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**Development of a Culturally Competent Behaviour Change Intervention Framework to
Enhance Utilisation of Sexual and Reproductive Health Services among Rural- Urban
Migrant Adolescents in the Greater Accra Region, Ghana**

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IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF
DOCTOR
OF PHILOSOPHY IN PUBLIC HEALTH**

INTEGRI PROCEDAMUS

MARCH, 2024

DECLARATION

I hereby declare that this thesis is the result of my original work and that no part of it has been presented for a similar work in this university or elsewhere and was conducted under the supervision of Dr. Benedict Weobong, Professor Phyllis Dako-Gyeke and Dr. Adanna Uloaku Nwameme. I must however admit that I did make use of references from various sources which I duly acknowledged.

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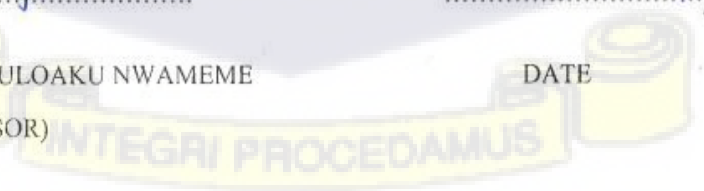
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DEDICATION

To my family



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LIST OF ACRONYMS

ANC- Antenatal Care

APEASE-Acceptability, Practicability, Effectiveness, Affordability Side-effects and Safety

ASRHS- Adolescent Sexual and Reproductive Health Services

BCW- Behaviour Change Wheel

BCTs - Behaviour Change Techniques

BCTTV1- Behaviour Change Techniques Taxonomy Version 1

BCTO- Behaviour Change Technique Oncology

CAM- Complementary and Alternative Medicine

COM-B - Capability, Opportunity, Motivation-Behaviour

CHPS-Community -Based Health Planning and Services

GHS- Ghana Health Service

GOG- Government of Ghana

HCPs- Health Care Professionals

HICs- High Income Countries

HIV/AIDs-Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome

ICPD- International Conference on Population and Development

IOM- International Organisation for Migration

LMICs- Lower Middle-Income Countries

MAMGC- Mallamata Market Government Clinic

NEAR- Normal. Easy, Attractive and Routine

NCDs- Non-Communicable Diseases

UNDESA- United Nations Department of Economic and Social Affairs

UNFPA- United Nations Population Fund

WHO- World Health Organisation

SRH- Sexual and Reproductive Health

STIs- Sexually Transmitted Infections

UNICEF- United Nations International Children's Emergency Fund

YC- Youth Clinics

DEFINITION OF TERMS

Health care providers: a licenced organisation that provides health care services, including ASRHs, to migrant adolescents.

Patient: a rural-urban migrant adolescent who is receiving adolescent sexual and reproductive medical care at a health care facility.

Self-efficacy is an individual's (HCP's) belief in his or her capacity to execute behaviours necessary to produce specific performance attainments. It therefore reflects confidence in the ability to exert control over one's own motivation, behaviour, and social environment.

Trust refers to a sense of assurance or faith that allows individuals to rely on someone or something without fear or doubt. Trust can be established through consistent actions, transparent communication, and demonstrated competence over time.

Competency trust: the belief that the HCP is reliable, knowledgeable, and has the required expertise for the task at hand.

Health care professionals: a person suited by education, training, and the necessary licencing to perform a medical service.

Migrant peers: are individuals who share immigrant background status and form friendships with them or have no friendships with them.

Migrant gatekeepers: are individuals who have ready access to the larger society's information sources and services.

Rural-urban migration is the movement of people from rural to urban areas, which often presents more work opportunities or a better quality of life.

Migrant communities: A geographical area inhabited by a group of people in a city with diverse backgrounds with strong networks and usually having limited political rights at first, though extensive social and economic rights.

Informal health care providers: this involves a wide range of practitioners who provide services for which they do not have formal medical training or that are outside the boundaries of their licensure.

Demand Side: a situation where patients (e.g., migrant adolescents) demand health care services, e.g., ASRHs

Supply Side: this includes curative, preventative services and treatments provided by the health care system



ABSTRACT

Purpose: The thesis addresses the gap in culturally competent behaviour change interventions to improve sexual and reproductive health service (ASRH) utilisation among rural and urban migrant adolescents in Ghana.

Methodology: It employed intervention development design using a mixed-methods approach. Guided by the COM-B model and Campinha-Bacote's cultural competence theory, the study engaged healthcare professionals (HCPs) working in ASRH facilities and migrant adolescents utilising services as well as gatekeepers and peers in the Greater Accra Region from 2022 to 2023. A criterion purposive sampling technique was first employed to select the healthcare facilities (HCF). Subsequently, convenience sampling was used to select the HCPs and the migrant adolescents within the catchment area of the target health facilities. The study was conducted in 3 phases. In Phase 1, a qualitative research approach was used to understand problematic behaviours of migrant adolescents regarding current pathways for health-seeking and cultural competence of HCPs using behavioural analysis. In total, 25 participants took part in the study after which saturation was reached. This included 10 migrant adolescents, 8 HCPs, 3 gatekeepers, and 4 migrant peers. Following this, through a process of mapping and distillation, the Behaviour change wheel (BCW) framework was used to guide a systematic process of identifying potential culturally competent intervention functions and their corresponding behaviour change techniques (BCTs) drawn from the BCW taxonomy BCTTv1 and supplemented with relevant literature. Phase 2 involved a Delphi study conducted among 10 experts to validate behaviour change techniques (BCTs); ratings for feasibility, acceptability, effectiveness, and risk of harm were analysed to establish a consensus ($\geq 70\%$). Experts were also asked to provide feedback on the appropriateness of the identified implementation strategies and mode of delivery. Phase 3 involved preliminary testing of the cultural acceptability and feasibility of implementation strategy and delivery mode among migrants and HCPs in a workshop to refine the intervention framework. **Findings:** The behavioural analysis conducted in Phase 1 revealed the following explanatory factors that are amenable to behaviour change: mistrust, communication barriers at the migrant level, and lack of cultural competency at the HCP level. For each of these, the BCTs identified included nonspecific reward, removing aversive stimuli, restructuring the social environment at the migrant adolescent level, and instructions on how to perform the behaviour at the HCP level. In Phase 2, experts rated BCTs as appropriate: feasible (4.6 [SD=0.7; 3-5]); acceptable (4.5 [SD=0.7; 3-5]); effective (4.4 [SD=1.2; 1-5]), and risk of harm 4.0 [SD=1.3; 2-5], indicating low risk of harm. At the migrant adolescent level, the experts rated the BCTs as: feasible (4.3 [SD=0.5; 4-5]); acceptable (4.1 [SD=0.7; 3-5]); effective (4.1 [SD=0.7; 3-5]); and risk of harm (4.0 [SD=0.8; 3-5]), indicating low risk of harm. In the final phase of the framework development, the validated BCTs were operationalised into behaviour change strategies, which were then tested among the experts. Suggestions emerged regarding who to implement the strategies and the need to highlight the importance of providing training that emphasises skills and mastery experiences. These suggestions were integrated into the final content. To ensure that these strategies and delivery options are culturally appropriate and effectively address both demand-side barriers and facilitators, the users emphasised the importance of taking contextual factors into account, which were integrated in order to inform the intervention framework development. **Conclusion:** The behaviour change-informed framework served as a conceptual model of the mechanisms of behaviour change and a practical guide to the implementation of strategies to enhance the utilisation of ASRH among migrant adolescents pending further testing in a future study.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Migration is a significant life transition that profoundly impacts adolescents. Many young people, particularly those with limited or no formal education, often seek opportunities through cross-border or internal migration. However, such movements expose children and adolescents to significant sexual and reproductive health risks, posing serious threats to their overall health and well-being (Kwankye et al. 2021).

As most developing countries continue to witness increasing rural-urban migration of adolescents into urban centres, many are also beginning their first sexual experiences, acquiring protective knowledge, and forming attitudes about sexual behaviour (Selod et al. 2021). Concerns therefore arise about the well-being of these adolescents migrating to urban centres, especially with no family support (Sznajder et al., 2020).

In Ghana, migration typically involves various demographic groups, including adolescents aged 8 to 17, who frequently migrate independently from rural areas to urban centres, mostly from the Northern part of Ghana (Yeboah et al. 2021). Urbanisation in Ghana has seen substantial growth, with the urban population rising from 12,545,229 (50.9%) in 2010 to 17,472,530 (56.7%) in 2021. A significant portion of this growth, nearly 47.8%, occurred in the Greater Accra and Ashanti regions. Urbanisation rates vary across regions, with the Greater Accra Region having the highest proportion of urban dwellers, reaching 91.7% (Ghana Statistical Service (2021). It is projected that urbanisation rates may reach 72% by 2035, with rural-to-urban migration remaining the dominant pattern within Ghana (UN-HABITAT, 2014).

According to studies on urbanisation in Ghana, the main pull factors for internal migration are employment and other opportunities that improve a person's standard of living but are unavailable in their places of origin (Awumbila et al., 2011b; Black et al., 2006; Kwankye et al., 2009; Mensah-Bonsu, 2003). The majority of these migrant adolescents lack almost all the basic needs of life, including education, shelter, health care, adequate nutrition, and personal safety, leaving them exposed to exploitation, abuse, threats, and violence (Devakumar et al. 2019).

Evidence suggests that adolescents' sexual and reproductive health rights (SRHR) are often neglected (Woog et al., 2017; Chandra-Mouli et al., 2015), particularly among urban migrant adolescents (Ivanova et al., 2018). This condition exposes adolescents in impoverished urban settings to early unwanted pregnancy, which has negative social, health, and economic consequences not just for young mothers but also for young fathers (United Nations Population Fund, 2021). Despite being at the heart of sustainable development and serving as agents of change to achieve healthy, inclusive, and stable societies, adolescents are also the most vulnerable to the effects of migration, war, climate change, and poverty (UN, 2019).

The International Organisation for Migration (IOM) defines a 'migrant' as "a person who has moved across an international border or within a state away from his or her habitual place of residence, regardless of (i) the person's legal status; (ii) whether the movement is voluntary or involuntary; (iii) what the causes of the movement are; or (iv) what the length of the stay is" (Mengesha et al., 2016). Thus, in this PhD research, a rural-urban migrant adolescent refers to young individuals who have migrated from rural areas to cities in quest of better prospects (Todaro, 1976) and are between the ages of 10 and 19 (UNICEF, 2019).

Evidence shows that adolescents who migrate often experience challenges to SRH information and services (United Nations Population Fund, UNFPA 1994; Janssens et al., 2005), despite the fact that they are the ones who most need it due to the vulnerability associated with unplanned migration. According to the United Nations Population Fund (2015) and McMichael et al. (2010), migrant and refugee adolescents are at a higher risk of unplanned pregnancy, induced abortions, and obstetric complications than women in the host community. This might have serious implications for the physical, psychological, and social health and well-being of women and their families (Ussher et al., 2010). Sexual and reproductive health (SRH), as defined by the World Health Organisation (WHO, 2017), refers to the physical, emotional, mental, and social well-being associated with sexuality. SRH focuses on a variety of health concerns, such as enhancing maternity and newborn care, delivering high-quality family planning services, preventing unsafe abortions, combating sexually transmitted diseases, and promoting sexual health. This includes protecting sexual rights, improving sexual function, and promoting sexual pleasure without compulsion (WHO, 2019).

The healthcare system's response is a crucial element in addressing the SRH concerns of migrant adolescents. As a result, implementing interventions that are sensitive to migrant cultural and health characteristics can yield multiple positive consequences for both the health of migrants' and the communities in which they live. For example, data shows that migrant groups often underutilise SRHs, with migrant women using health services at a lower rate than native women (Dune et al., 2017).

This underutilisation stems from factors such as a lack of knowledge about available services and how to use them, language barriers, differences in cultural understanding of health and

healthcare, challenges in health-seeking behaviour, the healthcare system's inability to recognise and fully understand the specific needs of the migrant population, and individuals' unresolved administrative status (Squires, 2017). This scenario highlights the importance of cultural competency in health care delivery. The term is often associated with Cross et al. (1989), who defined it as a combination of consistent behaviours, attitudes, and policies that exist within a system, agency, or among professionals and allow the system, agency, or professionals to function effectively in cross-cultural situations.

According to Fitzgerald (1997), cultural competence is the ability to identify and challenge one's own cultural assumptions, attitudes, and beliefs. It involves cultivating empathy for people who see the world through various cultural lenses, as well as the application of specialised communication and interpersonal skills that may be acquired and integrated into clinical encounters. Linguistics competency plays a crucial role in cultural competency since language is a fundamental aspect of culture. "Culture" is defined as an integrated pattern of acquired human behaviours, such as communication styles and customs, as well as shared beliefs about roles and relationships within groups (Robins et al., 1998; Donini-Lenhoff & Hendrick, 2000).

The term "competence" suggests possessing the ability to function effectively within a cultural context (Cross et al 1989). Cultural competence is commonly described as involving three fundamental components: First, the affective element involves attitudes such as sensitivity, respect, and openness to differences. This emotional mindset is instrumental in fostering positive relationships between cultures. Second, the cognitive element pertains to learning about cultural differences (or similarities). Understanding these differences beforehand helps cultivate stronger relationships and mitigate cross-cultural misunderstandings. Third, the behavioural element

involves the skills needed to work across cultures. These skills can range from individual verbal and non-verbal communication skills to proficiency in working with interpreters, as well as broader competencies in community development and policy formulation (Bean, 2006; Gopalkrishnan, 2006; Graf, 2004). Therefore, providing culturally competent services within the care delivery process has the potential to improve health outcomes, increase the efficiency of clinical and support workers, and result in improved client satisfaction with services (Brach et al. 2000). Thus, implementing evidence-based guidelines can influence healthcare professionals' behaviours and enhance the health outcomes of migrant adolescents (Michie et al., 2005).

Individuals engage in behaviours with the intention of preventing, detecting, or improving health and well-being in order to enhance their health outcomes. However, these outcomes are also significantly influenced by HCPs, who have a duty of care to healthcare service users (Conner et al., 2015). In Nigeria, for example, a study found that language barriers hampered access to HIV prevention practices or contraception options because health education at health centres was delivered in a local language unfamiliar to migrant children, implying dire consequences for this demographic (Kunnuji et al. 2013).

Finding effective methods to encourage health professionals to consistently incorporate high-quality clinical evidence into their daily practice is crucial but has proven to be a significant challenge (Grimshaw et al 2012). Over the past two decades, there has been a substantial international effort in research and development aimed at addressing this challenge. A vast body of literature now exists, documenting numerous clinical trials and systematic reviews of interventions targeting behaviour change among health professionals across various settings (Mittman 2012).

Considering the current public health implications for migrant adolescents, it is crucial to implement behavioural change interventions in healthcare tailored to this demographic. This approach has the potential to increase health service use and minimise healthcare inequities among urban migrant adolescents. When dealing with the health needs of people from diverse cultural and linguistic backgrounds, integrating cultural competency into health service delivery is critical for providing high-quality care (Kunnuji et al. 2013).

As a result, this PhD research report attempts to develop a culturally competent behaviour change intervention framework to enhance utilisation of sexual and reproductive health services among rural-urban migrant adolescents in the Greater Accra Region, Ghana, with a focus on counselling, contraceptive services, STI treatment, and safe abortions.

1.2 Problem Statement

Since 1994, following the International Conference on Population and Development (ICPD), there has been a paradigm shift in the conceptualisation of sexual and reproductive health, particularly among young people. The ICPD viewed reproductive health as a human rights issue, which means that people can have a satisfying and safe sexual life, as well as the ability to reproduce and the freedom to decide if, when, and how often to do so (UNFPA, 2004).

Notwithstanding this declaration, the policy and sociocultural environments in many African settings do not appear to be supportive of the operationalisation of this new understanding in several sub-Saharan African countries (Kwankye et al., 2021). As a result, migrant adolescents have poor sexual and reproductive health outcomes (Huang et al., 2012; Olawore et al., 2018), as well as a higher risk of sexual violence. Evidence suggests that adolescents (aged 10–19 years)

from migrant backgrounds are also excluded from and underserved by SRHS (Small et al., 2014; Kunnuji et al., 2013). This is because transitioning to a new destination of resettlement can be challenging for migrant adolescents because it requires them to learn a new language, adjust to a new culture, and navigate financial and legal issues (Wong et al., 2018; Blondell et al., 2015; Kaczkowski et al., 2020).

Thus, diverse health beliefs, language barriers, limited sexual health literacy, previous negative experiences with health systems, and the broader challenges of resettlement (Afeadie, 2022; Afeadie, 2021), as well as shame and stigma associated with sex and sexual health (Botfield et al., 2016), all have an adverse effect on young migrants' engagement with SRH service utilisation (McMichael et al., 2010; Kaczkowski et al., 2020).

In Ghana, for example, there are reports that impoverished young and pregnant migrant populations continue to face barriers to formal health care access. These challenges arise in the context of increasing urbanisation and cultural diversity in Ghana's capital, Accra, one of West Africa's fastest-growing cities (Yiran et al., 2015). Baah-Ennumh et al. (2012) also found risky sexual behaviours among rural-urban migrant adolescents, such as multiple sex partners and unsafe abortions, in one of Ghana's urban informal settlements. Teenage pregnancies are common among girls, as evidenced by a head porter who witnessed six abortions among fellow head porters in two months. The authors interviewed ten head porters through a snowball sampling technique who had ever aborted a pregnancy (Essel et al., 2007, cited in Yeboah & Appiah-Yeboah, 2009).

These migrant adolescents lack access to culturally appropriate SRHS, putting them at risk for HIV/STI (UNFPA, 2011). According to Abdul-Korah (2011), Awumbila & Ardayfio-Schandorf

(2008), Awumbila & Torvikeh (2018), and Teye (2018), internal migration in Ghana, particularly rural-urban migration, has become more common in recent years, with the majority of adolescent individuals travelling alone. Unaccompanied minors are more vulnerable to harm to their health and well-being due to the absence of family protection, which affects both their immediate and long-term health outcomes (Maioli et al., 2021). This trend has resulted in increased patient diversity, necessitating the integration of culturally appropriate healthcare for people from diverse linguistic and cultural backgrounds into Ghana's health programmes to ensure health equity (IOM, 2020).

Thus, when dealing with young people from culturally diverse backgrounds, healthcare providers can operate at a variety of levels, one of which is cultural competency, which has proven to be extremely useful in the care delivery process for adolescents and their families from culturally diverse backgrounds. To successfully implement approaches aimed at improving cultural competence across the health system, both provider and patient behaviour change is required (Weech-Maldonado, 2012). Behaviour change interventions have the potential to significantly modify established patterns of behaviour within a population (Michie et al., 2011).

The process of designing effective interventions to change behaviour in clinical practice is inherently difficult. As a result, process models such as the Behaviour Change Wheel (Michie et al., 2014; Michie et al., 2011) have been proposed to provide guidance in developing implementation interventions that promote behaviour change. This guidance is especially relevant when incorporated into clinical practice guidelines, which serve as a means of putting evidence into practice.

According to Turner et al. (2008), guidelines can be used as a guide to best practices, a framework for clinical decision-making, and a benchmark for performance evaluation. Furthermore, guidelines benefit patients by improving outcomes, reducing ineffective interventions, ensuring greater consistency in care, and creating secondary implementation materials such as pamphlets and videos. These guidelines can help clinicians make informed decisions, start quality improvement efforts, prioritise new research initiatives, and advocate for coverage or reimbursement for appropriate services.

While cultural competence interventions have received significant attention from healthcare policymakers, professionals, and educators as a strategy for improving the quality and outcomes of healthcare delivery (Betancourt, 2010), the extent to which these policies have been implemented in organisations, as well as the methods by which they have been implemented, is not well documented. For example, broader research has found a lack of cultural competency among some health professionals. There is a pressing need for culturally sensitive SRHs to improve service experience and utilisation in migrant communities (Metusela et al., 2017; Mengesha et al., 2016; Zhang et al., 2020; Brandenberger et al., 2019).

Therefore, effective implementation interventions aimed at changing behaviour to enhance cultural competence among relevant health care professionals and service providers can make a significant contribution to addressing perceived and/or experienced discrimination against migrant youth. This approach has the potential to reduce communication barriers caused by language and cultural differences while also promoting sensitive engagement with diverse community values and attitudes (Maheen et al., 2021).

Although there is a growing body of evidence supporting the need for cultural competence interventions to positively influence clinical consultations and enhance health outcomes for people from diverse cultural and linguistic backgrounds (Betancourt, 2003; Kagawa-Singer, 2003), this evidence is primarily from high-income countries (HICs) (Truong et al., 2014), with limited studies from low- and middle-income countries (LMICs). It remains unclear if this evidence can be applied in non-Western settings, such as Ghana.

Therefore, this PhD research report attempts to fill this knowledge gap by developing a culturally competent behaviour change intervention framework to enhance the utilisation of sexual and reproductive health services among rural-urban migrant adolescents in the Greater Accra Region, with a focus on counselling, contraceptive services, STI treatment, and safe abortions.

1.3 Research Questions

1. What are the current care pathways to SRHS utilisation among rural-urban migrant adolescents in the Greater Accra Region?
2. What are the perspectives of healthcare professionals regarding their engagement with rural-urban migrant adolescents in the delivery of sexual and reproductive services?
3. What behaviour change strategies are culturally appropriate to address demand-side enablers and barriers to SRHS utilisation by migrant adolescents?
4. What behaviour change strategies are culturally appropriate to address supply-side enablers and barriers to the provision of SRH services by health care professionals?
5. What should constitute the framework for a culturally competent behaviour change intervention to enhance the utilisation of ASRHs?

1.4 General Objectives

The general objective of the study is to develop a culturally competent behaviour change intervention framework to enhance the utilisation of sexual and reproductive health services among rural-urban migrant adolescents in the Greater Accra Region, Ghana.

1.4.1 Specific Objectives

The specific objectives are to:

1. Describe the current care pathways for sexual and reproductive health service utilisation among migrant adolescents.
2. Explore the perspectives of health care professionals regarding their engagement with migrant adolescents in the delivery of sexual and reproductive health services.
3. Identify culturally appropriate behaviour change strategies to address demand-side enablers and barriers to SRH utilisation.
4. Identify culturally appropriate behaviour change strategies to address supply-side enablers and barriers to delivery of services.
5. Validate the behaviour change strategies to inform the framework for a culturally competent behaviour change intervention to enhance utilisation of ASRHs.

1.5 Justification

Cultural diversity among adolescent patients presents a significant challenge for the healthcare profession. The integral relationships between culture, development, and health, as well as the expertise required by health practitioners to provide culturally appropriate care, are evident in adolescent practice. While cultural competence training has been shown to improve health

professionals' knowledge, attitudes, and skills, there is still a need to find better ways to improve health outcomes and patient adherence to therapy (Beach et al., 2005).

Meanwhile, an approach that integrates respect for young people as individuals within the cultural framework, as well as sensitivity to the issues they and their families may face as migrants or refugees settling in a new country, will go a long way to ensure that they receive appropriate and effective health care (Bennett et al., 2005).

This Ph.D. research report addresses several gaps in our knowledge. First, the deliverable will be an evolving behaviour-informed intervention framework that takes a multi-level approach to improving ASRH delivery in a culturally competent manner while simultaneously promoting service use among rural-urban migrant adolescents. Second, it will further our understanding of the culture and migration context in which sexual and reproductive health services can be effectively delivered to migrant adolescents. Addressing SRH issues among migrant adolescents has become an increasingly popular subject in recent times due to the high rate of unintended pregnancies, abortions, and STIs/AIDS. Considering the present challenges, this study is timely. Finally, the intervention framework being developed can be applied to other international settings where migrant and refugee populations are present.

1.6 Conceptual Framework for the Study

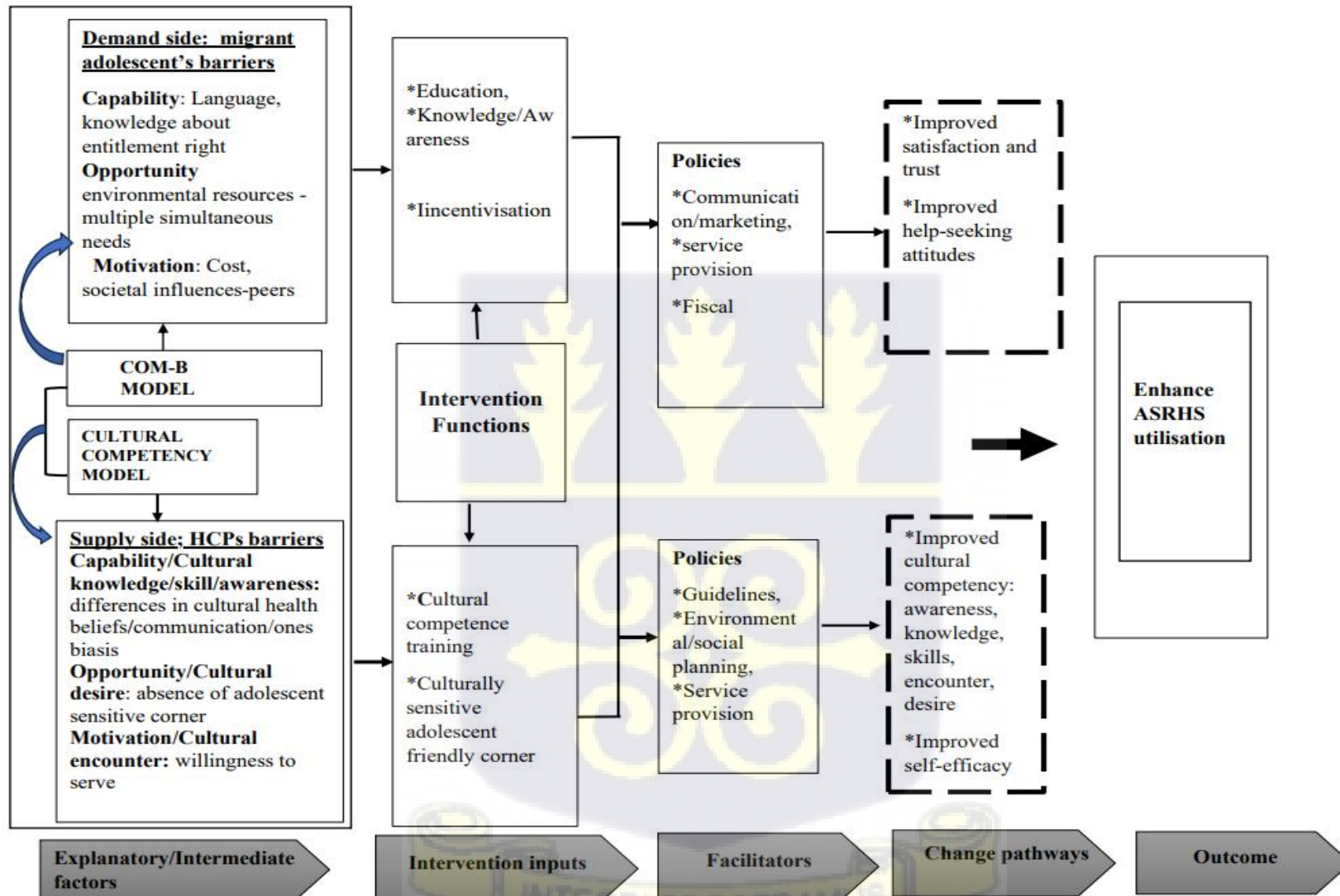
Figure 1 depicts the study's conceptual framework (CF), underpinned by the Behaviour Change Wheel framework and the Campinha-Bacote model (explained in detail in the next section) on how to enhance migrant adolescents' utilisation of sexual and reproductive health services in Ghana. The CF first addresses the importance of identifying explanatory factors by using the COM-B model to diagnose migrant adolescents' behaviour towards SRHS. These are

conceptualised in two main domains: demand-side barriers and supply-side barriers. Based on existing literature, demand-side barriers include language barrier, diverse cultural health beliefs, societal norms and poor knowledge about ASRH entitlement right. For example, evidence suggests that for most migrant and refugee adolescents in the destination country, the language barrier was noted as a critical issue for accessing reproductive health information as well as services (Kwankye et al. 2021). Similarly, supported by Campinha-Bacote's model and as appropriate to this study, supply-side barriers include lack of cultural competency (cultural awareness, skills, knowledge, encounter and desire). For example, Wang (2014) and Wang & Hu (2013) have noted that many new immigrants underutilize health care resources and face multiple barriers to accessing appropriate health care services. Among the key barriers to the utilisation of health care resources, the lack of culturally competent care among health professionals was cited as one of the barriers faced by new immigrants utilising health care services (Newbold, 2009; Subedi & Rosenberg, 2014). Having established the explanatory factors, the framework provides further guidance on how to positively influence behaviour change in order to achieve enhanced utilisation of SRHS (**intervention functions**). On the demand side, migrant adolescents are empowered to engage in the behaviour (uptake of SRHS). For instance, having comprehensive knowledge about the availability of ASRH services, along with incentives for utilising SRHS, can enhance service utilisation. Similarly, on the supply side, healthcare professionals are given the capability, opportunity, and motivation to perform the behaviour. For instance, providing cultural competency training and necessary support can help healthcare professionals effectively deliver culturally competent care to migrant adolescents. To facilitate these intervention functions, the role of the policy context (**facilitators**) is considered important to guarantee a suitable environment for the intervention functions to be effective in

achieving behaviour change. For example, to facilitate cultural competence training, the policy option of service provision focuses on how trainings are organised, their quality improved, and how they are delivered to support behaviour change interventions. Following these intervention functions and policy categories, the framework addresses the *how* these inputs will likely lead to the desired outcome of enhanced utilisation of SRHS by migrant adolescents (**change pathways**). The hypothesised pathways at the level of the migrant adolescents include: improved satisfaction and trust and improved help-seeking attitudes. For the HCPs, it is expected that a cultural competency approach would lead to improved cultural competency. This will ultimately result to improved self-efficacy and esteem.



Figure 1: The study's conceptual framework shows a relationship between demand-side and supply side barriers (problematic behaviours) and intervention functions and policies to enhance delivery and utilisation of ASRHs



1.7 Intervention Development Models

Developing health behaviour change interventions, defined as those that alter or affect the course of action taken by an individual relating to a health outcome, is a naturally complex process. Due to their complex nature, this demands a systematic approach to determine the mechanism for change and to enhance the likelihood of effectiveness (Craig, Dieppe et al., 2008). Thus, the culturally competent behaviour change intervention being developed is a framework to enhance the delivery of ASRH care in a culturally competent manner by healthcare workers while at the same time promoting ASRHS utilisation among migrant adolescents concurrently.

Below, I present models of intervention development that will be used throughout this research report. The choice of these models to guide the development of the intervention is crucial because of the following: Firstly, the behaviour change wheel: this framework synthesises key theoretical constructs from 19 different frameworks in the behavioural science literature and links them to a theoretical model of behaviour change, the COM-B, that is sufficiently broad to be applied to a diversity of behaviours across different settings. It also provides a standardised taxonomy for characterising interventions and drawing the possible relationships between outcomes and mechanisms of change, which is regarded as a significant advance in the discipline as it facilitates the process evaluation, replication, and comparison of interventions (Michie et al., 2014; Croot et al., 2015).

Secondly, the Campinha-Bacote model of cultural competency was adopted because, unlike other similar models, aside from being multidimensional, it considers cultural competence as a dynamic, ongoing process rather than a static set of skills. This perspective acknowledges that healthcare professionals should continuously evolve their cultural competence to adapt to

changing patient populations and societal dynamics (Campinha-Bacote, 2002). This makes a compelling case for using these models in developing the intervention framework for this study.

1.7.1 Behaviour Change Wheel (BCW)

The Behaviour Change Wheel (BCW) is an intervention development method linked to a model of behaviour (Michie et al., 2014). It was developed from a synthesis of nineteen theories of behaviour change and has three layers (see Figure 2). The COM-B model, which stands for capability (C), opportunity (O), motivation (M), and behaviour (B), is the hub for identifying the sources of behaviour to target in an intervention. For a behaviour to occur, individuals must have the capability, opportunity, and motivation. The second layer presents intervention functions, and the third layer presents potential policy options. The intervention functions and policy options provide a wide choice, allowing developers to consider the potential of each option. Using these as a guide, intervention developers choose the appropriate intervention function and policy option using the APEASE Criteria. APEASE includes six criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side effects/safety, and equity) against which each option is appraised, and those meeting all APEASE criteria should be considered.

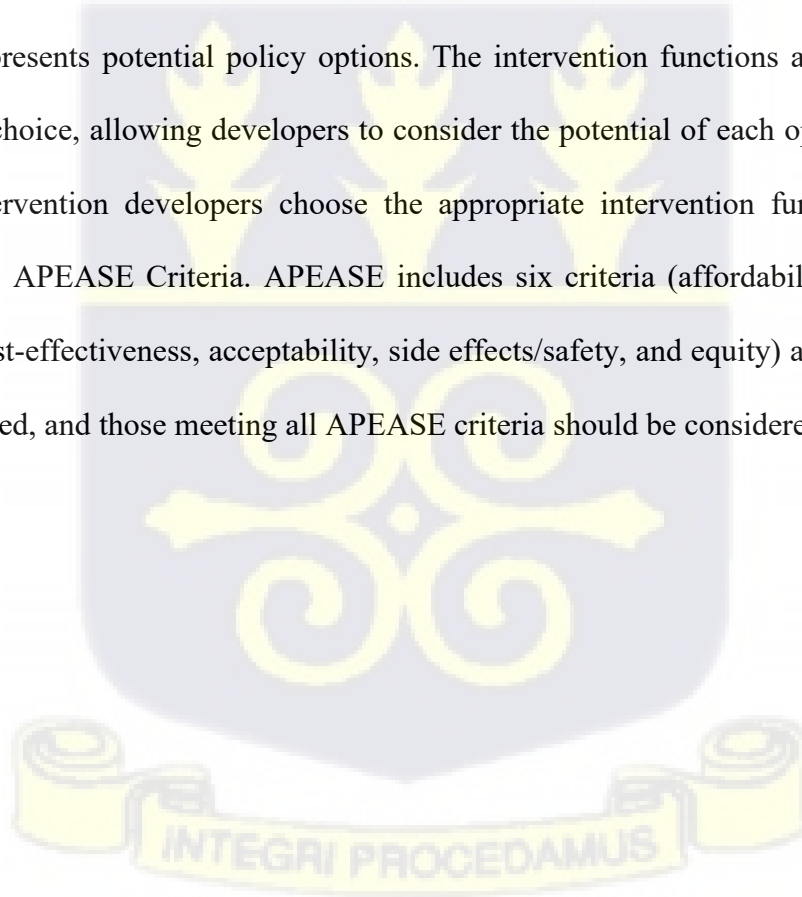
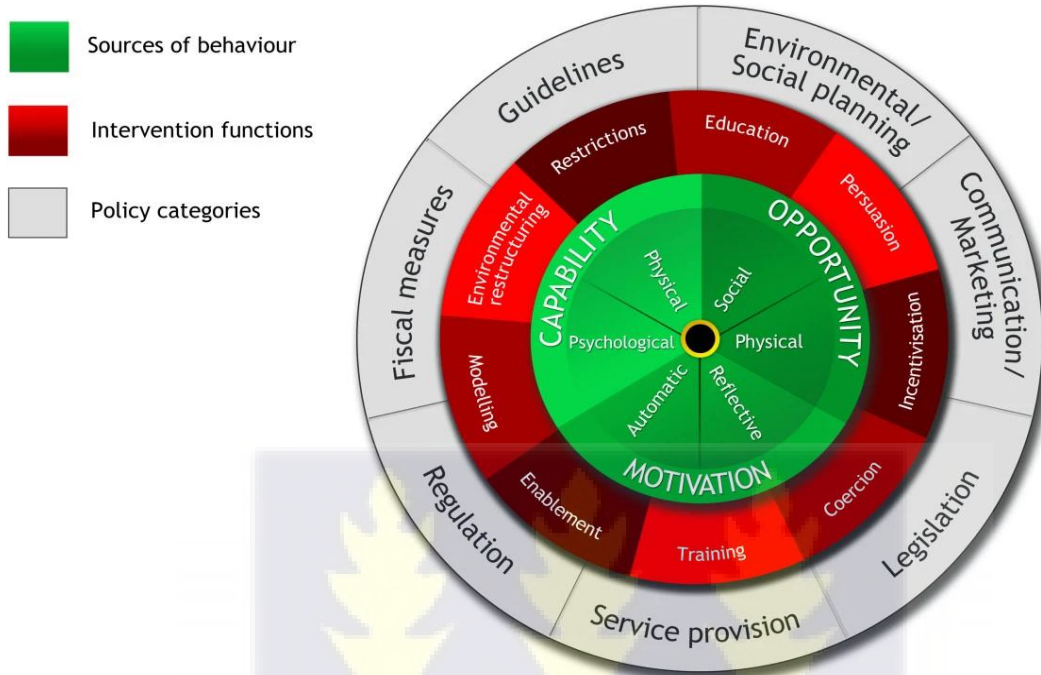


Figure 2: Behaviour Change Wheel



Source: Adopted from Michie et al., (2011)

The BCW is made of three stages divided into eight steps to intervention development, progressing through the three layers (see Table 1) (Michie et al., 2014). The first stage (Steps 1-4) culminates with a behavioural analysis, identifying the factors necessary to facilitate a behaviour change, categorised according to the COM-B components in Step 4. In the second stage (Steps 5 and 6), the BCW links each behavioural component with the relevant intervention function and policy options for appraisal using the APEASE criteria. The third stage (Steps 7 and 8) mandates behaviour change intervention designers to identify suitable BCTs for the chosen intervention functions or policy options. According Michie et al. (2021), BCTs are the smallest parts of the

content of a behaviour change intervention, are observable, replicable, and on their own, and have the potential to bring about behaviour change. All BCTs are coded using a 93-item taxonomy to ensure identification and reporting of intervention content using a common language, thereby facilitating replication and comparison of findings. The BCW identifies the BCTs utilised more or less frequently for each intervention function and policy option. According to Arp et al. (2015), it is therefore essential for intervention designers to consider the suitability of each BCT based on the APEASE criteria. It became necessary to extend BCTTv1 by improving the labels, making definitions more precise, and advancing to a more flexible, extensive, and multi-level structure, transitioning to a more adaptable, comprehensive, and multi-tiered structure. These structures are for representing knowledge by defining entities, and the relationships between them are called ontologies, for that matter, the Behaviour Change Technique Ontology (BCTO).

Ontologies provide a more detailed and flexible method of representing information compared to taxonomies. For instance, they can link BCTs to other intervention attributes such as their delivery, mechanisms of action and target behaviours, and context, such as population and setting (Hastings, 2017). Despite the relevance of ontologies, taxonomies like BCTTv1 can be used to characterise the content of the interventions, specifically their putative active components (Presseau et al., 2015). In this PhD, taxonomies were used, the aim was to characterise the content of the interventions, specifically their active components.

BCW has been used successfully to promote hearing aid use (Barker et al., 2016), medication adherence (Jackson et al., 2014), increasing the frequency of very brief physical activity advice provided by healthcare professionals to cancer patients (Webb et al., 2016), and a health

coaching program for low-income Latina mothers with recent gestational diabetes mellitus (Handley et al., 2015). Recently, it has been used to improve everyday person-centred conversations on physical activity in healthcare (Reid et al., 2022). It has also been used to develop a theory and evidence-based intervention for women with gestational diabetes (Murphy et al., 2023).

One systematic review of physical activity interventions in postnatal women identified ‘self-monitoring of behaviour and ‘goal setting’ as the most common BCTs among efficacious interventions (Gilinsky et al., 2015). In a qualitative study of a postnatal weight management intervention, participants reported using ‘self-monitoring of behaviour, ‘prompts/cues’ and ‘social support (unspecified)’ (Smith et al., 2016).

Table 1: Description of each stage of the BCW

Stages	Steps	Descriptions
1. Understanding the behaviour	1. Define the problem in behavioural terms. 2. Select the target behaviour. 3. Specify the target behaviour. 4. Identify what needs to change	Specify the population and the behaviour, e.g., what is the behaviour and where does the behaviour occur? Identify all behaviours that contribute to the problem and select the target behaviours of the intervention. Specify who needs to perform the behaviour, what they need to do differently, when they will do it, how often, and with whom. What factors within individuals’ capability, opportunity, and motivation need to change to enable behaviour?
2. Identify intervention options	5. Identify intervention functions	An intervention function is a broad category of means by which an intervention changes behaviour. Using results from the previous step to identify what needs to change, the

Stages	Steps	Descriptions
	6. Identify policy categories	BCW identifies the intervention functions that are likely to be effective in bringing about the changes. There are nine intervention functions. Intervention designers appraise each intervention function to choose those likely to be effective. For designers who have access to policy options, identify what policy options would support the delivery of the chosen intervention functions
3. Identify content and implementation options	7. Identify BCTs 8. Identify mode of delivery	Identify BCTs appropriate for the chosen intervention options from a list of 'most frequently' and 'less frequently' used, appraising each one. Using a taxonomy of modes for delivering interventions, decide initially on a face-to-face or distance intervention.

1.7.2 Campinha-Bacote Model of Cultural Competence in Healthcare Delivery

The changing demographics and economics of a growing multicultural world and the long-standing disparities in the health status of people from diverse ethnic and cultural backgrounds, have challenged healthcare providers to consider cultural competence as a priority. Campinha-Bacote's model of cultural competence in healthcare delivery is one model that healthcare providers can use as a framework for developing and implementing culturally responsive healthcare services (Campinha-Bacote, 2002).

Campinha-Bacote first developed his model, known as "cultural competency in the delivery of healthcare services," in 1998, revising it in 2002. The model considers cultural competence not as a consequence brought about by certain factors but as a process. The concept of cultural

competence can be defined as a process in which the healthcare provider attempts to achieve greater efficiency and the ability to work in a culturally diverse environment while caring for the patient, whether an individual, a family, or a group (Campinha-Bacote, 2002). To achieve cultural competence, the HCP must undertake a process of developing the capacity to deliver efficient and high-quality care, a process that encompasses five components as described below:

1.7.2.1 Campinha-Bacote's Five Components of Cultural Competency

1. **Cultural awareness:** The first involves cultural awareness, which includes the process of conducting self-examination and critical reflection of one's own biases towards other cultures and an in-depth exploration of one's cultural background (Campinha-Bacote, 2011). Cultural awareness also involves being aware of the existence of documented racism and other "isms" in healthcare delivery.

The healthcare provider (HCP) can allow cultural humility to permeate cultural awareness by intentionally and mindfully acknowledging the privilege and power inherent in their clinician role. Healthcare professionals must be willing to sacrifice their prejudices and biases towards culturally different patients to develop cultural humility. Howard (2003) states that:

we must sacrifice our "proprietary assumptions of our own rightness and our unreflective grip on our own certainty". This type of sacrifice involves the moral commitment to serve all patients, regardless of their cultural values, beliefs, or practices (p.2).

2. **Cultural skill:** This refers to the ability of HCPs to conduct a cultural assessment to collect relevant cultural data regarding the patients whom one serves. Cultural humility is infused into this construct by conducting a cultural assessment that requires more than selecting a tool and asking the patient the questions listed. The healthcare professional approach must be done in a

culturally sensitive manner. To infuse cultural humility into cultural skill, it is suggested that HCPs listen with interest and remain non-judgmental about what they hear (Campinha-Bacote, 2022).

3. Cultural knowledge: The third component is cultural knowledge, defined as the process in which the healthcare provider (HCP) seeks and obtains a sound educational base about culturally diverse groups (Campinha-Bacote, 2011). Cultural knowledge also includes the integration of three areas: a) health-related beliefs, practices, and cultural values of culturally and ethnically diverse populations; b) disease incidence and prevalence among culturally and ethnically diverse populations; and c) treatment efficacy among culturally and ethnically diverse populations (Lavizzo-Mourey, 1996). The most serious barrier to cultural competency is not only a lack of knowledge of the details of any given cultural orientation but rather the potential to stereotype individuals. The concept of intra-cultural variation is critical to remember when gaining cultural knowledge to prevent the stereotyping of patients from different cultural groups.

4. Cultural encounter: Cultural encounters encourage the HCP to directly engage in face-to-face interactions and other types of encounters with patients from culturally diverse backgrounds to modify existing beliefs about a cultural group and prevent possible stereotyping (Campinha-Bacote, 2011). Continuous cultural encounters are needed to acquire cultural awareness, cultural knowledge, cultural skill, and cultural desire. Cultural humility permeates the cultural encounter as the HCP becomes mindful both that every encounter is an opportunity for inquisitiveness, self-reflection, critique, and lifelong learning, and also that maintaining an open heart and mind are necessary (Fahlberg, Foronda, & Baptiste, 2016).

5. Cultural desire: This refers to the driving force for becoming educated, skilled, competent, and aware of culture. It also presumes a willingness to have transcultural interactions (Campinha-Bacote, 2011).

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

To achieve the objective of this study, this chapter synthesises the relevant literature for the study. The review of literature was conducted by the use of materials from different sources such as Google Scholar, published journals, articles, textbooks, and medical searches. The review of literature for this study is centred around and mainly divided into; (i) current care pathways for ASRH utilisation among rural-urban migrant adolescents. (ii) perspectives of healthcare professionals regarding their engagement with rural-urban migrants adolescent in the delivery of sexual and reproductive services; (iii) behaviour change strategies that are appropriate to address demand-side enablers and barriers to ASRHS utilisation by migrant adolescents; (iii) behaviour change strategies that are culturally appropriate to address supply-side enablers and barriers to the provision of ASRH services to migrant adolescents; and (iv) validating intervention content through experts as well as stakeholders to identify potential future challenges and proposed future recommendations.

2.1. The State of Adolescent Sexual and Reproductive Health: A Global Perspective

The term adolescent sexual and reproductive health refers to the sexual health and reproductive health needs and rights of individuals aged 10–19 years. It covers a wide range of topics including sexual health: The term sexual health is used to describe the absence of illness and injury associated with sexual behaviour and a sense of sexual well-being. It consists of the

positive integration of physical, emotional, intellectual, and social aspects of sexuality (WHO, 2001). Reproductive health: The World Health Organisation defines reproductive health as a state of complete physical, mental, and social well-being, rather than simply the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes (WHO 2001).

According to Morris et al (2015), adolescent sexual and reproductive health represents a significant aspect of the worldwide challenge of sexual health issues. Despite historical neglect, there is now a growing emphasis from international agencies on enhancing adolescent sexual and reproductive health (ASRH) and allocating programmatic funding. The rights associated with ASRH are grounded in diverse legal frameworks. In 2002, the UN General Assembly Special Session on Children acknowledged the imperative to formulate and execute health policies and programmes specifically tailored for adolescents, aiming to enhance both their physical and mental well-being. In 2003, the Committee of the Convention on the Rights of the Child issued a General Comment acknowledging the special health and development needs as well as the rights of adolescents and young people (United Nations Convention on the Rights of the Child, 2003).

Various terms are employed to classify young individuals: "adolescents" pertain to those aged 10–19 years (categorised into early [10–14 years] and late [15–19 years] adolescence); "youth" encompasses individuals aged 15–24 years, while "young people" includes those aged 10–24 years. Approximately half of the global population is under 25, constituting 1.8 billion people aged between 10 and 24 years. Notably, 90% of this demographic resides in low- and middle-income countries (LMICs), with many facing challenges such as poverty and unemployment (World Bank Group, 2014).

While sexual initiation and activity vary significantly across regions, countries, and genders (Chandra-Mouli et al., 2014), there is a global trend of young people entering puberty earlier, engaging in sexual activity at younger ages, and delaying marriage (Bearinger et al., 2007; Chen et al., 2007; Blanc et al., 2009). This shift results in an extended period of sexual maturity before marriage compared to historical norms. The risks associated with neglecting adolescent sexual and reproductive health are substantial, as a challenging transition to adulthood can lead to lifelong adverse effects. For girls, early pregnancy and motherhood pose physical risks and can jeopardise educational attainment and economic prospects (Morris et al., 2015).

Adolescents are confronted by a heightened risk of HIV and sexually transmitted infections (STIs), with most adolescent boys living with the human immunodeficiency virus (HIV) globally. In 2020, more than 50% of incident sexually transmitted infections (STIs), (Health the Lancet Child Adolescent, 2022) and approximately 27% of incident HIV cases, were estimated to occur among adolescents and young adults. The syndemics of HIV and other STIs interact to undermine health, especially in adolescent and young adult populations. These issues have significant repercussions on an individual's physical and mental health, with long-term implications for them, their families, and their communities. The sexual and reproductive health of adolescents is intricately connected to their specific social, cultural, and economic surroundings (UNICEF, 2011).

In addition to regional variations, experiences related to adolescent sexual and reproductive health are shaped by various factors such as age, gender, marital status, education, residence, migration, sexual orientation, and socio-economic status. Access to healthcare and educational resources, information, and support exhibits significant diversity. While country-level analyses

are required to capture specific patterns, common issues, barriers, challenges, and potential solutions can be identified universally (Bearinger et al., 2007; Chen et al., 2007; Blanc et al., 2009).

2.2 Conceptualising Rural-Urban Migration, Adolescent Sexual and Reproductive Health

Over the years, an increasing number of individuals, including children, are striving to seek refuge amid conflict, climate-related disasters, or pressures while also pursuing improved employment prospects, often experiencing these conditions concurrently. Consequently, these individuals find themselves not only in humanitarian camps but also in urban slums across the global south as they endeavour to reconstruct their lives (Archer et al., 2017).

In some instances, these migrant adolescents may constitute a significant portion of the indigenous population. Whether their migration is voluntary or not, individuals on the move frequently become part of the population in the most impoverished urban areas, encountering similar risks and challenges as other residents. Additionally, they may face discrimination from local inhabitants and officials, further exacerbating the difficulties experienced by their children, including complications in accessing schools and other essential services (Brown et al., 2012).

Within the mobile population, there are numerous children and youth who are not accompanied by family members. For example, in Ghana, the independent migration of children, particularly from northern to southern Ghana, has been observed and highlighted as a growing concern for the country's national development. This trend has significant implications for the development potential of both the areas of origin and destination, as well as for the socio-economic progress of the children who migrate independently (Kwankye et al., 2009).

Additionally, Yaqub's authoritative overview in 2008 cites evidence from various countries indicating the substantial numbers of sometimes quite young children who migrate independently from rural to urban areas. In Nepal, for example, 8% of children and adolescents aged 5 to 14 become independent migrants. In Burkina Faso, it is over 9% of 6- to 17-year-olds, and in Benin, it is 22% of 6- to 16-year-olds. Surveys conducted in low-income urban areas reveal that many working children and adolescents are recent migrants without accompanying family: in Ethiopia, only 17% lived with parents, and in Thailand, only 12% (Adefehinti et al., 2019).

Recent studies have extended Yaqub's concern about independent young migrants, often framing it in the context of child trafficking. However, an expanding body of literature has shown that most of these young migrants are purposeful migrants responding to structural economic realities (Howard, 2012). For instance, Beauchemin's report for UNICEF and Catholic Action for Street Children in Accra, Ghana, reveals that 35% of the children registered in a street children's programme in Accra cited poverty as their primary reason for leaving home (Amantana, 2004).

