

Research Proposal Form

MSc Public Health and Social Care in Practice Dissertation (CHS7004)

Fill in this form after discussions with your tutor.

The information will be formally submitted to your supervisor for approval.

Student Name	Student ID
Sana Firoz Haji	2242231

**Please adapt the text boxes accordingly*

Proposed Research Topic:

Antimicrobial Resistance in healthcare

Review of Staphylococcus aureus.

My title is Impact of antimicrobial resistance in healthcare settings: “A systematic review”.

Research question: What are the needs to come up with AMR and What are the precautions and interventions regarding AMR for younger population in the UK

Research methodology:

Research Methodology applies will be Systematic review.

The following method for ABR data collection will be Systematic review which will be survey of Pre-existing Scholarly Sources on topic ,which will approach an overview of current Knowledge ,awareness, prevalence , to identify relevant themes ,debates and gaps in previous year research(Fink, 2019).

Thematic Content analysis will be used as a data analysis technique.

☐ **This method will interpret the context of collected data in form of texts through systematic classification process of themes and coding or patterns.**

☐ **discussed three approaches to qualitative content analysis, based on the degree of involvement of inductive reasoning (Vaismoradi and Snelgrove, 2019).**

☐ **The research will use secondary approach, summarizing and synthesizing data from previous studies , which combines qualitative and quantitative results from multiple studies and narrative qualitative findings.**

Inclusion criteria:-

Population and Setting: Studies that focus on healthcare settings (e.g., hospitals, clinics, long-term care facilities) where antimicrobial resistance is observed.

Type of Study: Peer-reviewed original research articles, systematic reviews, and meta-analyses that provide data on antimicrobial resistance patterns, mechanisms, and impacts in healthcare settings.

Publication Date: Studies published within the last 10 years to ensure current and relevant data.

Exclusion criteria:-

Population and Setting: Studies focusing on antimicrobial resistance in non-healthcare settings, such as community settings or agriculture.

Type of Study: Non-peer-reviewed articles, editorials, opinion pieces, letters, and conference abstracts.

Publication Date: Articles published more than 10 years ago.

Research design:

In this research systematic review will be employed.
Identifying relevant 10 studies through comprehensive literature searches in databases like PubMed, MEDLINE, Ebsco and any other official website of medical records.

Secondary data: Utilizing existing data sources such as national health databases, PubMed, and other relevant sources to gather relevant information on AMR mortality, risk factors, healthcare access, and treatment outcomes.

PRISMA flow chart will be followed and 10 articles will be selected on the basis of inclusion and exclusion criteria

A brief overview (14-20 sentences, including 5 references)

Please provide a brief overview of the topic you intend to research in a lay public language, that is for a non-scientific audience:

Antimicrobial resistance causes nearly 6 million deaths in 2021 (Pulingam, *et al.*, 2022).

Hospital and community acquired *Staphylococcus aureus* infections pose a substantial burden in terms of morbidity, mortality and healthcare costs (Murray, *et al.*, 2022)

Policy Interventions and global cooperations are essential for implementing effective measures against AMR and preserving efficiency of existing antibiotics and antimicrobials
AMR addressing requires multidisciplinary approach ,involving healthcare practices and public awareness to ensure the sustainable use of specific antibiotics against specific pathogen
Overall combating AMR requires a comprehensive& antimicrobial coordinated approach at local ,national and international levels.

Understanding the concept of resistance development and transfer will immensely help in curtailing the global rise in antimicrobial resistance in bacteria followed by the introduction of treatment against this pathogens
(Laxminarayan,2022)

Lancet report: Antibiotic resistance leading cause of death. Available at: <https://www.twn.my/title2/health.info/2022/hi220113.htm> (Accessed: 01 November 2023).

Laxminarayan, R., 2022. The overlooked pandemic of antimicrobial resistance. *The Lancet*, 399(10325), pp.606-607

Mestrovic, T., Aguilar, G.R., Swetschinski, L.R., Ikuta, K.S., Gray, A.P., Weaver, N.D., Han, C., Wool, E.E., Hayoon, A.G., Hay, S.I. and Dolecek, C., 2022. The burden of bacterial antimicrobial resistance in the WHO European region in 2019: A cross-country systematic analysis. *The Lancet Public Health*, 7(11), pp.e897-e913.

Mikłasińska-Majdanik, M., Kępa, M., Wojtyczka, R.D., Idzik, D. and Wąsik, T.J., 2018. Phenolic compounds diminish antibiotic resistance of *Staphylococcus aureus* clinical strains. *International journal of environmental research and public health*, 15(10) , p. 2321.

