as a pivotal aspect. Policies provide a structured framework and clear guidance, helping to steer HSR activities in a direction that is both productive and aligned with broader health goals. This structured approach ensures that HSR initiatives are well-organized and effectively managed. Another key element in the advancement of HSR is the role of Information and Communication Technology (ICT). ICT has revolutionized many fields, and HSR is no exception. It plays an instrumental role in modernizing research methods, enhancing the efficiency and reach of research activities. By leveraging ICT, researchers can collect and analyze data more effectively, collaborate more easily with colleagues around the world, and disseminate their findings more broadly.

A strong knowledge base is equally important. It ensures that HSR practices are grounded in solid scientific principles and methodologies. This foundation is essential for producing reliable, valid, and impactful research findings. Furthermore, emphasizing health management reflects the organizational commitment to prioritizing health research. This focus on health outcomes indicates a strategic approach to health research, one that is oriented towards making tangible

improvements in healthcare. The specific health research policy of the Agency plays a crucial role in directing HSR efforts. This policy outlines the goals, strategies, and methodologies for HSR, providing a clear path for researchers to follow. Similarly, a sector-wide health research agenda integrates various aspects of health research, ensuring a holistic approach to tackling health issues. This integration is vital for addressing the complex nature of health challenges, which often require a multidisciplinary approach.

Lastly, the International Health Research Agenda plays a significant role in broadening the scope and impact of HSR. By extending its influence beyond national borders, this agenda allows for the sharing of knowledge and best practices on a global scale. This international collaboration is crucial for addressing global health challenges and ensures that the benefits of HSR are felt worldwide. These elements collectively highlight the multifaceted nature of HSR. They underscore the need for a combination of strategic planning, financial investment, technological innovation, robust knowledge, and policy guidance to effectively advance HSR. Each of these components plays a critical role in ensuring that HSR is not only successful but also has a lasting and meaningful impact on health outcomes both nationally and internationally. These factors are ranked according to their effectiveness in influencing / promoting HSR in their organizations/centres. Notwithstanding the fact that, participants see health research as a national agenda as the most important factor to promoting health system agenda, this research reveals poor prioritization of research agenda in these institutions due to the poor attention research generally receives in its development and implementation.

Respondents widely acknowledge that both management and staff in various organizations actively work to capitalize on factors that foster Health System Research (HSR). Despite this consensus, the tangible outcomes in HSR advancement remain notably modest. The study highlights a robust, collective endeavor within organizations to push forward HSR. Over the years, these efforts have played a crucial role in shaping the national utilization of health system research. Nonetheless, the support provided by the government and the Ministry of Health in this domain has fallen short of what is needed to effectively execute their mandates. This gap in support underscores a critical area for improvement in the broader landscape of health system research implementation and advancement.

This research also determined the factors that promote health system research utilization by policy makers. It also assessed your organizations have had influence the utilization of health system research over the years. Some of these factors that have influenced HSR include National Priorities for Health research, Funding, Policies, ICT, Knowledge Base, Management priority towards health, Health research policy of the Agency, Sector-wide health research Agenda and International Health Research Agenda. The most influential of all are funding and National Prioritizations for Health

Research. These factors been harness by management promote health system research in these institutions. Management and staff think that their collective efforts in promoting HSR is a good one. They also believe that, their organizations over the period have influence the utilization of HSR through advocacy of the research findings, publication of these findings and implementations of interventions that have been carved because of various research conducted. Despite these efforts, support from government and the MoH remains poor. This among other barriers discussed above do not promote HSR in Ghana and its implementation.

5. CONCLUSION AND RECOMMENDATION

The study reveals that contrary to initial assumptions, funding is indeed a key element in promoting the use of health system research by policymakers. In this context, health research utilization refers to applying research-derived knowledge to shape health policies and practices. It's noted that in Ghana, there's a significant disconnect between the discovery of research knowledge and its practical application, often leading to underutilization of research findings in enhancing health policies and practices. The research categorizes various influential factors: foremost are National Health Research Priorities, which set the research agenda, followed by Funding for financial support, Policies guiding research activities, the role of ICT in research advancement, existing Knowledge Base, Management's focus on health research, individual Agency Health Research Policies, the collective Sector-wide Health Research Agenda, and the global perspective of the International Health Research Agenda. These factors collectively offer an in-depth understanding of the dynamics shaping health research utilization.

Conflict of Interest Disclosures

The author(s) declared no potential conflicts of interest regarding the research, authorship, and/or publication of this article.

Author Contributions

The author(s) confirms being the sole contributors of this work and approved it for publication.

Data Availability

The data can be obtained upon request from the corresponding author.

Funding

This study did not receive support from government, commercial entities, or non-profit organizations.

REFERENCE

- Abebrese, J., Boatemaa, R., & Chinaza Adaobi, C. (2023). Factors Influencing Stigmatization among Staff Survivors of Covid-19. *Allied Health Sciences | Journal of Engineering Applied Science and Humanities An International Peer-Reviewed Journal*, 8(3), 164–178.
<https://doi.org/10.53075/ljmsirq/6588789565568>

- Ali, O., Shrestha, A., Soar, J., & Wamba, S. F. (2018). Cloud computing-enabled healthcare opportunities, issues, and applications: A systematic review. *International Journal of Information Management*, 43(April), 146–158. <https://doi.org/10.1016/j.ijinfomgt.2018.07.009>
- Ashtari, S., Eydgahi, A., & Lee, H. (2015). *Exploring Cloud Computing Implementation Issues in Healthcare Industry*. 9.
- Gao, F., & Sunyaev, A. (2019). Context matters: A review of the determinant factors in the decision to adopt cloud computing in healthcare. *International Journal of Information Management*, 48(February), 120–138. <https://doi.org/10.1016/j.ijinfomgt.2019.02.002>
- Griebel, L., Prokosch, H.-U., Köpcke, F., Toddenroth, D., Christoph, J., Leb, I., Engel, I., & Sedlmayr, M. (2015). A scoping review of cloud computing in healthcare. *BMC Medical Informatics and Decision Making*, 15(1), 17. <https://doi.org/10.1186/s12911-015-0145-7>
- Houghton, C., Meskell, P., Delaney, H., Smalle, M., Glenton, C., Booth, A., Chan, X. H. S., Devane, D., & Biesty, L. M. (2020). Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: a rapid qualitative evidence synthesis. *Cochrane Database of Systematic Reviews*, 4.
- Peltzer, K., & Pengpid, S. (2011). Overweight and obesity and associated factors among school-aged adolescents in Ghana and Uganda. *International Journal of Environmental Research and Public Health*, 8(10), 3859–3870. <https://doi.org/10.3390/ijerph8103859>
- Stuijzand, S., Deforges, C., Sandoz, V., Sajin, C.-T., Jaques, C., Elmers, J., & Horsch, A. (2020). Psychological impact of an epidemic/pandemic on the mental health of healthcare professionals: a rapid review. *BMC Public Health*, 20(1), 1–18.
- Tutu, R. A., Ouassini, A., & Ottie-Boakye, D. (2023). Health literacy assessment of faith-based organizations in Accra, Ghana. *Cogent Social Sciences*, 9(1). <https://doi.org/10.1080/23311886.2023.2207883>