Other research indicates that migrants, although hailing from less affluent families, may not necessarily represent the most impoverished. A survey examining child labour migration from rural Burkina Faso, based on parent interviews, reveals that differences in household and village wealth were less influential than expected. The study assumed that children's relocation resulted from household decisions, leading to the conclusion that poorer households lack the information, social networks, and resources to facilitate their children's migration, even if they desire to send them to urban or neighbouring areas (Kielland & Sanogo 2002). Similarly, a study in Laos, Myanmar, and Thailand suggests that migration expenses may be beyond the means of the very

poor, and the risk of not finding work may also deter movement. These findings align with research on adult transnational migrants covering longer distances. While these patterns may hold for children migrating to more distant destinations, particularly Côte d'Ivoire, travel costs to closer destinations are often within reach for everyone (ILO, 2019).

Khair (2005) also discovered that maltreatment at home was among the various consequences of impoverishment for children. Similarly, Beauchemin's study in Accra reveals that children often ran away to escape abusive home environments. This underscores the interconnected nature of migration reasons. For example, factors such as domestic violence and family breakdown, which might drive individuals to move, are frequently intertwined with economic decline and political and social destabilisation (O'Connell et al., 2007).

However, it is crucial to acknowledge that children run away because they possess information about where they can seek refuge and the potential for survival in doing so (Hashim 2008). This strategy may be common in areas where migration has long been perceived as a rite of passage for young people, as indicated by Castle and Diarra (2003) in Mali and Lambert (2007) in Senegal.

Similarly, in regions like West Africa with historically high rates of adult migration (Bredeloup 2003; Castle & Diarra 2003; Lambert 2007; Lesclingand 2004; Zongo 2003), and in other places like Bolivia (Bastia 2005; Punch 2002b), individuals' movements are not solely driven by push or pull factors, as neoclassical models of migration would suggest. Rather, as succinctly articulated by O'Connell, Davidson, and Farrow, they are:

the outcome of an extremely complex interplay between macro-level structures, micro-level institutions, and individual agency. Broader social, economic, and political structures provide the context in which individuals and groups must decide whether or not to migrate. Their decisions, however, are strongly influenced by their own personal histories, identities, and resources; their connections with social networks in a destination country; and the extent to which out-migration from their country or region is institutionalized. (O'Connell et al., 2007:16)

As noted by Whitehead (1996), the communities from which most of these migrants originate are impoverished in various aspects. Local employment opportunities are scarce, agricultural productivity is severely limited, and access to basic food supplies is insufficient and precarious, leading to hunger. Incomes are unpredictable and meagre, clothing and possessions are scarce, and access to fundamental services and amenities is lacking. Educational opportunities are of low quality. Individual households exist along a spectrum, ranging from destitution to varying degrees of severe poverty to a state of poverty with limited assets that provide some resilience against shocks to food supplies or income sources. Children migrate from households across these diverse socioeconomic levels. It is probable that different children are responding to various dimensions of this multidimensional poverty. Consequently, these young migrants, akin to their adult counterparts and the numerous unaccompanied young migrants, typically find themselves residing in the most impoverished urban settlements or, in some cases, on the streets. This exposes them to intense competition for scarce resources. Therefore, rural-to-urban migration is often a survival strategy for both the migrants and their families in rural areas.

Migration, as previously indicated and cited from Davies et al. (2009), Greif et al. (2011), Li et al. (2007), McGrath et al. (2015), and Yang & Xia (2006), is associated with various sexual and

reproductive health risks, as highlighted in their studies. The movement from one's place of origin to a destination, often associated with it, as emphasised by scholars like Mberu & White (2011) and Luke et al. (2012), can exert notable influences on the sexual and reproductive health of adolescents. Young migrants often encounter new social environments where they may engage in their first sexual experiences, develop knowledge, and shape attitudes about sexual behaviour, raising concerns about the risks they face in urban settings. Factors contributing to these risks include separation from family, unfamiliarity with the new environment, a desire to enhance social standing, and limited knowledge of protective strategies (Zuma et al., 2005; Dhapola et al., 2007).

Previous research has examined first sexual encounters in relation to migration. This study delves further into the association between migration and the development of behaviours, knowledge, and attitudes among rural-to-urban youth migrants in Haiti. The scrutiny of migrants' sexual behaviours, particularly the potential increase in prevalence and geographic spread of HIV and other STIs due to geographic mobility and a higher number of sexual partners, has long been a focus of scholars and public health professionals (Brockerhoff & Biddlecom, 1999; Wolffers et al., 2002; Zuma et al., 2005; Dhapola et al., 2007). Additionally, research suggests that individuals residing in urban informal settlements and migrants may exhibit a higher likelihood of engaging in risky sexual behaviour and experiencing poor sexual and reproductive health outcomes (Huang et al., 2012; Olawore et al., 2018).

Engaging in risky or unsafe sexual practices poses a significant risk to reproductive health, leading to outcomes like unintended pregnancy, unsafe abortion, and sexually transmitted infections (STIs), contributing to morbidity and mortality in developing countries (Glasier et al.,

2006). Studies indicate that migrants may be more prone to taking sexual risks compared to non-migrants. However, it's crucial to note that many migrants cite well-planned economic and other reasons, such as marriage or education, as motivations for migration. Consequently, the assumption that migration is inherently associated with increased sexual risks might not hold true for individuals migrating for economic survival or to be with a partner. Other factors in the urban destination may play a more significant role in explaining risks to sexual and reproductive health than the individual's migrant status (Hannaford, 2016).

Research consistently indicates that young individuals with lower and less positive social support may engage in more sexual risks than those with higher levels of positive social support (Bruederle et al., 2019; Henrich et al., 2006). Additionally, individuals living in urban poverty may experience lower levels of social support (Marshall et al., 2014). Moreover, various determinants of health associated with migration into urban poverty, such as unstable housing, limited access to healthcare, and lack of health information, have been shown to have adverse effects on sexual and reproductive health outcomes (Camlin et al., 2018; Davies et al., 2009; Elifson et al., 2007; Zhu et al., 2009). The reduced access to healthcare and health information among migrants may stem from factors like high mobility, language barriers, cultural differences, geographic or transportation challenges, and financial constraints (Camlin et al., 2018; Davies et al., 2009).

2.3. Multiculturalism in the Ghanaian Context

Anthropologists find considerable challenges in defining culture due to the intricate and multifaceted nature of the term, often entwined with political or ideological motives (Spencer-Oatey, 2012). While numerous definitions abound, this Ph.D. research report adopts the one put forth by Spencer-Oatey (2008) for conceptual clarity:

‘Culture is a fuzzy set of basic assumptions and values, orientations to life, beliefs, policies, procedures, and behavioural conventions that are shared by a group of people and that influence (but do not determine) each member’s behaviour and his or her interpretations of the “meaning” of other people’s behaviour.’

Hofstede, and Minkov (2010) observed that individuals often identify with various cultural groups on different levels, encompassing national, regional, ethnic, religious, linguistic, gender, social class, corporate level, and role-based categories (such as parent, daughter, or teacher). As global migrations rise, there is a growing acknowledgement that the cultural context of each person plays a pivotal role in all aspects of quality living.

Ghana is West African country, that is bordered by three francophone nations: Burkina Faso to the north, Togo to the east, and Côte d'Ivoire to the west. Ghana is home to approximately 75 sociocultural and native groups, each with its own distinct language, although some languages (e.g., Twi) may be commonly spoken by multiple cultural groups. Each region in the country hosts internal migrants from other regions and international migrants from countries like Mali and China. Consequently, Ghana is demographically, ideologically, and linguistically a multicultural nation. Despite its rich diversity, Ghana lacks the formal multicultural policies, practices, and strategies necessary to ensure that individuals, regardless of tribe, region, or country of origin, have equitable rights to participate in and benefit from various sectors of the country's economy (GoG 2014).

In the area of health, the National Migration Policy for Ghana stands as the nearest policy, advocating for "the adoption of a framework to mitigate potential public health risks from migration without adversely impacting the positive gains of migration" (GoG 2014). While this

policy represents a positive stride towards safeguarding the health of Ghana's multicultural societies, the implementation of practical measures and strategies is imperative to realise its recommendations.

As highlighted by Sam (2015), multiculturalism goes beyond the mere presence of diversity and policies. It is, in essence, "the existence of, and a policy with its attendant practices regarding the living together of, many ethno-cultural groups in a plural society, as well as the normative beliefs that characterise how the relationships should be among the groups" (Sam 2015, p. 3). In the absence of multicultural health policies in Ghana, instances in hospitals where relatives, healthcare workers, and sometimes other patients are called upon to serve as lay interpreters for patients facing language barriers are not uncommon. New migrants may also encounter significant challenges in gaining access to pertinent health information (e.g., about vaccinations) needed to protect their health and that of natives.

2.4. The Evolution of Cultural Competence

The rise of cultural competence in healthcare has been somewhat less conspicuous but more precipitous than that of patient contentedness. The term "cultural competence" did not start to consistently appear in the healthcare literature until the early 1990s. By May 2007, over 1,000 articles mentioning the terms "cultural competence" or "cultural competency" in their titles or abstracts had been published in medical and nursing journals, with more than three-quarters of them appearing since 2000 (American Medical Association, 1999).

Cultural competency is a multifaceted concept without a standardised definition. Campinha-Bacote (2007) posits that it is an ongoing process wherein health professionals continually strive to attain the ability and availability to work effectively within the cultural context of the patient,

be it an individual, family, or community. Camplin-Welch & Lim (2018) describe cultural competency as the capability to interact effectively with people from diverse cultures. Bofulin et al. (2016) define it as a broad range of knowledge and skills involved in human interaction, enabling individuals to enhance their understanding, sensitivity, acceptance, respect, and responses to cultural differences and intercultural relationships. Cultural competency empowers healthcare workers to deliver higher-quality healthcare and collaborate successfully with individuals from various cultural and social backgrounds. It is further divided into interconnected and interdependent components, steps, or constructs.

Camplin-Welch & Lim (2018) advocate for the application of all four dimensions-cultural awareness, cultural knowledge, cultural sensitivity, and cross-cultural skills- in the realms of research, clinical practice, and nursing teaching. Campinha-Bacote (2007) introduces a slightly distinct model of cultural competency known as the Process of Cultural Competence in the Delivery of Healthcare Services (PCCDHS). This model encompasses five constructs: cultural desire, cultural awareness, cultural knowledge, cultural skills, and cultural encounters.

In the past decade, numerous programmes addressing cultural competence in healthcare have emerged (American Medical Association, 1999). National standards for health systems have been published, as reflected in the efforts of the Office of Minority Health in 2001. Additionally, a recurring national conference dedicated to this issue has been established, and federal mandates promoting increased cultural competence have been issued, such as the Medicare Advantage Organisation National mandate in 2002. The cultural competence movement of the last decade has been primarily motivated by the demonstration and increased awareness of widespread racial and ethnic disparities in healthcare. However, it is important to note that the principles of

cultural competence have roots in efforts that predate the recent heightened visibility of the issue (National Healthcare Disparities Report, 2004).

2.4.1 Early Conceptions of Cultural Competence

For decades, healthcare leaders and educators have acknowledged that cultural and linguistic barriers between healthcare providers and patients could impede the effective delivery of health services. This recognition led to advocacy for increased attention to these barriers, resulting in programmes and curricula with names such as cross-cultural medicine, cultural sensitivity, transcultural nursing, and multicultural counselling. These initiatives primarily targeted populations "whose health beliefs may differ from biomedical models" (Berlin et al., 1983).

While the principles underlying these programmes were recognised as universally applicable, their target groups primarily consisted of immigrant populations with limited English proficiency and limited exposure to western cultural norms. The programmes aimed to bridge the "cultural distance" between healthcare providers and these immigrant patients, focusing on the appropriate use of interpreters and "cultural brokers," as well as learning the history and cultural norms of different minority populations. Various frameworks and guidelines were proposed to assist healthcare practitioners in considering patients' cultural context and conducting cultural assessments (Berlin et al., 1983; Giger et al., 1991; Bobo et al., 1991).

These models recognised that while awareness and respect for different cultural traditions were important, it was impractical for healthcare providers to be familiar with all cultural perspectives they might encounter in clinical practice. Moreover, viewing patients solely as members of ethnic or cultural groups rather than as individuals with unique experiences and perspectives could lead to stereotyping and inappropriate assumptions about their beliefs and behaviour. To

address these concerns, approaches to cross-cultural healthcare aimed to strike a balance by acquiring some background knowledge of specific cultural groups encountered in clinical practice while also developing attitudes and skills that were not specific to any particular culture but were universally relevant (Berlin et al., 1983; Giger et al., 1991; Bobo et al., 1991). As delineated by pioneers in cross-cultural medicine in the late 1970s and early 1980s, including Kleinman & colleagues (1983), and Leininger (1978), these "generic" attitudes and skills encompassed: (1) Respect patients' health beliefs as legitimate and recognise their crucial role in effective healthcare delivery. (2) Shifting away from a paradigm that views patients' complaints solely through a lens of organ-based disease towards understanding illness within a broader biopsychosocial framework. (3) Exploring patients' perspectives on their illness and its perceived causes, known as the patient's explanatory model of illness. (4) Presenting the clinician's understanding of the illness and its perceived causes-the clinician's explanatory model of illness-in a manner accessible to patients. (5) collaboratively developing a treatment plan that is safe, effective, and mutually agreeable, incorporating input from both the patient and the clinician (Berlin et al., 1983; Leininger, 1991; Kleinman et al., 1978).

Basically, this personalised approach involved clinicians adopting the point of view of the patient by helping patients understand the illness from the clinician's perspective and arriving at a mutual understanding. In the initial framework of cross-cultural healthcare, it was essential to acknowledge that both patients and providers brought cultural viewpoints to the interaction. As a result, healthcare providers were encouraged to recognise and delve into their own cultural backgrounds, including those shaped by their training in Western biomedicine and entry into the healthcare field. This entailed reflecting on the privilege and authority associated with their professional roles. This process of critically examining and dismantling the "medico-centric"

viewpoint was deemed pivotal for delivering effective care across cultural divides (Kleinman et al., 1978).

It is evident that many principles of cross-cultural care reflect those of patient-centred care. These shared principles include respecting patients as individuals, involving them as partners, effectively communicating illness models and treatment goals, and considering the broader sociocultural context of patients' experiences with illness. Much like patient-centeredness, cultural competence is viewed along a spectrum, ranging from ethnocentric to ethno-sensitive (Borkan et al., 2019) or from cultural destructiveness to cultural proficiency (Cross et al., 1989).

2.4.2 Expansion of the Scope of Cultural Competence

In the late 1980s through the 1990s, cultural competence evolved from its early cross-cultural healthcare models in three significant ways. Firstly, its application broadened from primarily focusing on immigrants to encompassing all minority groups, particularly those most affected by racial disparities in healthcare quality. Secondly, the conceptual framework of cultural competence extended beyond culture itself to include issues such as prejudice, stereotyping, and social determinants of health. Lastly, similar to the trajectory of patient-centeredness, cultural competence transcended the interpersonal aspect of cross-cultural care to involve health systems and communities. This broadening scope was largely prompted by accumulating research revealing that racial and ethnic minority groups consistently received lower-quality healthcare than the majority population, even when accounting for differences in access to care (National Healthcare Disparities Report, 2004).

Research suggests that social and cultural obstacles between healthcare providers and immigrant individuals of colour might be influencing the quality of care. With the recognition that cultural

barriers could impact a broader population and the growing need to address documented racial disparities, there was a surge of interest and activity in cross-cultural healthcare. This field adopted the more contemporary term "cultural competence," drawing from other disciplines (Saha et al., 1999; Cooper-Patrick et al., 1999; Malat, 2001).

Advocates of cultural competence recognised that the principles and methods of cross-cultural healthcare were essential but not adequate on their own to tackle racial disparities in healthcare quality. While cultural barriers were acknowledged as potential contributors, it was also recognised that other factors needed consideration. Some minority patients might harbour distrust towards healthcare providers or institutions, possibly stemming from historical or ongoing experiences of discrimination. Providers, in turn, might hold overt or unconscious biases about people of colour, impacting their interactions and decision-making. Proponents of cultural competence addressed these issues in their training programmes, covering concepts of race and class, trust in patient-provider relationships, historical contributors to distrust, social factors like support systems and literacy, and self-reflection on racial attitudes and stereotypes. While some of these issues might be considered to overlap with a broad interpretation of culture, many argue that labelling them as "cultural" barriers may downplay the interpersonal and institutional racism they more accurately represent (Gregg et al., 2006).

However, these efforts were typically integrated into cultural competence programs. As a result, cultural competence has evolved from its initial focus on narrowly defined principles of cross-cultural healthcare to encompass a wide range of topics pertinent to addressing racial and ethnic disparities in healthcare quality. Various models have been proposed to depict cultural competence in healthcare, with most including dimensions of knowledge (understanding the

meaning of culture and its significance in healthcare delivery), attitudes (respect for variations in cultural norms), and skills (eliciting patients' explanatory models of illness). Many elements of the cultural competence framework also align with patient-centredness, leading some to argue that the core of cultural competence is a "patient-centred approach" (Carrillo et al., 1999).

Pioneers of the cultural competence movement recognised that disparities in healthcare quality could stem from cultural and various other barriers. These barriers existed not only between patients and healthcare providers but also between communities and health systems. A significant portion of the American healthcare infrastructure was established before the Civil Rights era, leaving it vulnerable to perpetuating "institutionalised" discrimination against people of colour. Even contemporary health systems were predominantly designed with the needs of the majority population in mind. The growing racial and ethnic diversity in the United States, alongside the prevailing realities, underscores the importance of adjusting health systems to cater to the preferences and values of diverse populations. This adaptation has become a crucial element of the cultural competence agenda. Among the earliest proposals for defining more culturally competent systems of care was outlined in a monograph authored by Cross and colleagues (Cross et al., 1989).

They defined cultural competence as "a set of congruent behaviours, attitudes, and policies that come together in a system, agency, or among professionals and enable that system, agency, or those professionals to work effectively in cross-cultural situations." They defined a culturally competent system as one that: (1) values diversity; (2) possesses the capability for cultural self-assessment; (3) is mindful of the dynamics inherent in cultural interactions; (4) has institutionalised cultural knowledge; and (5) has developed adaptations to diversity (Cross et al., 1989).

Efforts to operationalise these principles of "system-level" cultural competence have included initiatives such as the National Standards on Culturally and Linguistically Appropriate Services in Health Care (CLAS Standards). These standards advocate for healthcare practitioners, leaders, and staff who reflect the ethnic composition of the community being served; the collection and tracking of data on the quality of care, stratified by race; and the active engagement of communities in the design and delivery of healthcare facilities and services (American Medical Association, 1999). Numerous advocates have pushed for these changes, not solely on the grounds of the moral imperative to diminish healthcare disparities, but also recognizing the "business case" for addressing the needs of an increasingly diverse segment of the healthcare market (Brach et al., 2002).

2.5 Current Care Pathways for Sexual and Reproductive Health Services Utilisation among Rural-Urban Migrant Adolescents

The United Nations Guidelines on Reproductive Health (United Nations Population Information Network, 1994) defined it as a condition of complete physical, mental, and social well-being, emphasising that it goes beyond the mere absence of reproductive diseases or infirmities. Moreover, these guidelines underscore that reproductive health is a crucial element of overall health and a prerequisite for an individual's social, economic, and human development. Despite the widespread international acceptance of norms and standards affirming the universal right to health, with reproductive health as an integral component, substantial gaps in access persist for specific demographic groups.

One such demographic facing challenges in accessing reproductive health services is migrant adolescents. There is a widely shared understanding that urban poor migrant individuals

constitute a particularly vulnerable group that should have assured early access to a range of reproductive health services. These services encompass preventive health measures, health promotion, screening, and diagnostic care, as well as prenatal and obstetric services. Regrettably, this ideal scenario is frequently not realised. Adolescent migrants encounter diverse challenges that hinder their capacity to make use of sexual and reproductive health (SRH) services (Keyganert et al. 2014).

2.5.1 Pathways to Migrant Adolescents Sexual and Reproductive Health Service Utilisation

The following circumstances highlight the pathways for utilising sexual and reproductive health services among migrant adolescents. The review also identifies the barriers and facilitators for utilising services.

2.5.1.1 Language and Communication Barriers

For most African migrant and refugee children in the destination country, encountering language barriers has been identified as a critical issue in utilising reproductive health information and services (Kwankye et al., 2021). The persistence of these language barriers may lead many of them to feel isolated and excluded from any opportunities in already unwelcoming environments that are already insensitive to their need for sexual and reproductive health services. Notably, five studies conducted in Australia and the US revealed that language acted as a hindrance to the use of sexual and reproductive health services among young migrants (Adedimeji et al., 2015; Harvey et al., 2013; Lee, 2019). Additionally, four studies indicated the challenges faced by young migrants in understanding medical terminology used by general physicians (Kaczkowski et al., 2020; Adedimeji et al., 2015; Harvey et al., 2013).

Similarly, recent research focusing on the sexual and reproductive care of young migrant women underscores the significance of linguistic challenges and the need for providing relevant information (Ussher, 2018; Villadsen & Nybo et al., 2017; Small et al., 2014), as well as ensuring adequate access to healthcare services (Keygnaert et al., 2013). A study by Villadsen et al. (2017) in Denmark suggests that key challenges in ensuring quality healthcare in the area of reproductive health include the insufficient use of interpreters and difficulties in inter-cultural communication. Small et al. (2014), in a comparative study of maternity care experiences between migrants and non-migrants, discovered that migrants had fewer positive experiences, primarily attributed to communication problems, perceived discrimination, disrespectful and unkind care, and a lack of information about how the health system operates.

In some studies, interpreter services were seen as a means to bridge communication gaps between health providers and young migrant patients (Harvey et al., 2013; Multicultural Centre for Women's Health (MCWH), 2012). However, as reported in a study from Ireland, interpreter services may not be readily available at the locations where young migrants seek sexual and reproductive health services (Adedimeji et al., 2015; Harvey et al., 2013). Additionally, it's crucial to acknowledge that the use of interpreters may not be the preferred option for young migrants, particularly if both interpreters and patients share the same cultural background or belong to different genders (Harvey et al., 2013).

2.5.1.2 Perceptions and Experiences of Discrimination

Substantial evidence suggests that the utilisation of SRHS by migrant adolescents and other migrants is influenced by their perceptions and encounters with discrimination from SRH service providers. In a study, it was documented that young migrants believed they experienced discrimination from healthcare professionals based on their cultural background (Botfield et al.,

2016). For instance, young Hispanic women residing in the US expressed feeling treated differently by health professionals during contraceptive counselling compared to their peers, and their preferences were disregarded when recommendations for contraceptives were made. They reported that health providers excessively emphasised the importance of controlling family size, even when they had no immediate intentions of starting a family at the time of their visit (Carvajal et al., 2017).

2.5.1.3 Clinic Hours and Waiting Times and its Impact on Work

Currently, there is scanty evidence regarding long waiting hours at health facilities and their impact on the work and utilisation of ASRHs among migrant adolescents. Although substantial evidence exists for older migrants, a study conducted with immigrant Latin populations in the US revealed that young migrants often face difficulties accessing SRH services because their work hours overlap with clinic operating hours (Harvey et al., 2013).

In a related study by UNFPA (2011), which focused on efforts to enhance access to ASRH services among ‘Kayayee’, a term referring to rural-urban migrant adolescent girls in Accra who work as head porters, these studies highlighted that time spent away from work was a significant concern for ‘Kayayee’. Recommendations suggested that future participatory projects should be mindful of the burden of active engagement on beneficiaries.

2.5.1.4 Lack of Information on Access to ASRH Services

Lack of information about sexual and reproductive health services (SRHS) at the destination poses a challenge for migrant adolescents, as documented in multiple studies. For instance, young migrants often express limited awareness of the availability and functions of specialised SRH services. In five studies, inaccuracies in knowledge about SRH service provision and

accessibility were identified among young migrants in their current country of residence (Kaczkowski et al., 2020; Adedimeji et al., 2015; Manirankunda et al., 2009; Dhar et al., 2017; Harvey et al., 2013). Notably, some young male refugees in Atlanta, US, believed they needed to be over 18 years old to obtain condoms from a health centre (Kaczkowski et al., 2020). Additionally, certain young Bhutanese refugee females in Philadelphia, US, held misconceptions that only individuals aged 18 years and older could independently access SRH services, minors required an older person's accompaniment to SRH services, and obtaining a boyfriend's permission was necessary for abortion (Dhar et al., 2017).

2.5.1.5 Stigma and ASRH Service Utilisation

The societal stigma surrounding premarital sex has a detrimental impact on the sexual and reproductive health (SRH) seeking behaviour of numerous young migrants, as observed in various studies (Kaczkowski et al., 2020; Botfield et al., 2018; Dhar et al., 2017; Harvey et al., 2013). Specifically, young females in several studies expressed concerns that attending specialised sexual health clinics for contraceptive counselling could expose them to the risk of being identified and stigmatised by community members who might also use the same services (Adedimeji et al., 2015; Dhar et al., 2017; Rawson et al., 2010). However, there were variations in the opinions of young females based on their socio-cultural background. A study found that migrant Latin women and girls (aged 15–24 years) living in the metropolitan US valued contraception to prevent unintended pregnancies, with some indicating that their mothers actively encouraged them to seek SRH and contraceptive services (Carvajal et al., 2017).

In contrast, research involving young migrants from different regions (Asia, Africa, and the Middle East) revealed that females were reluctant to utilise sexual and reproductive health (SRH) services due to the stigma associated with premarital sex in their respective communities.

Participants in these studies expressed that practicing abstinence was perceived as a means to safeguard family honour and prevent bringing shame to their families (Adedimeji et al., 2015; Dhar et al., 2017; Rawson et al., 2010).

Additionally, studies involving young migrant males reveal similar concerns regarding accessing voluntary HIV testing, especially among Latino and African migrants (Adedimeji et al., 2015; Dhar et al., 2017; Rawson et al., 2010). Research with young Latin men resettled in the US indicates that many participants fear judgement from their community if it becomes known that they attended HIV screening, with concerns about others viewing their sexual activity as immoral (Harvey et al., 2013; Lee, 2019). Participants with African and Latin backgrounds expressed apprehension about being labelled HIV positive due to the stigma surrounding HIV in their communities (Adedimeji et al., 2015; Manirankunda et al., 2009; Navaza et al., 2012; Harvey et al., 2013). The potential consequences of being labelled HIV positive were perceived to include judgement from religious authorities, sexual rejection by women (Adedimeji et al., 2015; Manirankunda et al., 2009; Navaza et al., 2012; Harvey et al., 2013), and social ostracism by the community (Manirankunda et al., 2009; Navaza et al., 2012).

In various studies, young migrants emphasised the importance of privacy and confidentiality when utilising sexual and reproductive health (SRH) services (Manirankunda et al., 2009; Carvajal et al., 2017; Botfield et al., 2018; Rawson, 2010; Botfield et al., 2017; Inoue et al., 2016; Rogers et al., 2014). There was a high level of anxiety among young migrants about their parents or community discovering they had accessed sexual health services, with some fearing that their attendance at SRH services would be reported to their parents by the general practitioner or

community members (Botfield et al., 2018; Kaczkowski et al., 2020; Botfield et al., 2018; Dhar et al., 2017; Harvey et al., 2013).

2.5.1.6 Cost associated with Sexual and Reproductive Service Utilisation

Young migrants often mentioned the affordability of healthcare as an actual or perceived hindrance to utilising sexual and reproductive health (SRH) services (Hulme et al., 2015; Adedimeji et al., 2015; Manirankunda et al., 2009; Harvey et al., 2013). In Ireland, individuals with a low income qualify for a medical card, granting them access to free primary and secondary care. Those ineligible for the medical card incurs a fee of 40 to 50 euros for a general physician visit, along with additional expenses for any medical tests. The associated healthcare costs were identified as a significant obstacle to service utilisation for migrants without eligibility for a medical card (Adedimeji et al., 2015).

Additionally, in Canada, the cost of contraceptives emerged as a notable concern for young migrant women. While certain sexual health clinics offer contraceptives at reduced rates, the unavailability of the copper intrauterine device (IUD) and limited coverage for the intrauterine system (IUS) through private health insurance hinder young migrant women from accessing long-acting contraceptives (Hulme et al., 2015). Consequently, the cost associated with SRH and contraceptive services serves as a barrier to service utilisation for some young migrants. Notably, however, some studies revealed that young people were unaware of the availability of free testing services or subsidised care (Manirankunda et al., 2009; Rawson et al., 2013).

2.6.1 Enablers of Migrant Adolescents Sexual and Reproductive Health Service Utilisation

Notwithstanding the barriers, literature on the enablers of SRH service use among migrant adolescents highlights the opinions of young migrants about their preferred SRH services.

2.6.1.1 Preferred Attributes of Health Professionals

Views on the preferred socio-cultural background of health professionals among migrant adolescents vary across various studies. For example, in a targeted ethnographic study conducted at a large teaching hospital in Edmonton, Alberta, Canada, serving a primarily immigrant clientele from North or East African, Middle Eastern, and South Asian backgrounds, variations in healthcare providers were observed across socio-cultural groups and genders. Specifically, young female migrants expressed a preference for female health providers when seeking SRHs, as documented in studies by Botfield et al. (2018), Rawson et al. (2010), and Rogers et al. (2014). In a separate study, young males leaned towards male health providers, especially for discussions related to STIs (Harvey et al., 2013).

Also, views on the preferred socio-cultural background of health professionals varied. In certain studies, young females preferred health providers from a different cultural background to avoid exposure to cultural value judgements (Kaczkowski et al., 2020; Botfield et al., 2018; Rawson, 2010; Inoue et al., 2016; Rogers et al., 2014). In a different study, young males tended to prefer male health providers particularly for discussions concerning STIs (Harvey et al. 2013).

On the other hand, in three studies (Kaczkowski et al., 2020; Adedimeji et al., 2015), young migrants expressed a preference for health providers from a similar cultural background, believing they would better comprehend their experiences and avoid discrimination (Adedimeji et al., 2015). Some participants in a few studies expressed a desire for young SRH care providers who possess up-to-date knowledge and are accepting of the sexual decisions made by young individuals (Botfield et al., 2018; Rawson, 2010; Rogers et al., 2014).

2.6.1.2 Open Conversation with Health Professionals

Open dialogues between healthcare professionals and migrant adolescents have the potential to create an environment where young migrants may feel comfortable discussing their sexual and reproductive health (SRH) concerns. For instance, in Australia, two studies indicated that the openness of Western culture facilitated discussions about sexual health and provided access to information, which might not have been feasible in their countries of origin (Botfield et al., 2018; Inoue et al., 2016). A study highlighted the positive experiences of young Japanese females in Australia, where they could engage in open conversations with general practitioners about various sexual health topics, including STI transmission and testing. Additionally, key informants and general practitioners in Australia emphasised the significance of initiating discussions about ASRH with young migrants to empower them to make informed choices (Botfield et al., 2018).

2.6.1.3 Reassurance for Privacy and Confidentiality

In light of the concerns raised by young migrants regarding privacy and confidentiality, it is crucial to instil confidence in them that their personal information will remain confidential and shared only with healthcare providers (Carvajal et al., 2017). To cultivate trust and facilitate the provision of suitable and effective sexual and reproductive health (SRH) services, Harvey et al. (2013) and Botfield et al. (2017) suggest that healthcare providers should explicitly address privacy and confidentiality at the onset of an appointment. This approach helps in establishing a rapport between the young migrant and their healthcare provider.

2.6.1.4 Social Support

The utilisation of ASRH services by young migrants is influenced by the breadth of their social support networks. For instance, a study revealed that young Latin women in the US cited open

discussions with their parents as instrumental in seeking SRH services and making informed decisions about contraception (Rawson et al., 2010; Brandenberger et al., 2019). Another study found that certain young refugee women in Atlanta, US, expressed a desire for their parents to have a better understanding of SRH services, enabling them to attend consultations and offer support (Kaczkowski et al., 2020). Additionally, friends and schools were identified as significant sources of information about sexual and reproductive health (SRH) and served as motivating factors for utilising SRH services (Kaczkowski et al., 2020; Carvajal et al., 2017). For instance, a study on sexual health literacy among young refugees aged 18–24 years in Atlanta, US, revealed that while participants had limited knowledge about sexual health, schools and peers played a pivotal role as primary sources of information for those with limited or low sexual health literacy (Hulme et al., 2015; Kaczkowski et al., 2020; Carvajal et al., 2017; Botfield et al., 2017). Another study exploring contraceptive decision-making among Latin women in the US indicated that school-based sexual education initiatives could enhance knowledge about sexual health and SRH services among young migrants (Carvajal et al., 2017). However, a study from Canada by Hulme et al. (2015) identified barriers to SRH service and contraception use among new migrants, citing inconsistent and inadequate sexual health education in public schools as one of the barriers.

2.7 Perspectives of Healthcare Professionals Regarding their Engagement with Rural-Urban Migrant Adolescents

Healthcare professionals are increasingly tasked with delivering care to diverse population groups. Substantial evidence highlights health disparities, structural inequalities, and sub-par healthcare quality and outcomes among individuals from minority cultural and linguistic backgrounds. Migrants, in particular, encounter challenges and vulnerabilities, including issues

like language proficiency, family responsibilities, social isolation, poverty, and logistical challenges, which can jeopardise their health and well-being and hinder access to suitable healthcare services. Even when they manage to access healthcare, their specific needs may be poorly understood and addressed (WHO, 2020).

2.7.1 Barriers Associated with Service Delivery

The following is a review of how healthcare professionals engage with migrant adolescents in the delivery of sexual and reproductive health services. The review also emphasises the impediments and enablers for service delivery.

2.7.1.1 Health Care Workers Lack of Confidence to Discuss Sexual Health Needs

The existing literature on how health care professionals engage migrant adolescents in the delivery of sexual and reproductive health services (SRHS) suggests that SRH services for young migrants have been provided through suboptimal routes. For instance, some health professionals opt not to address the sexual health needs of young individuals because they lack confidence in approaching the matter in a culturally sensitive way (Botfield et al., 2017).

Some health professionals presumed that clients with migrant or refugee backgrounds held conservative views and might feel uncomfortable discussing their sexual health. It was further indicated that the personal biases or beliefs of health professionals regarding sexual health could impact service delivery for culturally diverse young people, potentially leading to decisions like not prescribing abortion services or contraception to unmarried females (Hulme et al., 2015; Botfield et al., 2017).

2.7.1.2 Language and Communication Barriers

The primary and widely acknowledged difficulty in serving migrant populations is often linked to communication issues arising from language barriers (Kotovicz et al., 2018). Language barriers pose a significant challenge across various healthcare settings serving migrant adolescents. These barriers not only increase the risk of misunderstandings but also raise the likelihood of misdiagnosis and confusion regarding treatment recommendations. Effective communication is a crucial element of trust within the doctor-patient relationship and strongly correlates with patient satisfaction (Nelson et al., 2002; Farmer et al., 2006; Garra et al., 2020). Additionally, research indicates that extensive physical examinations and diagnostic tests may be necessary to compensate for communication challenges, and administrative processes can become prolonged and complex due to inadequate communication (Priebe et al., 2011).

Yet despite the widespread acknowledgement of language and communication challenges, the utilisation of professional and trained interpreters is not consistently integrated into regular practice, even though the advantages of doing so, as well as the risks associated with using untrained interpreters, are well known. Many healthcare providers often resort to informal strategies to facilitate communication during consultations, such as involving family or friends as interpreters. While these approaches may prove effective in specific scenarios, they also pose a risk to individuals' access to and experience of healthcare, particularly when the quality of interpretation is ineffective or when addressing sensitive health issues influenced by sociocultural norms related to factors like gender and age. Additionally, concerns about exploitation and potential harm arise when children are used as interpreters (van den Muijsenbergh et al., 2014).

The WHO (2020) emphasises that current guidelines recommend the use of trained interpreters, recognising that formal interpreters adhering to a professional code of practice are considered best practice. Despite awareness of the associated risks, clinicians still tend to underutilize trained interpreters. When professional interpreters are employed, they typically adhere to a set of principles or rules outlined in codes of ethical and professional conduct. These principles commonly include respecting clients' rights to privacy and confidentiality, disclosing any conflicts of interest, conveying information accurately and impartially, and maintaining professional detachment from discussed issues. However, ethical considerations in cross-cultural communication can be less straightforward, particularly when informal interpreters are involved (WHO, 2020).

2.7.1.3 Differences in Culture Health Beliefs Affecting the Uptake of Services

Sociocultural taboos and cultural prohibitions surrounding SRH topics are also significant impediments. This is consistent with the literature: deep-rooted societal norms and cultural beliefs significantly influence individuals' decisions to seek SRH services. Gender norms might limit women's mobility and decision-making power, thereby affecting their ability to access healthcare independently (El Ayoubi et al., 2018). Societal taboos surrounding topics like contraception or abortion further discourage service utilisation. Therefore, it is critical to implement awareness programmes that can help to challenge and change these deeply ingrained societal norms and taboos (Keygnaert et al., 2014; McGinn & Casey, 2016).

In urban poor migrant or humanitarian settings, the utilisation of ASRHs is shaped by factors beyond just the availability and accessibility of services. Sociocultural constructs such as deep-rooted societal norms and cultural beliefs exert a significant influence on SRH outcomes in humanitarian contexts, particularly among vulnerable groups such as young people. Stigmas

related to SRH are prevalent in many societies, especially in these settings, often acting as barriers that deter individuals, especially girls, from seeking necessary SRH services. According to research conducted by the Guttmacher Institute, stigma associated with premarital sex and abortion services can hinder individuals from accessing SRH services. This stigma is rooted in deeply ingrained cultural and religious beliefs that consider such behaviours morally unacceptable (Singh et al., 2018).

Moreover, a study carried out in Rwanda by Katherine Meyer and colleagues in 2022 highlighted the various sociocultural barriers encountered by adolescents' faces, hindering their access to or discussion of sexual and reproductive health (SRH) issues (Meyer et al., 2022). Similarly, a concurrent study affirmed that these stigmas frequently result in healthcare providers' reluctance to attend to younger patients because of their prejudiced views (Zeng et al., 2020).

Menstruation, a natural biological process, frequently becomes a contentious subject due to deeply entrenched societal taboos. These issues are particularly pronounced in humanitarian settings. Practical obstacles such as obtaining menstrual hygiene products are compounded by societal misunderstandings and taboos surrounding menstruation, which span from resource scarcity to the stigma associated with this natural bodily function (Aktar et al., 2020). Research conducted by Kågesten et al. (2017) in Somalia and Myanmar revealed that very young adolescent girls encounter more barriers to accessing sexual and reproductive health (SRH) information compared to boys, often relying on family or friends as their primary source of knowledge (Kågesten et al., 2020). Additionally, Marlow, in a separate study, shed light on the challenges faced by girls in humanitarian settings concerning unwanted pregnancies and unsafe

abortions. Stigma, lack of privacy, and limited access to services were identified as the primary hurdles (Marlow et al., 2022).

2.7.1.4 Visits to Health Facilities/Consultations with Associated Time Constraints

Time constraints during health visits and consultations present a crucial opportunity for providers to address the healthcare needs of broader migrant populations. Given that some of these vulnerable groups bear an additional disease burden compared to typical patients, it is essential to pay specific attention to factors such as "past experiences of healthcare, exposure to traumatic experiences, language, and cultural differences" both before and during appointments (IOM 2020).

With the necessity to make numerous arrangements, especially for initial appointments, it is evident that healthcare providers require more time to ensure proper service delivery to refugees. When factoring in the additional time needed for interpreting services during appointments, it becomes inevitable that healthcare providers struggle to find sufficient time to address the specific needs of refugees in a system that does not adequately recognise their need for extra time. In a study by Fang et al. (2015), a patient expressed that the consultations were not long enough for general practitioners to conduct a thorough assessment, taking cultural considerations into proper account. While various research investigates the consequences of not allocating extra time from the perspectives of refugee and other migrant populations, as mentioned above, working under time pressure presents several challenges for healthcare providers. A study by Jessen (2010) highlights a lack of time for providers to "prepare for visits and educate patients." Time limitations can become so severe that providers often cannot predict whether a refugee or non-refugee patient will show up for the next appointment.

Many healthcare providers are cognisant that their daily work not only necessitates extended time and duration but also involves an increased number of appointments when dealing with patients who are refugees and migrants. The heightened frequency of lengthy and intricate appointments places an additional burden on providers, taking away time from other patient groups (Robertshaw et al., 2017). In a study by Pollock et al. (2012), migrant participants reported instances of rejection by receptionists due to doctors perceiving that serving them is "too time-consuming, emotionally overwrought, and exceptionally demanding"

2.7.1.5 Lack of Knowledge and Skills to Provide Culturally Competent Care

The importance of educating refugees and other migrant populations about the healthcare system and their health rights in their new destination is consistently underscored in various sources, as the exchange of such knowledge fosters positive interactions with these groups (Mangrio et al., 2017). However, there is comparatively less attention given to the knowledge gap among healthcare providers regarding these issues and the cultural aspects of delivering services to these sub-populations. Additionally, there is often a neglect of providing support, training, and guidance to healthcare providers, as evidenced in numerous articles highlighting the necessity for enhanced training for providers who may be "ill-equipped to address challenges in service provision" (Durstun et al., 2016).

When healthcare system fails to adequately respond to the unique needs of migrant adolescent populations, this is evident in providers avoiding these cases, ultimately leading to suboptimal health outcomes (McKeary et al., 2010). Limited financial resources allocated to health support programmes for migrants pose a significant obstacle, impeding efforts to enhance care. Another challenge is the lack of flexibility within systems, despite the diverse nature of migrant groups. In rigid systems, healthcare providers find it challenging to deliver the complex care required by

migrants, and the absence of flexibility for innovative approaches and extended time places an additional emotional and professional burden on providers. Lastly, difficulties involved in navigating the health system result in compromised care and increased costs, adversely impacting both health seekers and providers (Farley et al., 2014).

2.7.1.6 Challenges Threatening Health Care Providers' Well-Being

In several studies, it has been suggested that healthcare professionals encounter emotional challenges when attending to vulnerable migrant adolescent patients and learning about their traumatic experiences. Providers also express a feeling of helplessness, attributing it to their perceived inadequacy in knowledge, skills, and competency to address the sensitive healthcare needs of these individuals, resulting in a perceived inability to significantly impact their lives (Robertshaw et al., 2017; Guhan et al., 2011).

Despite the prevailing pessimism in many studies, it is evident that healthcare providers also find serving individuals with diverse backgrounds personally gratifying. They express high motivation, driven by professional satisfaction derived from their work, relish the learning experience of engaging with multicultural groups, and establish fulfilling relationships with them (MacDonald et al., 2016; Wahoush, 2013). For example, a provider serving a migrant population in the United States (US) shared, "It is pretty awe-inspiring to be a part of and become a trusted resource for them, and to be able to provide support and help along the way; it is really nice. It is very rewarding." Another mentioned the opportunity for developing professional skills, stating that it allowed him to practice global health locally, dealing with a mixture of infectious diseases and engaging with interesting cultural characteristics he became familiar with (MacDonald, 2016).

2.7.2 Health Care Professional Enablers

The ability of healthcare professionals to deliver culturally sensitive care to migrant adolescents may be enhanced through the following facilitators and enablers:

2.7.2.1 Facilitators for Language and Communication Barriers

According to the WHO (2020), it is crucial to eliminate language barriers during healthcare encounters between healthcare workers and patients to ensure that patients receive the necessary care. While interpretation services can help address language barriers, they noted that although good-quality face-to-face interpreting is associated with improved clinical care, it can be costly and inconvenient. On the other hand, telephone-based interpreting services may compromise quality and create distance between the patient and the interpreter, but they can offer vital and immediate support. The increasing availability of personal computers and voice over internet protocol (VoIP) software, such as Skype, now makes interpreting through video conferencing a possibility.

McHenry et al. (2016) discussed the use of technology for interpretation purposes, emphasising the importance of readily available professional interpreting services through phone, video, or in-person. Medical residents serving Burmese refugees in Indianapolis, Indiana, USA, highlighted the effective use of these services and provided techniques on using body language and establishing eye contact with the patient, not the interpreter, during communication. However, challenges associated with interpretation services vary based on the modality. In-person interpretation facilitates detailed conversations with non-verbal cues and the ability to assist with paperwork before examinations (Rowe et al., 2010). Ensuring the quality of interpreting services through the employment of trained professionals is crucial to avoid additional burdens on healthcare providers (McHenry et al., 2016).

The availability of cultural mediators, also known as health navigators, is crucial. While the terms "interpreter" and "mediator" are often used interchangeably, they have complementary yet distinct roles. Interpreters facilitate verbal communication, while intercultural mediators have a broader role, extending beyond language barriers. These mediators usually share the same cultural background as the patient, serving as a bridge between patients and health professionals. Their role is pivotal in bringing these elements together. Additionally, cultural mediators can assist migrants in accessing follow-up services beyond the health sector, such as housing, welfare support, and legal services, ensuring comprehensive support (WHO, 2020).

Effective inter-cultural mediation requires recognising mediators as influential figures within the health system and establishing their role as a norm. Training programmes play a crucial role, focusing on attitude-based skills, cultural knowledge, and practical application. These programmes may target various health professionals, offering generic education or tailoring content for specific roles. It is essential to integrate education and training as fundamental university-level courses, ensuring that all health professionals view intercultural competence and diversity sensitivity as integral to daily practice. Notably, limited training has been directed towards health managers and decision-makers, highlighting the importance of involving these groups to demonstrate institutional commitment and instigate changes in working practices (WHO, 2020).

Accreditation for training in intercultural competence and/or diversity sensitivity is crucial for showcasing organisational and systemic support. In the United States, there are Nationally Culturally and Linguistically Appropriate Services (CLAS) Standards in Health Care, accompanied by a blueprint providing guidance and strategies for implementation. In Europe,

accreditation for the MEM-TP training programme was granted by the Slovak Medical Chamber and the Slovak Chamber of Nurses. In Poland, for instance, participants in the pilot training received a diploma issued by the Medical Centre for Continuing Medicine (WHO, 2020).

2.7.2.2 Cultural Differences in Health Beliefs

Establishing trust and ensuring culturally appropriate services for migrant adolescent populations can be achieved through effective rapport-building and active listening, proving essential alongside cultural competence. Increasing the ethnic diversity of healthcare providers and utilising professionals who share the same ethnic background as migrant groups contribute to cultural competence more efficiently (Matteliano et al., 2015; Pollock et al., 2012). Creating culturally welcoming environments in care settings, with visual elements reflecting the diversity of the patient population, also enhances cultural sensitivity (Mehra, 2004). Building trust with migrant adolescents requires significant effort. Healthcare providers should invest time in establishing trust to address the health-related needs of migrant populations. It is crucial for providers to dedicate time to developing cultural understanding, explaining medical concepts, and presenting available services in a culturally sensitive manner (Durstun et al., 2016).

2.7.2.3 Role of Wider Community Networks and Education Initiatives

Scholarly literature indicates that broader education services and social networks significantly shape the knowledge and attitudes of young migrants regarding the utilisation of SRH services. School and community-based sexual health education play a role in enhancing the awareness and utilisation of young migrants to SRH services, including youth-friendly services (Hulme et al., 2015; Kaczowski et al., 2020; Carvajal et al., 2017; Botfield et al., 2017). Additionally, in certain contexts, parents, especially mothers, are key influencers in motivating young migrants to make informed decisions about contraception and engage with SRH services (Carvajal et al.,

2017). However, some young migrants express fear of parental and community reactions if their utilisation of sexual health services becomes known (Botfield et al., 2018; Kaczkowski et al., 2020; Manirankunda et al., 2016; Dhar et al., 2017; Harvey et al., 2013).

Earlier studies have recognised successful educational and community-based strategies to enhance sexual health literacy and encourage involvement with ASRH services among migrant youth. These include innovative approaches such as using digital stories as a tool for health literacy and service engagement (Nies et al., 2016) and parent-focused sexual risk reduction programmes like the 'Families Talking Together' (FTT) initiative, aiming to mitigate risky sexual behaviours in young migrants (Ruiz-Casares et al., 2016; Vanthuyne et al., 2013). For instance, an assessment of a culturally sensitive SRH education programme in Sweden, catering to refugee women and girls during the settlement phase, demonstrated improvements in their sexual health literacy and confidence in navigating the health system. Similar programmes tailored for young migrants and their families could prove beneficial in various countries, ensuring sensitivity to the diversity of community values and contexts (Farley et al., 2014).

2.8 Adolescent Sexual and Reproductive Health Interventions

Interventions targeting adolescents can be categorised into behaviour change interventions, focusing on individual knowledge, skills, and attitudes, and structural interventions, addressing broader societal factors influencing low uptake of ASRH services. These approaches are interconnected, as sustained individual behaviour change often thrives in a community that supports those behaviours. In addition, the broader cultural perspective of the community plays a significant role in intervention feasibility and influences how recipients react to it, suggesting the interdependence of individual and societal factors (Lowis et al., 2001).

2.8.1 Behaviour Change Intervention Strategies and Delivery of Adolescent Sexual and Reproductive Health Services

Behaviour change interventions aim to influence individual behaviour patterns by improving control over sexual activity, delaying the initiation of intercourse, reducing partner change, promoting appropriate health-seeking behaviour, and advocating the use of ASRH services (Kirby et al., 1994; Grunseit, 1997; DiCenso et al., 2002; Mullan et al., 2002).

While traditional knowledge-based approaches in sex education primarily enhance knowledge but have limited effects on behaviour (King et al., 1993), behaviour change interventions with a theoretical foundation and rooted in social psychological theories prove more effective. These interventions draw on research that explores the origins and regulation of sexual behaviour. Sociological studies on young people's sexuality indicate that it is learned, with gender-specific learning patterns, and heavily influenced by gender power relationships that are both culturally and individually determined (Wight et al., 1998).

2.8.2 Structural Interventions

Structural factors influencing HIV risk and prevention encompass physical, social, cultural, organisational, community, economic, legal, or policy aspects of the environment that either hinder or facilitate an individual's efforts to avoid risky lifestyle behaviours. Traditional interventions in adolescent reproductive health have typically overlooked these structural factors, which can impede their endeavours to prevent STIs and unintended pregnancies (Sumartojo, 2000; Rotherham-Borus, 2000).

Several scholarly works have illustrated that expecting individual behaviour to change may be unrealistic when the broader societal and cultural context does not support such changes. This is often observed in interventions promoting condom use and partner reduction strategies,

particularly for impoverished heterosexual women in developing countries (Hoisie et al., 1996; Anon, 1990).