Aim (a broad statement capturing the overall purpose of this research)

Please provide the aim of the topic you intend to research:

The Aim of the study is to review and Critical evaluate the current Research developments of healthcare settings to fight against AMR(antimicrobial Resistant)

Objectives (outline 3-5 using bullet points)

Please provide the objectives of the intended

To Compare the effective management practices and policies of UK health entities which contain and control AMR taking account the global initiatives for same .

To Review the historical development of resistance development

To measure the effectiveness of AMR 5 year National Action plan (NAP) to contain and control AMR by the upcoming year 2040

'To explore strategies to mitigate the AMR

Ethical considerations (indicate ethical issues that are relevant to your research)

Collecting primary data from human participants requires you to address these issues. Using primary data sources still requires how you will address these issues.	N/A
I will submit my research proposal and the UWTSD ethics form to my supervisor to receive ethical approval.	Yes
I will develop a research information letter and consent form to be handed to each participant.	N/A
Voluntary informed Consent will be asked of each participant:	N/A
I will ensure participants will not be subjected to coercion, intimidation, and undue influence to participate in this research.	N/A
I will ensure participants will be informed they have the right to withdraw and their data from this research.	N/A
I will ensure to store the obtained signed consent forms securely and anonymously.	N/A
I will ensure the collected data will be protected and stored securely and deleted after ending this study program.	yes
I confirm that I have discussed and agreed every section of this form with my supervisor and will only conduct my research in line with what has been agreed in this document	yes
Signature :- <u>Sonali</u> . Date:.....07/06/2024..... Supervisor:	
Signature..... Date:.....	
Appendix: A Participant research information form B Consent form C List of Questions / Interview schedule	

Reference List add here below

1) administrator 328 posts (2023) Innovation in diagnostics for tackling

AMR – report from UEMO, uemo. Available at:

<https://www.uemo.eu/innovation-in-diagnostics-for-tackling-amr-report-from-uemo/> (Accessed: 01 November 2023).

☐ Antimicrobial resistance (AMR): Applying all our health (2023) GOV.UK.

Available at: <https://www.gov.uk/government/publications/antimicrobial-resistance-amr-applying-all-our-health/antimicrobial-resistance-amr-applying-all-our-health> (Accessed: 01 November 2023).

☐ Ashiru-Oredope, D. (2021) What is antimicrobial resistance and why do we need to take action against it?, UK Health Security Agency. Available at:

<https://ukhsa.blog.gov.uk/2021/11/17/what-is-antimicrobial-resistance-and-why-do-we-need-to-take-action-against-it/> (Accessed: 01 November 2023).

☐ Ayukekbong, J.A., Ntemgwa, M. and Atabe, A.N., 2017. The threat of antimicrobial resistance in developing countries: causes and control strategies. Antimicrobial Resistance & Infection Control, 6(1), pp.1-8.

☐ Busetto, L., Wick, W. and Gumbinger, C., 2020. How to use and assess qualitative research methods. Neurological Research and practice, 2, pp.1-10.

Founou, R.C., Blocker, A.J., Noubom, M., Tsayem, C., Choukem, S.P., Dongen, M.V. and Founou, L.L., 2021. The COVID-19 pandemic: A threat to antimicrobial resistance containment. Future Science OA, 7(8), p.FSO736.

☐ Haaber, J., Penadés, J.R. and Ingmer, H., 2017. Transfer of antibiotic

resistance in *Staphylococcus aureus*. *Trends in microbiology*, 25(11), pp.893-905.

☐ Hazlegreaves, S. and here, P. enter your name (2019) Funding health research: The Canadian Institutes of Health Research, Open Access Government. Available at: <https://www.openaccessgovernment.org/funding-health-research/75817/> (Accessed: 01 November 2023).

☐ Kuckartz, U., 2019. Qualitative content analysis: From Kracauer's beginnings to today's challenges. In *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research* (Vol. 20, No. 3, p. 20). DEU.

☐ Dhingra, S., Rahman, N.A.A., Peile, E., Rahman, M., Sartelli, M., Hassali, M.A., Islam, T., Islam, S. and Haque, M., 2020. Microbial resistance movements: an overview of global public health threats posed by antimicrobial resistance, and how best to counter. *Frontiers in Public Health*, 8, p.535668.

☐ Fink, A., 2019. Conducting research literature reviews: From the internet to paper. Sage publications.

☐ Causes of antibiotic resistance (2023) World Health Organization. Available at: <https://www.who.int/europe/multi-media/item/causes-of-antibiotic-resistance> (Accessed: 01 November 2023).