Nevertheless, a balance must be maintained between the ideal and what is feasible. It would be unreasonable to postpone the implementation of behaviour change interventions until broader structural changes in the community can be realised. Complex societal issues such as economic deprivation and gender inequality require time for meaningful change at the societal level. Structural interventions can target individuals (micro-level), such as micro-finance initiatives aiming to economically empower young women (Esim et al., 2001; Population Council, 2000), organisations (intermediate level), like providing reproductive health services within schools or implementing needle exchange schemes for drug users, or the environment (macro-level), such as bringing about legislative changes in the provision of over-the-counter emergency contraception (Sumartojo, 2000). In the Netherlands, mass media approaches have successfully influenced societal attitudes and raised awareness of sexual health issues (Yzor et al., 2000). Regarding behaviour change interventions, there is relatively limited research evidence on efficacy, partially due to the challenge of measuring changes attributable to an intervention at a societal level (Parker et al., 2000).

2.9 Culturally Appropriate Interventions to Enhance Utilisation of Adolescent Sexual and Reproductive Health Services

Traditional approaches to enhancing adolescent sexual and reproductive health (ASRH) outcomes have primarily concentrated on modifying individual behaviour by creating awareness of the consequences of engaging in risky sexual behaviours (UNAIDS, 1999; Kirby et al., 1994). However, it became evident that merely understanding the consequences was insufficient; young people needed to acquire the skills and knowledge related to changing risky behaviours

(UNAIDS, 1999). The field of ASRH has progressed, recognising that young people's health behaviour is significantly influenced by various factors beyond their control, including biological changes, the influence of family and friends, the communities they live in, and access to economic and academic opportunities (Gruseit et al., 1997; Oakley et al., 1995).

There is an increased urgency not only to guarantee the availability of contraception but also to facilitate adolescents' access to youth-friendly counselling and services that promote informed decision-making. Interventions aimed at adolescents who are in the process of forming their identities and understanding societal norms regarding sexuality and gender are particularly vital, particularly in environments where social stigma may hinder the uptake of contraception. Within this age group, peers can significantly influence relationships and sexual behaviours (Yakubu et al., 2018), serving as either a barrier or facilitator for accessing sexual and reproductive health services. However, conventional interventions like peer education and youth centres have proven ineffective in enhancing adolescents' service access and behaviour change (Chandra-Mouli et al., 2015). Behavioural design, a systematic intervention development approach (Datta et al., 2014), emerges as a promising strategy for improving sexual and reproductive health-seeking behaviour and outcomes. This involves diagnosing barriers hindering behaviour uptake and subsequently developing tailored solutions (Aston et al., 2020).

2.10 Strategies to Enhance Demand-Side Adolescent Sexual and Reproductive Health Service Utilisation

Improving the utilisation of sexual and reproductive health (SRH) services by adolescents requires not only training health providers and making facilities more adolescent-friendly but also generating demand for these services. This includes addressing concerns and gaining acceptance among community gatekeepers, such as parents and community leaders, who may

question or oppose the provision of SRH services for adolescents. Many initiatives aiming to improve demand-side strategies encompass a combination of health provider training, facility enhancements, and marketing or information dissemination to create demand and support for adolescent SRH services (Donna et al., 2015).

In fact, there is evidence of the positive effects on the utilisation of sexual and reproductive health services (SRHS). These effects are typically associated with interventions that include training, facility improvements, and efforts to boost demand and acceptance within communities, often involving the education sector and mass media. However, it is challenging to separate and analyse the individual contributions of each component, as study designs do not facilitate such distinctions. A systematic review by Kesterton and Cabral de Mello (2010), specifically outlines the evidence supporting interventions aimed at creating or enhancing young people's demand for ASRHS and those targeting increased community support. In one study focusing on generating demand for Adolescent Sexual and Reproductive Health Services (ASRHS), demand-generation activities were predominantly school-based in six of the programmes (Magnani et al., 2001; Bhuiya et al., 2004; Diop et al., 2004; Askew et al., 2004; Vernon et al., 2004), with two of them showing mixed results using referral systems linked to schools.

A cluster randomised controlled trial (RCT) in Nigeria provided strong evidence of increased care seeking for sexually transmitted infection (STI) symptoms among those in the intervention schools and communities, but there was no impact on self-reported condom use (Coplan et al., 1999; Diop et al., 2004). A Brazilian quasi-experimental study found no difference in new contraceptive use among adolescents in intervention compared with control clinics (Magnani et al., 2004). The Population Council's Frontiers in Reproductive Health Program implemented a

three-arm quasi-experimental study design in four countries, allowing for the assessment of the impact of adding school-based activities to community-based demand generation and youth-friendly clinic activities.

In Kenya, self-reported contraceptive use increased in communities where school-based activities were implemented compared to those with only community-based activities. However, self-reported use also increased in control communities. Additionally, self-reported health service use was low across all three arms (Askew et al., 2004). Demand generation interventions in four initiatives primarily focused on community-based information, education, and communication (IEC) strategies, incorporating affordable family and health services activities. The programme with the strongest study design, measuring multiple outcomes, showed mixed results (Cowan et al., 2008; Cowan et al., 2010). However, all four initiatives demonstrated some increased uptake of sexual and reproductive health (SRH) commodities or service use (Cowan et al., 2008; Cowan et al., 2010; Lou et al., 2004; LaVake, 2003; Neukom et al., 2003; Sovd, 2004). An Indian community-based IEC programme with a female youth empowerment focus, lacking a health services component, exhibited higher self-reported health service use among girls in the programme compared to the controls (Levitt-Dayal et al., 2001).

A South African initiative utilised demand-generation activities primarily through media messaging, while a Zimbabwean programme employed a combination of media- and school-based strategies (Kim et al., 1998; Kim et al., 2001). Both studies showed weak evidence for increased use of SRHS. Nine initiatives aimed to boost demand generation through the implementation of multicomponent activities. The four adolescent and young adult programmes demonstrated increased self-reported use of condoms and contraceptives among females, with

variations in health service use results by country (African Youth Alliance, 2005; African Youth Alliance Programme, 2007).

Researchers in Nepal conducted a comparative study using a participatory approach, involving activities like youth clubs and street theatre, against more conventional peer- and teacher-led education. In the intervention site, among first-time pregnant young women, self-reported utilisation of health facilities for delivery significantly increased (17.4% to 45%) compared to the control site (11.8% to 22.5%). The impact was even more pronounced for self-reported use of antenatal services, rising from 4.8% to 66.7% among intervention participants while decreasing from 41.2% to 36.6% in the comparison community (Mathur et al., 2004).

In terms of generating community support, similar strategies, such as radio and other media use, information dissemination, education and communication, launch events, drama, and community group discussions, were employed to mobilise parental and broader community support for Sexual and Reproductive Health Services (SRHS). Reports from two multi-country programmes, Reproductive Health Initiative for Youth in Asia (RHIYA) (UNFPA 2007) and Frontiers in Reproductive Health (Bhuiya et al., 2004; Diop et al., 2004; Askew et al., 2004; Vernon et al., 2004), suggested how differences in baseline levels of community acceptance for young people's SRH and SRHS influenced the extent and content of community mobilisation. The Frontiers reports also identified variations in acceptance levels based on specific concerns and sensitivities, with contraception being a sensitive topic in Senegal (Diop et al., 2004), despite high baseline approval for adolescents receiving information about other SRH issues, including STI/HIV/AIDS, sexuality, and early/unwanted pregnancies.

In Nepal, support groups played a crucial role in helping parents develop communication skills to discuss and educate their children on adolescent sexual and reproductive health (ASRH). In general, eight initiatives (Kim et al., 1998; Kim et al., 2001; African youth alliance 2005; African youth alliance 2007; Hainsworth, 2002; Hainsworth et al., 2009; Yaro et al., 2003) demonstrated enhanced community acceptance of adolescent-parent (or other adult stakeholder) communications (Kim et al., 1998; Kim et al., 2001; African youth alliance 2005; African youth alliance 2007; Hainsworth, 2002; Hainsworth et al., 2009; Yaro et al., 2003) regarding adolescent SRHS, predominantly through qualitative measures. Three studies included related quantitative analyses. In Burkina Faso, the percentage of adolescents reporting feeling comfortable talking to their parents about sexuality issues increased from 36% at baseline to 55%. However, neither comparison group data nor significance testing were reported (Yaro et al., 2003). Kim et al. (2001) demonstrated fivefold increased odds of young people reporting discussions about reproductive health due to the programme among intervention participants compared with controls (Kim et al., 1998; Kim et al., 2001). A study of Zambian youth found a weak positive correlation with one use of family planning services, no correlation with STI service uptake, and a negative correlation with overall SRH service uptake. However, all three service use indicators were positively correlated with community acceptance, albeit weakly, and none of these findings were statistically significant. The authors report that the study was not powered to detect such a difference (Mmari et al., 2003).

Strategies involving religious leaders as crucial conduits led to their support for activities targeting adolescents and young adults in Uganda and Botswana. However, the outcomes regarding sexual and reproductive health services (SRHS) use varied between the two initiatives, with increases in Botswana and declines in Uganda (African Youth Alliance, 2005; African

Youth Alliance, 2007). In Jamaica, religious leaders played a significant role in a national programme, leading to a decline in negative attitudes among community members towards adolescent sexual activity, although acceptance of SRHS was not measured. Borkan

Community acceptance and demand generation activities were primarily components of packages that also included facility-based activities. Although costing data were generally not provided, when included, the most expensive components were those aimed at creating demand and community support, as opposed to the health facility interventions to train providers and make clinics more adolescent-friendly (Bhuiya et al., 2004; Diop et al., 2004; Ross et al., 2007).

2.11 Supply-Side Strategies to Enhance Sexual and Reproductive Health Service Delivery

Providing accessible and high-quality ASRH services, tailored to adolescents' needs, has the potential to boost service utilisation and enhance sexual and reproductive health outcomes. Existing evidence indicates that the performance of health workers is influenced by factors at the individual, institutional, and social levels. Addressing these factors is essential for improving health worker competencies, attitudes (including biases), and motivation. Therefore, when developing strategies to enhance the uptake of ASRHS, it is recommended to give careful consideration to the context and address local conditions, as emphasised by Rowe et al. (2018).

Some initiatives have employed supply-side strategies specifically related to ASRHs or commodities, either through self-reported surveys or assessments using health facility data and clinical SRH outcomes (e.g., rates of HIV or other STI infection, pregnancy rates). In instances where health worker training was implemented without modifications to facilities, two rigorously designed cluster randomised controlled trials (RCTs) were conducted, both yielding mixed results. For instance, Cowan et al. (2008) demonstrated a positive impact, leading to reduced

pregnancy rates and an increased likelihood of seeking contraceptive services among young females. However, the intervention did not significantly affect the uptake of other SRHS or reduce the prevalence of HIV or other STIs (Cowan et al., 2008; Cowan et al., 2010). Another RCT in Tanzania reported some increase in condom distribution, the number of males seeking outpatient STI-related services, and self-reported condom use. However, the intervention did not influence biologic outcomes, including the prevalence of HIV and other STIs (Doyle et al., 2005; Larke et al., 2012; Ross et al., 2007).

In another type of intervention, results did not demonstrate a positive Sexual and Reproductive Health Services (SRHS)-related outcome of interest. However, more evidence was available for another intervention category-those that not only provided training for health professionals but also made adolescent-friendly facility-based modifications. Data from two studies, both quasi-experimental, showed positive outcomes. First, a Ugandan study assessed the impact of health centre reorganisation, coupled with varying levels of health worker training and building district health teams' capacity for training and supervision. Adolescents were involved in various project stages. The intervention led to a more than twofold increase in self-reported use of health services, including family planning and STI services, and a more modest increase in self-reported use of family planning among adolescents in the intervention compared with the control communities (Mbonye, 2003).

The second type of initiative involved multiple strategies, including information distribution and awareness-building activities targeting unmarried Chinese youth, along with the distribution of free contraceptives. These measures resulted in 14-fold increased odds of contraceptive and condom use among those in the intervention compared with the control community (Lou et al.,

2004). However, a quasi-experimental study from Senegal did not demonstrate any positive sexual and reproductive health services (SRHS)-related outcomes related to the intervention, although there was an overall increase in self-reported use of health services in both the intervention and control groups (Diop et al., 2004).

An initiative in Mongolia centred on adolescent participation and community mobilisation, often led by health workers, involved various community members such as teachers, health workers, parents, and adolescents themselves. Health workers were trained, and basic commodities like contraceptives were provided. Statistical analysis showed a significant increase in service use at intervention sites compared to control sites (Sovd, 2004). In Nigeria, a randomised controlled trial (RCT) involved training private doctors, clinic certification as adolescent-friendly, and training of patent medicine vendors and pharmacists. Peer counsellors and health providers delivered school-based health education on STI prevention and treatment. Both intervention and control groups reported increased condom use and care-seeking for STI symptoms, with a more statistically significant outcome in the intervention group (Coplan et al., 1999; Okonofua et al., 2003).

Next is an out-of-facility sexual and reproductive health services supply-side strategy. Sexual and reproductive health services, although typically provided within health facilities, can be extended to the community, bringing services to locations where adolescents gather and reside, such as schools, workplaces, streets, malls, homes, youth centres, pharmacies, and storefronts (Donna et al., 2015).

In Kenya, a strategy involving schools and workplaces combined the delivery of messages on abstinence, faithfulness, and condom use to students from primary to university levels with

mobile HIV testing within school and workplace settings, along with an annual HIV testing day. While self-reported condom use increased over time (with no comparison group), outcomes related to health service use were not reported (Miller et al., 2008).

Further, the strategy involving youth centres (YCs) refers to meeting points that provide a youth-friendly, safe, and non-threatening environment for information and service delivery across various sectors, including health, education, job training, or recreation. A review from 1997, based on the best available evidence at that time, suggested that YCs might not be a cost-effective way to increase the use of sexual and reproductive health services (SRHS) due to the high operating costs associated with providing multiple services, including non-health-related ones (Senderowitz, 1997). Since then, more rigorous studies have been published. A systematic review specifically assessing the effectiveness of 18 YC initiatives in increasing the use of SRHS was conducted in 2012 (Zuurmond et al., 2012). Their findings aligned with those of other relevant reviews. YCs are predominantly accessed by older male youth (often outside the intended age target range), who are repeat visitors residing in close proximity to the centres, mainly for recreational purposes (Dick et al., 2006; Denno et al., 2012; Senderowitz, 1997).

Thus, YC attendees rarely utilised the health services provided by the facilities. While 27% and 97% of attendees at two different South African YCs reported using the facilities' sexual and reproductive health services (Pettifor et al., 2007; Janowitz et al., 2003), the percentage was considerably lower in other studies, ranging from 14% in Accra, Ghana (Glover et al., 1998), to less than 5% in five studies conducted in sub-Saharan Africa and the Caribbean (Erulkar et al., 1997; Moyo et al., 2000; Solo et al., 2001). Females comprised 92% of YC attendees who utilised clinic services (Zuurmond et al., 2012); nevertheless, the uptake, even within this group,

remained limited. Females predominantly used the centres for vocational purposes (Moyo et al., 2000; Solo et al., 2001). For instance, visitors to a YC in Togo were significantly more likely to report using contraceptives (Speizer et al., 1987). In Rwanda, attendees were significantly more likely to have undergone an HIV test; however, there were no positive impacts on condom or contraceptive use (Plautz et al., 2003).

Another strategy in the supply of SRHs involves reaching communities through households, streets, parks, malls, markets, or similar settings. Unfortunately, data on the effectiveness of community-based distribution, facilitated by community health workers or community-based distributors, in providing SRH services and commodities in resource-limited settings is not readily available. A review conducted in 2012 on the effectiveness of out-of-facility approaches to increase SRHS utilisation demonstrated that a community-based strategy focusing on the distribution of condoms and contraceptives specifically targeting youth was more effective, resulting in a 98% increase in commodity utilisation. This was compared to community-based distribution without a youth-specific strategy (2% increase) or distribution in youth centres (44% increase) (Townsend et al., 1987).

Moreover, the use of the informal private health sector plays a role. In Nigeria, an initiative focused on training three identified groups that youth seek for STI treatment: private doctors, pharmacists, and patent medicine dealers. The training emphasised the syndromic management of STIs. Both self-reported condoms use and seeking care for STI symptoms from private physicians or pharmacists increased in both the intervention and control groups, with a more statistically significant outcome in the intervention group (Coplan et al., 1999; Okonofua et al., 2003). In Zambia, a quasi-experimental study assessed the effectiveness of providing emergency

contraception (EC) prescriptions through four different provider groups: clinic-based providers, pharmacy staff, peer outreach counsellors, and community sales agents such as shopkeepers and small-scale vendors (Skibiak et al., 2001).

2.12 Expert Validation of Intervention Content

In the process of developing training competencies, tools to support clinical practice, or responses to professional issues, consulting experts' opinions is a common practice, as outlined by Keeney (2006). This approach involves seeking a consensus among experts to report findings on specific questions, leveraging the knowledge and experience of professionals in the field. Validation through expert judgement, defined by Escobar-Pérez & Cuervo-Martínez (2008), refers to informed opinions provided by individuals with a proven track record in the field, acknowledged by others as qualified experts capable of providing information, evidence, judgements, and assessments. Evaluation through expert judgement involves obtaining responses from a group of individuals regarding an instrument or seeking their opinions on a particular aspect (Cabero et al., 2013).

Cabero et al. (2013) further highlights that employing expert judgement as an assessment approach comes with several benefits, including the high quality of responses from the experts and the potential to gather extensive and expert information on the subject under consideration. Thus, employing formal methodologies results in more scientifically robust outcomes, particularly when emphasising the careful characterisation and selection of experts, utilising a scale that supports quantitative evaluations, and analysing the results through suitable statistical tests (Juárez-Hernández et al., 2018).

2.13 Stakeholder Validation of Intervention Content

The guidance provided by the UK Medical Research Council for developing and evaluating complex interventions underscores the significance of user involvement throughout the development process. Drawing on existing evidence and appropriate theory. This typically involves collaboration with those responsible for implementing the intervention, often healthcare professionals (HCPs), as well as the intended recipients, typically patients and the public. This collaborative approach is anticipated to enhance the intervention's alignment with the perceived needs of the target group, thereby improving its acceptability, feasibility, evaluability, and adoption (Medical Research Council, 2006; Wight et al., 2016; Corbett et al., 2018).

This suggests that the effective implementation of health evidence depends on active support from the target audience. The broad involvement of relevant stakeholders in various stages of research development and translation, known as participatory research, has the potential to enhance the implementation of health interventions (Morton et al., 2020). Therefore, major health authorities strongly advocate participatory research practices as a best-practice approach for translating and implementing evidence (WHO, 2017; National Centre for Advancing Translation Sciences, 2020). While full integration of participatory practices into health research is still limited, some studies have highlighted various benefits in terms of service provision, such as organisational change, collaboration, mutual learning, and capacity building (Wallis et al., 2017), as well as translation outcomes, including novel idea generation, creativity, and increased support and enthusiasm for innovation (Shelef et al., 2016; Bombard et al., 2018; Steen et al., 2011).

The inability to engage stakeholders poses great challenges and contributes to research "waste," with approximately 50% of clinical trial results going unpublished and the persistence of

avoidable design flaws through study duplication (Chalmers et al., 2009). The use of participatory research practices is essential in addressing the difficulties associated with involving and retaining users, playing a pivotal role in advancing the implementation of interventions into practical use and policy (Morton et al., 2020).

A more comprehensive understanding of how expert-driven validation and stakeholder involvement intersect in shaping ASRH interventions, especially in the context of migrant adolescents, would contribute to the development of more inclusive, effective, and contextually sensitive healthcare practices. Further research is needed to bridge this knowledge gap and inform strategies that optimise the delivery and utilisation of ASRH services among migrant adolescents.

2.14 Conclusion

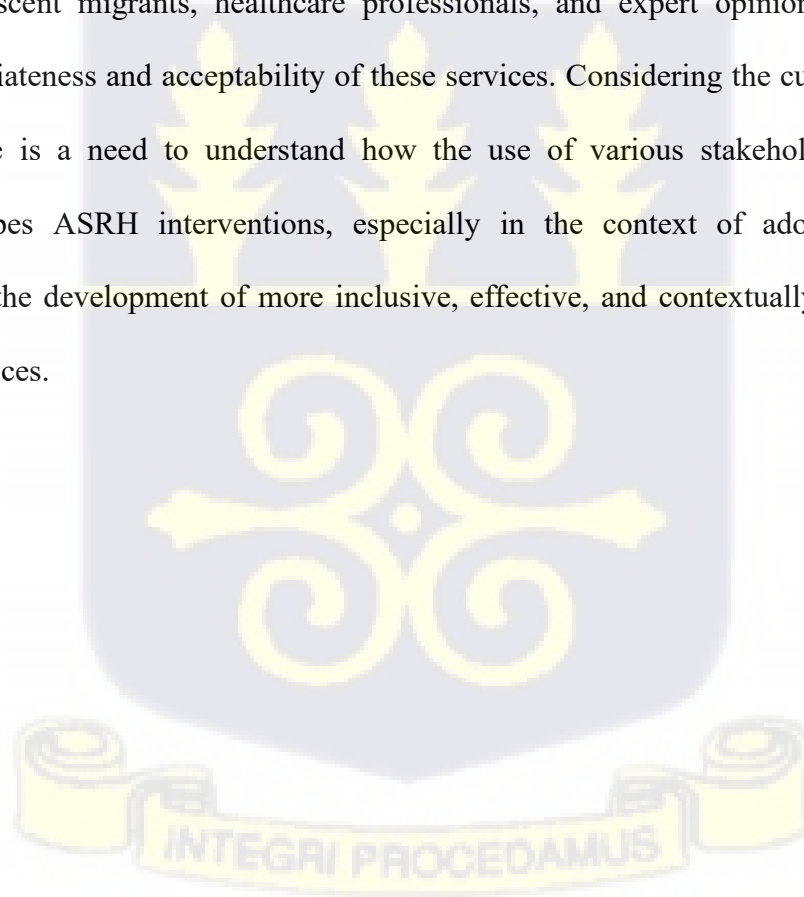
This chapter provides the background and context for the study. Initially, it provides a literature review on current care pathways for utilising ASRHs among rural-urban migrant adolescents. It also offers insights into ASRH delivery by healthcare professionals. Both reviews at the HCPs and adolescent migrants focus on barriers and enablers.

Regarding barriers, the review highlights various challenges in the utilisation of sexual and reproductive services among adolescent rural-urban migrant populations. Concerning enablers, the review identifies strategies in some high-income settings to address socio-cultural factors influencing behaviours leading to utilisation.

For healthcare professionals' barriers, the review indicates a lack of culturally competent knowledge and skills among professionals delivering ASRHs to adolescent migrants. This is due to the cultural and linguistic barriers faced in engaging these sub-populations. While evidence of

enablers has been applied in high-income settings to facilitate service delivery among HCPs, much work is needed in lower and middle-income countries like Ghana to introduce similar interventions.

Given challenges on both the demand-driven side (adolescent migrants) and the supply-driven side (healthcare professionals), the chapter also reviews literature on behaviour change strategies to provide sufficient evidence for behaviour-informed intervention development. The chapter further explores the current literature on the use of expert judgement to ensure the validity and effectiveness of intervention development, examining how the inclusion of diverse stakeholders, including adolescent migrants, healthcare professionals, and expert opinions, influences the cultural appropriateness and acceptability of these services. Considering the current literature on this issue, there is a need to understand how the use of various stakeholders and experts' knowledge shapes ASRH interventions, especially in the context of adolescent migrants, contributing to the development of more inclusive, effective, and contextually sensitive ASRH healthcare practices.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the study design of this thesis. It takes into account the study workflow as well as the various research techniques used to inform the study.

3.1 PhD Study Work Flow

The study was divided into three phases. Phase one focused on conducting a literature search to gather research evidence that informs the study. It also involved identifying and utilising two complementary theoretical frameworks: The Behaviour Change Wheel (BCW) provided the foundation for the role of behaviour change techniques in the study, and Campinha-Bacote cultural competency in health care delivery underpinned the explication of the concept of cultural competence in healthcare delivery.

The BCW's three stages and eight steps were followed to develop a behaviour-informed framework. To understand the problematic behaviours of HCPs and migrant adolescents, a qualitative study was conducted, with the findings mapped onto the COM-B model. Next was to identify the intervention element that resonated with the problematic behaviours. This was followed by identification of the policy categories to facilitate the intervention functions. The BCTs were identified through a process of mapping and distillation, the COM-B model was used to guide a systematic process of identifying potential culturally competent behaviour change techniques (BCTs) drawn from the BCW taxonomy BCTTv.1 and supplemented with relevant literature. Behaviour change techniques (BCTs) were then identified, leading to the identification of implementation strategies and delivery options. In phase two of the study, a

Delphi study was conducted involving behaviour change experts from both local and international backgrounds to validate the BCTs and reach consensus.

The validated behaviour change techniques (BCTs) were further operationalised into implementation strategies and modes of delivery. The behaviour change strategies were subsequently validated by the experts in iteration 1 to provide suggestions for improving the proposed implementation strategies and mode of delivery to be integrated into the final version.

Phase three, the final phase, involved preliminary testing of the implementation strategies and mode of delivery options through second iterations. The second iteration involved the intervention's users: health care professionals and migrant adolescents. It also included their peers and gatekeepers, aiming to identify potential barriers and facilitators. Final input from the iterations was used to refine the final implementation content in order to inform the development of the intervention's framework (see Figure 3 below).

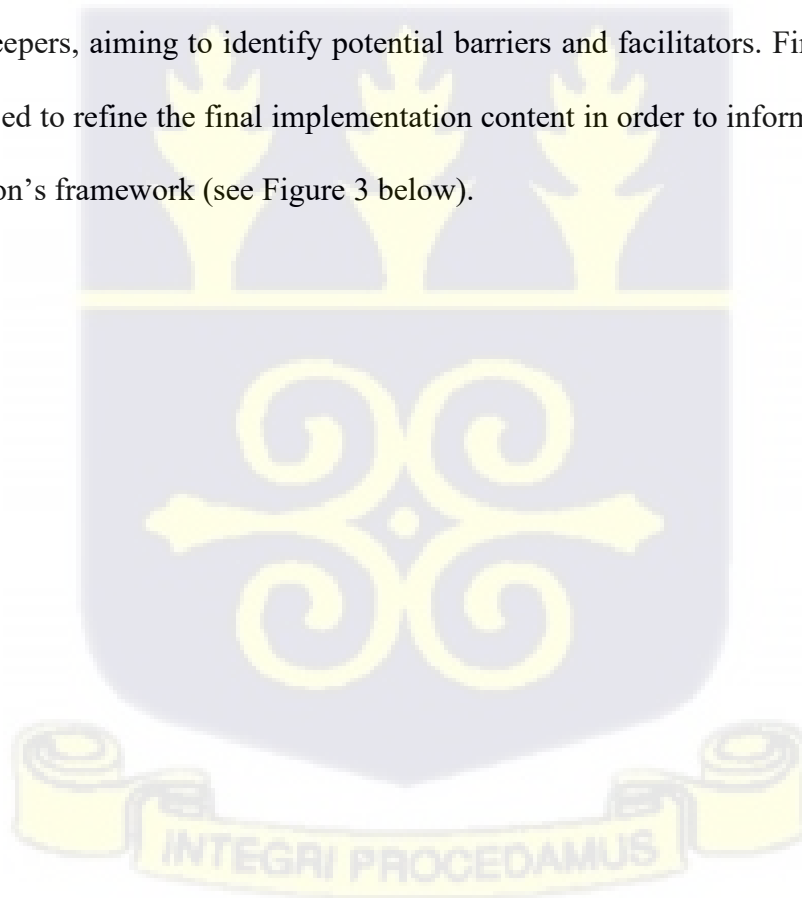
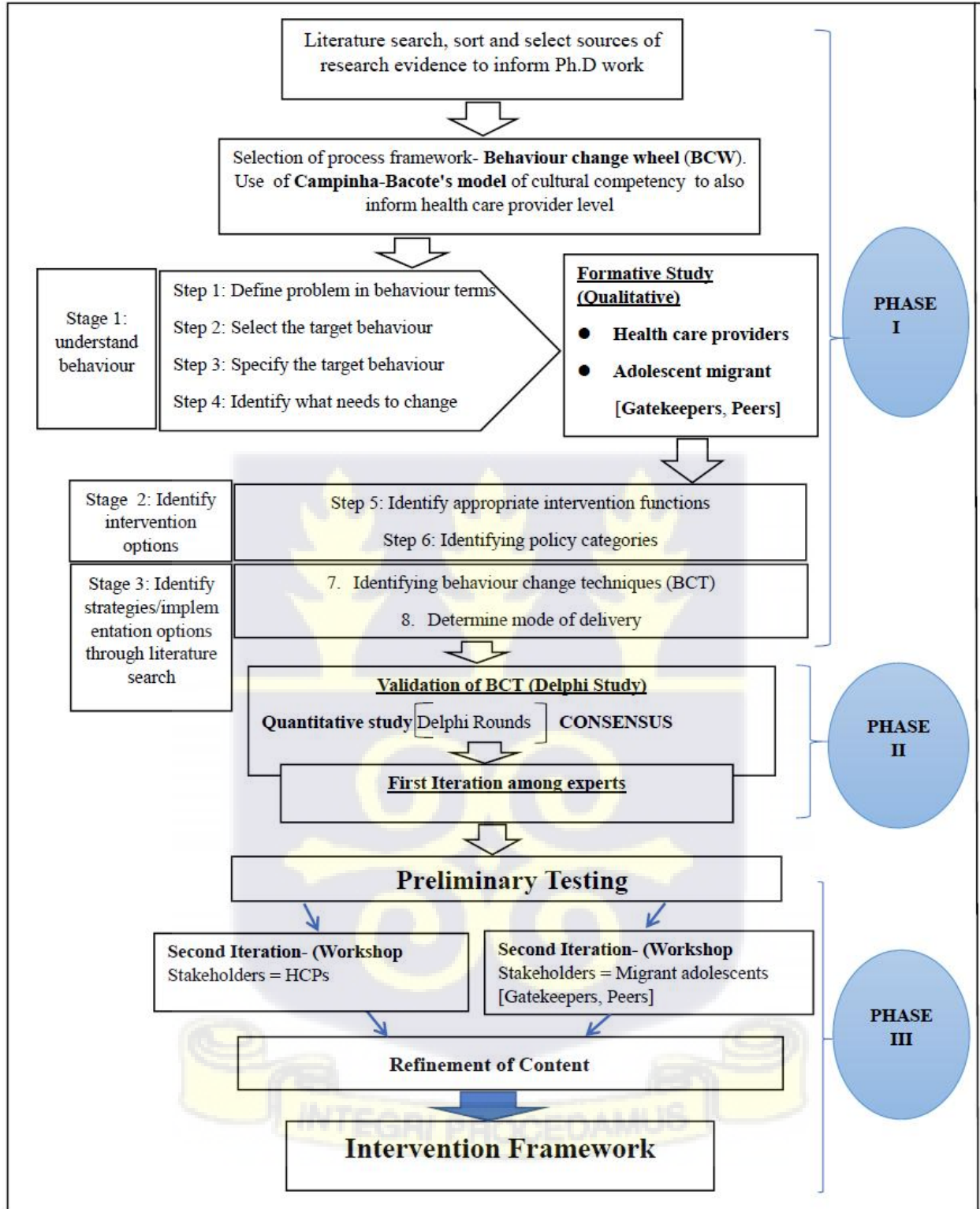


Figure 3: Ph.D. Study Work Flow



3.2 Study Setting

The study focuses on the Greater Accra Region, with Accra as its capital. The Greater Accra region, due to its status as the economic and administrative capital of Ghana, has experienced rapid informal urbanisation, mainly due to migration over the years. According to the 2021 population and housing census report, the Greater Accra region of Ghana was the densest in terms of the number of inhabitants per square kilometre. In the same year, it is believed that the Greater Accra region hosted 5.4 million inhabitants. Rural-urban migration is one of the main reasons for the high population density (around 1.2 thousand inhabitants per square kilometre) in this region. While many youths move to the cities in search of employment, rural-to-urban migration does not only respond to economic push and pull factors to improve one's livelihood; the lifestyle of the capital is also crucial to youths' successful social status (Turolla et al., 2020).

This population growth and sociocultural diversity have triggered many demographic, health, environmental, and socio-economic changes that impact sustainability and SDG goals (GSS, 2010). The high unemployment in the places of origin means that many of the young people, including unaccompanied adolescent boys and girls, who have migrated to the urban cities end up pushing carts through urban markets, while the young girls are mostly involved in head portering, referred to as the "kaya" enterprise where young women, often burdened with carrying heavy loads for meagre wages, live on the margins of society, exposed to exploitation, victimisation, and extreme weather conditions. The practice has, over time, taken on a generational dimension, with young girls following in the footsteps of their mothers and grandmothers, trapped in a cycle of poverty and low prospects. The migratory vulnerabilities often leave them exposed to an increasing risk of HIV and other sexually transmitted infections (STIs), unintended pregnancies, and illegal abortions, among other diseases (UNFPA, 2011).

These reasons make a strong case for the Greater Accra region being chosen for this study (see Figure 4).

3.2.1 Study Sites

The study involves the use of a multi-study sites. Anecdotal evidence suggests that the following health facilities working within the Ghana Health Services have often been visited by rural-urban migrants due to the fact that the locations in which these facilities are sited have served as concentrations of this sub-population from different parts of the country (Ghana Statistical Services, 2010) and are linked to the presence of migrant networks. This phenomenon has been attributed to social networks (Yaro et al., 2011). Hence, the following communities and their health facilities were selected in the Greater Accra Region for the study population:

3.2.1.1 Old Fadama/Agbogbloshie

The settlement known as Old Fadama/Agbogbloshie, also referred to as "Sodom and Gomorrah," originated in Accra, Ghana, during the 1980s. City officials attribute its rapid growth to the relocation of squatters from the Osu area, followed by a significant influx of migrants from northern Ghana due to ethnic conflicts between the Kokombas and the Nanumbas. Many of these migrants were survivors or refugees of the civil war in the north, seeking new beginnings and economic opportunities. The settlement continues to attract new immigrants, with a population estimated at 79,684 in 2009, with approximately 65.9% migrating from northern Ghana (Housing the Masses, 2010). According to the 2010 census, the population of Agbogbloshie was 8,305 (Cassels, Jenness, Biney, Ampofo, & Doodoo, 2014). Young people, mostly boys, who are unable to attend school often spend every evening and weekend processing waste, searching for metals (Claiborne, 2009). Agbogbloshie also serves as an area for most migrant women and girls

who work as head porters, locally referred to as "Kayayei," who are manual labourers and transport goods to and from the markets. Slum conditions present significant challenges for municipal governments, encompassing social, economic, political, spatial, and environmental issues caused by squatters (Nyametso, 2012). According to Arimah (2011), these challenges manifest in poor environmental conditions, improper waste disposal, overcrowding, deteriorating housing, susceptibility to diseases, and, notably, the marginalisation of slum dwellers from economic, social, and political spheres of society, coupled with media stereotyping and misrepresentation (Arimah, 2011).

3.2.1.2 Ussher Hospital

The Ussher hospital, located in Jamestown in Accra near Old Fadama (Agbogbloshie) and serving a population of more than 145,000, has been renovated to enhance service delivery to its clients. In addition to the general service the facility provides, the facility also provides adolescents, especially teenage mothers, with sexual and reproductive health (SRH) information and services while offering much-needed life-sustaining nutrition to the children and livelihood skills to the mothers themselves.

3.2.1.3 Madina

Madina is located in the La-Nkwantanang Madina Municipality of the Greater Accra Region, which is one of the region's 16 metropolitan, municipal, and district assemblies that has seen an increase in rural-urban migration. Madina covers a land area of 166 square kilometres and is bordered on the west by the Ga East Municipal Assembly (GEMA), on the east by the Adentan Municipal Assembly (AdMA), on the south by the Accra Metropolitan Assembly (AMA), and on the north by the Akwapim South District Assembly.

La-Nkwantanang Madina Municipality, which is situated within the Greater Accra Region, stands out as one of the urban municipalities, albeit with rural settlements transitioning into peri-urban areas. Over time, the municipality has experienced a notable rise in rural-urban migration from other parts of the country, placing strain on social amenities, fostering streetism, and prompting the conversion of commercial spaces into residential ones. Consequently, these trends have spurred the emergence of slum areas within certain suburbs of the municipality. Compounding these challenges is the insufficient availability of housing units alongside soaring rental costs (Ghana Statistical Service, 2010).

3.2.1.4 Madina Polyclinic (Kekele)

Madina Polyclinic-Kekele is located in La-Nkwantanang Madina Municipality, Ghana. The facility provides general services. In addition to general services, the clinic provides primary care and maternal and reproductive health care services to people within the community.

3.2.1.5 Madina Pentecost Hospital

Pentecost Hospital, Madina (formerly Alpha Medical Centre), was established in May 1997 by the Church of Pentecost to provide health care to the people in the immediate Madina catchment area and beyond. The hospital was approved by the government of Ghana and registered with the Christian Health Association of Ghana (CHAG) in 1999. It was also approved as a budget management centre (BMC) by the Ministry of Finance in 2006. Pentecost Hospital, Madina, has been duly accredited by the National Health Insurance Scheme Board. It is designated La-Nkwantanang Madina Municipal Hospital and receives referrals from the clinics and health centres in the municipality and beyond. The hospital has a total workforce of 398, including medical officers with various specialties as well as nurses. The facility provides various medical

services, including counselling for HIV/AIDS and other STDs, counselling services, and maternal and child welfare clinics.

3.2.1.6 Accra New Town

Accra new town, is also located in the Accra Metropolitan District Assembly. Situated near the neighbourhoods of Nima and Kotobabi, Newtown is one of the city's more diverse neighbourhoods, and it is common to hear other ethnic languages such as Hausa, Twi, Fante, Ewe, Ga, and even Fula spoken here. Menial work activities are common among rural-urban migrant adolescent in order to survive (UNFPA, 2011).

3.2.1.7 Mallamata Government Clinic

The Mallam Atta Market Government Clinic (MAMGC) is located within the catchment area of the Mallam Atta Market (one of the biggest markets for foodstuffs in Accra). This MAMGC seeks to be a stimulating and memorable space that staff, mothers, and fathers can experience with all their senses and leave with a sense of tranquilly and wellness. According to records from the clinic, an average of 112 antenatal cases per month are attended to. However, none of these cases can be delivered at the clinic because there is no delivery ward to accommodate the mother and child. Again, about 3,000 patients visit the facility on a monthly basis, which includes rural-urban migrants adolescent.

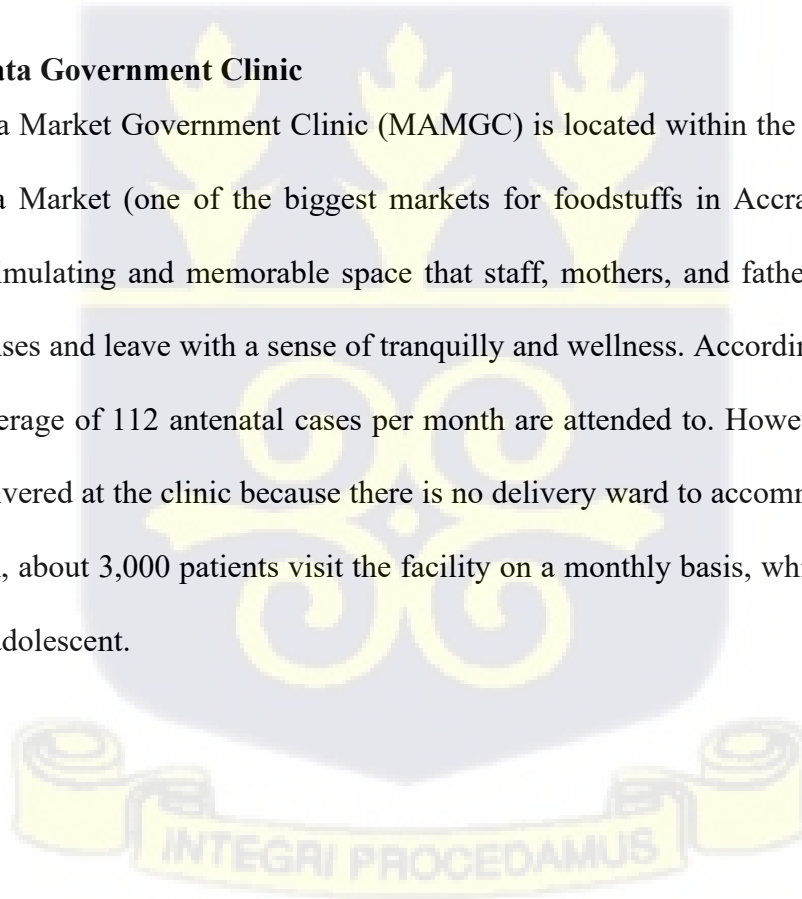
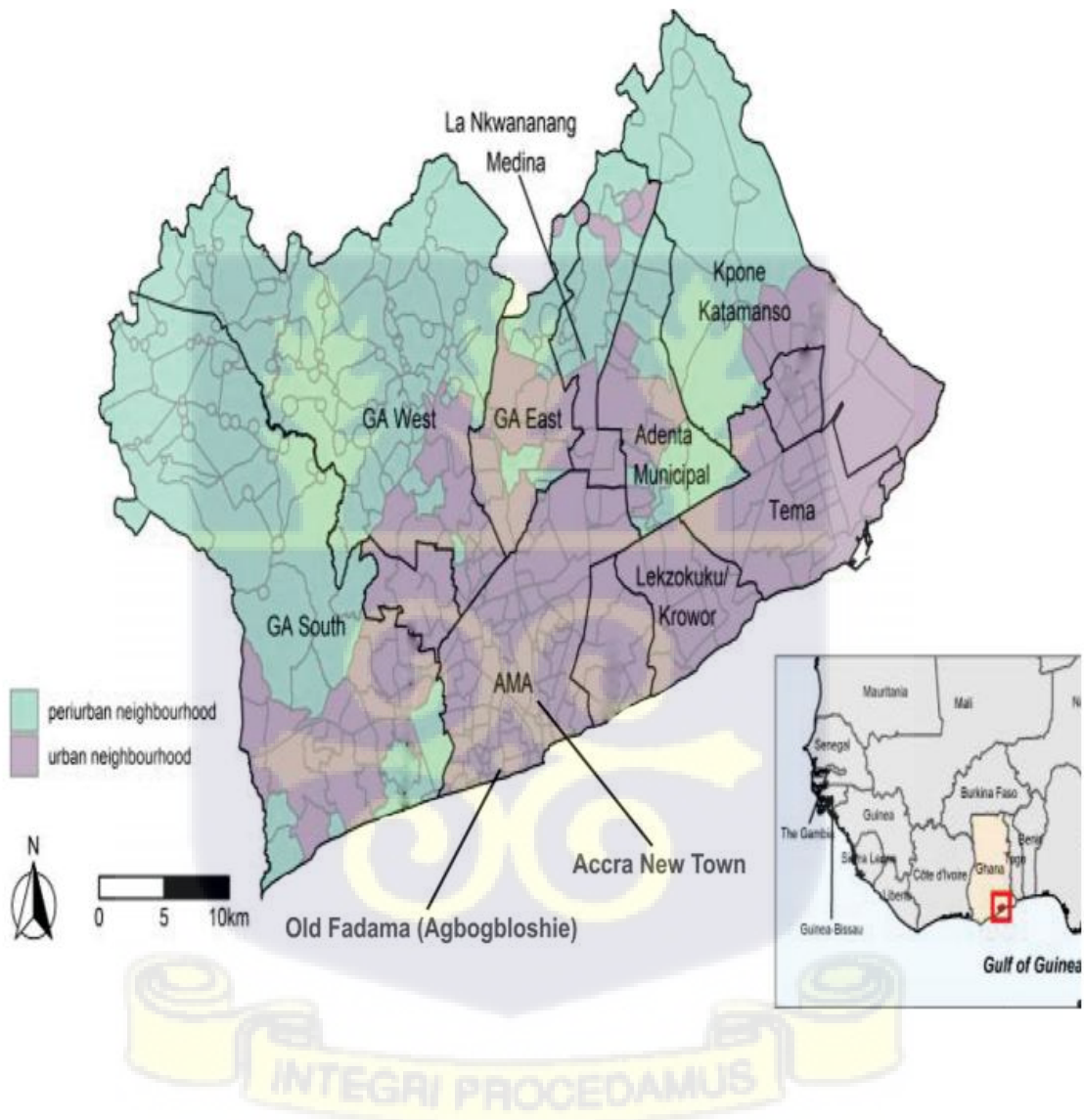


Figure 4: Map of the Greater Accra Region with the Various Study Areas



Source: adopted and modified from the Ghana Statistical Service

The Greater Accra Metropolitan Area (GAMA) is shown with neighbourhood boundaries depicted in grey, while district boundaries are illustrated in black. Urban neighbourhoods are indicated in purple, while peri-urban neighbourhoods are highlighted in green.

3.3 Philosophical Position

According to Dainty (2007), it is necessary to construct a philosophical position towards inquiry in any research work. The study leans on the pragmatic research paradigm. This is because there are many different ways of interpreting the world and carrying out research. This implies that no single point of view can present the full picture of situations, as there may be multiple realities (Saunders et al., 2012). Biesta (2010) emphasises that pragmatism should not be seen solely as a philosophical standpoint but as a collection of practical philosophical tools designed to address real-world issues. As a research paradigm, pragmatism focuses on solving practical real-world problems, making it highly relevant to applied research contexts. It originated as an approach for researchers seeking more practice-orientated methods of inquiry (Creswell and Plano Clark 2011; Maxcy 2003; Rorty 2000). According to Morgan (2014b), rather than assigning post positivism and constructivism in two different ontological and epistemological camps, pragmatism ask the researcher to focus on the two different approaches to inquiry. Therefore, in this study a combination of qualitative and quantitative approaches was put together to find answers to the research objectives for the study.

3.4 Study Design

The study employed intervention development design using the exploratory sequential mixed methods to draw on relevant information for the research. These included the use of both qualitative and quantitative research approaches. While the qualitative research approach helped gather in-depth insights into the problem (Moser et al. 2017), the quantitative approach aims at

collecting broad and quantifiable data (White et al. 2014). The use of both approaches clarifies the findings from one method or expands the depth and breadth of the findings (Bryman, 2006a; Greene, Caracelli, & Graham, 1989; Wisdom et al., 2012).

3.5 Data Sources

The data for the study was derived from two different sources. The primary data sources included the use of interviews to collect data from the study participants, while the secondary sources of data collection included documentary sources such as books, journals, articles, and other scholarly sites on the internet (e.g., jstor.org, databases, Google Advanced Search).

3.6 Fieldwork

Regular meetings were conducted at the end of each day with the research assistants to review the progress of the work. Additionally, strategies and best fieldwork practices were implemented to maximise contact hours with the HCPs and the migrant adolescents while minimising disruptions to work sessions. This included scheduling all follow-up visits and conducting interviews at times convenient for them. In some cases, phone calls were made to ascertain the availability of participants, and follow-ups were made for interview sessions.

3.7 Pre-Data Collection Activities

3.7.1 Pre-testing

Prior to the commencement of the study, pretesting of the data collection tool was conducted at Dome, a suburb of the Greater Accra Region, among 8 migrant adolescents and 6 HCPs at the Achimota government hospital. Aside the data collection tool that was pretested among the HCPs and migrant adolescents, the Google forms containing the quantitative questions that was meant for the Delphi study was pretested among 2 psychologists at the University of Cape Coast.

This was done to ensure that participants understood the questions throughout the study. It was also done to determine whether the time allocated to each participant was appropriate.

3.8 Quality Control

The following quality assurance processes were put in place to safeguard the quality of the information collected.

3.8.1 Training of Research Assistants (Field Staff)

A two-day training session was conducted for the field staff, consisting of three research assistants, two of whom spoke Dagbani and doubled as language interpreters. The aim of the training was to familiarise the field staff with the data collection processes required for the study. The team consisted of university graduates who possessed prior experience in data collection. The training sessions covered areas including general knowledge of research fieldwork, the background of the study, the study area, its aims and objectives, the research design, sampling considerations, and research ethics. The significance of obtaining voluntary participation and written informed consent and assent from participants was emphasised.

3.8.2 Ethical Consideration

The Ghana Health Service Ethical Review Committee granted ethical clearance number GHS-ERC 016/04/22 for the study. This is in conformity with national ethical standards. As part of community engagement, a letter from the head of the Department of Social and Behavioural Sciences, School of Public Health, was sent to the management of the various facilities and migrant communities to announce the study. After obtaining ethical approval, which set the stage for the study, information about the research was communicated to participants. Similar information was sent by email to the experts to inform them about the study, and those who were

willing to participate responded to confirm their participation. Only participants who consented to participate were enrolled after signing or thump-printing a written consent form. Following the study, particular emphasis was placed on addressing ethical considerations. These considerations were comprehensive and applied to all participants involved in the research, including healthcare professionals (HCPs), migrant adolescents, peers, gatekeepers, and expert panellists engaged in the Delphi study.

3.8.3.1 Voluntary Participation/Withdrawal

Participation in the study was voluntary, and all individuals had the freedom to withdraw at any point if they no longer wished to participate. There were no penalties for withdrawing from the study, and participants were not required to provide an explanation for their decision. This information was clearly communicated to all potential participants. Additionally, obtaining written informed consent from each participant was mandatory before their enrollment in the study. In terms of the migrant adolescent and their peers', informed consent was sought from participants aged 18-19, while permission was obtained from guardians or gatekeepers for minor adolescents (ages 10-17), with the assent of the minors themselves. Detailed explanations of the study were provided to the guardians and gatekeepers, who subsequently granted permission for their adolescent minors to participate. The migrant adolescents, who could not read or understand, were made to thump print.

3.8.3.2 Confidentiality

To ensure confidentiality, all data was handled anonymously, and unique codes were assigned to each interview and Google Form. Personal information was kept confidential, and extracted data was securely stored on a computer accessible only to the principal investigator, protected by a

password. No names or identifying information were included in any reports generated from the study.

3.8.3.3 Interference with Daily Work

To minimise interference with the daily schedule of participants, all meetings to collect data and conduct interviews were carefully scheduled and conducted at times convenient for them. These meetings were arranged to take place as and when participants were available during the day. This approach ensured that the data collection process did not disrupt routine activities and commitments.

3.8.3.4 Potential Risk

The study posed no inherent risks to participants. However, it is possible that some participants may have felt uncomfortable answering certain questions, as they may have been of a sensitive nature. Nonetheless, participants were given the choice to refrain from answering any question that made them feel uncomfortable. This ensured that participants-maintained autonomy and were able to participate in the study without experiencing undue discomfort.

3.8.3.5 Compensation

No cash compensation was provided to participants in this study. Offering cash compensation could potentially influence participants' responses and introduce bias into the research findings. Therefore, compensation in the form of cash was not offered to ensure the integrity and impartiality of the responses. However, some cash was provided for lunch and for those who would have to converge at a particular location for focus group discussions. Then again, some cash was given to purchase data for the Zoom workshop meeting.

3.8.3.6 Benefits

Participants directly benefited from this study. For HCPs, the study provided them with insight about a new concept: cultural competency in health care delivery. For migrant adolescents, this study would bring about the inclusion of their specific health care needs in health care delivery. Experts in this study provided insightful information about health care dispensation to adolescent migrants in Ghana. The findings from this intervention have the potential to serve as evidence for scaling up similar interventions with migrants with similar backgrounds in the future.

3.9 Language Interpretation

Since the English language is an official language of Ghana, this was used as a medium of communication for the study. However, since most of the migrant adolescents could not read and understand the English language but spoke Dagbani (a local language spoken by one of Ghana's ethnic tribes from Northern Ghana) and the researcher could not speak it, the researcher sought the assistance of a resource person who could speak both Dagbani and English to help transfer the information from the interviewer to the interviewee and vice versa. In this circumstance, the researcher required the physical presence of the interpreter. The researcher's decision to go to the data site with an interpreter was based on some characteristics of interpreting. These characteristics include the physical presence of the interpreter, the context of the case study, and the interactants' verbal and non-verbal cues. Interpreting requires the interpreters to be physically present at the event or interaction they are interpreting (Gile, 2004; Braun, 2007).

The physical presence of the interpreter is essential in interpreting because it makes the interpreter fit into the context, that is, the environment, situation, season of the year, etcetera of the interactive event. The presence of these elements of context usually helps the interpreter make more meaning of the interaction to aid the interpretation process. In addition, non-verbal

cues such as gestures and facial expressions can also reveal the emotions of the interactants and help complement the interpretation process. Interpreters need to consider not only the words being spoken but also the context, tone, and cultural nuances of the communication to ensure accurate interpretation because these remove ambiguities in communication. The absence of these would make interpretation inadequate (Vickers et al.,2019).

3.10 Current Care Pathways for Sexual and Reproductive Health Services Utilisation and Perspectives of Healthcare Professionals in Delivering Services

3.10.1 Phase One (Stage One)

This phase focused on the methods pertaining to objectives 1 and 2, as outlined above. The combination of the two objectives is necessary because of the problematic behaviours that are associated with clinical interaction between HCPs and migrant adolescents and need to be understood. The phase involved identification of what needs to change and how to change these outcomes (Michie et al. 2014). The BCW was used to understand this process. Additionally, Campinha-Bacote's model was used to guide the instrument development for HCPs. Stage one of the BCW involved understanding the behaviours in a three-stage process.

3.10.2 A Description of Stage 1 of the BCW

3.10.2.1 Define the Problem in Behavioural Terms

Defining the problem in behavioural terms means being specific about the target individual, group, or population involved in the behaviour. This includes the nature of the behaviour and where it occurs. In this PhD research, the main problematic behaviour of public health concern I sought to change is poor utilisation of ASRHs among rural-urban migrants adolescent. To modify/change this behaviour, two important pathways; demand side behaviours (e.g. cultural norms, beliefs, trust, sense of entitlement, etc) and supply side behaviours (e.g. communication,

self-efficacy, empathy, etc) were hypothesized. HCP behaviours, for instance, are crucial, particularly when it comes to effectively communicating with migrant adolescents during clinical encounters. Language barriers often pose a challenge in these interactions. This difficulty has the potential to negatively impact the sexual and reproductive health outcomes of these adolescents. To develop a comprehensive and more effective intervention, it is also important to understand the demand-side (patient) behaviours concurrently, which is resulting to poor uptake of ASRHs from the supply side (HCP).

3.10.2.2 Select the Target Behaviour

According to the authors of the BCW, other people and contexts influence the selected behaviours. Therefore, intervention designers should take into account all relevant behaviours performed by the target population. Thus, the intervention will work with both the demand and supply sides to identify all of the behaviours that can be changed. To enhance the utilisation of ASRHs by migrant adolescents, language barriers, cultural contexts, and migration experiences in the city will constitute such behaviours. For health care providers, the concept of cultural competence, which is the outcome of low self-efficacy, ineffective communication, empathy etc that create barriers to effective ASRH delivery will constitute such behaviours.

3.10.2.3 Specify the Target Behaviour

Step three specifies the target behaviour by outlining the new behaviour in greater detail. To allow for a clear behavioural analysis, the selected behaviour must be specified in detail and in context. The behavioural specification needs to identify who needs to perform the behaviour, what the person needs to do differently to achieve the desired change, when they will do it, where they will do it, how often they will do it, and with whom they will do it. In this research,

the target behaviour is to break up the challenges associated with providing culturally competent sexual and reproductive health care to the adolescents' migrants and to break up and address the poor uptake of ASRHs.

3.10.2.4 Identify What Needs to Change

Step four of the BCW involves understanding the factors that influence behaviour. Factors can be non-modifiable (e.g., sex, socio-economic status, or ethnic group) or modifiable (e.g., availability of childcare). Modifiable risk factors are of interest to intervention designers as they are amenable to change and are the targets of behaviour change interventions. The magnitude of change in these factors determines the success of the intervention (Hinton and Olson 2001). Identifying which behavioural factors mediate changes in low utilisation and the inability to provide cultural competency is critical for developing strategies that specifically address these mediators (Miller, Trost, et al., 2002).

The BCW method requires users to identify factors that influence individual capability, opportunity, and motivation to engage in the target behaviour. Using previous research to identify predictors of adolescent migrants' non-use of ASRHs and health care workers' inability to provide culturally competent care, evidence indicates that sexual and reproductive health services are typically underutilised by migrant communities, with migrant women exhibit a lower rate of utilising health services compared to native women. (Dune et al., 2017). This is attributed to language barriers (Afeadie 2022), disparities in cultural perceptions regarding health, healthcare, and health-seeking behaviour, as well as the broader challenges associated with resettlement and migration intentions (Afeadie, 2021); navigating financial issues (Kaczkowski et al., 2020); and the failure of the healthcare system and workforce to identify and understand the specific needs and circumstances of the migrant population (Sheikh-Mohammed, 2006).

Therefore, the recommended method to gain an in-depth understanding of what needs to change is to engage the stakeholders in interviews or focus group discussions (O'Connell et al., 2015), as this would ensure that the intervention is participant-centred and co-created (Parry et al., 2013). This research aimed to inform Step 4 by using semi-structured interviews to describe the current care pathways for utilising ASRHs among rural-urban migrant adolescents and explore the perspective of health care professionals in delivering ASRHs.

3.10.3 Aim

- (i) Identify the barriers and facilitators to the utilisation of ASRHs by migrant adolescents.
- (ii) Identify the barriers and facilitators of the perspectives of HCPs delivering ASRHs to migrant adolescents.
- (iii) Understand the barriers and facilitators to the utilisation and delivery of ASRHs to inform the BCW intervention framework development process, using COM-B in addition to Campinha-Bacote's model of cultural competence for the HCPs.

3.10.4 Study Procedure

3.10.4.1 Study Design

Given the exploratory nature of the research question, a qualitative research approach was adopted for the study. This involves the collection of non-numerical data. According to Creswell (2013), qualitative researchers are concerned with the meaning people have constructed, i.e., how people make sense of their experiences. Therefore, the use of qualitative data in this study is to help explore and explain the complex relations between the health care system and the outside world (Greenhalgh et al., 2016). The study further adopts the phenomenology of qualitative research strategies. A phenomenological study explores what people experience and focuses on

their experience of a phenomenon (Husserl, 1931; Hycner, 1985; Koopmans, 2015; Hourigan and Edgar, 2020; Gasparyan, 2021). Therefore, collecting detailed information is necessary in order to understand and interpret the personal experiences of both migrant adolescents and HCPs in their interactions regarding the utilisation and delivery of ASRHs. This approach was also used to elicit facilitators and barriers related to capability, opportunity, motivation, and behaviour (COM-B) in the utilisation and delivery of services.

3.10.4.2 Study population

According to Burns & Grove (1997), a target population in research refers to the total aggregation of respondents that meet the designated set of criteria in a study. The study population consisted of HCPs, including midwives, nurses, community health nurses, and public health nurses, who operate within adolescent sexual and reproductive health clinics across the study locations from September 2022 to September 2023. The focus on healthcare professionals is essential due to their significant influence on the health outcomes of migrant adolescents.

However, to create a comprehensive and effective intervention, it is also crucial to understand the behaviours of migrant adolescents themselves. Therefore, both male and female rural-urban migrant adolescents who have utilised SRHs were included in the study. Additionally, the study recruited guardians or gatekeepers of the migrants and their peers to provide multiple perspectives and a holistic understanding of the factors influencing service utilisation. This approach ensures the collection of diverse data to inform the design of a robust intervention framework.

3.10.4.3 Sampling Technique

The criterion sampling technique was employed to select the healthcare facilities. Criterion sampling, according to Patton (2001), involves selecting cases based on predetermined criteria of importance. The criterion sampling technique was therefore used purposively to identify the healthcare facilities frequently visited by migrant adolescents. Anecdotal evidence suggests that the above health facilities working within the Ghana Health Services have often been visited by rural-urban migrants due to the fact that the locations in which these facilities are sited have served as concentrations of rural-urban migrants from different parts of the country, mostly from the three northern regions (Ghana Statistical Services, 2010) and are linked to the presence of migrant networks. This phenomenon has been attributed to social networks among migrants (Yaro et al., 2011).

Additionally, a convenience sampling approach was used to select both the healthcare professionals attending to clinical cases with the migrant adolescents. The aim is to choose participants who are readily available and willing to participate in the study at the given time (Dörnyei, 2007). After identifying the migrant adolescent participants, a snowball sampling technique was employed to select their gatekeepers/guardians. Also known as a referral, this technique involves the sampled migrant adolescents providing the name of at least one additional potential interviewee in their communities (Patton, 1990; Atkinson, 2001; Cohen and Arieli, 2011; Bhattacharjee, 2012).

To mitigate the risk of limited diversity among the gatekeepers and guardians, proactive efforts were made to establish prior personal contacts. This included reaching out to well-situated individuals and inquiring, "Who possesses substantial knowledge about the topic under investigation? And who would be appropriate to approach?" (Patton, 1990).

A snowball sampling technique was also employed to recruit peers of migrant adolescents in their various migrant communities, such as residential and marketplaces in Madina, Agboghloshie, and Mallamata in Accra Newtown. This approach enables the identification of individuals connected through social networks who may share similar experiences and backgrounds. Efforts were made to ensure that that selected had knowledge about the phenomenon under study (Creswell & Plano Clark, 2011).

3.10.4.4 Sample Size

Small sample sizes are common in qualitative research (Ritchie et al., 2014). In this study, a total of thirty-six (36) participants were recruited to participate in the study. However, twenty-five (25) participants were selected to take part in the study after saturation was reached, when new themes no longer emerged (Fusch and Ness, 2015). (*See Table 2*). This sample size is appropriate, as similar behaviour change studies typically used a sample size of twenty-five for elicitation studies (Francis et al. 2004). Also, other qualitative studies using the COM-B and TDF (Alexander et al., 2014; Rawahi et al., 2018) have also used 25 participants in their studies. To ensure data saturation was reached, the stopping criterion was tested after each successive interview until there were three successive interviews without additional material (Francis et al., 2010).

Thus, among the migrant adolescents, (10) in-depth interviews (IDI) were conducted. For the health care workers, (2) in-depth interviews (IDI), (4) key informant interviews (KII), and (2) focus group discussions (FGD) were held. In addition, (3) key informant interviews (KII) were also held among the migrant's gatekeepers, as well as (4) in-depth interviews (IDI) for the migrant's peers.

Table 2: Break Down of Study Population and Sample Size and Data Collection Methods

Facilities/Participants	In-depth Interviews (IDI)	Key Informant Interviews (KII)	Focus Group Discussion (FGD)
<i>Adolescent migrants</i>	(10)	(0)	(0)
1. Madina polyclinic (Kekele)	2	-	-
2. Madina Pentecost hospital	2	-	-
3. Ussher hospital	3	-	-
4. Mallamata government hospital	3	-	-
<i>Health care workers</i>	(2)	(4)	(2)
1. Madina polyclinic (Kekele)	1	1	1
2. Madina Pentecost hospital	-	1	-
3. Ussher hospital	-	1	1
4. Mallamata gov. hospital	1	1	-
<i>Gatekeepers</i>	(0)	(3)	(0)
Madina migrant communities	-	1	-
Agbogbloshie communities	-	1	-
Mallamata (Accra new town)	-	1	-
<i>Peers network</i>	(4)	(0)	(0)
Madina migrant communities	1	-	-
Agbogbloshie market	2	-	-
Mallamata market (Accra new town)	1	-	-

Source: Field work, 2023

3.10.4.5 Data Collection Instrument

A semi-structured interview guide was used to collect data from the participants between September and October 2022. The interview guide was based on the objectives of the study and the theory informing the study. Among the questions posed to participants were:

To migrant adolescents: What challenges did you experience regarding language barriers when discussing your reproductive health conditions? Following these challenges, what decisions were made to address your needs? To healthcare providers (HCPs): How do you manage communication with migrant adolescents when language barriers arise during clinical encounters? Do you have instances where their cultural health beliefs conflict with treatment plans, how do you address and resolve these issues?

3.10.4.6 Study Procedure

The HCPs and the migrant adolescents were contacted, followed up on, and interviewed. The HCPs who expressed interest were given a consent form indicating the purpose of the study. In terms of migrant adolescents and their guardians/gatekeepers consented on their behalf, and they also assented to participate in the study.

Subsequently, a suitable time for the interview was mutually agreed upon, and the interviews were conducted at the nurse's station offices and the adolescent-friendly corner. For the adolescent peers and gatekeepers, the study was presented to the communities through their leaders, and suitable participants were contacted through social networks. Both the gatekeepers and the migrants' peers who were approached were screened individually for eligibility. Interviews were held at market places and in front of stores and school buildings closer to their communities. The aim was to provide the opportunity to collect data in a conducive environment.

The principal investigator (PI) conducted the interviews with the help of three research assistants. All responses were audio taped, and observations were recorded in the field notes. Each interview lasted for 45 minutes to an hour. For the purpose of triangulating the data, key informant interviews (KIIs), in-depth interviews (IDIs), and focus group discussions (FGDs)

were held. The difference between these methods of data collection lies in the fact that while in-depth interviews assisted in uncovering detailed information about the participant's thoughts and behaviours, focus group discussions helped the participants share their own views and experiences but also listen to and reflect on the experiences of other group members. It is this synergistic process of interacting with other group members that refines individuals' viewpoints to a deeper and more considered level and produces data and insights that would not be accessible without the interaction found in a group (Finch et al., 2014). Key informant interviews, on the other hand, assisted in gathering information from a diverse range of participants, including gatekeepers or community leaders as well as health care professionals with first-hand knowledge of the issues under investigation (Bernard 2018; Mashall 1996; O'Leary, 2014), and they provided a perspective that the researcher (as an outsider) could not obtain otherwise.

Consequently, the use of triangulation provided differences in opinion and elaborated on the gaps between the participants, while also identifying and describing a variety of factors affecting their ability to achieve the targeted behaviour. Consequently, the use of triangulation assisted in testing the validity through the convergence of information from various sources (Patton, 1999). For HCPs, the English language was used as the main mode of communication. However, for most of the adolescent migrants, the service of an interpreter was used to interpret from their local languages, mostly Dagbani, to the English language in case the participant could not speak the English language. Data collection spanned one and a half months.

3.10.4.7 Inclusion Criteria

(1) HCPs:

(a) Participants work in ASRHs facility located within the study area, and have attended to any of the adolescents

(2) *Migrant adolescents:*

(a) Must be a rural-urban migrant adolescent receiving SRH care at any of the health-care facilities, be aged 10 to 19 years old.

(3) *Gatekeeper:* (a) Must be a migrant adolescent gatekeeper or guardian.

(4) *Peers:* (a) Must be a migrant adolescent peer who may or not have used health care facilities but are aware of the challenges associated with uptake of ASRHs at the community level same as the gatekeepers.

3.10.4.8 Methodological Rigour

Methodological rigour in qualitative research, as stated by Marquart (2017), pertains to the accuracy and precision of a study in terms of planning, data collection, analysis, and reporting. Creswell (2014) emphasises the importance of methodological rigour because the researcher's perceptions and interpretations become integral to the research. Therefore, the researcher must disclose their reflective attitude and employ journaling techniques to eliminate biases. In this PhD study, various strategies were put in place to ensure credibility.

First, to ensure credibility, triangulation, which ensured multiple data collection methods such as IDI's, FGDs, and KIIs, was used to collect and analyse data, thereby allowing for the use of multiple data sources and ensuring the rigour and trustworthiness of the research findings. Second, another strategy used to build credibility is member checking. This was done by sharing transcripts with the participants to confirm that the transcripts were the exact expressions of the participants. This process helped establish credibility and build trust and rapport between the researcher and the participants. It also allowed the participants to clarify or expand on their experiences, which further enhanced the richness and depth of the data.

Next is prolonged engagement with research participants. To ensure prolonged engagement, the researcher ensured lasting presence during observation of interviews or long-lasting engagement in the field with participants. Investing sufficient time to become familiar with the setting and context, to test for misinformation, to build trust, and to get to know the data to get rich data

Finally, is reflexivity, which is being aware of how my perspective can influence the research process and finding therefore compromising the study's credibility. Especially having worked as an investigator in a similar area with rural-urban migrant populations, of which the findings from those studies informed the current PhD topic. These previous interactions may have influenced my understanding of their experiences and perspectives.

To overcome any potential bias, I kept a memo or journal throughout the research process where I reflected on my thoughts, emotions, reflections, experiences, and assumptions about my interactions with the participants. I critically examined how my previous knowledge and relationships may have influenced my interpretations of their narratives. I then adopted a non-directive approach during data collection and encouraged the participants to share their perspectives freely. I listened actively, suspended judgement, and remained open to the various viewpoints. By acknowledging and accounting for my biases and perspectives, the research process became more transparent, and the findings were richer and more trustworthy.

3.10.4.9 Limitation of the Study

A limitation of this study may arise from language barriers between the researcher and some of the participants, which could affect the depth and accuracy of the interview data collected. However, steps were taken to address this concern and ensure the accuracy of the data. This

involved employing techniques such as clarification and verification through member checking, allowing participants to verify their responses and interpretations for accuracy.

3.10.4.10 Data Analysis

Data analysis in this study followed a thematic analysis approach with the use of Nvivo software (version 11). This is aimed at identifying patterns and themes within the collected data to gain insights into the research questions (Clarke & Braun, 2013). Maguire and Delahunt (2017) six steps were followed. This includes:

Step 1: Familiarisation with the data, I started by immersing myself in the collected data through the transcribed interviews. This allowed me to gain a thorough understanding of the content and context of the data.

Step 2: Generation of initial codes: I moved to step 2 and started with the coding process by identifying and labelling themes within the data. This was achieved by systemically applying descriptive labels to segments of texts that capture the essence of the content.

Step 3: Searching for themes: Once the initial codes have been generated, they are then organised and grouped together based on patterns. Overarching themes or patterns that emerged from the coded data were identified.

Step 4: Reviewing themes: The identified themes were then reviewed and defined through an iterative process. The relevance of each theme to addressing the research questions was considered.

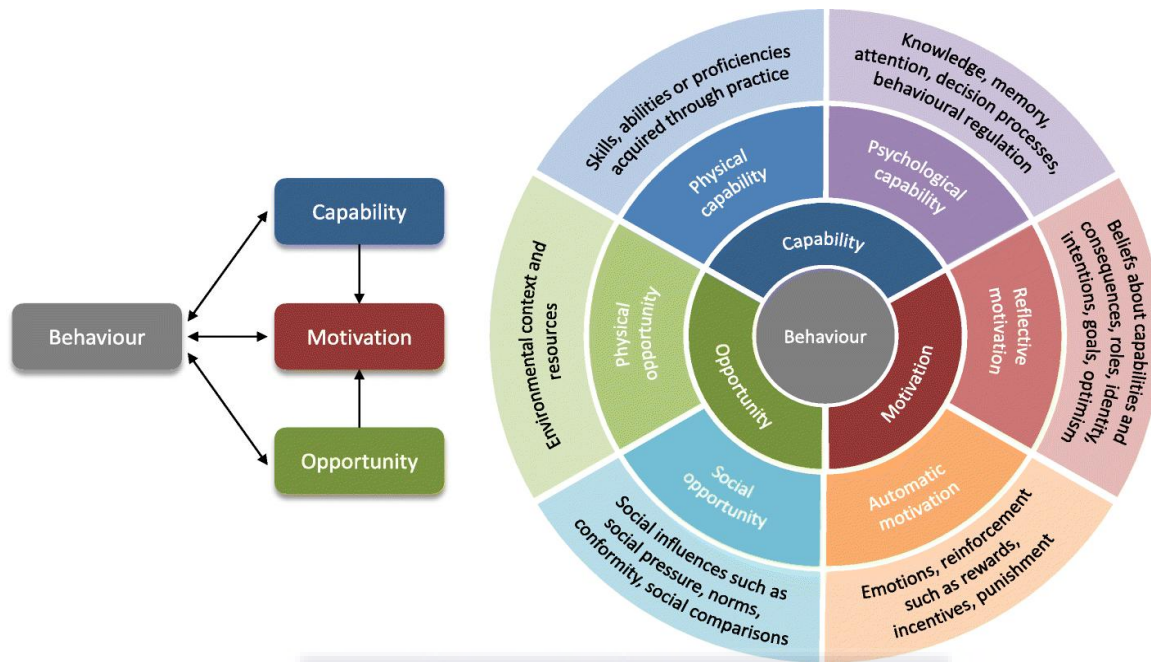
Step 5: Defining and naming themes: Each theme was defined and named to clearly articulate its meaning and significance in relation to the research topic. The names of the themes were ensured to accurately reflect the content and context of the data.

Step 6: Reporting findings: The findings of the behaviour analysis were put into writing, integrating excerpts from the data to support each theme. The results were presented in a clear and coherent and in an illustrative manner to convey the richness of the data.

The identified themes were classified into the coding framework, which consisted of three main elements and six subcomponents (the COM-B model). These themes were subsequently mapped onto the COM-B model. To ensure the mapping was done in line with previous studies, Bowden et al.'s (2008) application of the COM-B model to barriers and facilitators to chlamydia testing in general practice for young people was followed (see Figure 3.3). The themes mapped onto the COM-B model were identified at the patient (migrant adolescent) and provider (health care provider) levels. At the provider level, this mapping also aimed to reflect Campinha-Bacote's model of cultural competence in healthcare delivery, identifying areas such as cultural awareness, cultural skills, cultural knowledge, cultural encounter, and cultural desire. The findings were integrated to address barriers, and ways to implement behavioural changes. Both inductive and deductive analyses were conducted.

Figure 5: Mapping of themes onto COM-B





Source: Bowden et al. (2008)

3.11.0 Stage 2: Identifying Intervention Options

3.11.1 Introduction

Following the subsequent steps in the BCW, after analysing behaviours from the formative study, identification of intervention options was undertaken. This is broken down into two further steps: identifying intervention functions and policy categories.

3.11.2 Aim

The aim was to identify the relevant intervention functions and policy categories to use following the analysis of the COM-B and Campinha-Bacote models for health care delivery.

3.11.3 Identification of Intervention Functions

According to West and Michie (2019), intervention functions are broad categories of things one can do to change behaviour. They are therefore designed to change the capability, opportunity,

and motivation to engage in the behaviour. There are nine intervention functions available. These intervention functions are: *education* (defined as increasing knowledge and understanding); *persuasion* (defined as a way of using communication to stimulate positive or negative feelings or actions); *incentivisation* (creating the expectation of reward or avoidance of an undesirable one); *coercion* (changing the attractiveness of a behaviour by creating the expectation of an undesirable outcome or denial of a desired one); *training* (imparting skills or habit strength by explanation, demonstration, practice, feedback, and correction); *restriction* (defined as constraining behaviour by setting rules); *environmental restructuring* (defined as changing the physical or social context); *modelling* (defined as providing an example for imitation); and *enablement* (providing support to improve ability to change in a variety of ways not covered by other intervention functions).

The behaviour change wheel links each COM-B component to a set of these intervention functions. I therefore selected the various intervention functions as relevant based on the outcomes of the semi-structured interviews mapped onto COM-B in addition to the literature I read. This was done together with a system for matching these features to the behavioural target, the target populations, and the context in which the intervention was delivered. However, not all intervention functions were applicable due to the target populations behaviours, and available resources (Michie et al., 2014). For example, the use of coercion may not be appropriate for migrant adolescent problematic behaviours. Because they would rather require support rather than coercion. The results of intervention functions identified at both the patient and provider levels can be found in chapter 4, results section of this thesis.

3.11.4 Identification of Policy Categories

The BCW identifies seven policy categories that represent the types of decisions made by authorities to support behaviour change. Each intervention function identified in the previous step is linked to the policy categories to identify those likely to be effective and appropriate to support each intervention function. To facilitate the intervention functions identified above, policy options were also provided. The results of the policy categories identified for the interventions in this thesis are available in chapter 4.

3.11.5 Using the APEASE Criteria to Appraise the Intervention Functions and Policy Options

BCW guide recommends that interventions be assessed through the use of the APEASE criteria. The APEASE criteria is an acronym for (Acceptability, Practicability, Effectiveness/cost-effectiveness, Affordability, Safety/side effects, Equity). According to the proponents, this should be applied when deciding on the intervention strategy and its implementation in the given context. These criteria should be applied at every stage in the intervention design, development, and implementation processes using available evidence combined with expert judgement (West and Michie 2019). To make the right judgement of the intervention function selected above, the APEASE criteria was used as a framework to appraise the appropriateness of each intervention function based on the available evidence. Results of intervention functions and policy options identified based on APEASE can be found in chapter four of this thesis.

3.11.6 Stage 3: Identification of Implementation Strategies and Delivery Options

Stage three of the BCW looks at the implementation strategies and options.

3.11.7 Aim

The aim was to identify implementation strategies and delivery options, which involves identifying the appropriate BCTs (strategies) and delivery modes to inform the development of the intervention framework.

3.12.8 Identification of the Behaviour Change Techniques (BCTs)

A behaviour change technique (BCT) has been defined as an observable, replicable, and irreducible component of an intervention designed to alter or redirect causal processes that regulate behaviour. That is a technique that is supposed to be an active ingredient of an intervention function. In this study, the BCT was used as an active ingredient to provide a more useful level of detail for the synthesis, comparison, and replication of the intervention functions identified and the mode of delivery of the implementation intervention (Michie et al. 2013).

To possess good knowledge in order to identify BCTs in interventions, similar methods to previous steps were employed, the BCW identifies BCTs that are appropriate for each intervention function. For each intervention function, the most frequently and least frequently used BCTs are presented to guide users as a starting point for identifying BCTs likely to be effective. For this study, the BCTs were assessed using the 93-item Behaviour Change Technique Taxonomy v1 (Michie et al., 2013). Therefore, for each problematic behaviours and chosen intervention function(s) in the behavioural analysis, the appropriate BCTs were chosen by assessing the list of most and least frequent BCTs and the 93-item taxonomy at both the patient and provider level.

For instance, one influencing factor at the provider level hindering the target behaviour was the 'lack of knowledge and skills needed to deliver culturally competent ASRHs' (psychological

capability). This was addressed by identifying training as the relevant intervention function and specifying instruction on how to perform the behaviour as the Behaviour Change Technique (BCT) to tackle this barrier. This process was repeated for each factor identified in the behavioural analysis, resulting in six (6) relevant BCTs out of the 93 possible BCTs. The identified BCTs underwent validation through a Delphi experiment with participation from both national and international experts in behaviour change interventions. The results of the BCTs identified at both the patient and provider levels can be found in chapter 4 of this thesis.

3.12.9 Operationalisation of BCTs into Implementation Strategies

To operationalize the BCTs into implementation strategies, the BCTs were mapped to intervention functions. This was guided by the data on the rationale and purpose of the implementation strategy and links between functions and BCTs outlined in the BCW guide to designing interventions (Michie et al., 2011).

Furthermore, I thoroughly searched the evidence base supporting the proposed intervention strategies, meticulously crafting coherent strategies that demonstrated promising results in the literature. For example, to enhance self-efficacy among HCPs, I integrated Campinha-Bacote's model construct (cultural skill) into the identified intervention function, namely training. This resulted in the identified BCT called 'providing information about the behaviour.' The implementation strategy, cultural competency training, was identified and deemed the most suitable.

Details of the results of the strategies identified are presented in chapter 4 of this thesis. A similar process was followed at the patient level to come up with the strategies. However, unlike the provider level, the strategies were determined solely based on the COM-B model in addition to

what is available in the literature. The APEASE criteria were taken into account in the final selection of intervention strategies.

3.12.10 Implementation Mode of Delivery

The BCW introduces a taxonomy of implementation delivery modes, and the APEASE criteria were applied to evaluate each mode. Both at the patient and provider levels, a combination of face-to-face and distance approaches, as substantiated by the literature, was implemented. The results of this are also presented in chapter 4.

3.13 Validation of Behaviour Change Strategies to Inform Framework Development

3.13.1 Phase Two: Expert Validation of Behaviour Change Technique Taxonomies: A Delphi Study

3.13.1.1 Introduction

Though I followed a methodological approach to distil the problematic behaviours identified and undertook the mapping by myself to arrive at the BCTs identified in the previous section, I needed some validation of this process for what I constructed. According to Barret et al. (2020), the Delphi approach is considered well suited for a consensus-building process concerning a specific topic by collecting data from a panel of experts with experience in specific areas. Therefore, whenever developing training competencies, tools to support clinical practice, or a response to a professional issue, seeking the opinion of experts is a common approach. By working to identify a consensus position, researchers can report findings on a specific question (or set of questions) that are based on the knowledge and experience of experts in their field.

3.13.1.2 Aim

The aim was to validate the BCTs identified to inform the development of behaviour change implementation strategies.

3.13.1.3 Study Methods

3.13.1.3.1 Research Approach

The study adopted the quantitative method of research approach. This involved the self-completion of a Google Form among the experts which was based on the questions provided. The use of this method was to aggregate or summarise expert knowledge on the topic under discussion (Cooper and Hedges, 1994). Thus, the quantitative results provided an overview of participants agreement or disagreement with the appropriateness of the suggested intervention functions and corresponding BCT, as well as the mechanism of action (MoA) to bring about the change. It also provided participants with ratings of acceptability, feasibility, effectiveness, and risk of harm. These topics were developed using a topic guide informed by qualitative findings from the formative studies.

3.13.1.3.2 Expert Participants

The features considered for experts' selection were experience and knowledge in health behaviour change science. Thus, individuals who are internationally acknowledged behaviour change experts from the Centre for Behaviour Change Laboratory at the University College of London (UCL) and other experts working on behaviour change at other international universities, including the University of the Witwatersrand and the University of Vienna (Centre for Migration and Health), were also consulted. However, for the purpose of local context, some psychologists from the University of Ghana, the University of Health and Allied Sciences, and Ghana Communication Technology University were also contacted. This is to ensure that the

participants provided appropriate answers to the different issues on which the questions were based.

3.13.1.3.3 Sampling Technique

Given the purpose of the study, the expert sampling technique was used to purposively select the participants, followed by snowballing to represent the expert panellists for the study. The use of this sampling technique is to allow the selection of participants who are experts and have the knowledge of behaviour change science to validate the BCTs and arrive at effective implementation strategies and modes of delivery.

3.13.1.3.4 Sample Size

For most Delphi studies, sample sizes ranging from 7 to 20 have been reported in the literature (Hsu & Sandford, 2007; Sobaih et al., 2012; Paul, 2008; and Jorn et al., 2015), with sizes rarely exceeding 30 (Sekayi & Kennedy, 2017). Consequently, the size of a Delphi panel is tailored to fit the specific research inquiries and contextual factors (Skulmoski, 2007). For this particular study, 130 experts, both national and international were initially approached (oversampling for potential refusals), with an anticipation of 15 complete responses. Out of the invitations extended, three experts declined due to unavailability. Eventually, 10 experts provided complete data, representing 66% of the target sample. The sample size of 10 experts for the Delphi study is appropriate given the diverse panel (geographical distribution) participating in the study and their deep knowledge and experience in the subject matter. Their individual expertise carries significant weight, and a smaller number of experts provided in-depth and nuanced insights. Also, in Delphi studies, the primary focus is on gathering and synthesising expert opinions and achieving consensus rather than testing hypotheses or making statistical inferences. Thus, the goal is expert judgement (Nasa et al., 2021).

3.13.1.3.5 Data Collection Instrument

A questionnaire-based Google Form was developed, which consisted of closed-ended questions. The first section collected information about the socio-demographic information of the participants: gender, area of expertise, and institution of affiliation. The second section consisted of an evaluation of the intervention content; the survey outlined explanatory factors for the intervention content that were grouped at both the HCPs (supply side/provider) and adolescent migrants (demand/patient). (see Appendix II).

3.13.1.3.6 Study Procedure

The questionnaire-based Google Form was sent to the experts to complete. With the key explanatory factors identified in the qualitative interviews, participants were asked to indicate in the survey whether the suggested intervention functions identified were appropriate or not. This was followed by the suggested BCTs, where the experts were to specify whether or not they were appropriate or aligned (yes or no) with the BCTs. Participants were further expected to rate, in relation to BCTs, the target behaviour by the use of commonly accepted measurement scales to assess different dimensions of intervention on a Likert scale ranging from 1 to 5, the feasibility, acceptability, effectiveness, and risk of harm to the users or beneficiaries of the targeted behaviour. The participants were finally asked to provide the mechanisms of action for the BCTs. In this study, commonly accepted measurement scales to assess different dimensions of intervention were used, including feasibility, acceptability, effectiveness, and risk of harm. These scales followed a rating system where higher scores indicated a more positive perception of the attribute, while lower scores indicated a more negative perception. Participants did not receive compensation for participating in the study. The entire duration of the study lasted for two months.

3.13.1.3.7 Determining Consensus

Although there is no universally defined or fixed percentage that indicates consensus, in most Delphi studies, a consensus threshold of approximately 70–80% agreement among participants is commonly used (Veugelers et al., 2020; Cascella et al., 2021). Therefore, for the purpose of this study, a consensus threshold of 70% agreement was applied.

3.13.1.3.7.1 Definition of Consensus

Consensus was defined as follows:

- *Consensus was reached and selected as ‘appropriate’ if at least 70% of participants agreed with each question that was posed to them. This evaluation method has been successfully employed in previous assessments of this nature (Taylor et al., 2019; Boulkedid et al., 2011).*
- *Consensus was reached and selected as ‘inappropriate’ if experts agreed to less than 50% of any of the questions posed to them.*
- *Partial consensus was reached, where 50–70% of the experts agreed to one or more of the questions they had been asked to answer.*

3.13.1.3.7.2 Procedure

A letter of invitation for expert participation was sent via email to inform them about the study in January 2023. Panellists who agreed to participate were emailed the survey assessment criteria to complete. A one-month deadline was given to complete and return the survey, with a reminder email sent every 3 days as a matter of necessity. The one-month deadline was further extended to a month-long period. The study lasted for 3 months. Consensus was achieved through predefined decision rules to *keep, delete, or modify* the items as indicated above.

3.13.1.3.7.3 Round One

In this study, several rounds of the Delphi study were to be conducted until consensus was reached by the experts. The following decision rule was used:

- (a) Intervention functions and BCTs, *where consensus was reached and appropriate/aligned and well-rated* (feasible, acceptable, effective, and with no risk of harm), were *included* in the final intervention content.
- (b) Where a consensus was reached and intervention function and BCTs were selected as ‘inappropriate’ were excluded from further consultation.
- (c) The appropriateness of any of the above items selected for which partial consensus had been achieved was modified based on the provided feedback and underwent a second-round evaluation. In this study, one-round consensus was reached. Thus, all the BCTs were kept and were therefore included in the final intervention content to inform the development of the implementation strategy.

3.13.1.3.7.4 Evaluation Point (Stopping Criteria)

According to Nasa et al. (2021), the criteria for stopping the Delphi rounds based on consensus or stability should be identified *a priori*. The alternative plans and method to drop items should be defined if consensus is used as a stopping criterion for Delphi rounds. The stability of the responses is important for the statistical stability of the consensus. In this PhD research, the stopping criteria were based on consensus reached, i.e., the percentage of agreement among experts.

3.13.1.3.7.5 Inclusion and Exclusion Criteria

- (a) Possession of relevant expertise and knowledge in health behaviour change.

(b) Willingness and availability to actively participate in the study

For exclusion:

(a) Participants who have a conflict of interest that could potentially bias their responses or influence the study outcomes.

3.13.1.3.7.6 Pretesting

The questions in the Google Forms were tested among some psychologists at the University of Cape Coast to ensure that the level of detail is appropriate, the panellist's role is defined, and instructions are easy to follow (Hallowell & Gambatese 2010). The pretesting allowed testing for wording difficulties and gave an opportunity to refine the research instrument and test data analysis techniques. Pretesting also allows for ambiguities to be corrected (Gordon, 1994).

3.13.1.3.7.7 Limitation

Like any other study, this study is not without limitations. With respect to validating the BCTs to inform the behaviour change intervention strategies, 10 experts were involved due to the limited time available to complete the study. However, I do not expect that involving more experts would have led to the identification of more or other BCTs, as the 10 experts were highly experienced in specifying BCTs. Thus, a diverse experts helped to achieve a broader perspective and generalisation of consensus. On the account of the psychologists involved in the study, they were qualified because they were familiar with BCTs and had experience in their application in intervention mapping in behavioural issues. They were also involved because of the local knowledge, which is critical to this study. Though a larger sample size from the 130 invitations that were sent would have been suitable for the quantitative nature of this study, this number makes it essential to determine who qualifies as an expert in the Delphi panel. I made efforts to ensure the inclusion of diverse viewpoints and expertise in the field of behaviour change. For

instance, one participant from the University of Vienna, Austria, who had expertise in health promotion, was excluded because she lacked proficiency in the use of BCTs.

3.13.1.3.7.8 Data Analysis

The data was analysed using Stata version 16 to conduct descriptive statistics. This was used to describe the participants' demographic characteristics and responses to each statement. Consensus was defined as $\geq 70\%$ of participants agreeing with a statement in a round. Thus, the percentages in agreement, mean, standard deviations, and range were used in the analysis. For measurement of outcomes, appropriateness was defined as the suitability of the BCTs. Feasibility refers to the extent to which the BCTs could be successfully implemented in practice. Acceptability refers to how appealing the BCTs are to successful implementation. Effectiveness was defined as the likelihood of the impact of the BCTs, and the risk of harm referred to the likelihood of the BCTs causing harm or having negative side effects on the users or recipients of the intervention.

3.13.2 First Iteration Study

3.13.2.1 Introduction

An iterative approach is increasingly acknowledged as important for the development of effective interventions (Bartholomew-Eldredge et al., 2016). This is particularly crucial in the development of behavioural change interventions, as the absence of continuous input and feedback from the target population, environmental agents, and implementers has often led to ineffective programmes. This phase presents the first iteration of the proposed implementation strategies and delivery options to inform the final intervention content, to inform the intervention development framework.

3.13.2.2 First Iteration

The first iteration involved engaging experts who had participated in the Delphi study in the previous study, and this took place in June 2023.

3.13.2.3 Aim

The aim was to validate the accuracy of the strategies and modes of delivery derived from the BCTs to refine the final intervention content.

3.13.2.4 Procedure

An invitation was emailed to the experts, informing them of the Delphi study's outcome and the developed implementation strategies and methods of delivery. A structured questionnaire was developed in Google Forms and sent to the experts for completion, with responses expected to be returned. The questions were formulated based on key explanatory factors identified with healthcare providers and patients linked to the BCTs and corresponding intervention strategies and modes of delivery. The set of questions included both closed and open-ended items, as well as Likert scale items ranging from 1-5 scale: 1 representing strongly agree, 2 representing agree, 3 representing neutral, 4 representing disagree, and 5 representing strongly disagree". The measures included perceived acceptability, appropriateness and effectiveness (see Appendix IV for the questionnaire).

3.13.2.5 Data analysis

The data were analysed by summarising and describing the data in a more meaningful way (Brink, 1996). The analysis involved univariate analysis to include descriptive statistics where percentages for Likert scale items were computed. For the open-ended questions, themes

emerging from the data were used for the analyses. This led to the report writing of the study's findings.

3.14 Phase Three: Preliminary Testing of Implementation Strategies- Second Iteration Study

3.14.1 Second Iteration: Stakeholder Engagement (Workshop)

3.14.1.1 Aim

The aim of the workshop was to validate behaviour change strategies and delivery options to inform the development of the intervention framework, thereby identifying the barriers and facilitators to successful implementation.

3.14.1.2 Study Approach

The study employed a qualitative research approach. This is to enable the collection of in-depth information about the issue under discussion.

3.14.1.3 Participants Selection

Participants, including healthcare professionals and migrant adolescents who had previously taken part in the formative study and met the eligibility criteria, provided consent to participate in the current study. The migrant adolescents also assented prior to participation. The same recruitment methods were applied to their gatekeepers and migrant peers. The purpose of engaging previous participants is that their feedback can provide valuable insights into how well the intervention aligns with their needs and experiences. It also ensures that cultural contexts are adequately considered and addressed.

3.14.1.4 Sample Size

A total of eight (8) healthcare professionals from all study sites, along with six (6) rural-urban migrant adolescents, three (3) peers, and two (2) gatekeepers, participated in the workshop.

3.14.1.5 Procedure

The workshop was conducted on Zoom among the health care workers. The decision to host it online was driven by the need to find a mutually agreeable date among participants, considering their time availability. Thus, holding the workshop online facilitated a high attendance rate, as participants could join the meeting from any location. In terms of the migrant adolescents and other stakeholders, the workshop was organised in person.

The purpose of the workshop was read out to the participants, including the content of the proposed intervention ahead of the session. For those migrant adolescents who faced challenges in reading and understanding, arrangements were made with an interpreter to present the intervention content to them before the workshop. This ensured that stakeholders had a fair idea of the intervention content, allowing for an objective validation during the workshop. For the zoom, a summary of the key components of the intervention content was projected and presented to the participants as the basis for discussion. The researcher, acting as the facilitator, guided participants through interactive activities and discussions. They were asked to identify potential barriers to the implementation strategies identified and make alternative suggestions. The session encouraged open discussions and questions and answers with the researcher. The interview was conducted in the English Language. For the migrant adolescents the services of an interpreter was used.

A semi-structured instrument (see Appendix III) was used to collect data from the participants, allowing the facilitator to explore and probe the perceived barriers and alternative suggestions of

the proposed implementation strategies and mode of delivery in practice. Finally, participants were asked for feedback, ideas, and comments. The interviews and the feedback were recorded with participant consent. The workshop spanned 5–6 hours, with a break-out session.

3.14.1.6 Instrumentation

The validation tool consisted of semi-structured questions adapted and modified from Jenki et al. (2018). It aimed to assess the opinion of both healthcare providers and migrant adolescents, as well as their gatekeepers and peers. The tool measured the acceptability and feasibility of implementation strategies and delivery methods. Acceptability was measured by satisfaction with cultural appropriateness among the migrant adolescents, peers and gatekeepers, while feasibility focused on the practicality of implementing the contents among the HCP. Additionally, participants were asked to express their opinion on whether they believed the implementation strategies and modes of delivery could bring about the intended behaviour change. They were also asked about specific barriers and alternative suggestions related to the implementation strategies and delivery modes, aiming to enhance cultural appropriateness for service delivery and uptake (see Appendix V).

3.14.1.7 Limitation

One limitation of the online workshop organised for the HCPs was the network challenges among some of the participants. Not all participants had a stable internet connection at the time of the workshop, which could lead to unequal participation opportunities.

Lastly, in a few cases, the online workshop suffered some distractions from one participant because she was a lactating mother, and so interruptions in participants' home environments, including the responsibilities of attending to her baby or other personal commitments, may

disrupt participants' focus and active participation in the workshop. However, this did not affect the quality of the data collected, as ample time was given to them to make their contributions.

3.14.1.8 Data Analysis

Data collected during the workshop were analysed through thematic analysis. The collected data, which was transcribed and translated, was uploaded to the NVivo program. The analysis involved identifying themes and sub-themes, coding these themes, and examining their structure and content. Inductive content analysis was used, guided by the interview transcripts. A codebook was developed and utilised to create nodes within NVivo. Recurring patterns were identified to inform the report.



CHAPTER FOUR

RESULTS

4.0 Introduction

The findings of the various studies are presented in this chapter. The chapter is divided into five main sections, with sub-sections based on the study objectives.

4.1 Current Care Pathways for Sexual and Reproductive Health Service Utilisation

4.1.1 Description of Demographic Characteristics of Migrant Adolescents

Overall, 10 participants took part in the study (see Table 3). Most of the participants sampled in this study were female ($n = 7$); the majority of migrant adolescents were aged 18 to 19 years, and half ($n = 5$) of the participants had no formal education. More than half ($n = 6$) of the participants were Muslims in terms of religious affiliation. Among the regions sampled, ($n=4$) participants came from the Northern region, making it the highest among all sending regions sampled. Nearly all the participants ($n = 9$) had the motivation for coming to the city to seek greener pastures. Half ($n = 5$) of the participants were accompanied to the city by a relative. The highest occupation sampled ($n = 5$) were those engaged in head portering, popularly known as "Kaya," as their means of livelihood. Almost half ($n = 4$) spoke Gonja as the only language of communication. Also, ($n = 3$) of the participants have lived in their current community for less than a year.



Table 3: Socio-demographics and Migration Trajectory of Migrant Adolescents (N=10)

Characteristics	Numbers
Gender	
Male	3
Female	7
Age	
10-11	-
12-13	2
14-15	2
16-17	2
18-19	4
Education	
No education	5
Basic education	4
JHS	-
Religion	
Islam	6
Christian	4
Traditional	-
Place of Origin	
Bono Region	1
Northern Region	4
Upper East Region	1
Upper West	1
Volta Region	3
Reasons for Coming to Accra	
Seek greener pastures	9
Further education	1
Others	-
Persons Came With	
Alone	4
Relative	5
Friend	1
Current Occupation	
Head porterage	5
Hawking	2
Vulcanising	1
Scavenging	1
Apprenticeship	1

Languages Spoken	
Gonja	4
Mole Dagbani	2
Konkomba	1
Ewe	3
Daagare	1
Guruni	1
Lengths of Time Spent in the City	
< year	3
1-2 years	4
3-4 years	1
5-6 years	1
7-8 years	1

Source: Fieldwork 2023

4.1.2 Key Themes Identified and their Relevant Domains Mapped onto COM-B

Responses from the qualitative interviews (behaviour analysis) were categorised into capability, opportunity, and motivation in line with the COM-B model. The COM-B micro-components, nested thematic barriers, and facilitators are presented in the results and exemplar quotes in the analysis below. The code book can be found in Appendix VI on Table 4.2 of this thesis.

4.1.2.1 Psychological Capability

Psychological capability refers to an individual's mental capacity to engage in a behaviour. This includes their knowledge, cognitive skills, and ability to understand a subject necessary to perform a specific task or behaviour effectively.

(a) Language barrier to effectively communicate with health care professionals about sexual and reproductive health conditions

The micro-component associated with this theme encompasses factors related to the psychological capability of migrant adolescents, specifically their knowledge and understanding of the subject matter. In the presence of a language barrier, participants psychological capability is affected, making it difficult for them to comprehend or express their SRH concerns.

Participants highlighted that language barriers are a significant challenge for them, leading to frequent miscommunication with HCPs when seeking ASRH services. According to the participants, this is a major obstacle to achieving the desired behaviour. On occasion, they bring peers and colleagues along to assist with interpretation and alleviate the language barrier. The following interviews demonstrate:

I once had an unbearable encounter when I went to the hospital to seek treatment for an STI. I couldn't speak any language to the nurse, so I had to do some signs until she read meanings into why I came there, but when it came to the medication, I couldn't understand the guidelines, so when I came back, I had to go around looking for someone who could read and interpret the instructions for me [IDI, female migrant peer 15 years, Usher government hospital].

...no... Sometimes there are certain questions the nurses ask me at the child welfare clinic that I don't really understand. So sometimes they keep asking the same questions, and because I also don't understand, I keep giving them the same answer. In some cases, what I do is go with someone, maybe a friend or a relative, to do the interpretation for me [IDI, female migrant 17 years old, Madina Kekele polyclinic].

(b) Lack of knowledge about the right to entitlement of ASRHS

Another theme that resonates with psychological capability is the lack of knowledge about the right to entitlement of ASRHs. This theme relates to the participants lack of knowledge and their understanding of their rights and entitlements to ASRH. Consequently, they were unable to claim their rights from duty-bearers, who were supposed to provide them with culturally sensitive SRH services. This situation posed a significant barrier to achieving the desired behaviour. To ease

this barrier, they often sought assistance from informal service providers or relied on peer support. The following were observed in some interviews:

No, I don't know anything about my right to entitlement. No one has ever told me about it. I am hearing it from you for the first time. What I know is that sometimes some NGO's come to this community to educate us on adolescent sexual and reproductive issues, but I have not heard of them talk about right [IDI, female migrant, 17 years, Usher government hospital]

4.1.2.2 Physical Opportunity

This COM-B micro-component refers to the external, tangible factors in the environment that enable or hinder a behaviour. It focuses on aspects such as resources, physical access, and time availability that influence an individual's ability to engage in a behaviour.

(a) Lack of specialised care in relation to cultural needs, e.g., interpreter equipment/service

This theme highlights a lack of specialised services, particularly those concerning participants' cultural needs, such as language assistance services and other services that address cultural health beliefs that influence behaviour. This absence extends to ASRHs that are tailored to address cultural nuances and the consideration of cultural health beliefs. The theme underscores significant barriers to accessing culturally sensitive ASRH care. To overcome this barrier, they will have to rely on the services of informal service providers to address their ASRH needs. This came up in the interviews:

The issue lies in hospitals lacking specialised provisions for cultural needs, particularly affecting girls seeking healthcare. When these girls struggle to effectively communicate their concerns due to language barriers, it creates a problem. Some have returned from the hospital with complaints of not being treated because they were unable to convey their health issues. Despite paying for medical services, this leads to frustration and a reluctance to revisit the hospital in the future. [KII, female migrant gatekeeper, 38 years old, Mallamata Market].

Hospitals often fail to appreciate our preferences and practices. Personally, I find herbal medicines effective, and they're my preferred choice. However, when I share this with hospitals, I sometimes face criticism. The issue goes beyond mere disapproval; they cannot offer alternatives aligned with my preferences. Consequently, I chose not to seek medical assistance from them. Recently, when I suspected having gonorrhoea, I relied on herbal medicine, and it proved successful in treating the condition. [IDI, male migrant, 19 years, old, Madina].

(b) Lack of physical access to information about ASRH service availability

Physical opportunity within this context, involves the participants lack of physical materials, such as posters or directional signs, about the physical location and accessibility of ASRH services. For the majority of the participants, the lack of physical materials to locate facilities serves as a significant barrier to adopting positive behaviours. To overcome this barrier, individuals must resort to utilising the readily accessible services of informal healthcare providers. The following observations were made:

I came to this community barely a month ago, but I don't know anything about the hospital providing ASRH services; it has never come my way since I have been in this community. So

sometimes, if I have any concern, I discuss it with those who sell drugs or friends. [IDI, male migrant, 18 years, Madina]

Unfortunately, they do not know of the existence of ASRHS, or at least the majority of them do not. And I don't think they also ask. I see GHS staff coming here once in a while to educate the community on some of these issues, but, as you know, because of the nature of their movement, you always have new faces of these young people. It would have been good if there were enough directional signs as to where to get services. [KII, female migrant gatekeeper, 50 years old, Agbogbloshie]

4.1.2.3 Social Opportunity

Social opportunity refers to the influence of social factors, such as cultural norms, interpersonal relationships, and societal expectations, that shape and enable a person's ability to perform a behaviour.