☐ Casula, M., Rangarajan, N. and Shields, P., 2021. The potential of working

hypotheses for deductive exploratory research. *Quality & Quantity*, 55(5), pp.1703-1725.

Lancet report: Antibiotic resistance leading cause of death. Available at: <https://www.twn.my/title2/health.info/2022/hi220113.htm> (Accessed: 01 November 2023).

☐ Laxminarayan, R., 2022. The overlooked pandemic of antimicrobial resistance. *The Lancet*, 399(10325), pp.606-607.

☐ Mestrovic, T., Aguilar, G.R., Swetschinski, L.R., Ikuta, K.S., Gray, A.P., Weaver, N.D., Han, C., Wool, E.E., Hayoon, A.G., Hay, S.I. and Dolecek, C., 2022. The burden of bacterial antimicrobial resistance in the WHO European region in 2019: A cross-country systematic analysis. *The Lancet Public Health*, 7(11), pp.e897-e913.

☐ Mikłasińska-Majdanik, M., Kępa, M., Wojtyczka, R.D., Idzik, D. and Wąsik, T.J., 2018. Phenolic compounds diminish antibiotic resistance of *Staphylococcus aureus* clinical strains. *International journal of environmental research and public health*, 15(10), p.2321.

☐ Monaco, M., Pimentel de Araujo, F., Cruciani, M., Coccia, E.M. and Pantosti, A., 2017. Worldwide epidemiology and antibiotic resistance of *Staphylococcus aureus*. *Staphylococcus aureus: microbiology, pathology, immunology, therapy and prophylaxis*, pp.21-56.

Naylor, N.R., Atun, R., Zhu, N., Kulasabanathan, K., Silva, S., Chatterjee, A., Knight,

G.M. and Robotham, J.V., 2018. Estimating the burden of antimicrobial resistance:

a systematic literature review. Antimicrobial Resistance & Infection Control, 7,

pp.1-17.

☐ Murray, C.J., Ikuta, K.S., Sharara, F., Swetschinski, L., Aguilar, G.R., Gray, A., Han,

C., Bisignano, C., Rao, P., Wool, E. and Johnson, S.C., 2022. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. The Lancet, 399(10325), pp.629-655.

☐ Prevention and control of a Staphylococcus aureus infection (2023) bioMérieux

Website. Available at: [https://www.biomerieux.com/corp/en/resource-hub/knowledge/scientific-library/pharma-microorganisms-library/prevention-and-](https://www.biomerieux.com/corp/en/resource-hub/knowledge/scientific-library/pharma-microorganisms-library/prevention-and-control-of-a-staphylococcus-aureus-infection-scientific-library.html)

control-of-a-staphylococcus-aureus-infection-scientific-library.html (Accessed: 01

November 2023).

☐ Pulingam, T., Parumasivam, T., Gazzali, A.M., Sulaiman, A.M., Chee, J.Y., Lakshmanan, M., Chin, C.F. and Sudesh, K., 2022. Antimicrobial resistance: Prevalence, economic burden, mechanisms of resistance and strategies to overcome. European Journal of Pharmaceutical Sciences, 170, p.106103.

☐ Rassel, G., Leland, S., Mohr, Z. and O'Sullivan, E., 2020. Research methods for public administrators. Routledge.

☐ Roope, L.S., Smith, R.D., Pouwels, K.B., Buchanan, J., Abel, L., Eibich, P., Butler,

C.C., Tan, P.S., Walker, A.S., Robotham, J.V. and Wordsworth, S., 2019. The challenge of

☐ antimicrobial resistance: what economics can contribute. *Science*, 364(6435), p.eaau4679.

☐ Ruggiano, N. and Perry, T.E., 2019. Conducting secondary analysis of qualitative data: Should we, can we, and how?. *Qualitative Social Work*, 18(1), pp.81-97.

☐ Soratto, J., Pires, D.E.P.D. and Friese, S., 2020. Thematic content analysis using

ATLAS. ti software: Potentialities for researchs in health. *Revista brasileira de enfermagem*, 7

☐ The Great Alliance in Combating Antimicrobial Resistance (2018) Global Alliance

for Infections in Surgery. Available at:

☐ [https://infectionsinsurgery.org/the-great-alliance-in-combating-](https://infectionsinsurgery.org/the-great-alliance-in-combating-antimicrobial-)

[resistance/](https://infectionsinsurgery.org/the-great-alliance-in-combating-antimicrobial-resistance/) (Accessed: 01 November 2023).

☐ Vaismoradi, M. and Snelgrove, S., 2019. Theme in qualitative content analysis and thematic analysis.