(a) Lack of privacy with friends or other patients

In this context, it involves the practice of relying on friends of patients or other patients within the health care setting for interpretation and how their presence affects the patient's sense of privacy during clinical encounters. Participants acknowledged that while this strategy offers some relief, it hinders their ability to discuss sensitive conditions openly. Consequently, they hesitate to revisit the hospital, which obstructs their efforts to adopt the desired behaviour. This came to light during some of the interviews:

It can be difficult to find the right person- that is, someone you can trust to accompany you to the hospital, especially someone you can confide in to do the interpretation for you. You know,

issues like gonorrhoea and other similar diseases are ones we don't want to share with anyone at all, so instead of going to the hospital and having someone follow you, we prefer going to the drugstores or talking to people who carry their drugs around. [IDI, female migrant, 19 years, Madina Kekele Polyclinic].

Another challenge is that for some of them who go with translators who are their friends, they still doubt them; hence, they might not be too comfortable for the fear that they could hear some of their secrets, such as syphilis treatments, attempted abortions, or gonorrhoea, and expose them. As a result, one of the main reasons they dislike going to the hospital [IDI, female migrant peer, 14 years, Agboghloshie].

(b) Influence of left-behind families due to distrust in HCPs

The influence of social and interpersonal influences on behaviour again resonated with the theme of consulting with left-behind families in their places of origin. In this context, it includes consultation with left-behind families and their input and influence on where they sought ASRH care.

The following observations came to light:

I remember calling home once when one of my friends told me the symptoms, I had could be gonorrhoea, so I called home and was confined with a cousin, and she asked me to go to the drugstore and talk to them; they would get me medicine, which I did. [IDI, male migrant, 19 years old, Madina]

Sometimes, we confide in our relatives or friends back home about an STI one has contracted and what to do. And they can either ask you to look for a particular herb or talk to a herbalist.

Some people will also tell you to go to the hospital. [IDI, female migrant peer, 17 years old, Agbogbloshie].

4.1.2.4 Reflective Motivation

Reflective motivation refers to the cognitive processes involved in decision-making and planning that influence behaviour. It is primarily driven by conscious thought, reasoning, and decision-making processes.

(a) Preference for services of informal care providers with similar cultural backgrounds due to mistrust in HCPs

In this context, migrant adolescent's poor utilisation of ASRHs was influenced by their conscious decisions and beliefs regarding trustworthiness, or cultural alignment of services offered by informal service providers who share similar cultural backgrounds. Thus, the dissimilarity of cultural backgrounds, according to the participants, served as a barrier to achieving the desired behaviour. However, despite their reluctance, few of the participants utilised formal health care facilities for ASRHs during the last stage of illness, such as complicated attempted abortions. The following accounts reveal:

There is this thing in our culture where it's taboo to abort a pregnancy, so when they get pregnant like that, they would like to abort it secretly, so instead of going to the hospital, they will rather go to the drugstore or get some concoctions to drink. To them, there is nothing like a safe abortion [IDI, female migrant peer, 15 years, Agbogbloshie].

For me, it is against my religion to do family planning. And if you go to the hospital for counselling, they just tell you that if you can't abstain from sex, just do family planning to avoid an unintended pregnancy. It doesn't sound good anytime they say that because it is against my religious practices. So going there becomes a problem [IDI, female migrant, 14 years, Mallamata].

**(b) Distrust in HCPs exacerbates solidarity or peer influence within the new environment
(City)**

In this theme, solidarity or peer pressure, stemming from distrust in HCPs, impacts participants' reflective motivation, shaping their attitudes, intentions, and choices regarding ASRH utilization. Peer influence and reliance on informal information sharing within networks often led to the spread of inaccurate SRH information. This misinformation hindered their efforts to change their behaviour. The following assertions were made in some of the interviews:

In this community, most of us shun from the healthcare facilities, one thing we do most is share ideas about family planning, the contraceptives someone has used before, their efficacy, and where they got them, and based on that, others also follow suit. So we rely on other friends for what we want to do. [IDI, female migrant peer, 17 years old, Agbogloboshie]

You know, though we come here individually, when we meet, this person will say, "I have done this and that, or this is what I want to do, and if there is any advice, we give it to one another [IDI, female migrant, 13 years old, Mallamata].

(c) High cost associated with ASRHs

This refers to the high medical costs associated with ASRHs affecting individuals' attitudes, beliefs, and intentions towards utilising ASRHs. In this context, migrant adolescents are demotivated from seeking out these services due to concerns about affordability or financial strain, such as purchasing medical cards, undergoing laboratory tests, buying medications, and other associated out-of-pocket expenses. As a result, they often turn to drug stores and other informal sources for more affordable services to overcome this challenge. The following were highlighted in the interviews:

Some of our friends complain about the cost involved in hospitals, so they will just tell you they prefer the drug stores to the hospital since that will be cheaper. And that's true because if they go to the drug store, there is nothing like buying a card and doing a lab test. [IDI, female migrant peer, 16 years old, Madina]

In hospitals, the procedures are too long, and each comes with a cost. You have to buy a card; you have to do some lab tests and some other things, as well as the medicines. All these things come at a cost as compared to the drug stores or drug paddlers [IDI, male migrant 19 years old, Madina].

4.1.3 Intervention Functions Identified

Following the remaining stages and steps of the BCW, intervention functions were identified as described in chapter three of this thesis. The intervention elements identified were based on the behavioural analysis conducted. *Four (4)* out of the nine intervention functions described in the BCW guide (Michie et al., 2014) were identified at the patient level. They included: *education, enablement, environmental restructuring, and incentivization*. Some of the interventions were selected to be multiple interventions in order to achieve their effectiveness.

For example, *education and enablement* were combined to provide education about the health consequences of using the services of informal service providers, while enablement was selected to provide any intervention support to improve change not covered by other intervention functions.

4.1.4 Results of Appraisal of Intervention Functions Identified based on APEASE Criteria

Using the APEASE criteria at the patient level, the study appraised each intervention function and selected *education, enablement, environmental restructuring, and incentivization* (see Table 4).

However, *coercion, persuasion, training, restrictions and modelling* were excluded because they were not practicable for this behaviour, not applicable to this category of patient’s behaviour in question. These factors accounted for the reasons for their exclusion.

Table 4: Considered intervention functions based on APEASE criteria at the patient level

Intervention Functions	Definitions	APEASE* Judgement	Reasons
Education	Increasing knowledge or understanding	Yes	Not applicable to this behaviour
Persuasion	Using communication to induce positive or negative feelings or stimulate action	No	Not applicable to this behaviour
Incentivisation	Creating expectation of reward	Yes	Not applicable
Coercion	Creating expectation of punishment or cost	No	Not practicable for this behaviour

Intervention Functions	Definitions	APEASE* Judgement	Reasons
Training	Imparting skills	No	Not applicable for this behaviour
Restriction	Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in a competing behaviour)	No	Not applicable
Environmental restructuring	Change the physical or social context	Yes	-
Modelling	Provide an example for people to aspire to imitate	No	Not appropriate
Enablement	Providing support to improve ability to change in a variety of ways not covered by other intervention functions	Yes	-

Source: Adopted from Michie et al. (2014)

*APEASE Criteria: Affordability; practicability; effectiveness and cost effectiveness; acceptability; side effects and safety; equity

4.1.5 Policy Categories Identified and Appraised by the Use of APEASE Criteria

In order to facilitate the intervention functions selected, four policy categories were identified at the patient level, which included *communication/marketing*, *environmental/social planning*, *fiscal*, and *service provision* as the most dominant policies (Table 5).

Table 5: Policy Categories Identified to Support Intervention Functions

Policy functions	Definitions	APEASE Judgement	Reasons
Communication/marketing	Using print, electronic, telephonic or broadcast media	Yes	-

Policy functions	Definitions	APEASE Judgement	Reasons
Guidelines	Creating documents that recommend or mandate practice. This includes all changes to service provision	No	Not applicable
Fiscal	Using the tax system to reduce or increase financial cost	Yes	-
Regulation	Establishing rules or principles of behaviour or practice	No	Not applicable
Legislation	Making or changing laws	No	Not applicable
Environmental/social planning	Designing or controlling the physical or social environment	Yes	-
Service provision	Delivering a service	Yes	-

4.1.6 Summary of Intervention Functions and Policy Categories Identified Using APEASE Criteria.

Consequently, the following are the final intervention functions identified (*education, enablement, environmental restructuring, and incentivization*) and their accompanying facilitating policy categories (*service provision, communication/marketing, environmental/social planning and fiscal*) after subjecting them to APEASE criteria as indicated in Table 4.

Table 4: Summary of Identified Intervention Functions and Policy Categories at the migrant Adolescent (Patient level)

COM-B Component	Behavioural analysis/evidence to support the need for a change (barriers and facilitators)	Intervention functions	Policy categories
1.Capability psychological	Language barrier to effectively communicate with health care workers about SRH conditions	Enablement	Service provision
2. Capability psychological	Lack of knowledge about the right to entitlement of culturally sensitive ASRHS from duty bearers	Education	Communication/m arketng
3.Opportunity physical	Lack of specialised care in relation to cultural needs, e.g. differences in cultural health beliefs, language assistance services	Enablement	Service provision
4.Opportunity Physical	Lack of physical access to information about ASRHs	Environmental restructuring	Communication/m arketng
5.Opportunity Social	Lack of privacy if peers and others are involved in interpretation leads to inability to divulge sensitive issues which affect diagnosis and treatments	Enablement	Service provision
6.Opportunity Social	Influence of families left behind for advice on where to seek help on ASRH medication due to lack of trust in HCPs	Education	Communication/m arketng
7.Motivation Reflective	Preference for services of informal care providers with similar cultural backgrounds due to distrust in HCPs	Education/ Enablement	Communication/m arketng
8.Motivation Reflective	Distrust in HCPs exacerbates solidarity/peer influence within the context of new environment (city) resulting into hearsay, and myths about ASRH	Education/Envir onmental restructuring	Environmental and social planning
9.Motivation Reflective	High cost associated with ASRH is considered burdensome and not part of migration intention	Incentivisation	Fiscal

Source: Fieldwork, 2023

4.1.7 BCTs Identified

At the patient level, nine (9) BCTs were identified, including information about health consequences, remove aversive stimulus (repeated several times), review outcome goals,

associative learning, restructuring the physical environment, credible source, restructuring the social environment, material incentive (behaviour), and information about antecedents (*Table 5*).

Table 5: Mapping of the intervention function to the behaviour change technique at the patient level

Key explanatory factors	Intervention functions	Policy Options	Behavioural Change Techniques (BCTs)
1.Preference for services of informal care providers with similar cultural backgrounds	Education/enablement	Communication/marketing	Information about health consequences/ Nonspecific rewards
2.Language barrier to effectively communicate with health care workers about SRH conditions	Enablement	Service provision	Remove aversive stimulus
3.Lack of privacy if peers and others are involved in interpretation leads to inability to divulge sensitive issues which affect diagnosis and treatments	Enablement	Service provision	Remove aversive stimulus
4.Influence of families left behind for advice on ASRH medication due to lack of trust in HCPs	Education	Communication/Marketing	Credible source
5.Distrust in HCPs exacerbates peer pressure within the context of new environment (city) resulting into hearsay, and myths about ASRH	Education/Environmental restructuring	Environmental and social planning	Information about health consequences/ Restructuring the social environment
6.High cost associated with ASRH is considered burdensome and not part of migration intention	Incentivisation	Fiscal	Material incentive (behaviour)
7. Lack of physical access to information about the availability and location to ASRHs	Environmental restructuring	Communication/Marketing	Restructuring the physical environment
8.Lack of knowledge about the right to entitlement of culturally sensitive ASRHs from duty bearers	Education	Communication/Marketing	Information about antecedents
9.Lack of specialised care in relation to cultural needs, eg language assistance services	Enablement	Service provision	Remove aversive stimulus

Source: Fieldwork, 2023

4.1.7 Implementation Strategies

The results of the BCTs operationalisation led to the development of implementation strategies. Subsequently, an intervention prototype was created that consisted of explanatory factors, intervention elements, BCTs, and resultant implementation strategies, along with various delivery options tailored to the patient level. (see Table 6).

4.1.8 Mode of Delivery

Results of mode of delivery at the patient level encompass face-to-face interactions (to be conducted during community outreach, health care facility visits, or facilitated by gatekeepers to relay health messages) or distance delivery through print media, such as posters, and digital platforms, including broadcast media, for instance, community radios and outdoor media (see Table 6).

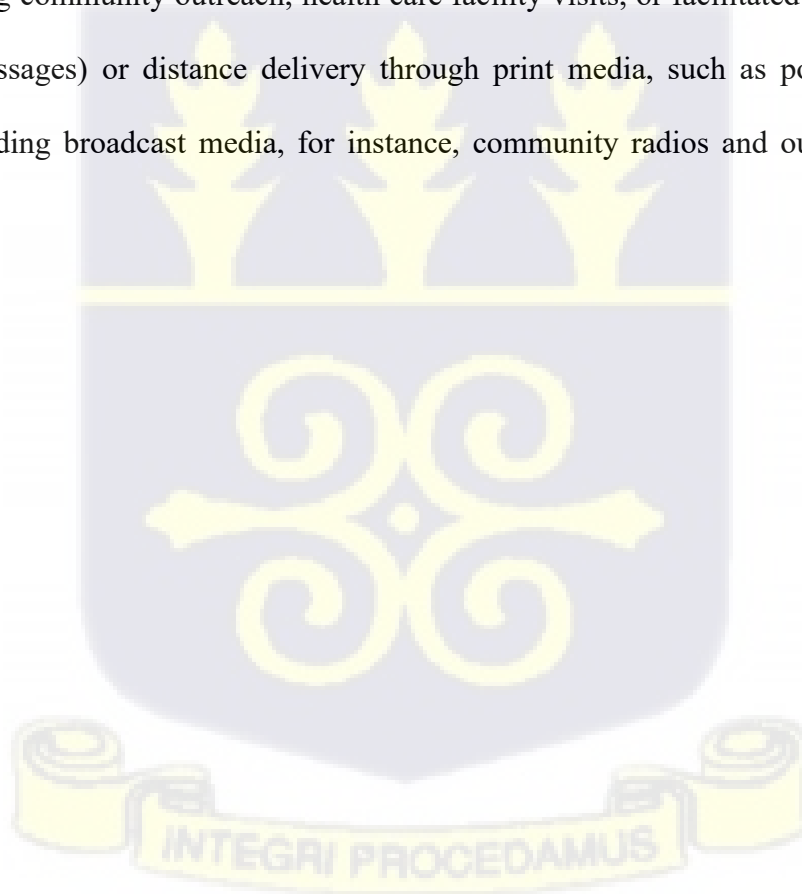


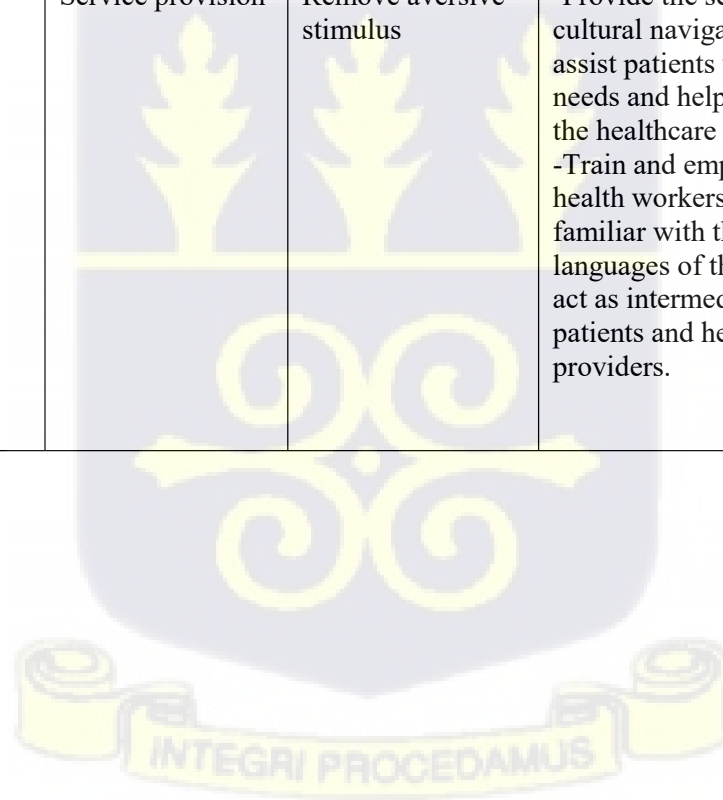
Table 6: Mapping of Behaviour Change Techniques to Implementation Strategies and Mode of Delivery at the Patient Level (Adolescent)

Key Explanatory Factors	Intervention Functions	Policy Options	Behavioural Change Techniques (BCT)	Implementation Strategies	Implementation Intervention's Modes of Delivery
1.Preference for services of informal care providers with similar cultural backgrounds due to lack of trust in HCPs	Education/enablement	Communication/marketing	Information about health consequence/ Nonspecific rewards	-Launch community-wide campaigns in collaboration with community leaders and influencers to spread the message about the health consequences of the use of unapproved providers - Use trust building exercises that require mutual support	-Organise community workshops and seminars as well as publicity through posters, flyers, and community events to raise awareness about the health consequences, -Reward and reinforce trustworthy behaviours to encourage continuity.
2.Language barrier to effectively communicate with health care workers about SRH conditions	Enablement	Service promotion	Remove aversive stimulus	- Provide access to interpreter facilities or professional interpreters who are proficient in both the language of the patient and medical terminology.	-In-person interpreter by multilingual staff services available within healthcare facilities. - Provide interpreter facilities and offer virtual interpreter services.
3.Consultation of families left behind for advice on where to seek help on ASRH medication due to distrust in HCPs	Education	Communication/Marketing	Credible source	- Provide education to families about the importance of SRH services and the role they can play in the right decision-making process for their loved ones.	- Collaborate with migrant families by verbally communicating through gatekeepers the need not to expose their children to incorrect information, which can have adverse consequences for their SRH.
4.Distrust in HCPs exacerbates peer	Education/Environmental	Environmental and social	Restructuring the social	-Introduce or increase CHPS compounds within migrant	-Organise peer-led community outreach

pressure within the context of new environment (city) resulting into hearsay, and myths about ASRH	restructuring	planning	environment	communities to offer counselling services on ASRH for adolescents who may feel pressured by their peers to navigate the challenges of the new environment. -Introduce monitoring programmes to target older adolescents from same migrant networks guide and support other peers providing reliable information and debunking myths about ASRH	programmes that are culturally sensitive sessions at market places centres places of worship or social media platforms -Signpost graphic images that provide credible ASRH information to reach adolescent migrants
5.High cost associated with ASRH is considered burdensome and not part of migration intention	Incentivisation/Enablement	Fiscal	Material incentive (behaviour)	-Provide subsidised or low-cost ASRH services specifically for adolescents' migrant to make healthcare more affordable. -Offer financial counselling services to help understand the costs of ASRH services, navigate insurance coverage, and explore available financial assistance programs	-Implement income-adjusted fees within healthcare facilities and provide information about the fee structure through outreach programmes -Use community radio to promote youth savings accounts in community centres through in-person registration
6. Lack of physical access to information about the availability and location to ASRHs	Environmental restructuring	Communication/Marketing	Restructuring the physical environment	-Install clear directional signs in community directing individuals to ASRH services -Make ASRH information available in multiple languages to accommodate linguistic diversity.	-Post directional signs where to locate the health facilities or CHPS compound within communities -Communicate information through gatekeepers either verbally or printed materials to facilitate acceptance

7. Lack of knowledge about the right to entitlement of culturally sensitive ASRHS from duty bearers	Education	Communication/ Marketing	Information about antecedents	<ul style="list-style-type: none"> -Conduct awareness campaigns that educate the adolescent migrants about their rights to accessible and culturally sensitive ASRH -Engage gatekeepers/guardians in information-sharing sessions that clarify the rights of adolescents and the importance of culturally sensitive ASRHS 	<ul style="list-style-type: none"> -Multimedia campaigns using radio, TV, social media, and community events to disseminate information widely about their right. -Provide information in hospitals where adolescents and their families can receive legal information and support
8. Lack of specialised care in relation to cultural needs, eg language assistance services	Enablement	Service provision	Remove aversive stimulus	<ul style="list-style-type: none"> -Provide the services of cultural navigators who can assist patients with cultural needs and help them navigate the healthcare system -Train and employ community health workers who are familiar with the culture and languages of the community to act as intermediaries between patients and healthcare providers. 	<ul style="list-style-type: none"> - Develop healthcare materials, brochures, and signage in multiple languages to make information more accessible to diverse communities -Deploy community health workers and cultural navigators within the community to provide in-person support and assistance

Source: Field Work 2023



4.1.9 Summary of Key Findings Related to Objective One and the Change Pathways

Findings from the qualitative study conducted suggests a lack of trust among the migrant adolescents in health care providers. Thus, affecting individuals' intentions to utilise ASRH services, resulting in seeking alternative, potentially the use of unapproved pathways. To change or modify the migrant adolescent behaviours, the remainder of the BCW was used to identify intervention elements such as education, enablement, environmental restructuring, and incentivization, along with policy categories such as communication/marketing, environmental/social planning, fiscal, and service provision to facilitate the intervention functions identified. The APEASE criteria was therefore used to appraise the intervention functions and policy options identified. Next is to identify suitable BCTs, resulting in the identification of the most promising implementation strategies and modes of delivery to change or modify individual's behaviours and the physical environment.

4.2 Perspectives of Healthcare Professionals Regarding their Engagement in Service Delivery

4.2.1 Description of Demographic Characteristics of Health Care Professionals

In total, 8 health care professionals participated in the study (see Table 7). Most of the sampled population (n = 6) were female. The highest age sample (n = 2) were between ages 31–32 and 35–36 years old, respectively. Most of the participants (n = 6) had obtained a tertiary diploma level of education. In terms of job title, senior midwives (n = 3) were mostly sampled. Half of the participants (n = 5) worked in the reproductive and child welfare clinic departments. The highest number of years the HCPs had worked, 6–10 years, was reported among (n = 3) participants.

Table 7: Socio-Demographic Characteristics of Health Care Professionals (N=8)

Characteristics	Numbers
Gender	
Male	2
Female	6
Age	
29-30	1
31-32	2
33-34	1
35-36	2
37-38	1
39-40	1
Education	
Diploma	6
First Degree	2
Job Title	
Senior Midwife	3
Senior Health Nurse Education Officer	1
Principal Community Health Nurse	2
Senior Nursing Officer (Public Health)	2
Department/Unit	
Reproductive and Child Health Unit	5
Adolescent ART Unit	2
Public Health Education Unit for Adolescents	1
Length of Work	
Less than a Year	1
1-5 Years	2
6-10 Years	3
10-15 Years	2

Source: Fieldwork 2023

4.2.2 Key Themes Identified at the Provider Level

Similar to the patient level, findings from the qualitative interviews conducted were categorised into capability, opportunity, and motivation in line with the COM-B model. The COM-B micro-components, nested thematic barriers, and facilitators are presented in the results and exemplar

quotes in the analysis (see Table 4.8.). The coding book can be found in Appendix VII of this thesis.

4.2.2.1 Psychological Capability

(a) Lack of cultural competence in ASRHs delivery

The lack of culturally competent skills-based knowledge directly relates to psychological capability. In this context of use, it reflects the health care providers' lack of knowledge and skills needed to deliver culturally competent ASRHs. The participants mentioned this as a barrier to achieving the desired behaviour. In response, they have independently employed strategies, such as using individuals who share the same language as patients for interpretation when language barriers arise. In some of the interviews with the HCPs, the following accounts were given about the nature of services they provide to adolescent migrants:

Unfortunately, I have not considered cultural differences when providing counselling to those who are HIV positive. The steps are there, so I just follow them. As has always been the case with any other adolescent patient, like those who are positive, I encouraged them to use the condoms so that they don't spread it. [IDI, Senior Nursing Officer].

I have seen a few here, and most of my adolescents' migrants are pregnant, or, let me say, most of them are pregnant. Ermmm... I only had one who wanted counselling on family planning, and after having had a detailed discussion, she agreed to do it. My counselling style is similar to that of any other adolescent who comes here, except that the migrants have language barriers and you have to find someone to do the interpretation for you to understand the client [KII, Nurse, Principal Community Health Nurse].

(b) Language barrier to effectively communicating with clients resulting in poor diagnosis and treatment

Language barriers and communication difficulties were also associated with the health care workers delivery of ASRH services, and they aligned with psychological capability. In this case, it reflects HCPs inability to effectively communicate with patients, which is crucial during diagnosis and treatment. To overcome this barrier, they sometimes make patients wait until the long queues have cleared before attending to them. Additionally, they mentioned using sign language, which has not proven effective, or requesting that patients bring along a relative or peer to assist. As noted in some of the interviews:

Sometimes, like with family planning, you ask the patient to take one dose of a drug, which is taken orally daily at a particular time. The person can misunderstand you and take it once a week, then later say, "Oh, you said once a week," so sometimes it's a whole lot. Another example: you ask the person-most of the time I say it in English-to return on the 2nd of October, but the person will come at a later date, such as the 5th or 10th of October, and when you ask why, she will say I didn't hear, which can be difficult. [FGD, Senior Midwife]

The language barrier is a big issue for us. There is this patient I always struggle to communicate with. I gave her a drug, but I realised on review that her condition was not improving. I was treating her with low HB because most of them come here with low HB. So, one day I asked her to bring a friend or family member, and when I inquired further, she had just been keeping all the drugs simply because she couldn't understand all that I had been telling her [IDI, Senior Midwife].

(c) Differences in cultural health beliefs between health care providers and patients

The inability of the HCPs to navigate and address differences in cultural health beliefs with the patients mainly relates to psychological capability. This relates to HCPs capability to understand and effectively handle cultural differences in health care beliefs and practices, especially when working with adolescent migrants. Concerns highlighted were about patients' attachment to long-held cultural health beliefs about sexual and reproductive health issues. Participants mentioned educating them on the need to use the right facilities and medication to overcome this barrier. The following came up during interaction with the participants:

Yes, there are times when they will tell you that family planning is forbidden by their religious beliefs. For some tribes, it is normal, but for others too, it's not allowed. For example, it is difficult for Muslim adolescents to seek family planning because it is considered taboo for them to do so in order to avoid unwanted pregnancies. Yes, it is taboo [KII, Senior Midwife].

Those who end up here with abortion complications after being treated, and you ask them why they didn't seek advice from hospitals instead of taking pills or concoctions to abort, they tell you that it is taboo among their tribe to discuss such topics, so they are unable to come to the facility to talk about it [IDI, Senior Midwife].

(d) Lack of organisational support to promote cultural competency

This theme relates to the absence of organisational support for HCPs to access the necessary training and support from their organisation to enhance their skills in cultural competency. According to health care professionals, this particular domain is crucial for them to achieve the

expected behaviour. In some instances, they are compelled to resort to unprofessional methods to facilitate care provision. These observations were confirmed in the following interviews:

Unfortunately, we have not attended any seminars or workshops on how to deliver culturally competent care. As I previously stated, when it comes to these issues, you will have to find a way to deal with them. For example, if you have a language barrier, you will have to look for someone to do the interpretation for you. However, it is not that simple. [FGD, Senior Midwife].

Cultural competence... not actually. I am yet to experience something of the sort. We do go to workshops and learn new things, but not with the idea of handling people from linguistically and culturally diverse backgrounds [KII, Senior Midwife].

4.2.2 Physical Opportunity

(a) Use of unprofessional interpreters, such as friends or other clients, with an associated risk of misinterpretation

The use of unprofessional interpreters, leading to misinterpretation, also relates to the physical opportunity because it emphasises the physical aspects and resources that can either facilitate or hinder behaviour. In this context, it refers to the unavailability of interpreter equipment/services but rather the use of unprofessional interpreters and a lack of interpreter facilities leading to misinterpretation. Although it helps overcome communication barriers, it often leads to misinterpretation of information, which serves as an additional barrier to achieving the desired behaviour. These were highlighted in some of the interviews:

Sometimes too... We ask other clients who are in for treatment or a review to assist us with the interpretation, though this does not always work because the person who claims to be able to do

the interpretation has difficulty with certain descriptions, which can affect diagnosis and treatment [IDI, Senior Nursing Officer, Pentecost hospital].

In some cases, the friends they come with tell you that they can speak English and can do the translation, but you can see them struggling along the way and eventually giving the wrong information to their colleague [IDI, Senior Nursing Officer].

(b) Use of other colleagues from various departments for interpretation with the associated risk of long queues at their units or departments

The use of other colleagues from different departments for interpretation, potentially leading to long queues, primarily relates to the physical opportunity of the COM-B micro-component. In this context, it refers to not only the unavailability of interpreters but the use of colleagues from various departments as interpreters, even if this practice has unintended consequences like queue build-up. Participants express that these challenges affect their efforts to achieve behaviour change. The following was observed in an interview:

Sometimes we get clients with no one around to interpret, and even if you call on a colleague, she might keep you waiting for a long time while the patient is kept waiting, so what we do is engage them in sign languages, but at the end, it's like you don't get the feedback as expected [IDI, Senior Nursing Officer].

You see, getting colleagues is not as easy as that. Sometimes they are under pressure because they must run between their departments and the other end. Assume you have three patients, each of whom speaks the same language, and because of the nature of their conditions, you want

to use this same colleague for interpretation; she has to share her work time with you, which is not acceptable. [IDI, Senior Midwife]

(c) Unavailability of a culturally appropriate migrant adolescent friendly corner

Another significant theme mapped onto COM-B micro-component physical opportunity is the absence of a culturally sensitive adolescent corner. In the context of this theme, this relates to the absence of dedicated spaces designed to cater for the cultural and health care needs of migrant adolescents, which presented a hindrance to their efforts in achieving the desired behaviour. To overcome this barrier, they occasionally opted to engage in confidential discussions by taking walks outside. The following observations were made in these interviews:

Let me say that here at Pentecost we have an adolescent corner, but to have a special corner for adolescents who are migrants due to their backgrounds, we don't have one. So when they come, they join the queue until it's their turn [IDI, Senior Nursing Officer].

As you can see, there are no privacies here. I have some of them who come and find it difficult to talk to you because the environment is not conducive for them to do that. They think so many people are around, so they want you to move outside the facility with them. [FGD, Principal Community Health Nurse]

4.2.3 Reflective Motivation

Reflective motivation was identified in the inductively thematised barriers and facilitators, and this relates to the conscious, deliberate decision-making processes.

(a) Efforts by health care professionals to foster a friendly relationship to uptake ASRHs, but there is constant withdrawal as carers are seen as strangers

In this context, HCPs consciously attempted to engage the migrants to achieve the right behaviour in order to use ASRHs. This is a result of the low uptake of services. To promote change, they try to create a cordial relationship with patients, but there have been persistent withdrawals, which further create a barrier to achieving the right behaviours. The following was noted in some of the interviews:

Yes, I enjoy working in the community; the main challenge for me is the language barrier. Because in my catchment area, about 70% of them are Kayayees. At times I carry their babies and other things, but they still find it difficult to come to the facility anytime they need help. It's disappointing, though [KII, Principal Community Health Nurse].

Yes, that's another issue, and some are too difficult to manage. At times, when you go for home visits, the next time you meet them on the field and you try to introduce a conversation, they won't even mind you [KII, Principal Community Health Nurse].

4.2.4 Outcome of the Use of the Campinha- Bacote Cultural Competency Model

4.2.4.1 Key Themes Identified with the Cultural Competency Model

In addition to the COM-B model, five themes were identified at the provider level utilising the Campinha-Bacote cultural competency model: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. These themes also occurred across other domains (see Table 9). The coding book can be found in Appendix VIII.

4.2.4.2 Cultural Awareness

Cultural awareness involves critically reflecting on and exploring one's cultural and professional identity. It requires acknowledging personal biases, assumptions, and prejudices that might affect perceptions of individuals from diverse backgrounds.

(a) Failure to recognise and acknowledge one's own cultural biases and their influence on interactions with patients.

The health care workers that were interviewed emphasised that, in delivering ASRHs, they do not consider their cultural biases and how these biases might influence interactions with patients. They also highlighted that, for ASRH delivery, there are no culturally specific approaches for migrant adolescents, as the approach to care delivery remains the same as for other adolescent populations. In some of the interviews with the nurses, the following accounts were provided regarding the nature of services provided to adolescent migrants:

Regrettably, I haven't taken into account my cultural beliefs and how they might influence my care provision for this group. For instance, when providing counselling on family planning, I simply follow the procedures I would use for any other adolescent patient, and that's all. [IDI, Senior Nursing Officer]

Alright, so those who come are usually very sick. When they arrive, some will state they are here for an HIV test, while others may pretend not to know why they are here. We have a set of questions we ask, such as "Have you had unprotected sex in the past six months?" They may respond affirmatively and provide details about the number of partners and their genders. The responses vary, with some having opposite-sex partners, others having same-sex partners, and some having both. In these interactions, I view them like any other patient, without considering how my cultural background might influence the questions [KII, Senior Nursing Officer].

4.2.4.3 Cultural Skills

Cultural skill refers to the ability to effectively gather and interpret culturally relevant information about a client's presenting issue.

(a) Ineffective cross-cultural communication skills to provide culturally sensitive and appropriate care

One major concern shared by participants was the challenge of a language barrier, hindering effective communication with adolescent patients during clinical encounters. As expressed in some interviews:

Hmm, as for Kaya, that's a different issue altogether. very, very stressful. Especially with the challenges associated with language barriers. Counselling them, even those who understand you a little bit. The way they will be staring at you... [IDI, Senior Nursing Officer]

Ok, we do have seminars, but not in relation to cultural communication skills. That has not been part of any training yet in this facility. So, as I have already indicated, if you have difficulty and you can fall on a colleague who understands to help, we do. Example: I remember anytime there is a labour issue with someone who doesn't understand Ewe, they call me to assist [IDI, Principal Community Health Nurse].

4.2.4.4 Cultural Knowledge

Cultural knowledge involves actively seeking and acquiring a comprehensive understanding of diverse cultural and ethnic groups. This is necessary to effectively interact and work within multicultural settings.

(a) Delivery of ASRHs does not integrate a sound educational base about migrants' cultural values, health-related beliefs, and practices.

Most of the participants noted that when it comes to the delivery of ASRHs, they do not integrate a sound educational base about the migrant adolescents they serve. According to the participants, the inability to have meaningful interactions with these migrants and to gain a deeper understanding is often a challenge, so empathy is sometimes lost. As noted in some of the interviews:

We do not conduct any particular cultural assessments about them. What I personally know about them is that they rarely come to this facility. And abortions and miscarriages are very common among them, which is mostly the reason why they come here. Especially with bleeding cases [IDI, Principal Community Health Nurse]

We don't deliberately carry out cultural assessments about them to inform the services we want to offer. No, but sometimes during initial questioning, you get to know where they are coming from, and that's all. [IDI, Senior Midwife]

4.2.4.5 Cultural Encounters

Cultural encounter refers to the process in which healthcare providers actively engage in interactions with individuals from diverse cultural backgrounds.

(a) Inability to engage in direct interactions with migrants and experiences to gain a deeper understanding of their cultural perspectives

According to the participants, language differences pose a significant barrier to cultural encounters with adolescent migrant patients. They emphasise their struggle to communicate effectively with the patients, which makes meaningful interactions difficult because of their cultural backgrounds and migration status. The following observations were made:

Sometimes you meet them, and you want to engage them in conversation. They will just look at you without uttering a word, and then everybody will go their way. Sometime, those who understand little Twi will say, "Menti nea wokano," meaning they don't understand what you are saying, and then they will leave [IDI, Principal Community Health Nurse].

I have this patient. I find it difficult to call her to inform her about the updates on her medication. I am unable to call her because I don't know the language to communicate with her. And so, she came with the husband one day; she had low HB, so I spoke to the husband, who could not equally speak any language but little English, so whenever I say something in English, he will say, "Madam, you say..." [KII, Senior Midwife].

4.2.4.6 Cultural Desire

Cultural desire refers to the healthcare provider's genuine motivation to engage in the process of becoming culturally competent.

(a) Motivation to serve migrant adolescent groups despite cultural and linguistic challenges

A prominent theme that echoed throughout the data was the motivation and commitment to provide culturally competent care to the migrant adolescent population, despite the immense challenges faced by them in the delivery of ASRHs. The following were highlighted in some of the interviews:

Yes, I enjoy working in the community; the main challenge for me is the language barrier. Because in my catchment area, about 70% of them are kayayees. At times I carry their babies and other things, but they still find it difficult to come to the facility anytime they need help. It's disappointing, though [KII, Principal Community Health Nurse].

It is difficult to attend to them; it is very stressful, but after you have been able to attend to them, you feel happy and fulfilled. And you feel like, yes, I have been able to help the person, and you are able to kind of establish some friendship with some of them, and anytime the person comes, she wants to see you and give you feedback, so it builds a relationship. They become another set of friends. I am always happy to work with these migrant adolescents. [KII, Senior Midwife]

4.2.5 Intervention Functions Identified

Following a process similar to the patient level and the integration of the Campinha-Bacote model of cultural competency in health care delivery, the following three intervention functions were also identified at the provider level: They include *training, enablement, and environmental restructuring*. Similar to the patient level, these intervention functions repeat across other behaviour domains. Also at the provider level, some categories of the intervention were multiple, which were believed to be more effective than single ones (Michie et al., 2014).

4.2.6 Using the APEASE Criteria to Appraise the Intervention Functions Selected

As indicated in the BCW, the intervention elements identified above were each appraised according to the APEASE criteria (*see Table 8*), resulting in *training, environmental restructuring, and enablement* being considered because they were deemed appropriate for the behaviours concerned. But *education, persuasion, incentivisation, coercion, modelling, and restrictions* were not included because they were not applicable to the behaviours and would not work for the behaviours at this level.

Table 8: Selected intervention functions based on APEASE criteria at the provider level

Intervention Function	Definition	APEASE* Judgement	Reason
Education	Increasing knowledge or understanding	No	Not applicable to providers
Persuasion	Using communication to induce positive or negative feelings or stimulate action	No	Not applicable to this behaviour
Incentivisation	Creating expectation of reward	No	Not applicable
Coercion	Creating expectation of punishment or cost	No	Not practicable for this behaviour
Training	Imparting skills	Yes	
Restriction	Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in a competing behaviour)	No	Not applicable
Environmental restructuring	Change the physical or social context	Yes	
Modelling	Provide an example for	No	Not appropriate

Intervention Function	Definition	APEASE* Judgement	Reason
	people to aspire to imitate		
Enablement	Providing support to improve ability to change in a variety of ways not covered by other intervention functions	Yes	

Source: Adopted from Michie et al. (2014)

*APEASE Criteria: Affordability; practicability; effectiveness and cost effectiveness; acceptability; side effects and safety; equity.

4.2.7 Policy Options Identified at the Provider level

The same procedure as that used at the patient level was followed to determine the most suitable policy categories, including *service provision, guidelines, and environmental/social planning* (see Table 9).

Table 9: Policy Categories to Support Intervention Functions at Provider level

Policy functions	Definitions	APEASE Judgement	Reasons
Communication/marketing	Using print, electronic, telephonic or broadcast media	No	Not applicable
Guidelines	Creating documents that recommend or mandate practice. This includes all changes to service provision	Yes	-
Fiscal	Using the tax system to reduce or increase financial cost	No	Not applicable
Regulation	Establishing rules or principles of behaviour or practice	No	Not applicable

Legislation	Making or changing laws	No	Not applicable
Environmental/social planning	Designing or controlling the physical or social environment	Yes	-
Service provision	Delivering a service	Yes	-

4.2.8 Summary of Intervention Functions and Policy Categories Identified Using APEASE Criteria.

Consequently, the following are the final intervention functions identified (*education, enablement, environmental restructuring, and incentivization*) and their accompanying facilitating policy categories (*service provision, communication/marketing, environmental/social planning and fiscal*) after subjecting them to APEASE criteria as indicated in Table 10.

Table 10: Summary of Intervention Functions and Policy Categories at the Provider level

COM-B Component	Campinha-Bacote's Model	Behavioural analysis/evidence to Support the need for a change	Intervention Functions	Policy Categories
1.Capability psychological	Cultural knowledge	Lack of cultural competence in ASRHs delivery	Training	Service provision
2.Capability psychological	Cultural skill	Language barriers to effectively communicate with clients, resulting in poor diagnosis and treatment	Training/Enablement	Service provision
3.Capability psychological	Cultural knowledge/awareness	Inability of HCPs to handle issues relating to differences in cultural health beliefs	Training	Service Provision

4.Opportunity physical	Cultural skill	The use of unprofessional interpreters, such as friends or other clients, due to absence of interpreter services inherent challenges, including issues with confidentiality	Training/Enablement	Service provision
5.Opportunity physical	Cultural skill	Use of other colleagues from other units for interpretation due to lack of interpretation facilities with associated risk of long queues	Training/Enablement	Service provision
6. Capability psychological	Cultural desire	Lack of organisational needs to promote cultural competence	Training	Service provision
7.Motivation reflective	Cultural desire	Efforts by health care professionals to foster a friendly relationship to uptake ASRHs, but there is constant withdrawal as care workers are seen as strangers	Training	Service provision
8.Opportunity physical	Cultural awareness/encounter	Absence of culturally sensitive adolescent friendly corner to enhance utilisation of ASRHs	Environmental restructuring	Environmental/social planning

Source: Fieldwork, 2023

4.2.9 BCTs Identified at the Provider Level

The results of the BCTs identified at the provider level based on the intervention elements considered relevant and potential active ingredients were: instruction on how to perform the behaviour (repeated twice), remove aversive stimulus, behaviour substitution (repeated), goal setting (behaviour), review behaviour goals, and restructuring the physical environment (*Table 11*).

Table 11: Mapping of the intervention functions to the behaviour change technique at the provider level

COM-B Component	Campinha-Bacote's Model	Behavioural analysis/evidence to Support the need for a change	Intervention Functions	Policy Categories	Behaviour Change Techniques
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COM-B Component	Campinha-Bacote's Model	Behavioural analysis/evidence to Support the need for a change	Intervention Functions	Policy Categories	Behaviour Change Techniques
1.Capability psychological	Cultural knowledge	Lack of cultural competency in ASRHs delivery	Training	Service provision	Instruction on how to perform the behaviour
2.Capability psychological	Cultural skill	Lack barrier to effectively communicate resulting in poor diagnosis and treatment	Enablement/Training	Service provision	Remove aversive stimulus/Instruction on how to perform behaviour.
3.Capability psychological	Cultural knowledge/awareness	Inability of health care workers to handle issues relating to differences in cultural health beliefs	Training	Service provision	Instruction on how to perform behaviour
4.Opportunity physical	Cultural awareness/encounter	Absence of culturally sensitive adolescent friendly corner to enhance utilisation of ASRHs	Environmental restructuring	Environmental/social planning	Restructuring the physical environment

Source: Fieldwork, 2023

4.2.10 Implementation Strategies

Similar to the patient level, the BCTs were operationalised resulting in the identification of implementation strategies. The intervention prototype was then created, comprising explanatory factors, intervention elements, BCTs, and resulting implementation strategies, along with implementation options tailored to the provider level (see Table 14).

4.2.11 Mode of Delivery

At the provider level, face-to-face delivery modes include training workshops, seminars, preferably in-person, to facilitate interactive learning and skill development and on-line access to

policies through the organisation's website and intranet. Health care professionals use in-person or virtual interpreter facilities to address the language communication barrier. It also included the use of advertising through print media in languages predominantly spoken by migrant adolescents displayed at the facility. Additionally, distance delivery modes include providing community information through health learning materials and outdoor media in the most appropriate dialects.

Also, at the provider level resultant changes were made to the intervention strategies as well as mode of delivery for patient level (see Table 12).



Table 12: Mapping of Behaviour Change Techniques to Implementation Strategies and Mode of Delivery at the Provider Level

Key explanatory factors	Intervention functions	Behavioural change techniques (BCTs)	Implementation intervention strategies	Mode of delivery
1.Lack of culturally competent knowledge and skills to deliver ASRH care to migrants.	Training	Instruction on how to perform the behaviour	-Offer comprehensive training programs for healthcare providers on cultural competence, including understanding diverse cultural backgrounds, values, beliefs, and practices. - Integrate cultural competence education into medical and nursing institutions.	-Provide training and workshops to allow for interactive learning and skill development. -Introduce cultural competency modules into medical and nursing school curricula to prepare future healthcare professionals.
2. Language barrier to effectively communicate resulting in poor diagnosis and treatment.	Enablement	Remove aversive stimulus	-Provide language interpreter facilities - Recruit and train healthcare staff who are multilingual and can communicate with patients in their preferred languages.	-Provide mobile applications that use speech recognition and translation technology to interpret spoken words between different languages -Employ medical interpreters who are trained to work in healthcare settings and are knowledgeable about medical terminology and ethics.
3.Lack of skills needed to handle differences in cultural health beliefs	Training	Instruction on how to perform the behaviour	-Offer comprehensive cultural competence training programs that cover a wide range of cultural health beliefs and practices; cultural context, beliefs and values commonly held by the adolescent migrants. -Organise role-playing exercises where healthcare workers can take on the roles of both patients and providers, allowing them to practice communication and care in culturally diverse scenarios	-Use in-person workshops and training sessions led by cultural competence experts. -Use in-person group discussions and workshops using printed or digital case studies. -Use on-line simulation exercises and virtual case study platforms. -Use in-person pre- and post-training assessments conducted within the healthcare facility.

Key explanatory factors	Intervention functions	Behavioural change techniques (BCTs)	Implementation intervention strategies	Mode of delivery
4.Absence of culturally sensitive adolescent friendly corner to enhance utilisation of ASRHs	Environmental restructuring	Restructuring the physical environment	<ul style="list-style-type: none"> -Create a dedicated and inviting physical space within healthcare facilities designed to cater to the needs and preferences of adolescent migrants. -Involve adolescent migrants and their communities in the design and set-up of the adolescent-friendly corner to ensure it meets their cultural and social expectations. 	<ul style="list-style-type: none"> -Offer educational materials, pamphlets, and signage in multiple languages commonly spoken by the migrant population in those spaces. -Engage healthcare staff in the adolescent-friendly corner that reflect the diversity of the patient population, including language diversity. -Implement a flexible scheduling system that accommodates the unique needs and preferences of migrant adolescents, such as extended hours or specific appointment slots.

Source: Fieldwork, 2023



4.2.12 Summary of Key Findings Relating to Objective Two and Change Pathways

The result of the qualitative study conducted among the HCPs shows HCPs expressed low self-efficacy to deliver culturally competent ASRH care to the migrant adolescents. The HCPs situation was exacerbated by a lack of professional interpreter services, which would have helped break language communication barriers, leading to a lack of trust among the migrant adolescents. This emphasises the significance of psychological capability, which stood out among other COM-B micro-components. The finding is also inconsistent with Campinha-Bacote's model of cultural competency, which emphasis the need for HCPs to effectively deliver care to cultural diversity. To bring about change, the reminder of the BCW was used. Integrating the cultural competency model, intervention elements such as training, enablement, and environmental restructuring were identified. Policy guidelines to facilitate the intervention elements identified also included guidelines for environmental/social planning and service provision. The intervention functions and policy options were appraised using the APEASE criteria. To arrive at the most promising implementation strategies and delivery options, BCTs were operationalised to reflect the implementation strategies constituting the implementation prototype.

4.3 Validation of Behaviour Change Strategies (BCTs) to Inform Culturally Competent Framework Development

This section presents the results of **Phase 2, Objective 5**, involving the validation of BCTs earlier identified to inform the implementation strategies and delivery options. While the Delphi result is not the main focus of this particular objective, the strategies required for achieving it are well-informed by BCTs validated by experts. The BCTs were validated in the Delphi study before they were operationalised into implementation strategies, which were subsequently validated in this same phase.

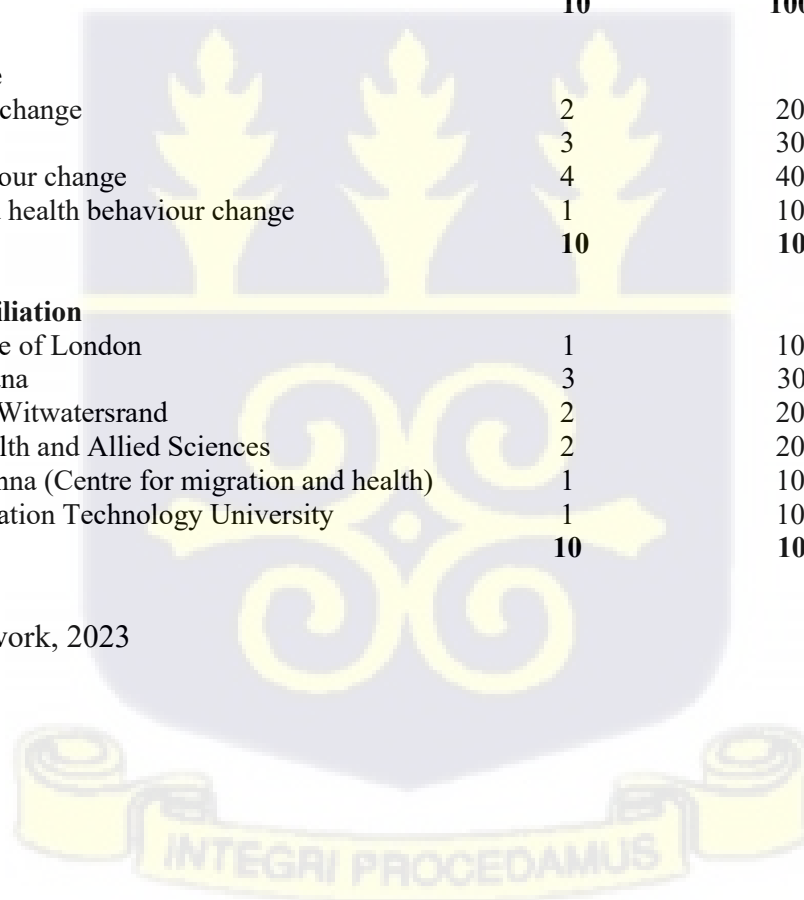
4.3.1 Socio-Demographic Characteristics of the Sampled Experts

The resulting sample suggested equal gender participation, with both males and females accounting for (n = 5), respectively. The highest area of expertise sampled was social and behavioural change (n = 4). Among the expert institutions of affiliation sampled, the University of Ghana was the most commonly sampled institution, accounting for (n = 3) (*see Table 13*).

Table 13: Socio-Demographic Characteristics of Expert Participants (N=10)

Variables	Number	Percentage
Gender		
Male	5	50.0
Female	5	50.0
Total	10	100
Area of expertise		
Health behaviour change	2	20.0
Psychology	3	30.0
Social and behaviour change	4	40.0
Mental health and health behaviour change	1	10.0
Total	10	100
Institution of affiliation		
University College of London	1	10.0
University of Ghana	3	30.0
University of the Witwatersrand	2	20.0
University of Health and Allied Sciences	2	20.0
University of Vienna (Centre for migration and health)	1	10.0
Ghana communication Technology University	1	10.0
Total	10	100

Source: Fieldwork, 2023



4.3.2 Validation of the Behaviour Change Techniques (BCT) to Inform the Behaviour Change Implementation Strategies

4.3.2.1 Round 1

Of the 12 BCTs that were presented in the first round, 4 BCTs at the provider level and 8 BCTs at the patient level all reached expert consensus (*Table 14 and 15*). For example, at the provider level, the explanatory factor 'no cultural competency skills and knowledge' among HCW, with its corresponding BCT, 'instruction on how to perform the behaviour' was adjudged appropriate 100 percent. The inter-rating of the BCT in terms of the feasibility 4.6 [SD = 0.7; 3-5] suggests that on average, the expert raters found the BCT to be acceptable, with a standard deviation indicating that the expert ratings were consistent, thus there is no significant amount of variation among the expert opinions, indicating a relatively strong consensus, given a range that most experts rated the feasibility positive. In terms of acceptability 4.5 [SD = 0.7; 3-5], there was a favourable collective opinion among the experts regarding the BCT given a standard deviation, which suggests that the expert ratings were relatively consistent, implying there is no significant amount of variation among the expert opinions, indicating a relatively strong consensus on acceptability, thus most experts had a very positive view (rating as high as 5). As with the effectiveness 4.4 [SD=1.2; 1-5] of the BCT, on average, expert raters assessed the effectiveness of the BCT positively, which indicates a favourable collective agreement among the experts regarding the effectiveness of the BCT.

The extent of variability suggests that the expert ratings exhibited a moderate level of variability. This indicates some degree of diversity in their assessments. Therefore, suggesting a wide spectrum of opinions among the experts. Some experts rated the BCT as minimally effective (rating as low as 1), while others regarded it as highly effective (rating as high as 5). Among the expert raters, their opinions about the risk of harm 4.0[SD=1.3; 2-5] of the BCT on average

most suggest a perceived moderately negative risk of harm associated with the BCT. Thus, there is some variation among the expert opinions, further demonstrating quite a broad spectrum of opinions among the experts.

According to the experts, for the BCTs to bring about the intended behaviour change, there was a need to increase psychological capability; this will involve equipping the HCWs with practical skills through knowledge and skills trials to build both self-efficacy and actual behavioural capability, and this must be continuously monitored and provide feedback over time rather than relying on one-time training.

There were instances where consensus was reached, but a few dissenting opinions emerged regarding the alignment of the BCTs with the proposed intervention function. This led to alternative suggestions. For instance, at the patient level, the explanatory factor is "Lack of physical access to information about the availability and location of ASRHs." The associated BCT, "restructuring the physical environment," achieved a 70 percent consensus. However, an alternative suggestion was proposed, involving the BCT "adding objects to the environment." Despite the alternative proposed BCT, on average, expert raters found this BCT to be favourable, with a feasibility rating of 3.9 (SD = 1.3; 3-5). It's worth noting that the expert ratings exhibit a moderate level of variability, indicating diverse perspectives among the experts. This diversity further underscores the broad spectrum of opinions among the expert raters.

Thus, some experts assessed the BCT as moderately feasible (rating as low as 3), while others expressed a more optimistic view of its feasibility (rating as high as 5). Similarly, on average, expert raters found the BCT to be acceptable at 3.8 [SD = 1.3; 2–5]. Thus, suggesting a moderate level of variability among the expert opinions. This further demonstrates a broad spectrum of

opinions among the experts. The effectiveness (3.9 [SD=1.2; 2–5]) of the BCT in terms of the inter-rater mean score suggests the expert raters found the effectiveness of the BCT to be favourable with diversity in their assessments of its effectiveness; this further suggests a wide range of opinions among the raters. On the issue of the risk of harm (3.9 [SD=1.2; 2-4]), expert raters found the risk of harm associated with the BCT to be moderate. This indicates diversity in their assessments of the risk of harm. This range demonstrates a narrower spectrum of opinions among the experts compared to a wider range.

Thus, indicating that most experts assessed the BCT as having a moderate risk of harm. To bring about change, the experts suggested the need to increase physical opportunity. This concerns the enabling of change through knowledge and awareness. It necessitates a high level of motivation from individuals exposed to these elements but may not be effective if the primary barrier is solely a lack of knowledge with acceptability 3.5 very feasible and very acceptable [SD=1.9; 1–5], respectively. Similarly, effectiveness and safety of the BCT were rated 3.3 as very effective and moderately positive [SD = 2.4; 0–5], respectively. The mechanism of action for this BCT is to create relevant narratives featuring individuals who resonate with the ‘audience’. By so doing, their beliefs about behavioural outcomes and motivation to explore new options can be influenced. This approach also serves to initiate by addressing social, or at least subjective, norm.

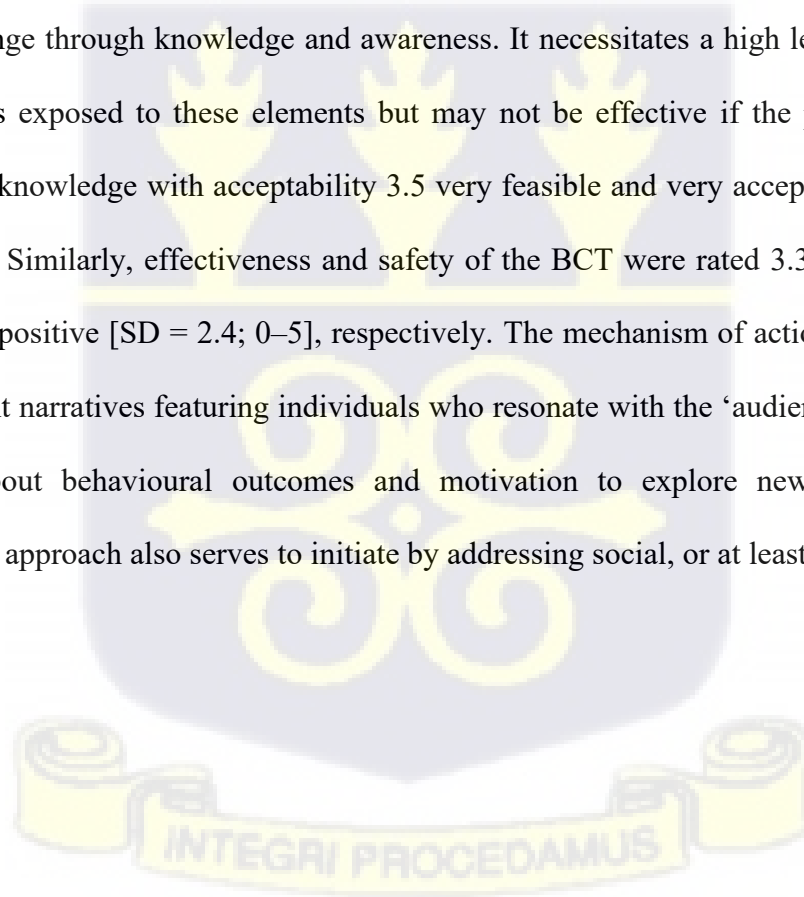


Table 14: Summary of expert validation of behaviour change techniques (BCT) to inform behaviour change strategies (Round One)

Key explanatory factors	Suggested Intervention Functions	Appropriate of intervention function for the target behaviour (%)	Reasons for no responses	Suggested Behaviour change Techniques (BCT)	BCT align with selected Intervention Function (%)	Reasons for no responses	Decisions
SUPPLY (PROVIDER) LEVEL FACTORS							
1.No cultural competency skills and knowledge among HCPs	Training	10 (100)	-	Instruction on how to perform the behaviour	10(100)	-	Consensus
2.Language barrier for effective communication resulting in poor diagnosis and treatments	Enablement	10(100)	-	Remove aversive stimulus	9(90)	1.Environmental restructuring	Consensus
3.Lack of skills to handle differences in cultural health beliefs	Training	10(100)	-	Instruction on how to perform the behaviour	10(100)	-	Consensus
4.Absence of culturally sensitive adolescent	Environmental restructuring	10(100)	-	Restructuring the physical environment	10(100)	-	Consensus

Key explanatory factors	Suggested Intervention Functions	Appropriate of intervention for the target behaviour (%)	Reasons for no responses	Suggested Behaviour change Techniques (BCT)	BCT align with selected Intervention Function (%)	Reasons for no responses	Decisions
corner							
DEMAND (PATIENT) LEVEL FACTORS							
1. Preference for services of informal care providers with similar cultural backgrounds due to lack of trust in HCPs	Education/Enablement	10(100)	-	Information about health consequences/Non specific rewards	9(90%)	Also focus on motivation and reducing barriers	Consensus
2. Language barrier to effectively communicate with HCPs	Enablement	10(100)	-	Remove aversive stimulus	10(100)	-	Consensus
3. Distrust in HCPs exacerbates over reliance on peer influences resulting into hearsay, and myths about ASRH	Environmental restructuring/education	9(90)	Enablement	Restructuring the social environment/Information about health consequences	9(90)	Also encourage desirable behaviours	Consensus

Key explanatory factors	Suggested Intervention Functions	Appropriate of intervention function for the target behaviour (%)	Reasons for no responses	Suggested Behaviour change Techniques (BCT)	BCT align with selected Intervention Function (%)	Reasons for no responses	Decisions
4.Perceived high cost associated with ASRH utilisation	Incentivisation/ Enablement	10(100)	-	Material incentive (behaviour)	10(100)	-	Consensus
5.Lack of physical access to information about the availability and location of ASRHs	Environmental restructuring	10(100)	-	Restructuring the physical environment	7(70)	Adding objects to the environment	Consensus
6.Lack of knowledge about the right to entitlement of ASRHS from duty bearers	Education	10(100)	-	Information about antecedents	10(100)	-	Consensus
7.Lack of specialised care in relation to cultural needs	Enablement	9(90)	Environment al restructuring	Remove aversive stimulus	9(90)	Adding objects to the environment	Consensus
8. Influence	Enablement	10(100)	-	Credible source	10(100)	-	Consensus

Key explanatory factors	Suggested Intervention Functions	Appropriate of intervention function for the target behaviour (%)	Reasons for no responses	Suggested Behaviour change Techniques (BCT)	BCT align with selected Intervention Function (%)	Reasons for no responses	Decisions
of left behind families for advice on where to seek help on ASRH medication due to distrust in HCPs							



Table 15: Summary of expert rating of BCT in relation to the target behaviour to inform behaviour change strategies (Round One)

Key explanatory factors	BCTs	Rating BCT in relation to the target behaviour								Mechanisms of action for each BCT
		Feasibility		Acceptability		Effectiveness		Risk of harm		
		Mean (SD)	Min - max	Mean (SD)	Min - max	Mean (SD)	Min-max	Mean (SD)	Min-max	
SUPPLY (PROVIDER) LEVEL FACTORS										
1.No cultural competency skills and knowledge among HCPs	Instruction on how to perform the behaviour	4.6(0.7)	3-5	4.5(0.7)	3-5	4.4(1.2)	1-5	4.0(1.3)	2-5	Provide knowledge and opportunities to trial new skills (mastery experiences) to enhance self-efficacy and behavioural capability, with ongoing monitoring and feedback instead of one-time training.
2.Language barrier for effective communication resulting in poor diagnosis and treatments	Remove aversive stimulus	4.0(1.2)	1-5	4.5(0.5)	4-5	4.1(1.5)	1-5	4.1(1.4)	1-5	Provide interpreter services and gain the attention of the intended audience (migrant) from the onset.
3.Lack of skills to handle differences in cultural health beliefs	Instruction on how to perform the behaviour	4.6(0.7)	4-5	4.6(0.7)	3-5	4.3(1.0)	3-5	4.0(1.3)	3-5	Increase psychological capability such as skills development as early as possible with future HCPs (using a life course approach).
4.Absence of	Restructuring	4.1(1.3)	3-5	4.6(0.7)	3-5	4.5(0.7)	3-5	4.0(1.5)	3-5	Increase physical opportunity.

Key explanatory factors	BCTs	Rating BCT in relation to the target behaviour								Mechanisms of action for each BCT
		Feasibility		Acceptability		Effectiveness		Risk of harm		
		Mean (SD)	Min - max	Mean (SD)	Min - max	Mean (SD)	Min-max	Mean (SD)	Min-max	
culturally sensitive adolescent corner	the physical environment									By introducing a culturally sensitive environment sends a signal to the desired users that they are seen/valued.
DEMAND (PATIENT) LEVEL FACTORS										
1. Preference for services of informal care providers with similar cultural backgrounds due to lack of trust in HCPs	Information about health consequences /Non specific rewards	4.3(0.5)	4-5	4.1(0.7)	3-5	4.1(0.7)	3-5	4.0(0.8)	3-5	Increase psychological capability; Provide human centred design that puts the 'audience' at the centre of decision-making about what would be most useful to them regarding change processes
2. Language barrier to effectively communicate with HCPs	Remove aversive stimulus	4.5(0.4)	4-5	4.2(0.6)	3-5	4.1(0.7)	3-5	4.1(1.3)	3-5	Increase physical opportunity by introducing interpreter facilities to translate between cultural beliefs and social norms.
3. Distrust in HCPs exacerbates over reliance on peer influences resulting into	Restructuring the social environment/ Information about health	3.9(0.7)	3-5	4.0(0.5)	3-5	4.0(0.9)	3-5	3.9(1.2)	3-5	Increase psychological capability. And shift how adolescents perceive certain behaviours as norms and aspirational, motivation with a

Key explanatory factors	BCTs	Rating BCT in relation to the target behaviour								Mechanisms of action for each BCT
		Feasibility		Acceptability		Effectiveness		Risk of harm		
		Mean (SD)	Min - max	Mean (SD)	Min - max	Mean (SD)	Min-max	Mean (SD)	Min-max	
hearsay, and myths about ASRH	consequence									clear gender lens, that also accounts for gender & power dynamics in this age group
4.Perceived high cost associated with ASRH utilisation	Material incentive (behaviour)	4.5(0.7)	4-5	4.3(0.8)	3-5	4.0(0.9)	3-5	4.4(0.7)	3-5	Increase physical opportunity, by giving subsidise or free medical bills to make it more attractive.
5.Lack of physical access to information about the availability and location of ASRHs	Restructuring the physical environment	3.9(1.3)	3-5	3.8(1.3)	2-5	3.9(1.2)	2-5	3.9(1.2)	2-4	Increase physical opportunity. This is about enabling change through availability of information to create knowledge/awareness
6.Lack of knowledge about the right to entitlement of ASRHS from duty bearers	Information about antecedents	4.4(0.6)	4-5	4.1(0.9)	3-5	4.2(0.6)	3-5	4.0(0.9)	3-5	Increase psychological capability; educating people about their rights may motivate them to claim what is theirs
7.Lack of specialised care in relation to cultural needs	Remove aversive stimulus	3.8(0.9)	2-5	4.0(0.6)	3-5	3.3(1.7)	1-5	3.7(1.2)	1-5	Remove the perceived or real barriers, behaviour change becomes easier

Key explanatory factors	BCTs	Rating BCT in relation to the target behaviour								Mechanisms of action for each BCT
		Feasibility		Acceptability		Effectiveness		Risk of harm		
		Mean (SD)	Min - max	Mean (SD)	Min - max	Mean (SD)	Min-max	Mean (SD)	Min-max	
8. Influence of left behind families for advice on where to seek help on ASRH medication due to distrust in HCPs	Credible source	4.3(0.6)	4-5	4.2(0.8)	3-5	3.7(1.3)	3-5	3.7(1.3)	3-5	Increase psychological capability of relatives



4.3.3 Iteration One: Expert Study

This section presents the results of the first iteration of **Phase 2**, among experts who earlier participated in the Delphi study. Results indicate that eight out of the ten experts initially contacted in the Delphi study consented to participate in the first iteration study. They were all satisfied (100 percent) with the proposed implementation strategies and mode of delivery designed to change behaviours at both provider and patient levels. Furthermore, they (100 percent) noted that these strategies align with existing knowledge and current practices.

In evaluating the content, all 8 experts (100%) unanimously rated all the Likert scale items at 100 (SD = 0.00) [1.0–1.0], indicating strong agreement. For example, they collectively affirmed that the selected intervention strategies and delivery methods were not only appropriate and satisfactory but also appealing to the recipients. The experts 100 (SD = 0.00) [1.0–1.0] believe that implementing behavioural change strategies and modes of delivery has the potential to increase participants' trust in adopting the desired behaviours (see *Table 16*) Furthermore, while experts did not foresee any barriers that could impede future implementation, they did make some suggestions to improve the content in promoting behaviour change. Their suggestions included:

1. The content should clearly specify who is implementing the strategies and mode of delivery, as this is currently unclear.
2. Regarding the training of HCPs, it's crucial to emphasise ongoing skill development and mastery experiences through consistent monitoring and feedback rather than relying on one-time training.

Table 16: Expert evaluation of intervention strategies and modes of delivery (N=8)

<u>Statements</u>	<u>Number</u>	<u>Percentage in agreement</u>
1.I would judge the intervention strategies and mode of delivery identified as suitable, satisfying or attractive to the recipients	8	100
2.I think the behavioural change intervention strategies/mode of delivery are capable of enhancing the participants' trust in adopting the expected behaviours	8	100
3.In your opinion, does the intervention content adequately address the targeted behaviour health issues?	8	100
4.I believe the intervention content is effective enough in raising awareness or promoting behaviour change?	8	100

Source: *Fieldwork, 2023*

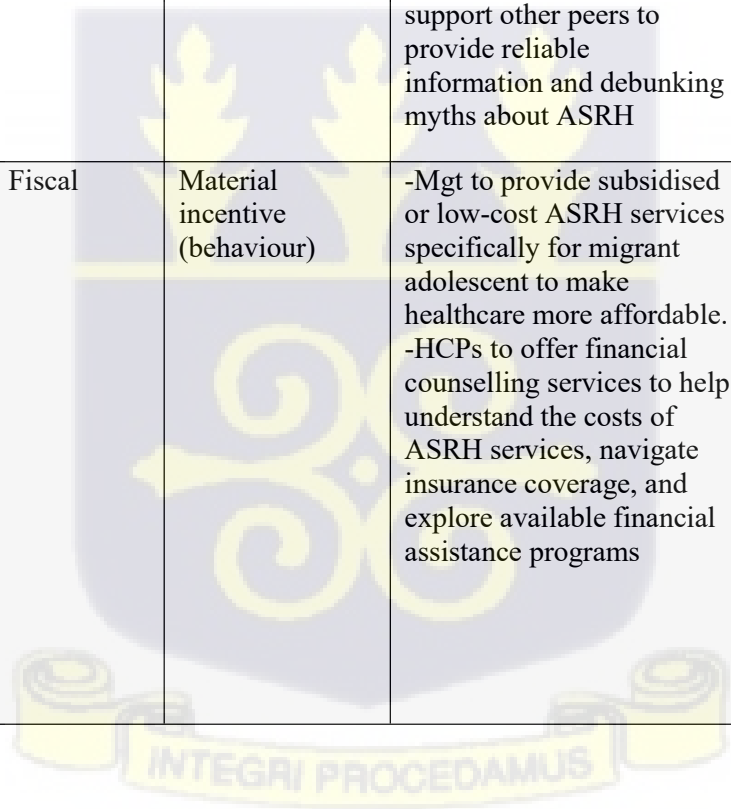
4.3.3.1 Resultant Changes to the First Iteration

In response to the suggested changes, modifications were made to the initial version of the content. These changes included incorporating alterations to the content based on the experts' suggestions. This involves changes to specific wording that were adopted to: (1) clearly indicate who is to implement the intervention at both levels. (2) highlight the importance of providing training that emphasises skills and mastery experiences to be monitored over time with feedback instead of a once-off type of training (see Tables 17 and 18).

Table 17: Resultant Changes in Intervention Prototype at the Migrant Adolescent (Patient Level)

Key explanatory factors	Intervention functions	Policy Options	Behavioural Change Techniques (BCT)	Implementation Strategies	Implementation Intervention's Modes of Delivery
1.Preference for services of informal care providers with similar cultural backgrounds due to distrust in HCPs	Education/enabment	Communication/marketing	Information about health consequences/Nonspecific rewards	- HCPs to launch community-wide campaigns in partnership with community leaders and influencers to raise awareness about the health risks associated with using unapproved healthcare providers. -Use trust building exercises that require mutual support.	-HCPs to organise community workshops and seminars as well as publicity through posters, flyers, and community events to raise awareness about health consequences. -Also reward and reinforce trustworthy behaviours to encourage continuity.
2.Language barrier to effectively communicate with HCPs about SRH conditions	Enablement	Service promotion	Remove aversive stimulus	-Mgt/GHS to provide access to professional interpreters who are proficient in both the language of the patient and medical terminology.	-Mgt/GHS to provide in-person or virtual interpreter by multilingual staff services available within healthcare facilities.
3.Influence of left behind families for advice on where to seek help and medication associated with ASRH	Education	Communication/Marketing	Credible source	-HCPs to provide education to families about the importance of ASRH services and the role they can play in the right decision-making process for their loved ones	-HCPs to liaise with migrant families by verbally communicating through gatekeepers on the need not to expose their children to incorrect information which can have adverse consequences for their SRH

conditions					
4., Distrust in HCPs exacerbate peer influence within the context of new environment (city) resulting into hearsay, and myths about ASRH	Education/Environmental restructuring	Environmental and social planning	Restructuring the social environment	-GHS/Mgt to increase CHPS compounds within migrant communities to offer counselling for adolescents who may feel pressured by their peers to navigate the challenges of the new environment. -HCPs to target older adolescents from migrant networks to guide and support other peers to provide reliable information and debunking myths about ASRH	-HCPs to organise peer-led community outreach programmes that are culturally sensitive sessions at market places centres places of worship or social media platforms -HCPs to signpost graphic images that provide credible ASRH information to reach adolescent migrants
5.High cost associated with ASRH is considered burdensome and not part of migration intention	Incentivisation/Enablement	Fiscal	Material incentive (behaviour)	-Mgt to provide subsidised or low-cost ASRH services specifically for migrant adolescent to make healthcare more affordable. -HCPs to offer financial counselling services to help understand the costs of ASRH services, navigate insurance coverage, and explore available financial assistance programs	-Mgt to implement income-adjusted fees within healthcare facilities and provide information about the fee structure through outreach programmes -HCPs to use community radio to promote youth savings accounts in community centres through in-person registration



6.Lack of physical access to information about the availability and location to ASRHs	Environmental restructuring	Communication/Marketing	Restructuring the physical environment	-HCPs/Mgt to install clear directional signs in community pointing individuals to ASRH services -Mgt/HCPs to make ASRH information available in multiple languages to accommodate linguistic diversity.	-HCP/Mgt to post directional signs where to locate the health facilities or CHPS compound within communities -HCPs to communicate information through gatekeepers either verbally or printed materials to facilitate acceptance
7.Lack of knowledge about the right to entitlement of culturally sensitive ASRHs from duty bearers	Education	Communication/Marketing	Information about antecedents	-HCPs to conduct awareness campaigns that educate the adolescent migrants about their rights to accessible and culturally sensitive ASRH -HCPs to engage gatekeepers/guardians in information-sharing sessions that clarify the rights of adolescents and the importance of culturally sensitive ASRHs	-HCPs to use multimedia campaigns using radio, TV, social media, and community events to disseminate information widely about their right. -Mgt/HCPs to provide information in hospitals where adolescents and their families can receive legal information and support
8.Lack of specialised care in relation to cultural needs, eg language assistance services	Enablement	Service provision	Remove aversive stimulus	-Mgt/GHS to provide the services of cultural navigators who can assist patients with cultural needs and help them navigate the healthcare system -Mgt/GHS to train and employ community health workers who are familiar with the culture and languages of the	- Mgt/HCPs to develop healthcare materials, brochures, and signage in multiple languages to make information more accessible to diverse communities -Mgt to deploy community health workers and cultural navigators within the community to provide in-person support and assistance.

				community to act as intermediaries between patients and healthcare providers.	
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Source: Fieldwork 2023

Also, at the provider level, resultant changes were made to the intervention strategies as well as the mode of delivery at the patient level (see Table 18).

Table 18: Resultant Changes to Implementation Intervention at the Provider Level

Key explanatory factors	Intervention functions	Behavioural change techniques (BCT)	Implementation Intervention strategies	Mode of delivery
1.Lack of culturally competent knowledge and skills to deliver ASRH care to migrants.	Training	Instruction on how to perform the behaviour	-Mgt to offer comprehensive training programs for healthcare providers on cultural competence, including understanding diverse cultural backgrounds, values, beliefs, and practices. - GHS to integrate cultural competence education into medical and nursing school	-Mgt to provide training and workshops to allow for interactive learning and skill development. Training to involve mastery experiences to be monitored over time with feedback instead of once off type training -GHS to introduce cultural competency modules into medical and nursing school curricula to prepare future healthcare professionals.

Key explanatory factors	Intervention functions	Behavioural change techniques (BCT)	Implementation Intervention strategies	Mode of delivery
2. Language barrier for effective communication resulting in poor diagnosis and treatment.	Enablement	Remove aversive stimulus	-HCP to provide language interpreter facilities - GHS to recruit and train healthcare staff who are multilingual and can communicate with patients in their preferred languages.	-Mgt to provide mobile applications that use speech recognition and translation technology to interpret spoken words between different languages -GHS to employ medical interpreters who are trained to work in healthcare settings and are knowledgeable about medical terminology and ethics.
3.Lack of skills needed to handle differences in cultural health beliefs	Training	Instruction on how to perform the behaviour	-GHS/Mgt offer comprehensive cultural competence training programs that cover a wide range of cultural health beliefs and practices; cultural context, beliefs and values commonly held by the adolescent migrants. -Mgt to organise role-playing exercises where healthcare workers can take on the roles of both patients and providers, allowing them to practice communication and care in culturally diverse scenarios	-Mgt to use in-person workshops and training sessions led by cultural competence experts. -Mgt use in-person group discussions and workshops using printed or digital case studies. -Mgt use on-line simulation exercises and virtual case study platforms. -Mgt use in-person pre- and post-training assessments conducted within the healthcare facility.
4.Absence of culturally sensitive adolescent friendly corner to enhance utilisation of ASRHs	Environmental restructuring	Restructuring the physical environment	-Mgt to create a dedicated and inviting physical space within healthcare facilities designed to cater to the needs and preferences of adolescent migrants. -Mgt to involve adolescent migrants and their communities	-Mgt to offer educational materials, pamphlets, and signage in multiple languages commonly spoken by the migrant population in those spaces. -Mgt engage healthcare staff in the adolescent-friendly corner that reflect the diversity of the patient population, including language diversity.

Key explanatory factors	Intervention functions	Behavioural change techniques (BCT)	Implementation Intervention strategies	Mode of delivery
			in the design and set-up of the adolescent-friendly corner to ensure it meets their cultural and social expectations.	-Mgt implement a flexible scheduling system that accommodates the unique needs and preferences of adolescent migrants, such as extended hours or specific appointment slots.

Source: Fieldwork 2023



4.4 Culturally Appropriate Behaviour Change Strategies to Address Demand-Side Enablers and Barriers

This section presents the results of behaviour change strategies that are culturally appropriate to address demand-side enablers and barriers. It also presents the second iteration of **Phase 3**, of preliminary testing of the implementation strategies and delivery options involving migrant adolescents as well as their peers and gatekeepers in a workshop.

Results suggest that migrant adolescents, along with their peers and gatekeepers, were satisfied with the implementation strategies and mode of delivery. However, they also raised a few concerns about potential barriers and proposed alternative suggestions that can refine the development of the intervention framework. The following are themes derived from the workshop conducted.

4.4.1 The Method of Delivering Health Education Messages aimed at Discouraging the Use of Informal Service Providers

Although the proposed strategies to discourage the use of informal service providers were accepted, concerns were raised about the mode of delivery, which included workshops, seminars, and publicity, which were not considered culturally appropriate and could pose a potential barrier. As a result, they proposed alternative suggestions for a more culturally tailored mode of delivery. This was highlighted in the following discussions.

The issue is that we are compelled to pay attention to announcements made in this community when we hear the sound of the gong-gong drums and the accompanying message. Yes, that is more effective and can be used along with seminars and workshops. [Migrant adolescent, 17 years]

Well, the seminars and workshops may not be bad, but as she mentioned, the gong-gong drums are highly respected. So, if they hear it, they are compelled to listen to the announcement that comes with it. This would make the message more effective. [Male gatekeeper]

I also believe it's crucial to specify that the radio stations chosen should not be just any ordinary stations. I would recommend using those highly favoured by them, such as 'maramura,' which airs locally tailored programmes in languages widely spoken by our community. [Migrant adolescent peers, 19 years]

4.4.2 Use Community Volunteers to Disseminate Health Information

Another sub-theme that emerged underscores the significance of leveraging community volunteers, which aligns with their accustomed methods of information dissemination rather than overly relying on workshops and seminars. There is a notable level of trust in these community volunteers, and the messages they convey are highly respected and adhered to. Therefore, utilising community volunteers can greatly facilitate effective information dissemination. The following were observed in the interview:

Certainly, the use of community volunteers instils a sense of trust, as their presence is often associated with messages from community leaders. This can enhance the effectiveness of the information being disseminated [Migrant adolescents, 13 years].

Absolutely, the use of community volunteers who speak the local dialects adds another layer of effectiveness, ensuring that the messages are easily understood by us and other community members. [Adolescent migrant peers]

4.4.3 Building Confidence about the Availability of Interpreter Services

The participants expressed satisfaction with the strategies aimed at bolstering their confidence in the availability of language interpreter services at the healthcare facility. However, they raised concerns about a potential barrier of insufficient awareness at the community level regarding the availability of interpreter services, that can present a barrier to utilisation. To facilitate awareness creation, they emphasised that involving opinion leaders, gatekeepers, and store owners could enhance more effective communication. Here's how they put it:

In my opinion, leveraging the influence of our community leaders and store owners can complement the use of printed materials to promote awareness about the availability of interpreter services at the community level. [Migrant adolescent, 16 years]

At times, the store owners we assist with carrying loads for their customers offer us valuable advice. I believe if they are provided with information to convey to us, it wouldn't be a bad idea. [Migrant adolescent, 19 years old].

4.4.4 Providing Health Education to Left-Behind Families through Gatekeepers

The influence of left-behind families on the health-seeking behaviour of migrant adolescents is a strong factor. Drawing on the social opportunity of the COM-B model, the migrant adolescents suggested the need for HCPs to partner with gatekeepers or opinion leaders to educate family members about the decision-making process for seeking ASRHs. This according to the migrant adolescents is due to the trust and respect their families have for such individuals can serve as a potential solution to influencing behaviour change at the level of the migrant adolescents.

I believe it's insufficient for healthcare professionals alone to contact our parents at home to educate them about their advice on where we should seek ASRHs. I would also suggest involving

our leaders, such as imams and other opinion leaders, because they are highly respected and trusted in the community. [Adolescent migrant 18 years]

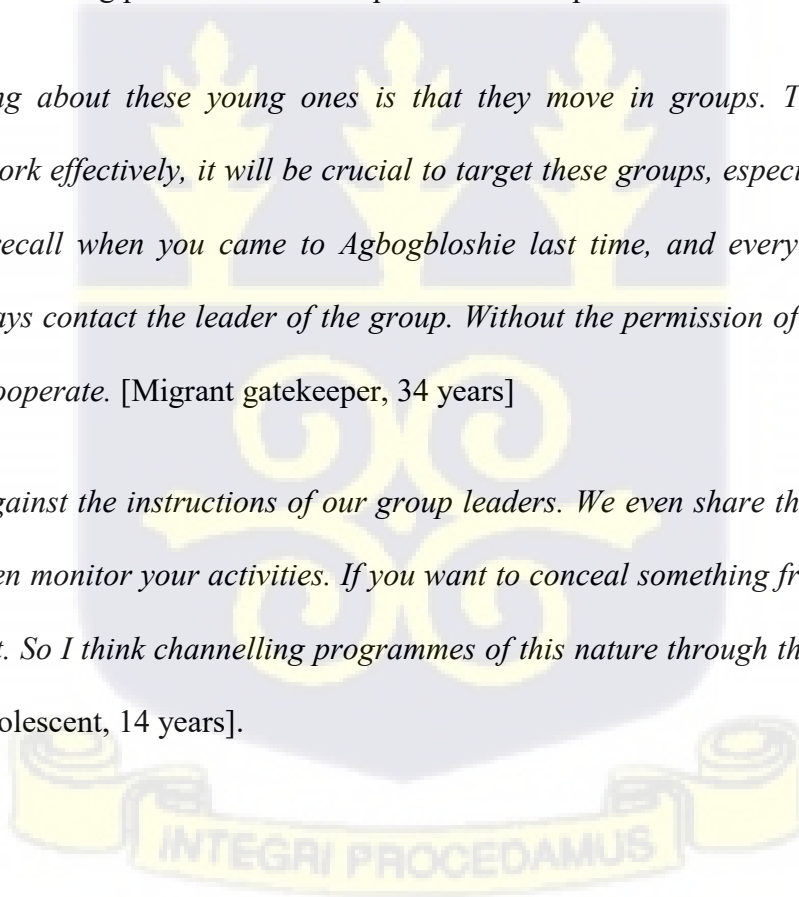
Some of the leaders have contact with our parents back home. They talk to them once in a while to inquire about our welfare. So, I believe using these leaders to educate them will be more effective. [Migrant adolescent, 14 years]

4.4.5 Addressing Peer Pressure within the Context of Migration

Another theme that emerged was the need to address the influence of peers by identifying network groups and using peer leaders to complement HCPs' peer education efforts.

One unique thing about these young ones is that they move in groups. Therefore, for any programme to work effectively, it will be crucial to target these groups, especially through their leaders. You'll recall when you came to Agboghloshie last time, and every time we want to approach, I always contact the leader of the group. Without the permission of the group leader, others will not cooperate. [Migrant gatekeeper, 34 years]

We cannot go against the instructions of our group leaders. We even share the same room with them, so they even monitor your activities. If you want to conceal something from them, they are able to discern it. So I think channelling programmes of this nature through them can work very well [Migrant adolescent, 14 years].



4.4.6 Strategically Place Directional Signs to Guide Individuals to Locations Where Services are Situated.

Participants also expressed concerns that posting directional signs without considering the local context can be problematic. Stakeholders highlighted the importance of considering locations where migrants congregate during the day and night when placing such signs.

The concern here is that if the posters are not well placed, we may not notice them and miss out on important information. Therefore, I suggest that messages be displayed at key locations such as food joints, clubs, dancing halls, public toilets, areas near stores, and baths to inform us about the availability and where exactly to locate ASRHs. [Migrant adolescent, 16 years]

The placement of these posters is crucial, as he mentioned. This will help us easily see and understand what is happening. Therefore, the target should be the places where we normally gather, and the messages should be clearly written in our local dialects [Migrant adolescent, 15 years].

4.4.7 Resultant Changes to the Second Iteration of the Intervention Content

To improve the intervention content in the initial phase (first iteration), additional information was integrated into specific strategies and modes of delivery. This is a vital step to account for local contexts, ensuring cultural appropriateness and effectiveness. Therefore, the draft intervention strategies and mode of delivery underwent revisions to address identified barriers and facilitators. At the patient level, additional details were integrated as follows:

(1) Emphasise the use of gung-gong drums and radio stations like 'maramura' that host locally tailored programmes for more effective information dissemination in migrant communities.

(2) Leverage community volunteers and gatekeepers to create awareness about the introduction and availability of language interpreter services to instill confidence in patients about the availability of interpreter services.

(3) Recognise that HCPs' consultation with left-behind families alone is insufficient; involve community leaders in the process.

(4) Address the influence of peers by identifying network groups and using peer leaders to complement HCPs' peer education efforts.

(5) Identify areas where migrant adolescents congregate during the daytime and, especially at night, to deliver health education messages.

(6) Use purpose-made posters in local dialects, prominently displayed at advantage points like food joints, clubs, dancing halls, public toilets, and baths, to announce the availability of ASRHs.

(see Table 19 and 12.).

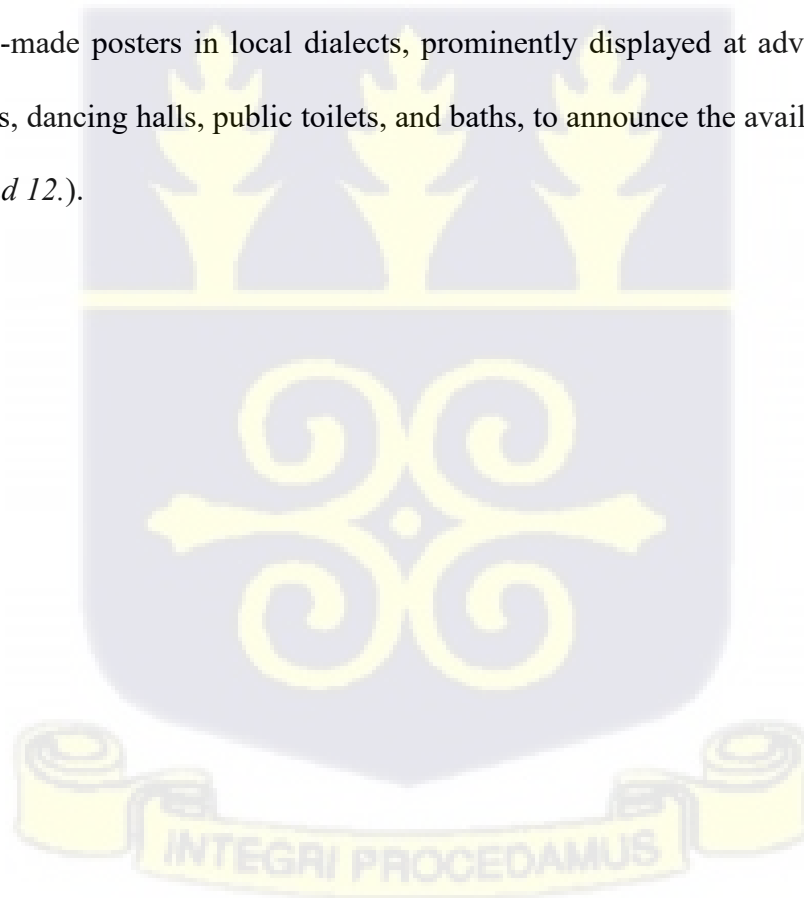


Table 19: Summary of Barriers and Alternative Suggestions to Implementation Strategies at the migrant adolescent Level

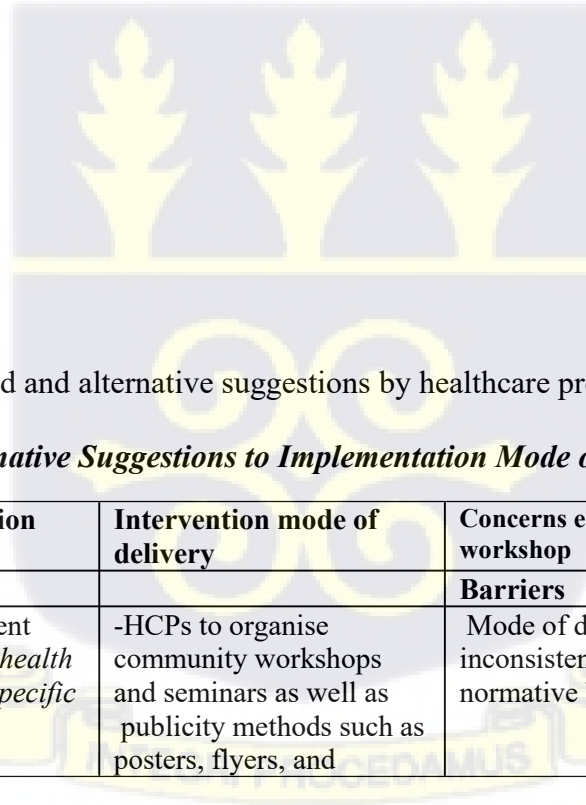
Key explanatory factors	Intervention function and (BCTs)	Implementation intervention strategies	Concerns expressed by migrant adolescents at the workshop	
			Barriers	Alternative suggestions
1. Preference for services of informal care providers with similar cultural backgrounds due to distrust in HCPs	Education/enablement (<i>Information about health consequences/Nonspecific rewards</i>)	-HCPs to launch community-wide campaigns in partnership with community leaders and influencers to raise awareness about the health risks associated with using unapproved healthcare providers -HCP to use trust building exercises that require mutual support.	None reported	None reported
2. Language barrier to effectively communicate with health care professionals about SRH conditions	Enablement (<i>Remove aversive stimulus</i>)	-Mgt/GHS to provide access to professional interpreters who are proficient in both the language of the patient and medical terminology.	None reported	None reported
3. Influence of left behind families for advice on where to seek help on ASRH medication due to distrust in HCPs	Education (<i>Credible source</i>)	-HCPs to provide education to families about the importance of ASRH services and the role they can play in the right decision-making process for their loved ones	Exclusion of opinion leaders or gatekeepers may not be effective	Involve gatekeepers or opinion leaders such as mallams, imams and opinion leaders
4. Distrust in HCPs exacerbates over reliance on peer influences within	Education/Environmental restructuring (<i>Restructuring the social</i>	-GHS/Mgt to introduce or increase CHPS compounds within migrant	None reported	None reported

the context of new environment (city) resulting into hearsay, and myths about ASRH	<i>environment)</i>	communities to offer counselling services on ASRH for adolescents who may feel pressured by their peers to navigate the challenges of the new environment. -HCPs to introduce monitoring programmes to target older adolescents from same migrant networks guide and support other peers providing reliable information and debunking myths about ASRH		
5.High cost associated with ASRH is considered burdensome and not part of migration intention	Incentivisation/Enablement <i>Material incentive (behaviour)</i>	-Mgt to provide subsidised or low-cost ASRH services specifically for migrant adolescents to make healthcare more affordable. -HCPs to offer financial counselling services to help understand the costs of ASRH services, navigate insurance coverage, and explore available financial assistance programs	None reported	None reported
6.Lack of physical access to information about the availability and location to ASRHs	Environmental restructuring <i>(Restructuring the physical environment)</i>	-HCPs/Mgt to install clear directional signs in the communities' guiding individuals to ASRH services	Directional signs not taking local context into account can negatively affect outcomes	-Identify areas where migrant congregates during day time and especially night

		-Mgt/HCPs to make ASRH information available in multiple languages to accommodate linguistic diversity		
7. Lack of knowledge about the right to entitlement of culturally sensitive ASRHs from duty bearers	Education <i>(Information about antecedents)</i>	-HCPs to conduct awareness campaigns that educate the migrant adolescents about their rights to accessible and culturally sensitive ASRH -HCPs to engage gatekeepers/guardians in information-sharing sessions that clarify the rights of adolescents and the importance of culturally sensitive ASRHs	None reported	None reported
8. Lack of special care in relation to cultural needs, eg differences in cultural health beliefs, language assistance services	Enablement <i>(Remove aversive stimulus)</i>	-Mgt/GHS to provide the services of cultural navigators who can assist patients with cultural needs and help them navigate the healthcare system -Mgt/GHS to train and employ community health workers who are familiar with the culture and languages of the community to act as intermediaries between	None reported	None reported

		patients and healthcare providers.		
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Source: Fieldwork, 2023



Below is Table 20, outlining concerns raised and alternative suggestions by healthcare professionals regarding the mode of delivery.

Table 20: Summary of Barriers and Alternative Suggestions to Implementation Mode of Delivery at the Patient Level

Key explanatory factors	Intervention function and (BCTs)	Intervention mode of delivery	Concerns expressed by migrant adolescents at the workshop	
			Barriers	Alternative suggestions
1. Preference for services of informal care providers with similar cultural backgrounds due to distrust in HCPs	Education/enablement (<i>Information about health consequences/Nonspecific rewards</i>)	-HCPs to organise community workshops and seminars as well as publicity methods such as posters, flyers, and	Mode of delivery is inconsistent with normative beliefs	-Use of a gong-gong drum more effective in disseminating information in these communities. - When utilising radio,

Key explanatory factors	Intervention function and (BCTs)	Intervention mode of delivery	Concerns expressed by migrant adolescents at the workshop	
			Barriers	Alternative suggestions
		community events to raise about health consequences -Reward and reinforce trustworthy behaviours to encourage continuity		prioritise local stations such as 'Maramura' that broadcast culturally tailored programmes and are popular among the migrant community. -Use community volunteers to disseminate information
2. Language barrier to effectively communicate with health care professionals about SRH conditions	Enablement (<i>Remove aversive stimulus</i>)	-Mgt/GHS to provide in-person or virtual interpreter by multilingual staff services available within healthcare facilities.	Absence of the use of opinion leaders to create awareness about availability of interpreter services	- Use gatekeepers to build their confidence about availability of interpreter services.
3. Influence of left behind families for advice on where to seek help on ASRH medication due to distrust in HCPs	Education (<i>Credible source</i>)	-HCPs to liaise with migrant families by verbally communicating through gatekeepers on the need not to expose their children to incorrect information which can have adverse consequences for their SRH	-Absence of opinion leaders in the dissemination effort to left behind family members	-HCPs to communicate health information through gatekeepers on the need for parents not to expose their children to incorrect information which can have adverse consequences for their SRH
4. Distrust in HCPs exacerbates over reliance on peer influences within the context of new environment (city) resulting into hearsay, and	Education/Environmental restructuring (<i>Restructuring the social environment</i>)	-HCPs to organise peer-led community outreach programmes that are culturally sensitive sessions at market places centres places of worship or social media platforms	Neglecting peer network groups and their leaders could render programme highly ineffective	-Identify network groups and their leaders, and collaborate with them to deliver messages to other members of the network, particularly in marketplaces and in front

Key explanatory factors	Intervention function and (BCTs)	Intervention mode of delivery	Concerns expressed by migrant adolescents at the workshop	
			Barriers	Alternative suggestions
myths about ASRH		-HCPs to signpost graphic images that provide credible ASRH information to reach migrant adolescents		of shops. -Consider localising premises of CHIP compounds and adolescent friendly corners at health facilities
5.High cost associated with ASRH is considered burdensome and not part of migration intention	Incentivisation/Enablement <i>Material incentive (behaviour)</i>	-Mgt to implement income-adjusted fees within healthcare facilities and provide information about the fee structure through outreach programmes -HCPs to use community radio to promote youth savings accounts in community centres through in-person registration	None reported	None reported
6.Lack of physical access to information about the availability and location to ASRHs	Environmental restructuring <i>(Restructuring the physical environment)</i>	-HCP/Mgt to post directional signs where to locate the health facilities or CHPS compound within communities -HCPs to communicate information through gatekeepers either verbally or printed materials to facilitate acceptance	Posting signs anywhere might not be helpful	Focus on the use of purpose made posters in local dialects commonly spoken by migrant and clearly displayed at advantage points such as food joints, clubs, dancing halls, public toilets and baths to announce about availability and where to locate ASRHs.
7. Lack of knowledge about the right to	Education <i>(Information about</i>	-HCPs to use multimedia campaigns such as radio,	None reported	-Additionally use community volunteers/

Key explanatory factors	Intervention function and (BCTs)	Intervention mode of delivery	Concerns expressed by migrant adolescents at the workshop	
			Barriers	Alternative suggestions
entitlement of culturally sensitive ASRHs from duty bearers	<i>antecedents</i>)	TV, social media, and community events to disseminate information widely about their right to ASRH. -Mgt/HCPs to provide information in health facilities where adolescents and their families can receive legal information and support		religious leaders, gatekeepers/ to create awareness about the right to ASRH. -Use radio stations that runs locally tailored programmes which is widely patronised. - Use locally made posters displayed at food joints, clubs, dancing halls, public toilets and baths to create awareness.
8.Lack of special care in relation to cultural needs, e.g. differences in cultural health beliefs, language assistance services	Enablement (<i>Remove aversive stimulus</i>)	- Mgt/HCPs to develop healthcare materials, brochures, and signage in multiple languages to make information more accessible to diverse communities -Mgt to deploy community health workers and cultural navigators within the community to provide in-person support and assistance.	None reported	None reported

Source: Fieldwork, 2023

4.5 Culturally Appropriate Behaviour Change Strategies to Address Supply-Side Enablers and Barriers

This section also presents the results of the second iteration of **Phase 3** of preliminary testing of the implementation strategies and delivery options involving **the HCPs** in a workshop.

Similar to migrant adolescents, results suggest that although participants recognised the relevance of the content, they also pointed out potential barriers that could impact the success of implementation. As a result, they proposed alternative suggestions to enhance its cultural appropriateness. The following themes emerged at the provider level:

4.5.1 Training Needs

Participants expressed financial concerns regarding staff cultural competency training needs, citing cost as a potential barrier. To address financial challenges, they suggested seeking financial support from regional and national health directorates. Alternatively, they proposed the concept of improvisation to meet financial challenges. Moreover, participants stressed a preference for in-person training over virtual methods to meet their training needs. The following observations were noted:

The in-service training comes with a cost, including serving refreshments and sometimes having to pay transport fares. Other expenses can be very expensive, and here it is not easy to get money to run such a programme, so I suggest that issues like this be referred to the higher levels, like the regional and national. The Ghana Health Service must be involved. Trainings must be in person rather than virtual so gestures can be read [workshop, Senior Nursing Officer].

The nature of routine nursing work often entails working with limited resources. However, due to the critical nature of saving lives, improvisation becomes a necessity at times. In my opinion, if

financial constraints persist, the concept of improvisation should be applied as a viable solution.
[IDI Senior Nursing Public Health Officer].

4.5.2 Training in Connection with the Client-Nurse Ratio

Another theme identified in the data was the client-nurse ratio, and participants expressed concern that this could pose a barrier to the sustainable implementation of the intervention. They drew a parallel to a concept currently in practice called Focus ANC, where a nurse is assigned to an expectant mother to provide continuous care from prenatal stages through delivery. According to the participants, this approach has contributed to more effective service delivery. Thus, it could be adopted to facilitate implementation. This came to light:

I have a concern regarding the training of staff. I would like to suggest that the training be limited to a select group of staff, perhaps through specialty training. This way, only those with specific training can handle these issues, especially considering the challenge of the client-nurse ratio. Drawing from the example of ANC, we have a concept called Focus ANC, where one midwife oversees the care of an expectant mother from prenatal stages until delivery. This approach helps us to focus our tasks and ensures quality care delivery [Workshop, Senior Midwife].

One potential threat I foresee is the issue of workload, where an individual is assigned numerous tasks simultaneously. For instance, attending to 20 or more clients in a day, in addition to other responsibilities, may lead to the neglect of some guidelines in the discharge of duties. That's why I believe it should be a specialty task, as I suggested earlier, so that individuals with specific training can work in the adolescent corner and manage the workload effectively [Workshop, Senior Nursing Office].

4.5.3 Provision of Interpreter Services by Health Care Professionals

Healthcare professionals also expressed concerns about their inability to provide interpreter services, stating that this responsibility goes beyond their scope. They emphasised the necessity for GHS and the management of their various health facilities to be involved in providing interpretation facilities. This concern was highlighted during the discussions.

The intervention content looks promising; however, my major concern is that some of the issues go beyond our control. I can see that some have been clearly indicated to involve management and other higher authorities. One specific issue is healthcare professionals providing interpreter services, which, in my opinion, also goes beyond our capabilities. If it is provided, why not? We will use it. I believe leadership and management at the regional and national levels should be involved in addressing this concern [Workshop, Senior Health Nurse Education Officer].

You know, as nurses, we have limited powers to provide some services or facilities of our own. My only challenge is for us to provide these interpreter facilities, which I think is impossible unless those in authority [workshop Principal Community Health Nurse].

4.5.4 Provision of Online or Technology-Related Services

The participants also mentioned that the use of technology for interpretation purposes, such as on-line telehealth platforms, is likely to face technological challenges. They attributed this to network-related issues in several parts of Ghana, emphasising the need for dedicated IT personnel and sufficient internet resources to overcome these challenges.

Personally, I don't have a problem with internet resources, but you know the challenges associated with the internet and its issues. That's the only concern. So, I suggest some kind of

investment, both human and IT-related, to carry out this task successfully. [Workshop Senior Midwife]

I remember how sometimes online meetings, even among us healthcare professionals, can be problematic. So, as my other colleague said, a good investment can do the magic. If this is done elsewhere, why not here too? [Workshop, Senior Nursing Officer].

4.5.5 Dedicated Units, Committees, or Departments

Another theme that came up was the need for dedicated personnel in units, committees, or departments responsible for working on organisational policies in relation to cultural competency. According to healthcare professionals, the absence of this might not lead to effective or sustainable implementation of the intervention. They emphasise the need for monitoring, supervision, and dissemination efforts to encourage full buy-in and sustenance. This was brought to light during the discussions:

As much as the content looks satisfying to me, I am mostly concerned about its sustainability after full implementation. The reason I am saying this is that sometimes programmes are introduced nicely in this facility, and along the way, we can't find them any longer. One way by which this intervention can be sustained is through dedicated units, committees, or departments to steer the affairs of the concept [Workshop Principal Community Health Nurse].

To add to what my colleague just said, I would like to say that for sustainability purposes. There should also be regular monitoring and supervision just to ensure that people are still adhering to the guidelines [Workshop, Senior Health Nurse Education Officer].

4.5.6 Building a Cordial Relationship with the Patients

Most of the healthcare professionals also noted that creating a cordial relationship with some of these migrant adolescents could include giving them some kind of gift during clinical visits, which can pave the way for a friendly relationship. The absence of this may not work effectively. They also talked about home visits.

I quiet recall that at first in this facility, when it is announced that we will be having sensitisation or immunisation activities, they do come because there's some assurance of getting some kind of gift item, but once that was no longer provided, they stopped coming, and if that can be re-introduced [Workshop, Senior Health Nurse Education Officer].

This content is fine, but I think that in addition to the strategies proposed, In the absence of giving them some kind of gift item, our attempts to create friendly attitudes and willingness to help may not work effectively [Workshop Senior Midwife].

4.5.7 Limited Spaces for the Creation of a Migrant Adolescent-Sensitive Corner

Issues of limited and dedicated adolescent corners were cited among HCPs, particularly those working in CHIP compounds. According to the participants, this situation does not augur well for matters of privacy when clients visit. Thus, involving NGO's or the regional or national health directorate to buy-in is essential. This concern was raised in the discussions.

What I can say is about the issue of creating a culturally appropriate adolescent-friendly corner, especially for those of us working in the CHIP compounds. Even if you come to our facility, there is no space. I am only wondering how that can be possible in the short term. Maybe the facility must prioritise this issue by engaging some NGO's or financial institutions to create and adopt some spaces [Workshop, Senior Midwife].

Here in Pentecost, we have a dedicated adolescent-friendly corner, but its cultural sensitivity is what needs to be considered. I am sure management can take a look at this if they see this intervention content. [Workshop, Senior Nursing Officer].

4.5.8 Intervention Strategies and Modes of Delivery to Bring about Behaviour Change

Given the enthusiasm that all the participants had about the intervention strategies and the mode of delivery, the HCPs did not hesitate to acknowledge that the intervention is likely to change their behaviour in ASRH care delivery.

The intervention strategies and delivery modes largely address the current challenges we face in providing care for ASRH to these migrant adolescents. I believe this innovation came at the right time, and with the cultural competency training provided to us, we should be well-equipped to handle these issues effectively [Workshop, Senior Midwife].

The content of the intervention appears promising and robust, addressing the challenges we encounter, especially with individuals facing language barriers. What we need most is cultural competency training, as our current knowledge on cultural issues in healthcare delivery is lacking. Acquiring these skills and knowledge will undoubtedly contribute to ensuring quality care delivery [Workshop Principal Community Health Nurse].

4.5.9 Resultant Changes to the Second Iteration of the Intervention Content

Like at the patient level, a similar process was used to integrate the suggestions in order to address identified barriers and facilitators, as follows:

- (1) Cultural competency training should consider specialty training, focusing on a select group of staff, similar to the focus ANC concept.

- (2) Health care facilities should carefully assess the costs associated with in-service training and consult with regional and national health directorates for financial support. Alternatively, improvisation can be considered if cost challenges arise.
- (3) Training sessions should prioritise in-person interactions over virtual ones to allow for the interpretation of gestures.
- (4) Engage facility leadership and management, and if possible, involve regional and national authorities in acquiring interpreter facilities.
- (5) Implement effective supervision and monitoring mechanisms to ensure the sustainability of programmes.
- (6) Allocate resources, including dedicated IT personnel and robust network connectivity, for the successful delivery of online interpreter services.
- (7) Establish dedicated units, committees, or departments to formulate policies on cultural competency, ensuring effective supervision and monitoring for programme sustainability.
- (8) Consider using enticements to foster cordial relationships and encourage regular visits.
- (9) Explore potential agreements with NGOs or financial institutions to adopt or create ASRH corners that are culturally sensitive (*see Table 21 and 22*).

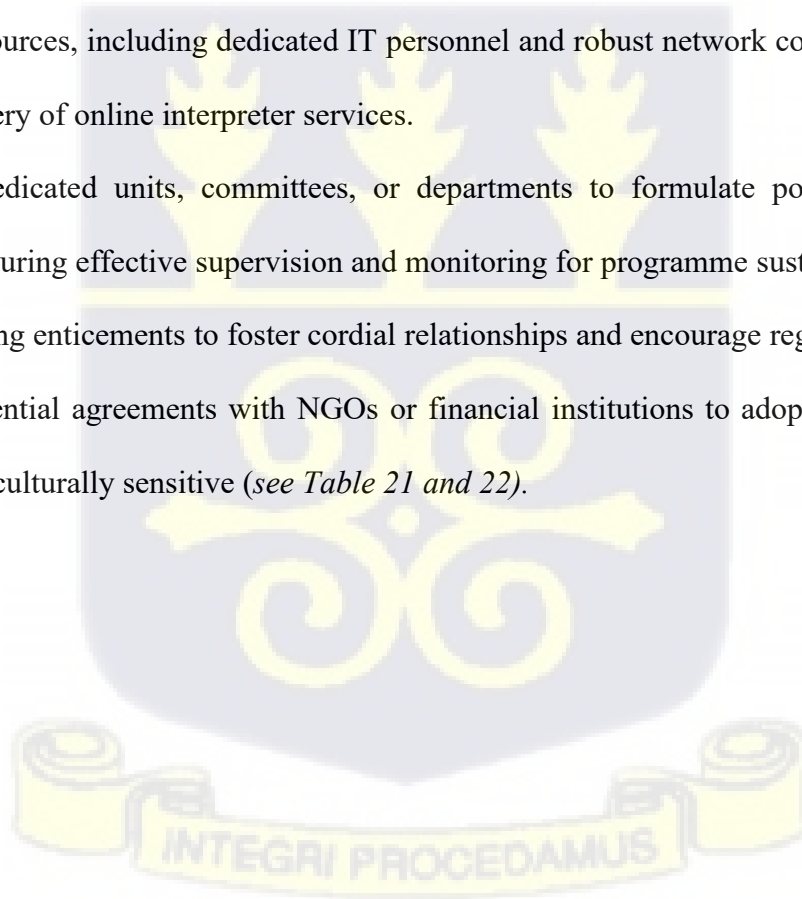


Table 21: Summary of Barriers and Alternative Suggestions to Implementation Strategies at Workshop with Health Care Professionals

Key explanatory factors	Intervention component and (BCT)	Implementation intervention strategies	Concerns expressed by HCPs at the workshop	
			Barriers	Alternative suggestions
1.Lack of culturally competent knowledge and skills to deliver ASRH care to migrants	Training <i>(Instruction on how to perform the behaviour)</i>	-Mgt to provide comprehensive training programs for healthcare providers on cultural competence, including understanding diverse cultural backgrounds, values, beliefs, and practices. - GHS to integrate cultural competence education into medical and nursing institutions	-Cost associated with running training programmes -Training entire staff on cultural competency can pose a challenge to patient- nurse ratio	-Engage the national/regional health directorate for financial assistance to overcome financial burdens -Alternatively consider adopting the concept of improvisation to address financial bottlenecks. -Focus on speciality training to use few staffs as in the case of focus ANC concept to address patient-nurse ratio.
2. Language barrier for effective communication resulting in poor diagnosis and treatment	Enablement <i>(Remove aversive stimulus)</i>	-HCPs to provide language interpreter facilities -GHS to recruit and train healthcare staff who are multilingual and can communicate with patients in their preferred languages.	-Sustainability of the use of interpreter services	-Dedicated units/departments/committees to see to effective supervision and monitoring
3.Lack of skills needed to handle differences in cultural health beliefs	Training <i>(Instruction on how to perform the behaviour)</i>	-GHS/Mgt offer comprehensive cultural competence training programs that cover a wide range of cultural	Cost involved in training programmes	- Involve regional or national health directorate -Alternatively improvise at the facility level

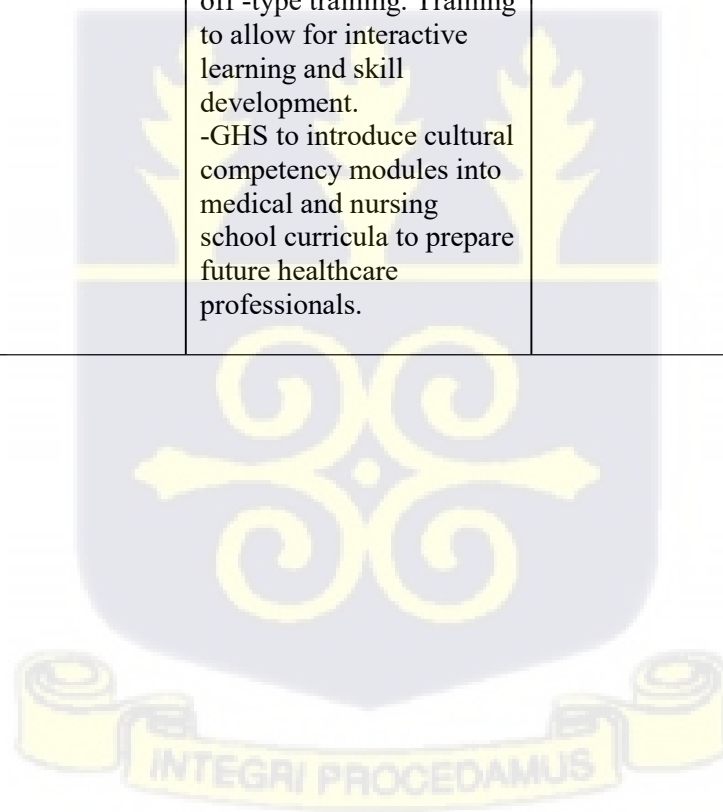
Key explanatory factors	Intervention component and (BCT)	Implementation intervention strategies	Concerns expressed by HCPs at the workshop	
		<p>health beliefs and practices; cultural context, and values commonly held by the adolescent migrants.</p> <p>-Mgt to organise role-playing exercises where healthcare professionals can take on the roles of both patients and providers, allowing them to practice communication and care in culturally diverse scenarios</p>		
4. Absence of culturally sensitive adolescent friendly corner to enhance utilisation of ASRHs	Environmental restructuring (<i>Restructuring the physical environment</i>)	<p>- Mgt to create a dedicated and inviting physical space within healthcare facilities designed to cater to the needs and preferences of adolescent migrants.</p> <p>-Mgt to involve adolescent migrants and their communities in the design and set-up of the adolescent-friendly corner to ensure it meets their cultural and social expectations</p>	-There is limited space especially CHIP compounds which are often in the open	-A dedicated efforts including financial investment to convert/create spaces into adolescent culturally sensitive corner or benevolence of NGOs to adopt facilities to create spaces for adolescent friendly corners

Source: Fieldwork, 2023

Below is Table 22, outlining concerns raised and alternative suggestions by healthcare professionals regarding the mode of delivery.

Table 22: Summary of Barriers and Alternative Suggestions to Mode of Delivery at Workshop with Health Care Professionals

Key explanatory factors	Intervention component and (BCT)	Intervention mode of delivery	Concerns expressed by HCPs at the workshop	
			Barriers	Alternative suggestions
1.Lack of culturally competent knowledge and skills to deliver ASRH care to migrants	Training (<i>Instruction on how to perform the behaviour</i>)	-Mgt to provide training that involve mastery experiences to be monitored over time with feedback instead of once off -type training. Training to allow for interactive learning and skill development. -GHS to introduce cultural competency modules into medical and nursing school curricula to prepare future healthcare professionals.	On-line trainings may not be effective	Training should rather focus on in-person rather than virtual so gestures can be read.



Key explanatory factors	Intervention component and (BCT)	Intervention mode of delivery	Concerns expressed by HCPs at the workshop	
2. Language barrier for effective communication resulting in poor diagnosis and treatment	Enablement (<i>Remove aversive stimulus</i>)	-Mgt to provide mobile applications that use speech recognition and translation technology to interpret spoken words between different languages -GHS to employ medical interpreters who are trained to work in healthcare settings and are knowledgeable about medical terminology and ethics.	-IT related challenges with the use of mobile applications and other related technology interpreter facilities	-Create a dedicated and effective IT units/department
3.Lack of skills needed to handle differences in cultural health beliefs	Training (<i>Instruction on how to perform the behaviour</i>)	-Mgt to use in-person workshops and training sessions led by cultural competence experts. -Mgt use in-person group discussions and workshops using printed or digital case studies. -Mgt use on-line simulation exercises and virtual case study platforms. -Mgt use in-person pre- and post-training assessments conducted within the healthcare facility.	Cost of running deliveries such as the use of experts, workshops etc	Health care facilities can apply the concept of improvisation Or collaborate with regional or national health directorates
7.Absence of culturally	Environmental	Mgt to offer educational	-The ability of existing	HCPs through

Key explanatory factors	Intervention component and (BCT)	Intervention mode of delivery	Concerns expressed by HCPs at the workshop	
sensitive adolescent friendly corner to enhance utilisation of ASRHs	restructuring (<i>Restructuring the physical environment</i>)	materials, pamphlets, and signage in multiple languages commonly spoken by the migrant population in those spaces. -Mgt engage healthcare staff in the adolescent-friendly corner that reflect the diversity of the patient population, including language diversity. -Mgt implement a flexible scheduling system that accommodates the unique needs and preferences of adolescent migrants, such as extended hours or specific appointment slots.	financial resources to implement culturally sensitive adolescent corner is problematic	management level can collaborate with NGOs or use financial investments to achieve this goal. Alternatively involve the regional/national health directorate to offer assistance

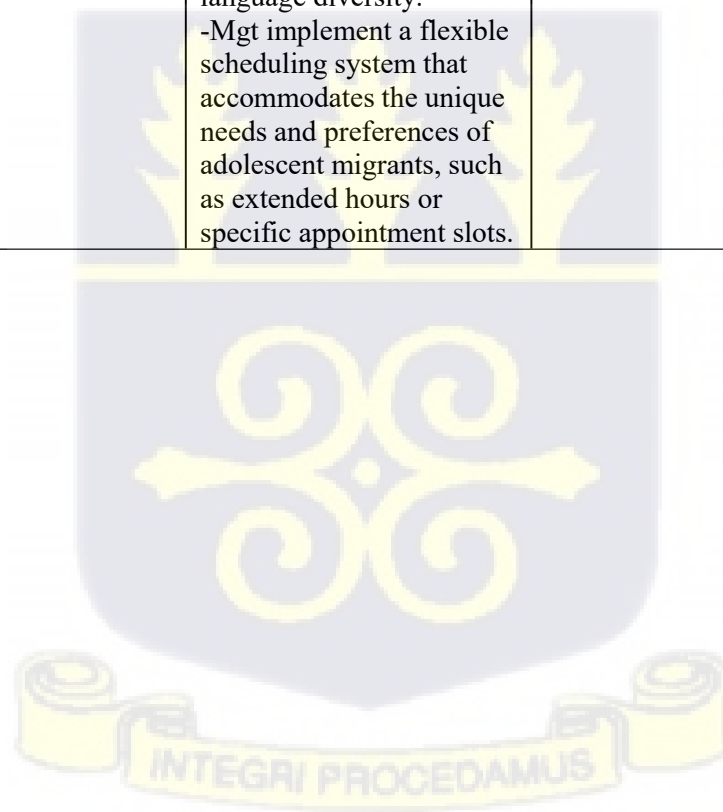
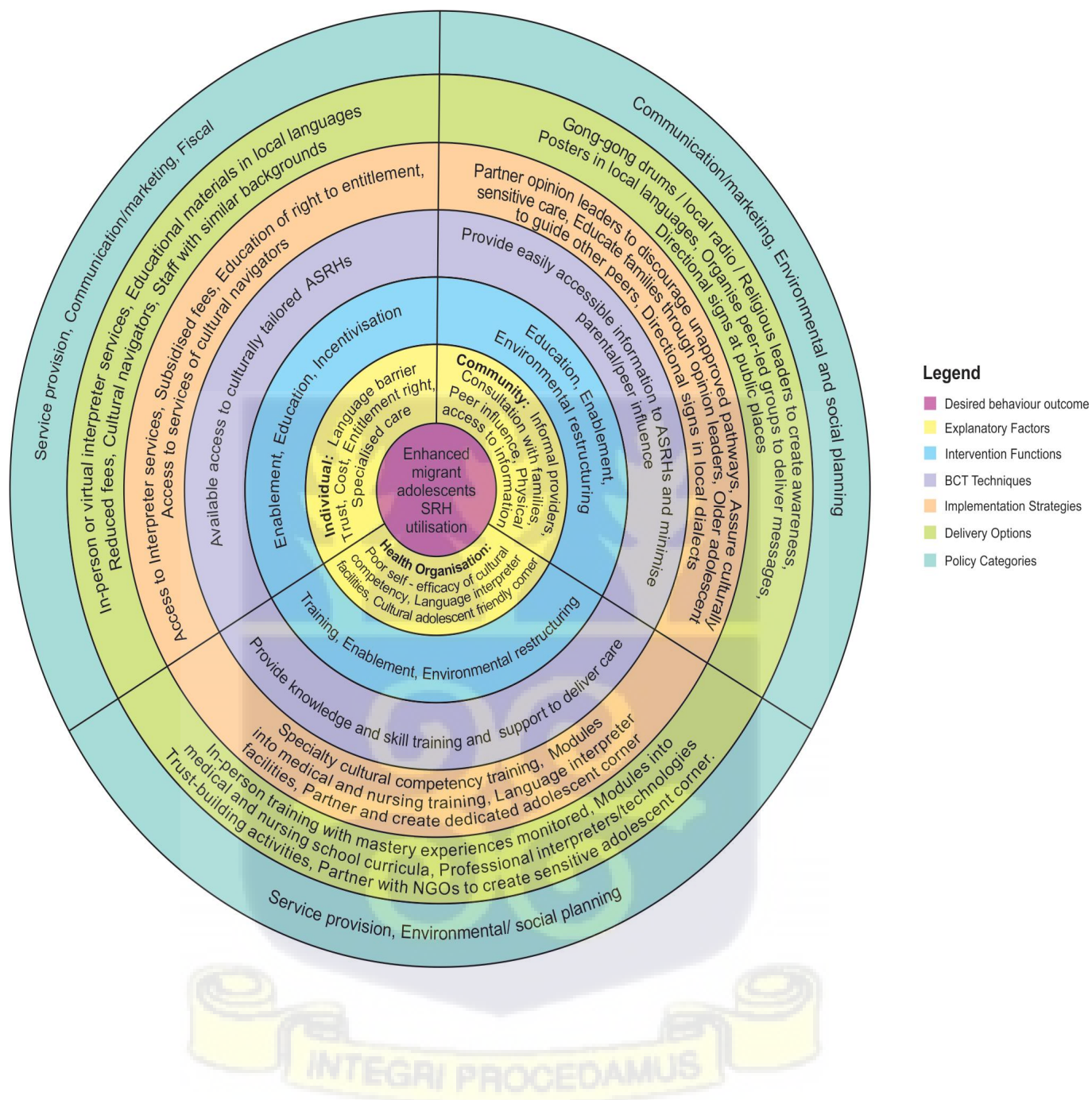


Figure 6: Afeadie Evolving Behaviour Change-Informed Framework for Enhancing Utilisation of Migrant Adolescents Sexual and Reproductive Health in Ghana



4.6 Framework Description:

The framework links context-specific problems with targeted solutions through structured layers of inputs, techniques, delivery modes, and supportive policies. The framework consists of three main parts- individual, health organisation, and community which represent the levels at which behaviour change is targeted. It is structured into seven interconnected layers (see Figure 6).

Key Components:

1.Desired behaviour change (BC):

At the core of the framework lies the desired outcome- enhancing the utilisation of sexual and reproductive health services (SRHS) among migrant adolescents. This focus stems from the poor uptake of adolescent sexual and reproductive health services (ASRHs).

2.Explanatory Factors:

As the second layer, this focuses on understanding the problematic behaviours that are necessary to drive the desired behaviour change. At the healthcare provider (HCP) level, these issues often stem from a lack of cultural competency, including low self-efficacy and communication challenges that can result in misdiagnosis and ineffective treatments. However, for an intervention to be both effective and comprehensive, it is equally important to concurrently address the problematic behaviours of migrant adolescents. Identified issues at this level include language barriers during clinical encounters, differences in cultural health beliefs, and the financial burden associated with accessing adolescent sexual and reproductive health services (ASRHs) etc.

3. Intervention Functions:

Based on the identified problematic behaviours, targeted intervention inputs have been identified to drive change. At the HCP level, these include training programs, alongside enablement, education, and incentivisation initiatives tailored for migrant adolescents.

4. Behaviour Change Techniques (BCTs):

This layer represents the "active ingredients" within the intervention functions that drive behaviour change. These techniques include actions like providing healthcare providers (HCPs) with knowledge and skill-based training to improve their ability to deliver care effectively. Additionally, BCTs ensure that migrant adolescents have access to culturally sensitive care, fostering a supportive environment for their sexual and reproductive health needs.

5. Implementation Strategies:

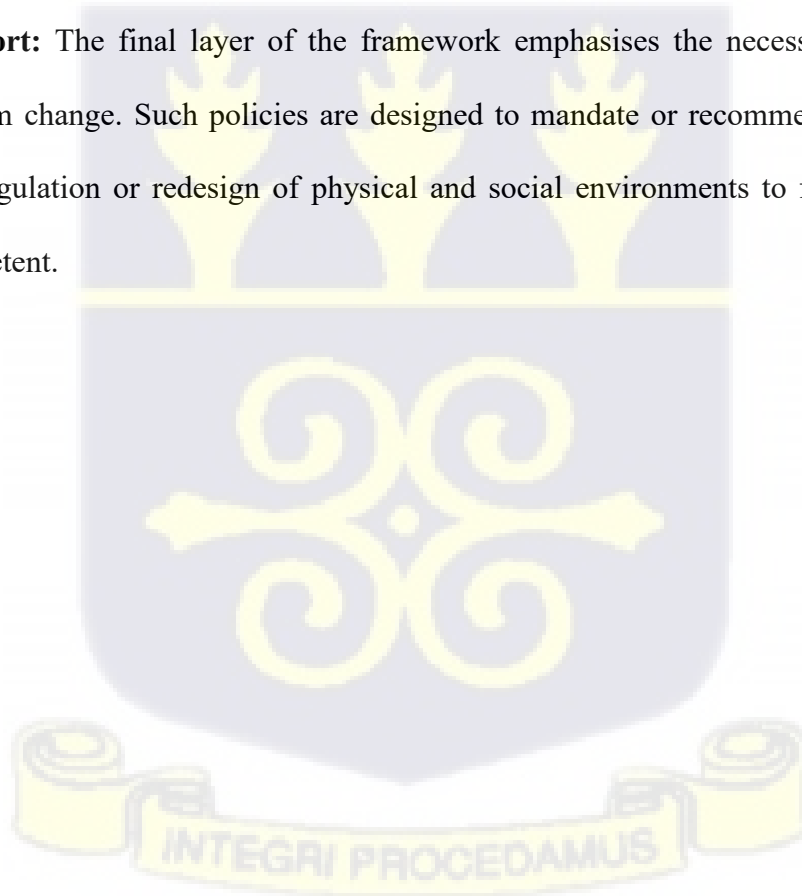
To enhance practice in both clinical and migrant community settings, targeted implementation strategies are essential. These include knowledge and skill-based training in cultural competency for healthcare providers, the use of language interpreter services, the deployment of multilingual staff, and subsidising user fees to improve accessibility. At the community level, strategies involve providing culturally tailored and easily accessible information about ASRHs and reducing interpersonal influences. Engaging opinion and religious leaders to promote positive behaviours and addressing cultural sensitivities further supports effective implementation etc.

6. Delivery Modes:

Authorities responsible for implementing interventions can employ various approaches to reach the target population or context effectively. For instance, healthcare providers (HCPs) can

receive in-person training from management on cultural competency, or such training can be integrated directly into classroom modules within medical and nursing curricula by the GHS. For migrant adolescents, delivery modes may include in-person or interpreter-assisted services during clinical encounters and engaging HCPs with multilingual skills. Additionally, adapting clinical environments to accommodate culturally diverse populations can enhance service delivery. At the community level, engaging opinion and religious leaders is crucial to promoting positive behaviours. Traditional communication methods, such as gong-gong drums and local radio stations, can be used to disseminate health information effectively, ensuring alignment with cultural norms and practices.

7. Policy Support: The final layer of the framework emphasises the necessity of policies to sustain long-term change. Such policies are designed to mandate or recommend best practices, including the regulation or redesign of physical and social environments to facilitate effective culturally competent.



CHAPTER FIVE

DISCUSSION

5.0 Introduction

The study sought to develop a culturally competent behaviour change intervention framework to enhance the utilisation of sexual and reproductive health services among rural-urban migrant adolescents in the Greater Accra Region, Ghana. This chapter presents a discussion of the results based on the objectives of the study, as follows:

1. Current care pathways for sexual and reproductive health service utilisation.
2. Perspectives of healthcare professionals regarding their engagement in service delivery.
3. Culturally appropriate behaviour change strategies to address demand-side enablers and barriers.
4. Culturally appropriate behaviour change strategies to address supply-side enablers and barriers
5. Validation of behaviour change strategies to inform framework development.

5.1 Current Care Pathways for Sexual and Reproductive Health Service Utilisation

The study findings suggest a lack of trust among migrant adolescents towards HCPs, underscoring the importance of the reflective motivation component of the COM-B model. This component involves conscious, deliberate decision-making processes, leading to their reluctance to utilise ASRHs. This reluctance often stems from a loss of trust and the perceived inability of HCPs to provide culturally competent care. This finding is consistent with current evidence that shows that the level of trust in the healthcare system significantly influences SRH utilisation. Migrant adolescents may exhibit distrust towards the system due to perceived inadequacy of quality care and challenges in navigating the healthcare system (Hammarberg et al., 2022).

Similar studies by Lattof et al. (2018) contend that many migrants only sought health care when it was critically necessary. Consequently, female migrants reported self-care for illnesses and the use of informal health care providers. Thus, understanding the role of reflective motivation in migrant adolescent SRH decision-making processes regarding health care choices, particularly informed by cultural alignment of services, can improve the health-seeking behaviour of this key population.

The issue of trust is also characterised by the language barrier represented in psychological capability within COM-B. As patients lack the knowledge to understand and effectively communicate about their SRH conditions, aggravated by the inability of HCPs to understand and provide the right diagnoses and treatments, it is possible that this is likely to cause dissatisfaction and mistrust. Consequently, they may begin seeking alternative sources of support, such as informal care providers, consulting their left-behind families, or relying on peers for advice. However, this approach can lead to misinformation and may not adequately address their healthcare needs. Kwankye et al. (2021), in their systematic review, have identified language barriers as a critical issue for utilising reproductive health information and other services among migrants and refugees' children at their places of destination. This demonstrates the significance of language barriers, which should prompt interventions that could be used to break communication barriers to enhance ASRH utilisation.

To exacerbate the trust issue, the study cited the cost associated with purchasing medical cards, undergoing lab tests, and other pocket expenses as a barrier to ASRHs utilisation within the physical opportunity component. While the cost of medical bills may discourage the migrant adolescents from taking advantage of ASRH services, this might be reinforced by the reason for

coming to the city, i.e., to work, look for money, and return home to learn a trade. Other studies, such as those by Hulme et al. (2015), Adedimeji et al. (2015), Manirankunda et al. (2009), and Harvey et al. (2013), have also cited cost as one of the structural barriers to accessing SRH among many young migrants. This illustrates the financial strain on the utilisation of sexual and reproductive health services among migrant adolescents. Further, it highlights how financial obstacles can hinder the ability of migrant adolescents to access these services, which calls for interventions to address this barrier.

A supportive enabling environment is essential to facilitate access to and uptake of products that can improve the health and well-being of vulnerable and marginalised populations (WHO 2019). Similar to the cost of medication that was identified within the physical opportunity of the COM-B element was the lack of information about the availability of ASRHs. Consistent with some reviewed articles by Mukondwa et al. (2016), he laments about the lack of knowledge, availability of services, and accessibility issues for ASRHs among migrant adolescents in South Africa. It is worth noting that within the rural-urban migration context, in addition to the lack of directional signs indicating where ASRHs can be found, circular and seasonal migration patterns are likely to negatively impact the ability to benefit from ongoing community outreach programs. It therefore comes as no surprise, as most of these migrant adolescents are hidden from adequate knowledge about the availability of ASRHs. Interventions designed to target systems that address this barrier are essential for reorganising how information gaps can impact individuals' ability to access and utilise ASRH services effectively.

Another theme that resonated with the psychological opportunity of the COM-B element is the lack of knowledge about the right to entitlement of ASRHs. This manifested in several instances

where migrant adolescents could not claim their rights from duty-bearers to demand culturally sensitive services. While the definition contained in the ICPD integrates SRH and basic human rights, it is a fundamental obligation for everyone to be entitled to the best available standard of care (Gruskin et al., 2021). Endler et al. (2020) have lamented about this challenge, especially among migrant adolescents who have found themselves in humanitarian settings and slums. Similar findings by Maheen et al. (2017) and Dias et al. (2021) have indicated that although people in displaced settings often experience a greater need for SRH services, they are the ones who are often neglected, resulting in limited access to basic SRH services, thereby increasing their risk of morbidity and mortality. They attributed this to the fact that people in these settings often lack information and knowledge about their rights and services linked to SRH, which usually affects their power to negotiate and make decisions about their own health (Endler et al., 2020; Thongmixay et al., 2019).

To address this gap in such contexts, it is crucial for policies to recognise the significance of addressing the lack of knowledge regarding the entitlements and rights of ASRH within the opportunity capability. By raising awareness about these rights, policies can empower ASRH individuals to better access and advocate for their sexual and reproductive health rights.

5.2 Perspectives of Healthcare Professionals Regarding their Engagement in Service Delivery

HCPs' perspectives reported in the study's findings suggest a lack of cultural competency knowledge, therefore resulting in poor self-efficacy to deliver ASRHs to the migrant adolescent, highlighting the significance of the psychological opportunity component of COM-B influencing HCPs behaviour. This finding is inconsistent with the Campinha-Bacote model of cultural

competency, which emphasises that HCPs should strive to effectively engage within the cultural context of their clients, whether they are individuals, families, or communities (Campinha-Barcote 2011). In this study, the HCPs did not only lack the cultural competency knowledge and skills to deliver ASRHs but also lost competency trust among the migrant adolescents. This underscores the need for public health decision-makers to prioritise cultural competency training among HCPs. This will help them meet not only the needs of rural-urban migrant adolescents but also the evolving demographic trends involving internal and international migration in Ghana.

Li et al. (2017) have also noted that developing a culturally competent health care environment starts with awareness of one's own cultural background and experiences. They further added that, providers need to limit their influence when interacting with people from other cultures and with different life experiences. The study indicated poor cultural awareness among healthcare professionals (HCPs) in managing differences in cultural health beliefs. This underscores the significance of recognising the absence of cultural knowledge and awareness within the psychological capability component of the COM-B. Understanding these nuances will assist health policymakers in acknowledging the cognitive aspects and competencies that influence HCPs' capacity to provide culturally competent care and address issues related to patients' cultural health beliefs. Such measures will help increase cultural awareness among trainees and bridge the competency gap as they apply what they learn from training to practice (Jackson et al., 2014; Like, 2011).

Results from the study also emphasise additional factors that contribute to the poor self-efficacy exhibited among the HCPs. For instance, there were unavailability of culturally sensitive adolescent-friendly corners. This finding contradicts other scholarly literature that emphasises

that adolescent-friendly services are an amalgamation of health facility characteristics, health service provision techniques, and health services offered, which are key strategies for improving the health of adolescents in Africa (Schott et al., 2008; USAID, 2017). As an impediment to achieving the targeted behaviour within the physical opportunity of COM-B. It also highlights the need to optimise care for vulnerable youth populations in a culturally sensitive manner, thereby enhancing cultural awareness and cultural encounters. Youth-friendly approaches need to be considerate of the health inequities faced by these adolescent groups and informed by the wider communities, working in partnership to promote optimal outcomes (Saber et al. 2018). It is therefore important to treat this issue within the physical opportunity component of COM-B to help recognise the physical environment that impacts the appropriateness of health care services, which can improve HCPs desire to work.

The lack of language interpreter services within the physical setting further exacerbated the already evident poor self-efficacy demonstrated by the HCPs. In the absence of this facility or service, HCPs would have to resort to the use of colleagues from various departments as interpreters, even if this practice has unintended consequences. While this approach may improve care delivery to some extent, it also overlooks the necessity of providing timely care to the clients of other colleagues who may be waiting in their respective departments. This also undermines cultural skills, which could have assisted healthcare professionals in understanding the needs of the patients they serve, thereby promoting effective communication (Campinha-Bacote, 2022). This finding echos previous studies highlighting many instances where interpreter services are provided ad hoc, consisting of the use of other untrained non-clinical employees and non-fluent health care professionals as interpreters (Ginsberg et al., 1995; Schmidt et al., 1995).

In another study in Sweden, the use of ad hoc measures appears to have many negative clinical consequences, including reduced trust in physicians and reduced quality of care (Woloshin et al., 1997). This comes as no surprise, as the ad hoc use of other colleagues created long waiting queues at other respective departments as revealed in the study. While such wrong approaches to the tenets of cultural encounters may not guarantee optimal care as suggested in the study, the ability of HCPs to possess cultural knowledge and skills will improve face-to-face interactions with patients from culturally diverse backgrounds (Campinha-Bacote, 2011).

5.3 Culturally Appropriate Behaviour Change Strategies to Address Demand-Side Enablers and Barriers

According to Aston et al. (2020), behaviour change interventions have emerged as a promising strategy for improving SRH utilisation. In this study, the developed strategies are intended to enhance the uptake of ASRHs. For instance, sexual health education programmes have been tailored to target migrant adolescents to discourage the use of informal health providers, as well as the use of community-wide campaigns in collaboration with community leaders and influencers to spread the message about the health consequences of the use of unapproved providers while at the same time highlighting the capabilities of HCPs to provide culturally sensitive care respecting their cultural backgrounds and beliefs.

Other studies by Gautam et al. (2015), Khan et al. (2012), and Khortwong et al. (2013) have also cited the importance of health education interventions and materials, as they have demonstrated effective strategies for enhancing health knowledge, raising awareness, and promoting positive health behaviours.

Within the migration literature, various strategies have been used to address the language barrier between HCPs and migrant adolescents in ASRH utilisation. In some studies, interpreter services were seen as a means to bridge communication gaps between health providers and young migrant patients (Harvey et al., 2013). However, it's crucial to acknowledge that the use of interpreters may not be the preferred option for some young migrants, particularly if both interpreters and patients share the same cultural background or belong to different genders (Harvey et al., 2013), even though the WHO also recommends the use of professional interpreters. However, the current study proposes the use of professional interpreters who are proficient in the language of the patient and medical terminology. In addition, the use of family members may be encouraged at the request of the client to meet the client's special needs.

The study also found influence of left-behind families regarding where to seek help about ASRH. While consultation may not be the problem per se, the individuals and other unapproved sources to which these young ones might be directed are the cause of concern. To address this challenge, HCPs can provide education through opinion leaders to families back home, emphasising the importance of the use of ASRH services and the role families can play in the right decision-making process for their loved ones. Conventional interventions like peer education and youth centres have proven ineffective in enhancing adolescents' service access and behaviour change (Chandra-Mouli et al., 2015). Even though they have been considered the most effective means by which peer influences can be addressed, while this view might hold for some other adolescent populations, this view might not hold for migrant adolescents due to complexities such as their migration status and the new environment they found themselves, thus strong migrant networks resulting in hearsay and myths about ASRH. To develop a culturally appropriate strategy, the study identified the need to increase CHPS compounds within migrant communities to offer

counselling services. This should also include programmes to target older leaders of networks to guide and support other peers in providing reliable information and debunking myths about ASRH.

For most of these migrant adolescents, the motivation for coming to the city is to earn revenue and return to their places of origin, not to incur unnecessary expenditure on an already overburdening expenditure in the city. Several countries in the sub-region, including Ghana, have implemented health insurance schemes for reasons of this nature (Fenny et al., 2018). In Ghana, while the national health insurance scheme (NHIS) by law is supposed to cover the whole population with premium exemptions for selected sections of its population, previous studies have provided insights into the low active enrolment of these migrant adolescents (sometimes referred to as female head porters) onto the NHIS and the struggles of pregnant young migrant head porters in accessing free maternal healthcare under Ghana's NHIS (Lattof, 2018; Yiran et al., 2015). The study proposed strategies such as the provision of subsidised or low-cost ASRH services by the management of HCFs. As an alternative, HCPs can also offer financial counselling services to help navigate insurance coverage and explore available financial assistance programmes as an alternative to complement those provided by the government.

The study found a lack of knowledge about the location and availability of ASRHs, which has also been reported in other studies. While school-based ASRH programmes are often recommended for widespread implementation due to their significant impact on adolescents' reproductive health behaviours (Dick et al., 2005), such interventions may not fully achieve their intended purpose in contexts where migrant adolescents are predominantly labour migrant workers.

To effectively implement strategies in studies involving migrant adolescents, collaboration between HCPs and the management of HCFs is crucial. One proposed strategy involves installing clear directional signs in the community, written in local languages, and placed in public spaces where migrant adolescents frequently congregate, such as public toilets, baths, clubs, and nightclubs. These signs would direct individuals to ASRH services. Additionally, ASRH information should be clearly written in multiple languages to accommodate linguistic diversity.

The study also found a lack of knowledge among migrant adolescents about their right to entitlement. Scholars such as Lee et al. (2013) and Qayyum et al. (2014) have suggested various strategies for effectively providing information to migrants and refugees regarding their entitlement rights. These strategies may include the provision of language-appropriate written materials, utilising intercultural mediators, and/or community health educators to facilitate health promotion and education programmes. In this study, implementation strategies involve HCPs undertaking awareness campaigns to educate migrant adolescents about their rights to accessible and culturally sensitive ASRH services. This education would be carried out through gatekeepers, guardians, and religious leaders in information-sharing sessions aimed at clarifying the rights of adolescents and stressing the importance of culturally sensitive ASRH services.

The study also identified a lack of specialised care tailored to cultural needs, which contributes to mistrust among migrant populations. To address this concern, interventions targeting cultural competency programmes have been developed and utilised to train HCPs in delivering culturally sensitive and appropriate care to migrants. For instance, in Morocco, a toolkit has been developed for this purpose. The training content focuses on enhancing healthcare access

perception from a human rights-based perspective, conducting cross-linguistic and cross-cultural interviews, honing interpersonal skills such as working with interpreters, and building contextual knowledge about migrant health concerns and family dynamics (Grany et al., 1996). In this study, strategies targeted at the services of cultural navigators to be provided by management of HCFs and the GHS. These individuals would assist patients with cultural needs and help them navigate the healthcare system effectively. Strategies could also involve the management of healthcare facilities visited by migrant adolescents and collaborating with the Ghana Health Service to employ community health workers who are familiar with the culture and languages of the community. These workers would act as intermediaries between patients and healthcare providers, facilitating understanding of their culture and migration needs.

5.4 Culturally Appropriate Behaviour Change Strategies to Address Supply Side Enablers and Barriers

The study found a deficiency in cultural competence in ASRH care among the HCPs. This deficiency has led to low self-efficacy, consequently resulting in poor competency trust. Truong et al. (2014) have reported comparable results, outlining diverse intervention approaches to enhance cultural competency in healthcare delivery. These approaches encompass training sessions, workshops, and programmes tailored for health practitioners like doctors, nurses, and community health workers. In this study, culturally appropriate strategies have been proposed. This includes the provision of comprehensive culturally competent training programmes to allow for interactive learning and skill development, as well as mastery experiences to be monitored over time with feedback instead of one-off type training. It also involves the integration of cultural competence education into medical and nursing training curricula to equip them from scratch.

The absence of language interpreter services has often worsened the challenges linked to poor competency trust. This situation has led to incorrect diagnoses and poor treatment. Similar studies have also highlighted the importance of the use of interpreter facilities. However, there are various debates surrounding the use of interpreter services in health care settings, as research regarding the implementation and financing of interpreter services for migrants globally is lacking, with the majority of studies limited to health settings within high-income countries (Flores et al., 2005; Berthold et al., 2014). While available literature suggests scarce information about the use of interpreter facilities in low- and middle-income countries (LMICs), In Thailand, for example, one study discusses the benefits and challenges of implementing a Migrant Health Volunteer (MHV) programme involving the use of interpreter facilities in two provinces (Sirilak et al. 2013). In Malaysia, a recent survey involving migrant workers revealed that those who preferred languages other than English or Malay for clinical communication were 2.7 times more likely to delay treatment when severely ill compared to those who preferred communication in Malay (Osman et al. 2020).

Despite interpretation being a fundamental aspect of culturally competent health systems, there are no dedicated studies in Thailand and Malaysia on how interpreter services are provided (Betancourt et al. 2003). According to the WHO (2020), current guidelines highlight the recommendation for utilising trained interpreters, emphasising that formal interpreters who adhere to a professional code of practice are regarded as best practice. Consistent with the WHO recommendation, the current study identified the use of language interpreter facilities in addition to mobile applications that use speech recognition and translation technology to interpret spoken words between different languages. Further, the need to recruit and train healthcare staff who are

multilingual and can communicate with patients in their preferred languages if necessary was also included in the study. These additional strategies are to take the local context into account.

According to El Ayoubi et al. (2018), HCPs may have to be confronted with socio-cultural norms and cultural prohibitions related to sexual and reproductive health among migrant adolescents regarding the utilisation of ASRHs. These practices are often deeply ingrained in societal norms and cultural beliefs, significantly influencing individuals' decisions to seek SRH services. Findings from the study also highlighted HCPs narratives of cultural health beliefs held by migrant adolescents and how that affected care delivery. This can be attributed to a lack of cultural competency among the HCPs. To deal with this incompetency, culturally competent training programmes such as workshops and seminars should cover a wide range of cultural health beliefs and practices, such as the cultural context, beliefs, and values commonly held by migrant adolescents, to be incorporated into the delivery of health care. This is in addition to role-playing exercises where HCPs can take on the roles of both patients and providers, allowing them to practice communication and care in culturally diverse scenarios. In a similar study by the Centre for Culture, Ethnicity, and Health (2012c), Mehra (2004) also proposed interventions such as creating culturally appropriate environments in health care settings to welcome migrant adolescents. This includes the use of visual elements reflecting the diversity of the patient population to enhance cultural sensitivity.

The factors contributing to the lack of competency trust among the HCPs are not limited to those discussed above but also include the absence of culturally sensitive adolescent-friendly corners to enhance the utilisation of ASRHs. This is reflected in most of the accounts given by the HCPs. In Ghana, it appears that although adolescent-friendly corners have been established in some

facilities across the country as a promotional strategy to encourage the use of ASRHs (Annor et al., 2021). They do not take the country's culturally dynamic context into account. Therefore, ignoring people with culturally diverse backgrounds. Strategies to aim at adolescent-friendly corners to accommodate the needs of migrant adolescent, the management of HCFs to provide educational materials, pamphlets, and signage in multiple languages commonly spoken by the migrant population in those spaces. Management of facilities to engage HCPs in the adolescent-friendly corner that reflect the diversity of the patient population, including language diversity. Finally, management should implement a flexible scheduling system that accommodates the unique needs and preferences of adolescent migrants, such as extended hours or specific appointment slots.

5.5 Validation of Behaviour Change Strategies to Inform Culturally Competent Framework Development

According to Obasi et al. (2006), preliminary studies are often conducted to refine interventions and evaluate their acceptability, feasibility, cost, and uptake. In this study, two forms of validation of the behaviour change strategies were conducted in preliminary testing. Findings from the initial findings from the preliminary testing (first iteration) indicate a remarkably high level of satisfaction among the experts about the proposed implementation strategies and mode of delivery, with accompanying suggestions that were integrated into the content. Proctor et al. (2013) have indicated that in evaluating the impact of an intervention on individual clinical or public health outcomes, interest has been centred on gauging the potential effects of an implementation strategy on desired organisational or clinician practice changes. These may include adherence to guidelines, processes, clinical standards, or the delivery of programs. Thus, the various strategies that were identified in the study are those in line with standard practice and

are expected to bring about the expected behaviour change at both HCPs and migrant adolescents (individual) as well as community levels.

According to the literature, the implementation of complex evidence-based clinical innovations presents challenges, often requiring assistance to ensure uptake with fidelity. This process involves significant stakeholder engagement, support from various care specialties, and adjustments to provider attitudes, organisational processes, and clinical practice (Bauer et al., 2015; Kilbourne et al., 2004; Lindsay et al., 2015; Ritchie et al., 2020). Both top-down mandates and bottom-up approaches are insufficient on their own to overcome these barriers to innovation uptake (Ferlie & Shortell, 2001; Greenhalgh et al., 2004; Parker et al., 2007, 2009; Ritchie et al., 2020). In line with this, preliminary testing (second iteration) was conducted to engage stakeholders (users) in order to refine the content. The study's results suggest that stakeholders have overwhelming support for all proposed intervention components in a workshop, confirming the relevance of strategies and delivery modes. Further suggestions were integrated to improve the content and make it not only culturally competent but also culturally acceptable. This finding is consistent with Baker et al. (2015), who noted that getting feedback from stakeholders about interventions chosen can help customize them to the preferences of the users to effectively promote and facilitate the adoption of the innovation. Studies indicate that interventions tailored to address identified determinants were more effective in enhancing professional practice compared to scenarios with no intervention or merely disseminating information about the innovation. Therefore, the feedback from the stakeholders was integrated into the final content to develop the behaviour change intervention framework.

5.6 Strengths of the Study

The strengths of this thesis are as follows:

- The study used a rigorous methodology following a systematic intervention development method involving careful selection of models to develop a behaviour-informed intervention framework.
- The study provides evidence-based accounts from multiple perspectives informed by the formative studies to understand factors influencing behaviours. This finding presents a unique case from what other studies might have done due to the setting in which the study was conducted.
- The Delphi experiment serves as a solid foundation for identifying the suitable BCTs for the intervention strategies and delivery modes. Thus, presenting the strategies with an account of robustness which can be adopted to guide other future research work.
- Additionally, the engagement of stakeholders (users) in this study ensures cultural appropriateness of the intervention framework developed and a high acceptability.

5.7 Limitations of the Study

A key limitation of this study is in the fact that the initial selection of BCTs in the distillation exercise was established by a single researcher (the PhD candidate). Though these were subsequently validated by behaviour change experts, the selected BCTs are heavily reliant upon the quality of the distillation and mapping of one person, which should ideally have been examined through inter-rater reliability. However, to mitigate this bias, I received an online training on BCT taxonomy v1. This training was organised by the centre for behaviour change, University College of London. The programme is meant to train behaviour change researchers or other individuals on how to identify BCTs in behaviour change interventions.

Another limitation of this study is the inability to involve management of the various health facilities and regional and national health directorates to understand their behaviours. The exclusion of leadership and management of health facilities was because they did not have direct contact with the patients. Although this did not have any effect on the findings of the study, it is suggested that future studies include the management and leadership of health directorates to understand their behaviours.

5.8 Reflection on Model Fitness

The use of COM-B has provided valuable insights into understanding migrant adolescents' behaviours in the utilisation of ASRHs. However, not all COM-B micro-components were found to be useful in this study, particularly physical capability and automatic motivation. Considering the migrant adolescents involved in this study, factors such as poor socioeconomic status, distress migration (which involves forced displacement due to untenable living conditions or an inability to meet basic needs), and urban poor settings may not typically be considered as behaviour constructs. However, they are an important determinant of behaviours and outcomes across multiple domains. Understanding the complex interplay between these factors and behaviour is essential for addressing disparities and promoting ASRH equity among these diverse populations. Therefore, these factors should have been considered in this model, especially in settings like Ghana.

At the HCP level, the use of COM-B has provided valuable insights into understanding HCP problematic behaviours related to cultural competency in ASRH service delivery, akin to migrant adolescent's level behaviours. However, not all COM-B micro-components were useful in this study, specifically physical capability, social opportunity, and automatic motivation. In contrast to the behaviours of migrant adolescents, HCP behaviours are noted to be less complex, thus

utilising fewer COM-B micro-components. This implies that the more complex the problematic behaviours, the more COM-B micro-components are utilised. Moreover, while the cultural competency model sheds light on ASRH delivery in a culturally competent manner, additional factors should have been considered by this model. For instance, family constructs, which involve migrant adolescents' ties with their left-behind families, and a strong migrant social network could enhance the model's comprehensiveness in understanding the interplay between cultural constructs and behaviours that could further inform migrant ASRH delivery.

It is important to note that although the study identified other explanatory factors, their associated BCTs were not submitted to experts for validation due to the following reasons: that the explanatory factor (BCT) fell outside the scope of this PhD study. The study specifically targets individual-level behaviours rather than structural-level behaviours. For example, lack of organisational support for cultural competency training to enhance healthcare delivery (goal setting).

Second, the inability to submit to experts was due to the explanatory factor identified shared similar characteristics and BCTs with a major theme. For example, the use of friends and family members for interpretation purposes falls under the main theme of poor communication barriers to reporting about one's SRH conditions. However, the methodology developed can be used to study future structural-level behaviours.

5.9 Contribution to Knowledge

This study has resulted in the development of a novel behaviour change-informed framework designed to improve the utilisation of ASRH services among migrant adolescents in Ghana. The framework addresses the issue of low self-efficacy addressing the challenges among HCPs, which consequently leads to a lack of trust among migrant adolescents and results in low uptake

of ASRH services. By identifying explanatory factors influencing behaviours at both the provider and patient levels, process theories/models such as the BCW were followed, and Campinha- Bacote cultural competency model were used to identify evidence-based strategies to inform the development of the intervention framework. The framework serves not only as a conceptual model of the mechanisms of behaviour change within the ecosystem of rural-urban migrant ASRH but also as a practical guide to the implementation of strategies to enhance the utilisation of ASRH among migrant adolescents. This study contributes valuable insights and practical tools for healthcare providers and policymakers working with this specific demographic, ultimately enhancing the delivery of effective and culturally appropriate care.



CHAPTER SIX

SUMMARY OF PRINCIPAL FINDINGS, CONCLUSION AND RECOMMENDATION

6.0 Introduction

This chapter presents the summary of principal findings and concluding statements. It also makes recommendations to enhance the practical application of the research.

6.1 Summary of Principal Findings

The aim of this study was to develop a culturally competent behaviour change intervention framework to enhance the utilisation of sexual and reproductive health services among rural-urban migrant adolescents in the Greater Accra Region, Ghana. Through a qualitative research approach in **Phase 1** of this thesis, behavioural analysis was conducted to understand problematic behaviours among both migrant adolescents and the HCPs.

The findings revealed a lack of trust among migrant adolescents in healthcare providers, impacting their intentions to utilise ASRH services and leading them to seek alternative, potentially unapproved pathways. From the perspective of HCPs, they expressed low self-efficacy in delivering culturally competent ASRH care to migrant adolescents. The HCPs situation was exacerbated by a lack of professional interpreter services, which would have helped break language communication barriers. To modify or change these problematic behaviours, the remainder of the BCW was used to identify intervention elements and policy categories. At the patient level, education and enablement were identified as the intervention elements, along with

communication, marketing, and service provision to facilitate the intervention functions. This was followed by the identification of suitable BCTs, including providing information about health consequences and removing aversive stimuli. At the provider level, training and environmental restructuring were identified as the intervention functions, along with service provision and environmental and social planning as policy categories. In terms of BCTs, instructions on how to perform the behaviour and removing aversive stimuli were also identified as suitable BCTs.

Following validation of all BCTs in **Phase 2** of the Delphi study by the experts, the validated BCTs were operationalised into behaviour change strategies and delivery options and validated in the first iteration among the experts. Although results indicated approval of the strategies, a couple of suggestions emerged regarding who to implement the strategies and the need to highlight the importance of providing training that emphasises skills and mastery experiences to be monitored over time. These suggestions were integrated into the final content, resulting in the validation of strategies and delivery options to inform the behaviour change intervention framework.

The findings of the validated BCTs among the experts to ensure their appropriateness to the intervention functions identified can be used to inform future BCT validation in order to potentially improve their outcomes.

In the second iteration in **Phase 3**, the validation of behaviour change strategies aimed to ensure their cultural appropriateness. The results emphasised the significance of enhancing community-wide campaign programs. This involves complementing traditional methods with culturally relevant approaches, such as incorporating gung-gong drums and local radio stations for

information dissemination. Furthermore, the study highlighted the effectiveness of involving community leaders to build confidence in culturally sensitive care provided at healthcare facilities.

Regarding strategies to address supply-side barriers and facilitators, the study highlighted the use of specialty training, similar to the focused antenatal care (ANC) concept, to alleviate issues such as the patient-nurse ratio. Furthermore, the adoption of improvisation was identified as a beneficial approach to tackling financial challenges. Finally, the use of appropriate professional interpreter services emerged as a crucial solution to overcome the language barrier. Thus, the outcomes of the validation of implementation strategies to make them culturally appropriate highlight the barriers and facilitators to implementation that need to be taken into account.

Based on the foregoing, a behaviour-change-informed framework was developed. This framework serves not only as a conceptual model of the mechanisms of behaviour change within the ecosystems of rural-urban migrant ASRH but also as a practical guide to the implementation of strategies to enhance the utilisation of ASRH among migrant adolescents. While the framework is yet to be tested in a future study, it can still serve as a practical guide for migrant ASRH delivery and utilisation.

As noted in previous chapters of this thesis, findings from this research suggest areas for further research, including; First, the need for further testing of the behaviour change-informed framework. Second, the involvement of management and leadership in health directorates is important to understand their behaviours and inform future interventions.

6.2 Conclusions and Recommendations

At the time of this PhD, no previously published work in this area was reported. Thus, this PhD provides results from the first study to systematically construct a behaviour-change framework to address poor utilisation of ASRH services among migrant adolescents in a LMIC such as Ghana. The methodology has also been developed with the potential for uptake in other similar settings. The results raise important questions for both health services and migration programmes that need to be answered by future research, but also have immediate implications for ASRH services in Ghana. The study proposes several recommendations based on the findings.

Health Care Facilities

- The health care facilities could integrate cultural competency into their health care delivery to cater to the needs of migrant adolescents and other individuals with culturally diverse backgrounds.
- GHS/HCFs could provide a culturally sensitive migrant adolescent's corner to handle the special needs of migrant adolescents.

Ghana Health Service

- The Ghana Health Service could utilise the findings of this study to implement culturally sensitive care provision within migrant communities.
- GHS could integrate cultural competency training into the educational curriculum of nursing and midwifery training and medical schools.
- GHS could introduce culture competency policies in the health care facilities and enforce implementation in order to sustain the programme.

Migrant Communities

- The GHS should consider individual or group migrant behaviours within the context of migrant communities when implementing interventions to ensure their effectiveness.

6.3 Future Directions of this Research

Having developed a novel behaviour change-informed framework for enhancing the utilisation of migrant ASRH in Ghana, it is essential to note that this intervention framework has not been specifically tested in the current Ph.D research study due to the time duration allotted for the study. As a draft framework, this would require further testing in a future study as part of post-doctoral training.

6.4 Testing of Framework in a Subsequent Study

The pilot study will be part of a multiphase intervention development aimed at testing the behaviour-informed framework within its practical context. It will focus on healthcare providers (HCPs) delivering adolescent sexual and reproductive health services (ASRHs) in Ghana, specifically examining the framework's impact on HCPs practices amidst the poor uptake of ASRHs among migrant adolescents. A single-group pre-post intervention design will be employed for pilot testing. The behaviour-informed intervention framework will involve the application of the model through the training of HCPs and the evaluation of their capacity to implement this approach in practice. This design will compare participants' responses at baseline, after training, and after a period of time follow-up. It is hypothesised that the training program will enhance HCPs' cultural competency knowledge, skills, and attitudes. Additionally, it is expected that the HCPs will effectively incorporate these competencies into their practices over time, leading to improved service delivery outcomes while at the same time promoting the uptake of ASRHs among migrant adolescents.

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APPENDIX

APPENDIX I

INTERVIEW GUIDE #I

UNIVERSITY OF GHANA, LEGON

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES

Interview guide for migrant adolescents

Dear Participants,

I am a doctoral candidate from the University of Ghana (School of Public Health). I am currently conducting a study on the topic, *Development of a culturally competent intervention framework to enhance utilisation of sexual and reproductive health services for rural- urban migrant adolescents in Greater Accra Region, Ghana* in partial fulfilment of the requirements for the award of Doctor of Philosophy-Public Health. The study is aimed at developing evolving behavioural change intervention framework to enhance access to sexual and reproductive health services. The interview takes about 45 minutes- I hour. I would be grateful if you could assist me by answering the following questions. All information that you give shall be kept with the strictest confidentiality

Thank you

IN-DEPTH INTERVIEW (IDI)

IDI- Interview checklist (with migrant adolescents):

A. Socio-demographic information

1. Can you please tell me about yourself? - **Probe for;**

- a. Gender, age, education, religious affiliation, place of origin, migration intention, place of origin, current occupation, languages spoken, current place of residence in the city, lengths of residence, do you have a sexual partner (if yes how long? How many partners?)

B: Current care pathways for SRHS utilisation by migrant's adolescents

2. If I may know is this the first time you are coming to the reproductive health clinic? Yes or No

- a. If yes **probe** for the reason for coming to the clinic?
- b. Probe into whether or not services relating to counselling, contraceptive services, STI treatment, and safe abortions have been used in the past?
- c. If no to question 2, **probe** why he/she visited the facility the last time? **Find out** if he/she has ever visited any of such facility in the city?

3. Can you please tell me about your experience when you visited this SRH facility as a migrant?

- a. Was there any special provision made for migrants, example special corner for migrants separately?
- b. What language did the treatment take place between you and the health care provider?
- c. Did the fact that you did not understand the care giver's language affected the treatment you expected in any way? If yes probe further, how?
- d. Find out if anything was done to overcome the communication challenge?
- e. Was any specific provision made to address communication barrier?
- f. Probe further if communication barrier affected medication adherence in any way?
- g. Were the care workers friendly towards you, considering your migration background? e.g were they willingly to help? Were you allowed to express freely without being shouted at?

- h. Did you share your opinion/concern about your health issues based on your cultural background/orientation? (What was their attitude or responses?)
 - i. Did you queue for long hours/or did the treatment process delayed or short due to language differences? Yes or No. If yes how?.....
 - j.If the entire process kept long did that affect you in terms of revenue loss on that day?
 - k. If yes to question (i), does that influence your decision to attend reproductive health clinic in subsequent times.
 - l. How about your general satisfaction with treatment as compared to other care providers before you came to the city?
 - m. Will you advise a friend or family member to attend reproductive health clinic considering your experience? **Yes/no, probe further.....**
4. Are there any other experience you may want to share?
- (a)Yes or No, **If yes probe further.**

FOCUS GROUP DISCUSSION (FGD)

FGD- Interview checklist (with migrant adolescents):

A. Socio-demographic information

- 1. Can you please tell me about yourselves? - **Probe for**.....
 - a.Age, gender, education, religious affiliation, place of origin, migration intention, place of origin, current occupation, languages spoken, current place of residence, lengths of living here, do you have a sexual partner (if yes how long?..... How many partners?.....)

B: Current care pathways for SRHS utilisation among migrant adolescents

2. If I may know does members of your community including peers come to the reproductive health clinic? Yes or No

- a. If yes **probe**, for the reason for coming to the clinic?
- b. Probe into specific services they have used/focus on counselling, contraceptive services, STI treatment, and safe abortions
- c. If no **probe**, why they visited the facility the last time? **Find out** if they have visited similar facilities elsewhere for same reasons?

3. What has been your experience any time you come to this facility for treatment?

- a. Do they have special provisions like a separate area for consultation?
- b. What language did the treatment take place between you and the health care provider?
- c. Did the fact that they did not understand the care giver's language affected the treatment they expected in any way? If yes probe further; how?
- d. Find out if anything was done to overcome the communication challenge?
- e. Was any specific provision made to address communication barrier?
- f. Probe further if communication barrier affected medication adherence in any way?
- g. Were the care workers friendly towards them considering their migration background? e.g were they willingly to help? Were you allowed to express freely without being shouted at?
- h. Did they share their opinion/concern on their health issues based on their cultural background/orientation? (What was their attitude or responses?)
- i. Do they have to queue for long hours/or did the treatment process delayed due to language differences? Yes or No. If yes how?
- j. If the entire process kept long did that affect them in terms of revenue loss on that day?
- k. If yes to question j, will that influence their decision to attend reproductive clinic in

subsequent times.

1. How about their general satisfaction with treatment as compared to other care providers before you came to the city?

m. Will they advise a friend or family member to attend reproductive health clinic considering how they are treated? **Yes/no, probe further.....**

4. Are there any other experience you may want to share?

(a) Yes or No, **If yes probe further.....**

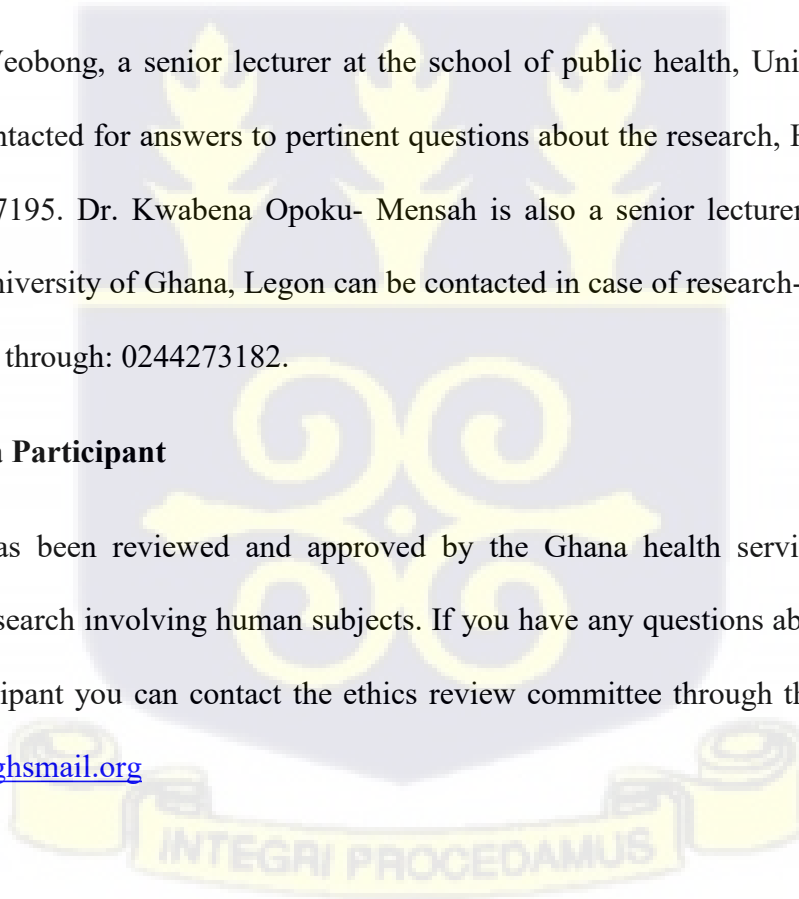
Contacts for Additional Information

(Dr. Benedict Weobong, a senior lecturer at the school of public health, University of Ghana, Accra can be contacted for answers to pertinent questions about the research, He can be reached through 0200827195. Dr. Kwabena Opoku- Mensah is also a senior lecturer at the school of public health, University of Ghana, Legon can be contacted in case of research-related injury. He can be contacted through: 0244273182.

Your rights as a Participant

This research has been reviewed and approved by the Ghana health service, ethics review committee on research involving human subjects. If you have any questions about your rights as a research participant you can contact the ethics review committee through this email address:

ethic.research@ghsmail.org



INTERVIEW GUIDE #II

UNIVERSITY OF GHANA, LEGON

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES

Interview guide for health care professionals

Dear Sir/ Madam,

I am a doctoral candidate from the University of Ghana (School of Public Health). I am currently conducting a study on the topic, *Development of a culturally competent intervention framework to enhance utilisation of sexual and reproductive health services for rural- urban migrant adolescents in Greater Accra Region, Ghana* in partial fulfilment of the requirements for the award of Doctor of Philosophy-Public Health. The study is aimed at developing evolving behavioural change intervention framework to enhance access to sexual and reproductive health services. The interview takes about 45 minutes- I hour. I would be grateful if you could assist me by answering the following questions. All information that you give shall be kept with the strictest confidentiality

IN-DEPTH INTERVIEW (IDI)

IDI- Interview checklist (with Sexual and reproductive healthcare professionals):

A: Socio-demographic information

1. Can you please tell me about yourself?

- a. gender, age, education, job title, lengths of work, do you provide SRHS relating to counselling, contraceptive services, STI treatment, and safe abortions to migrants adolescents? what exactly do you do?

B: Perspective of health care professionals in ASRHs

2. If I may know do migrants adolescents from other parts of Ghana (e.g the Kayayee's and their boys) utilise ASRHs such as contraceptive services, STI treatment, and safe abortions in this

facility? Yes, or no? If yes **probe for;**

- a. which specific type of services do they utilise most?
- b. how often?
- c. which part of Ghana do they normally come from;
- d. Are they able to speak English fluently or any language apart from their mother's tongue and how fluently?

3. Please tell me how are you able to interact with them in case of language barrier? **Probe for;**

- a. The use of professional interpreter services
- b. Family members or relatives
- c. Any adhoc approach
- d. Comparism of communication effectiveness as compared to other patients from non-migrants backgrounds?

4. How about situations where their culture health beliefs interfere in the treatment process, how do you handle such encounters? **Probe for.....**

- a. Do you take such accounts into consideration/ignore

5. Do you have specific policies in place to guide your practice in terms of the ASRH needs of migrants? Find out;

- a. Language assistance services
- b. Cultural competency skills in clinical encounters -knowledge, skills and attitude during orientation

- c. Programmes, workshops, seminars for capacity building in cultural competency
- d. Policy that insists on cultural competency; monitor and evaluate the practice?

6. Questions on Cultural Competency

(a) Awareness: In providing SRHS to these young people, how do you demonstrate your awareness of culturally appropriate and inappropriate actions and attitudes while working? Probe

- i. In terms of language barrier and differences in cultural health beliefs.
- ii. If you do, how do you ensure that your behaviour or attitudes towards this group reflect a prejudice, bias or stereotypical mindset?

(b) Skill: Talking about cultural competence in healthcare delivery, can you please tell me about your skill to develop and assess your level of cultural competence (i.e

i. to improve on care delivery on daily basis and to tell your ability to handle this groups appropriately

ii. What practical experience do you have of cultural competence in health care delivery

(c) Knowledge: Have you acquired a knowledge of cultural practices, protocols, beliefs etc.. related to SRHS delivery to adolescents' migrants' populations? Probe

i. Undertaken any cultural development programme that informs me of how to handle issues with migrants or people with culturally and linguistically diverse backgrounds.

(d) Encounters: Aside the indigenous young people who visit here, do you also interact with the migrant young people on SRH issues and how is your experience like?

ii. Do you enjoy interacting with them? How

(e) **Desire:** Please tell me,

(i) do you really want to become culturally competent?

(ii) What is your motivation?

KEY INFORMANT INTERVIEW (KII)

IDI- Interview checklist (with Sexual and reproductive healthcare professionals):

A: Socio-demographic information

1. Can you please tell me about yourself?

- a. gender, age, education, job title, lengths of work, do you provide counselling, contraceptive services, STI treatment, and safe abortions to migrants' adolescents, what exactly do you do?

B: Perspectives of health care professionals in ASRHS delivery

2. If I may know do adolescents migrants who are from other parts of Ghana (e.g the Kayayee's and their boys) utilise contraceptive services, STI treatment, and safe abortions in this facility?

Yes, or no? If yes **probe for;**

- a. Which specific type of services do they utilise most?
- b. Which part of Ghana do they normally come from;
- c. Are they able to speak English fluently or any language apart from their mother's tongue and how fluently?

3. About the boys what services do they specifically utilize? Probe further about the boys.

4. Please tell me how are you able to interact with migrants in case of language barrier? **Probe for;**

- a. The use of professional interpreter services

- b. Family members or relatives
 - c. Any adhoc person
 - d. Comparism of communication effectiveness as compared to other patients from non-migrants' backgrounds?
4. How about situations where their culture health beliefs interfere in the treatment process, how do you handle such encounters? **Probe for**.....
- a. Do you take such accounts into consideration/ignore
5. Does your facility has specific policies in place to guide your practice when it comes to the health needs of migrants? Find out;
- a. Language assistance services
 - b. cultural competency skills in clinical encounters -knowledge, skills and attitude during orientation
 - c. programmes, workshops, seminars for capacity building in cultural competence
 - d. policy that insists on cultural competency; monitor and evaluate the practice?

PART 2

QUESTIONS ON CULTURAL COMPETENCY

- (a)Awareness:** In providing SRHS to these young people, how do you demonstrate your awareness of culturally appropriate and inappropriate actions and attitudes while working? Probe
- i. In terms of language barrier and differences in cultural health beliefs.
 - ii. If you do, how do you ensure that your behaviour or attitudes towards this group reflect a prejudice, bias or stereotypical mindset?

(b)Skill: Talking about cultural competence in healthcare delivery, can you please tell me about your skill to develop and assess your level of cultural competence (i.e

i.to improve on care delivery on daily basis and to tell your ability to handle this groups appropriately

ii.What practical experience do you have of cultural competence in health care delivery

(c)Knowledge: Have you acquired a knowledge of cultural practices, protocols, beliefs etc.. related to SRHS delivery to adolescents' migrants' populations? Probe

i. Undertaken any cultural development programme that informs me of how to handle issues with migrants or people with culturally and linguistically diverse backgrounds.

(d) Encounters: Aside the indigenous young people who visit here, do you also interact with the migrant young people on SRH issues and how is your experience like?

ii.Do you enjoy interacting with them? How

(e) Desire: Please tell me,

(i)do you really want to become culturally competent?

(ii) What is your motivation?

Thank you!

Contacts for Additional Information

(Dr. Benedict Weobong, a senior lecturer at the school of public health, University of Ghana, Accra can be contacted for answers to pertinent questions about the research, He can be reached through 0200827195. Dr. Kwabena Opoku- Mensah is also a senior lecturer at the school of

public health, University of Ghana, Legon can be contacted in case of research-related injury. He can be contacted through 0244273182)

Your rights as a Participant

This research has been reviewed and approved by the Ghana health service, ethics review committee on research involving human subjects. If you have any questions about your rights as a research participant you can contact the ethics review committee through this email address:

ethic.research@ghsmail.org



INTERVIEW GUIDE #III

UNIVERSITY OF GHANA, LEGON

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES

Interview guide for parents/guardians/gatekeepers/other responsible adults

I am a doctoral candidate from the University of Ghana (School of Public Health). I am currently conducting a study on the topic, *Development of a culturally competent intervention framework to enhance utilisation of sexual and reproductive health services for rural- urban migrant adolescents in Greater Accra Region, Ghana* in partial fulfilment of the requirements for the award of Doctor of Philosophy-Public Health. The study is aimed at developing evolving behavioural change intervention framework to enhance access to sexual and reproductive health services. The interview takes about 45 minutes- I hour. I would be grateful if you could assist me by answering the following questions. All information that you give shall be kept with the strictest confidentiality

Thank you

IN-DEPTH INTERVIEW (IDI)

IDI- Interview checklist (with parents/guardians or other responsible adults):

A: Socio-demographic information

1. Can you please tell me about yourself?

a. gender, age, education, how many children do you have with you here? which part of the country do you come from? what exactly do you do for a living? How long have you been living in this community?

B: Current care pathways for SRHS utilisation among migrants adolescent

2. Do you have reported cases of sexual and reproductive health and its related issues (contraceptive services, STI treatment, and safe abortions) among the adolescent people in this community? If yes how? Can you please tell me more?

3.If I may know do you have any idea of your children (migrant adolescent) utilizing contraceptive services, STI treatment, and safe abortions in this community? Yes or no? (Deal with issues of male and females) If yes **probe for;**

a. which specific type of services do they utilize?

b. how often?

4. What specific challenges do they face utilizing these services?

Probe:

a. Communicating with the care givers in terms of language barrier?

b. Differences in cultural health beliefs?

c. Any other challenges

4. Would you attribute the above challenges to their inability to utilize these services? Please tell me more. **Also probe for:**

(a)Migration (fear of losing income, multiple simultaneous needs i.e accommodation)

(b)Lack of knowledge about existence of services due to example no awareness creation, difficulty to understand language in which awareness is created

(c)No migrant friendly corner at the facility.

FOCUS GROUP DISCUSSION (FGD)

FGD- Interview checklist (with parent/guardians or other responsible adults):

A: Socio-demographic information

1. Can you please tell me about yourselves?

a. gender, age, education, how many children do you have in this community? which part of the country do you come from? what exactly do you do for a living? How long have you been living in this community?

B: Current care pathways for SRHS utilisation among migrant adolescents

2. Do you have reported cases of sexual and reproductive health and its related issues (contraceptive services, STI treatment, and safe abortions) among the adolescent people in this community? If yes how? Can you please tell me more?

3. If I may know do you have any idea of adolescent migrants utilizing contraceptive services, STI treatment, and safe abortions in this community? Yes or no? (Deal with issues of male and females) If yes **probe for;**

a. which specific type of services do they utilize?

b. how often?

4. What specific challenges do these adolescents face utilizing these services?

Probe:

a. Communicating with the care givers in terms of language barrier?

b. Differences in cultural health beliefs?

c. Any other challenges

4. Would you attribute the above challenges to their inability to utilize these services? Please tell me more. **Also probe for:**

(b)Migration (fear of losing income, multiple simultaneous needs i.e accommodation)

(c)Lack of knowledge about existence of services due to example no awareness creation, difficulty to understand language in which awareness is created

(d)No migrant friendly corner at the facility.

(6) Find out if these adolescents utilise such services at places of origin

Thank you!

Contacts for Additional Information

(Dr. Benedict Weobong, a senior lecturer at the school of public health, University of Ghana, Accra can be contacted for answers to pertinent questions about the research, He can be reached through 0200827195. Dr. Kwabena Opoku- Mensah is also a senior lecturer at the school of public health, University of Ghana, Legon can be contacted in case of research-related injury. He can be contacted through 0244273182)

Your rights as a Participant

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a research participant you can contact the ethics review committee through this email address:

ethic.research@ghsmai.org



INTERVIEW GUIDE #IV

UNIVERSITY OF GHANA, LEGON

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES

Interview guide for migrant adolescent peers

Dear Sir/ Madam,

I am a doctoral candidate from the University of Ghana (School of Public Health). I am currently conducting a study on the topic, *Development of a culturally competent intervention framework to enhance utilisation of sexual and reproductive health services for rural- urban migrant adolescents in Greater Accra Region, Ghana* in partial fulfilment of the requirements for the award of Doctor of Philosophy-Public Health. The study is aimed at developing evolving behavioural change intervention framework to enhance access to sexual and reproductive health services. The interview takes about 45 minutes- I hour. I would be grateful if you could assist me by answering the following questions. All information that you give shall be kept with the strictest confidentiality.

Thank you

IN-DEPTH INTERVIEW (IDI)

IDI- Interview checklist (with peers):

A: Socio-demographic information

1. Can you please tell me about yourself?

a. gender, age, education, do you have a sexual partner and how many? which part of the country do you come from? what exactly do you do for a living? How long have you been living in this community?

B: Current care pathways for SRHS utilisation among migrants adolescents

2. Do you have any idea about sexual and reproductive health issues (contraceptive services, STI treatment, and safe abortions) in this community?. If yes how? Can you please tell me more?

3.If I may know have you visited any health facility yourself to utilise any of the ASRHs in this community? Yes or no? If yes **probe for;**

a. which specific type of services did you utilise?

b. how often?

4. What specific challenges did you encounter when you visited the facility?

Probe:

a. Communicating with the care givers in terms of language barrier?

b. Differences in cultural health beliefs?

c. Any other challenges

5. If no to question 4, **probe;**

(a)What reasons might have accounted for your inability to utilise any of these services?

(b)Migration (fear of losing income, multiple simultaneous needs i.e accommodation)

(c)Lack of knowledge about existence of services due to example no awareness creation, difficulty to understand language in which awareness is created

(d)No migrant friendly corner at the facility.

FOCUS GROUP DISCUSSION (FGD)

A: Socio-demographic information

FGD- Interview check-list (with adolescent peers):

1. Can you please tell me about yourselves?

a. gender, age, education, do you have a sexual partner and how many? which part of the country do you come from? what exactly do young people here like you do for a living? How long have you been living in this community?

A: Current care pathways for SRHS utilisation among migrant adolescent

2. Do you have any idea about sexual and reproductive health issues (contraceptive services, STI treatment, and safe abortions) in this community? If yes how? Can you please tell me more?

3. If I may know has any of you visited any health facility yourself to utilise any of the ASRHs in this community? Yes or no? If yes **probe for;**

a. which specific type of services did you utilise?

b. how often?

4. What specific challenges did you encounter when you visited the facility?

Probe:

a. Communicating with the care givers in terms of language barrier?

b. Differences in cultural health beliefs?

c. Any other challenges

5. If no to question 4, **probe;**

(a) What reasons might have accounted for your inability to utilise any of these services?

(b) Migration (fear of losing income, multiple simultaneous needs i.e accommodation)

(c) Lack of knowledge about existence of services due to example no awareness creation, difficulty to understand language in which awareness is created

(d) No migrant friendly corner at the facility.

APPENDIX II

UNIVERSITY OF GHANA, LEGON

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DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES

Questionnaire 1: Questionnaire for Experts in Delphi Study

Project title: Development of culturally competent behaviour change intervention framework to enhance utilisation of sexual and reproductive health services among rural- urban migrant adolescent in Greater Accra Region, Ghana

Survey title: Expert validation of behaviour change techniques (BCTs) to inform behaviour change intervention strategies: A Delphi study

Dear Prof/Dr,

Thank you for making time to participate in this survey, which should last not more than 1 hour. I am Ransford Kwaku Afeadie, a doctoral candidate from the School of Public Health, University of Ghana. I am contacting you to solicit your expert opinion on the content of a behaviour change intervention currently being developed as part of my Ph.D research work. Current evidence suggests a care gap in the delivery of adolescent sexual and reproductive health services (ASRHs) to rural-urban migrant adolescent by health care professionals. This could be explained by issues related to both Demand side barriers (e.g language barriers, differences in cultural health beliefs and normalisation of attachment to work) and Supply side barriers (e.g lack of cultural competency knowledge and skills). This PhD is designed to carefully unpack these barriers that are amenable to behaviour change and to use this knowledge to construct the framework for a culturally competent behaviour change intervention to promote migrant

adolescent utilisation of ASRH services in Ghana. Based on a series of formative studies, the COM-B model and the Campinha-Bacote's model of cultural competence in healthcare delivery, and relevant literature, intervention functions and behaviour change techniques were identified from the behaviour change technique taxonomies to tackle the target behaviours at both the provider and service-user level. My next logical step is to seek feedback from behaviour change experts on the appropriateness of the identified BCTs through a short survey. I would be extremely grateful to receive your responses by filling out the questionnaire to enable me to proceed to the next step of the intervention development process. I would appreciate if you could send me your feedback based on what is convenient to you but preferably by 10th June 2023. Please be assured that the data collected will be strictly confidential and used solely for the purpose of the Ph.D research. Please find the key explanatory factors identified in qualitative interviews with health care professionals (supply side/provider) and adolescent migrants (demand/patient). In the next column, indicate whether or not the suggested intervention functions identified are appropriate. This is followed by the suggested BCT, where you will specify whether it is appropriate/ aligned with the BCT in the next column. Next, rate the feasibility, acceptability, effectiveness, and risk of harm to the users/beneficiaries for the targeted behaviour. Lastly, provide the mechanisms of action for the BCTs.

Section A: Socio -Demographics

1. Gender

1. Male [] 2. Female []

2. Area of expertise _____

3. Institution of affiliation _____



Section B: Evaluation of Intervention Content

Key explanatory factors	Suggested Intervention function	Please indicate if the suggested intervention functions are appropriate for the target behaviour	Suggested Behaviour change Technique (BCT)	Please indicate if the suggested BCT is appropriate/aligned with the selected intervention function	Please rate the following in relation to BCT for the target behaviour and indicate the right number in the bracket against it				Please state mechanism of action for each BCT
					*Feasibility Scale= 0-5 ()	*Acceptability Scale= 0-5 ()	*Effectiveness Scale= 0-5 ()	*Risk of harm Scale= -5-+5 ()	
SUPPLY (PROVIDER) LEVEL FACTORS									
1.No cultural competency skills and knowledge among HCW	Training	1. Yes () 2. No () If no please explain.....	Instruction on how to perform the behaviour	1.Yes () 2.No (), If no please explain	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5-+5 ()	
2.Language barrier for effective communication	Enablement	1. Yes () 2. No (). If no please explain.....	Remove aversive stimulus	1.Yes () 2.No () If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5-+5 ()	
3.Lack of skills needed to handle differences in cultural health beliefs	Training	1.Yes () 2.No (). If no please explain.....	Instruction on how to perform the behaviour	1.Yes () 2.No () If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5-+5 ()	
4.Absence of culturally sensitive adolescent corner	Environmental restructuring	1.Yes () 2.No (). If no please explain.....	Restructuring the physical environment	1.Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5-+5 ()	
DEMAND (PATIENT) LEVEL FACTORS									

1. Preference for services of informal care providers with similar cultural backgrounds due to distrust in HCPs	Education/Enablement	1. Yes () 2. No (). If no please explain.....	Information about health consequences/Non-specific rewards	1. Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	
2. Language barrier to effectively communicate with HCPs about SRH health conditions	Enablement	1. Yes () 2. No (). If no please explain.....	Remove aversive stimulus	1. Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	
3. Distrust in HCPs exacerbates over reliance on peer influences resulting into hearsay, and myths about ASRH	Environmental restructuring/education	1. Yes () 2. No (). If no please explain.....	Restructuring the social environment/Information about health consequence	1. Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	
4. Perceived high cost associated with ASRH utilisation is considered burdensome	Incentivisation/Enablement	1. Yes () 2. No (). If no please explain..... ...	Material incentive (behaviour)	1. Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	
5. Lack of physical access to information about the availability and location of ASRHs .	Environmental restructuring	1. Yes () 2. No (). If no please explain.....	Restructuring the physical environment	1. Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	
6. Lack of	Education	1. Yes ()	Information about	1. Yes ()	Scale=	Scale=	Scale=	Scale=-5-	

knowledge about the right to entitlement of ASRHS from duty bearers		2. No (). If no please explain.....	antecedents	2. No (). If no please explain.....	0-5 ()	0-5 ()	0-5 ()	+5 ()	
7.Lack of specialised care in relation to cultural needs, e.g language assistance services	Enablement	1.Yes () 2. No (). If no please explain.....	Remove aversive stimulus	1.Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	
8.Influence of left behind families for advice on where to seek help on ASRH medication due to distrust in HCPs	Enablement	1.Yes () 2. No (). If no please explain.....	Credible source	1.Yes () 2. No (). If no please explain.....	Scale= 0-5 ()	Scale= 0-5 ()	Scale= 0-5 ()	Scale=-5- +5 ()	

Definition of scale:

***Feasibility:** 0= not at all feasible, 1= slightly feasible, 2= somewhat feasible, 3= very feasible, 4= entirely feasible

***Acceptability:**0= not at all acceptable, 1= slightly acceptable, 2= somewhat acceptable, 3= very acceptable, 4= entirely acceptable

***Effectiveness:** :0= not at all effective, 1= slightly effective, 2= somewhat effective, 3= very effective, 4= entirely effective

***Risk of harm:** -5: Extremely negative side-effects, -4: Very negative, -3: Moderately negative, -2: Mildly negative -1:

Slightly

negative, 0: Neutral, +1: Slightly positive side-effects, +2: Mildly positive, +3: Moderately positive, +4: Very positive, +5: Extremely positive.



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Questionnaire 2: Questionnaire for Experts in First Iteration Study

PhD topic: Development of culturally competent behaviour change intervention framework to enhance utilisation of sexual and reproductive health services among rural-urban migrant adolescents in the Greater Accra Region, Ghana.

Survey title: Soliciting feedback on proposed implementation strategies and delivery options having previously helped with behaviour change technique (BCT) strategies alignment with intervention functions

Dear Prof/Dr,

Thank you for making time to participate in the first round of this survey. I am Ransford Kwaku Afeadie, a doctoral candidate from the School of Public Health, University of Ghana, under the supervision of Dr. Benedict Weobong. I am writing to invite you to participate in the final stage of this study, which involves first iteration of developing the intervention framework. I greatly appreciate your previous contribution to the study, and I believe that your valuable insights will continue to greatly contribute to the research. As an expert participant in the first round of the study, you provided valuable opinions and expertise that helped shape the initial findings. The goal of this stage of the study (iteration 1) is to solicit your feedback on the appropriateness of

the identified implementation strategies and mode of delivery. This is to help refine the proposed implementation strategies and delivery options leading to the development of the final intervention framework. As I progress towards the final stage of my intervention development, I recognise the immense value that your insights can bring to refining and optimising these aspects, and this is where your expertise becomes instrumental. This study should not exceed 30 minutes in duration in completion of the questionnaire. I would be extremely grateful to receive your response by filling out the questionnaire to enable me to proceed to the next step of the intervention development process. I would appreciate if you could send me your feedback based on what is convenient to you but preferably by 5th July, 2023. Please be assured that the data collected will be strictly confidential and used solely for the purpose of the Ph.D research.

INSTRUCTION ON HOW TO COMPLETE THE FORM

Please find the key explanatory factors identified in qualitative interviews with health care workers and adolescent migrants and the associated BCTs, that have been linked to the corresponding intervention strategies and mode of delivery. Next, is the set of questions in both the close-ended and open ended for you to answer based on the strategies and mode of deliveries suggested.

Thank you

QUESTIONS ON INTERVENTION STRATEGY/MODE OF DELIVERY

1. In your opinion, what is your general impression about the implementation strategies and mode of delivery identified to change behaviours at both patient and provider level?

Very Impressive [] 2. Impressive [] 3. Unimpressive [] 4. Undecided []

Are these strategies/mode of delivery in line with current practice?

1. yes [] 2. No []

Please indicate your extent of agreement and disagreement with the following statement in relation to the intervention’s strategy and mode of delivery on 1-5 scale: 1 representing strongly agree, 2= agree, 3= Neutral, 4=Disagree, 5= Strongly disagree (Please tick only 1)

Statements	1	2	3	4	5
1.I would judge the intervention strategies and mode of delivery identified as suitable, satisfying or attractive to the recipients					
2. I think the behavioural change intervention strategies/mode of delivery are capable of enhancing the participants' trust in adopting the expected behaviours					
3.In my opinion, does the intervention content adequately address the targeted behaviour health issues?					
4.I believe the intervention content is effective enough in raising awareness or promoting behaviour change?					

5.Are there any aspects of the content that you feel may pose any barrier towards implementation?

Yes []

No []

6.If yes to question 7, please give reasons for your answer

.....

APPENDIX III

UNIVERSITY OF GHANA, LEGON

COLLEGE OF HEALTH SCIENCES

SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES

Health care professionals

Dear Participant,

Thank you for agreeing to partake in this exercise for this research project/ once again. I am a doctoral candidate from the School of Public Health, University of Ghana. I am currently conducting a study on the topic, *Development of a culturally competent behaviour change intervention framework to enhance utilisation of sexual and reproductive health services for rural- urban migrant adolescents in Greater Accra Region, Ghana* in partial fulfilment of the requirements for the award of Doctor of Philosophy in Public Health. This is the third phase of the study which involves preliminary testing of the cultural acceptability and feasibility of the implementation strategies and mode of delivery. The workshop will last for 2 hours. The questions listed below are designed to seek your personal opinion about the potential barriers and facilitators to help refine the intervention content. Your participation will be completely confidential and you will remain completely anonymous throughout this process.

Thank you for your time!

1. *IDI- Interview check-list (with health care professionals)*

Section A: Culturally appropriate and feasibility of implementation content

1. Do you think that this intervention strategies and mode of delivery are relevant to its implementation? Yes/Noplease give reasons for your answer

1a. What about the practicability of the intervention strategies and delivery options to its implementation, please explain?.....

1b. What about the culturally appropriateness of the included information. Please explain.....)

2. What could serve as the potential barriers and alternative suggestions to its implementation?

.....

3. Do you think the intervention strategies and modes of delivery would be likely to change behaviour in terms of your ASRH care delivery to the migrants? Yes/No []. Please give reasons for your answer.....

2. Interview check-list (with migrant adolescent):

Section A: Culturally appropriate and feasibility of implementation content

1. Please if I may know do think this intervention strategies and modes of delivery to be satisfactory to address your unique challenges and concerns of utilising ASRHs as migrant adolescent?' Yes/No, Please give reasons for your answer.....

2. What specific aspects of the intervention content and modes of delivery do you consider as practical in terms of use?

3. What are the likely facilitators to make it more culturally appropriate for you to uptake services?

3. Interview check-list (with gatekeepers):

Section A: Culturally appropriate and feasibility of implementation content

1. Do you think this intervention strategies and mode of delivery you are seeing addresses the unique challenges and concerns of utilising ASRH among adolescent's migrant?' Yes/No, Please give reasons for your answer.....

2. What specific aspects of the intervention strategies do you consider as barriers and what are the likely facilitators to make it more culturally appropriate for them to uptake services?

.....

4. Interview check-list(with adolescent migrant peers)

Section A: Culturally appropriate and feasibility of implementation content

1. Do you feel satisfied seeing this intervention strategies and modes of delivery to address the unique challenges and concerns of utilising ASRHs among you as peers?' Yes/No, Please give reasons for your answer.....

2. What specific aspects of the intervention content do you consider as barriers?

3. What alternative suggestions do you think can to make it culturally appropriate to enhance uptake of ASRH services?

.....

Thank you



APPENDIX VI

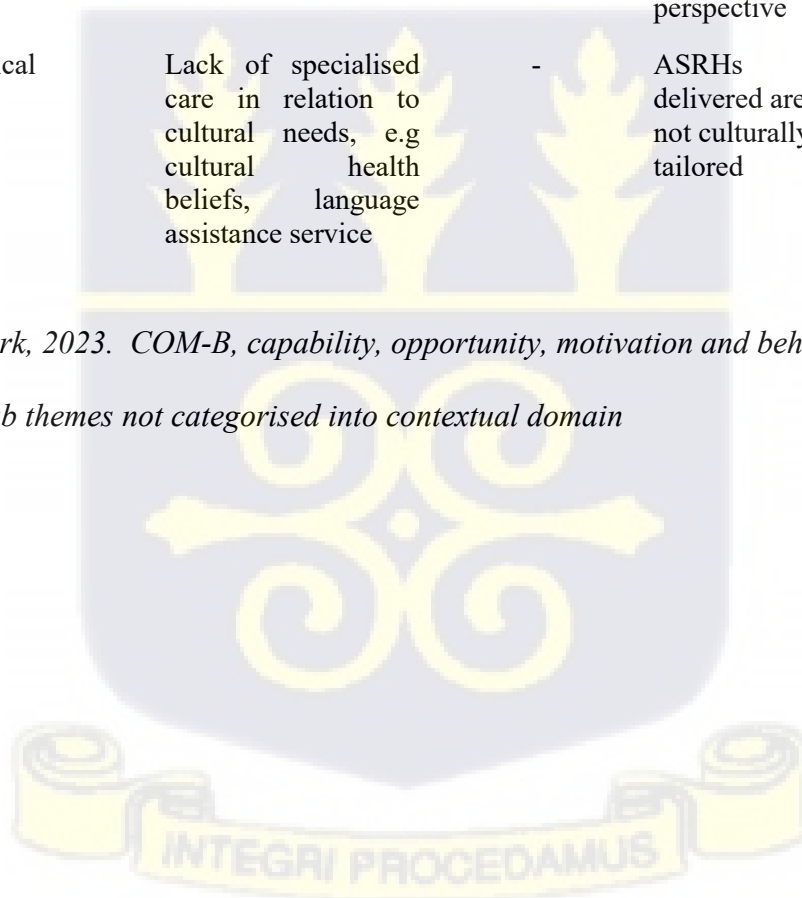
Table 4.1: Coding framework main themes and sub-themes mapped onto COM-B model and key concepts

COM-B	Framework	Main theme	Sub-theme	Concepts	Contextual domain
1.Motivation	Reflective	Preference for services of informal care providers with similar cultural backgrounds due to distrust in HCPs	-	Reluctance to use ASRHs in health care facilities, except last stage of illness	The nature of ASRHs use in the city
2.Capability	Psychological	Language barrier to effectively communicate about sexual and reproductive health conditions	-	Language barriers pose communication challenges	Evidenced during clinical encounters
3.Opportunity	Social	-	Lack of privacy when friends, relatives, and others are involved in interpretation	Inability to effectively divulge sensitive information in the presence of interpreters, which affects diagnoses and treatment.	Feeling uncomfortable in the presence of interpreters during clinicals
4.Opportunity	Social	-	Consultation of families left behind for advice on where to seek help on ASRH medication due to lack of trust in HCPs	Contacting family members back home to inform them about health conditions associated with SRH	Families who have been left behind are contacted to determine where help can be sought or how to treat conditions.
5.Motivation	Reflective	-	Distrust in HCPs exacerbates solidarity/peer influence resulting into hearsay, and myths about ASRH	New environments foster migrant networks, which increase hearsay and perpetuate myths about ASRH's	Peer opinions frequently influenced decisions about ASRH use and were frequently difficult to compromise.

COM-B	Framework	Main theme	Sub-theme	Concepts	Contextual domain
6.Opportunity	Physical	-	Cost	High cost associated with ASRHs,	The cost tends to be high as compared to using drug stores and other informal services.
7.Opportunity	Physical	Lack of physical access to information about availability of ASRHs	-	Unavailability of sign post or directional signs to location of services	Comparatively to informal service providers who are easily accessible
8.Capability	Psychological	Lack of knowledge about the right to entitlement of ASRHs	-	Sense of entitlement to SRH services (from a rights-based perspective)	Inability to claim their right from duty bearers to fulfil their obligations by providing culturally sensitive ASRHs
9. Opportunity	Physical	Lack of specialised care in relation to cultural needs, e.g cultural health beliefs, language assistance service	-	ASRHs delivered are not culturally tailored	Creating insufficient and ineffective care

Source: Fieldwork, 2023. COM-B, capability, opportunity, motivation and behaviour

* Themes and sub themes not categorised into contextual domain



APPENDIX VII

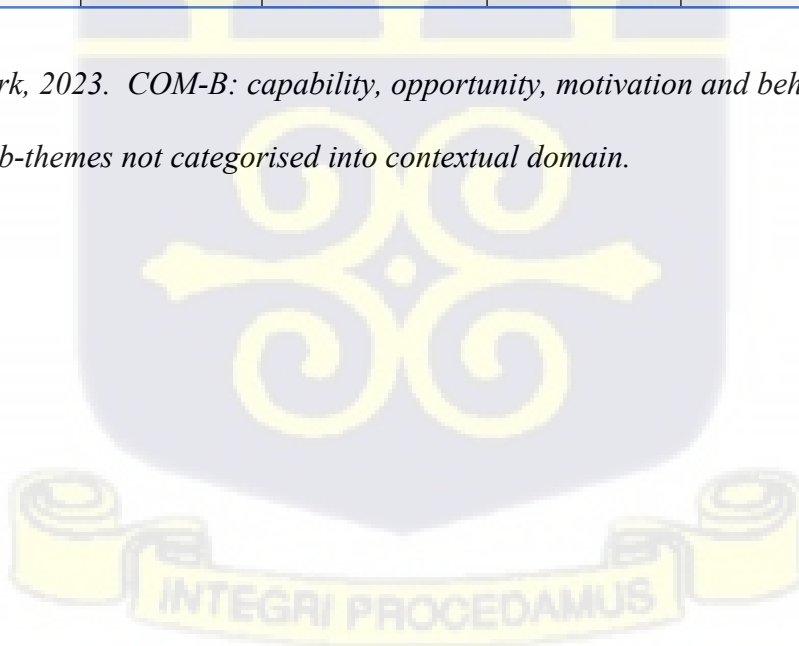
Table 4.9: The main themes and sub-themes of the coding framework are mapped onto the COM-B model, including associated concepts.

COM-B	Framework	Main theme	Sub-theme	Concepts	Contextual domain
1.Capability	Psychological	Lack of cultural competence to provide migrants with ASRH needs	-	No competency knowledge and skills	Sub optimal care
2.Capability	Psychological	-	Lack of interpreter services	Language barrier	Negatively affect diagnoses and treatment
3.Opportunity	Physical	-	Use of unprofessional interpreters, such as friends or other clients	Lack of interpreter services resulting in the use of unacceptable strategies	Misinterpretation of information
4.Opportunity	Physical	-	Use of other colleagues who understand the client's language for interpretation purposes	Lack of interpreter services leading to coping strategies with further adverse consequences	Can be helpful but leads to other patients having to wait for their care provider at the other departments.
5.Capability	Psychological	Differences in cultural health beliefs	-	Inability to manage cultural health differences	Differences in cultural health beliefs that threaten treatment processes.

6.Capability	Psychological	Lack of organisational training and skills	-	Lack of organizational support to promote cultural competency	There are no clear paths for handling the special needs of this subgroup
7.Motivation	Reflective	Efforts are made to foster a friendly relationship to uptake ASRHs, but there's often withdrawal as health care workers are generally seen as strangers	-	Attempts to engage migrants adolescent to change which often fails	Situation often characterised by failure by patients to return for review
8.Opportunity	Physical	Unavailability of culturally appropriate adolescent corner	-	Adolescents corner for some facilities but not culturally sensitive to accommodate adolescent migrants	Lack of privacy for attending to adolescent migrants

Source: Fieldwork, 2023. COM-B: capability, opportunity, motivation and behaviour.

* Themes and sub-themes not categorised into contextual domain.



APPENDIX VIII

Table 4.10: The main themes and sub-themes of the Campinha-Bacote model of cultural competence in healthcare delivery, including associated key concepts

Campinha-Bacote model	Main theme	Sub-theme	Concepts	Contextual domain
1.Cultural awareness	Unaware of how own cultural biases can influence interaction with patients	-	Lacking a culturally sensitive approach to delivering ASRHs to migrants	Migrant special health needs including cultural backgrounds are being ignored
2.Cultural skills	Ineffective cross-cultural communication skills to provide culturally sensitive and appropriate care	-	Health care workers are unlikely to listen with interest and remain non-judgmental about what they hear.	Culturally sensitive manners, which are infused with humility, are ignored.
3.Cultural knowledge	Delivery of ASRHs does not integrate a sound educational base about migrants cultural values, health related beliefs and practices	-	Complete ignorance of cultural competence in health care delivery	Lack of knowledge of the details of migrants given their cultural orientation which is a potential to stereotype all migrants.
4.Cultural encounters	Inability to engage in direct interactions with migrants and experiences to gain deeper understanding of their cultural perspectives	-	Inability to directly engage in face-to-face interactions with migrants due to culturally and linguistically diverse backgrounds	It is unlikely to modify existing beliefs about migrant's groups and possible stereotypes

5.Cultural desire	Motivation to serve adolescent migrants groups despite cultural and linguistic challenges	-	The motivation to engage in the process of becoming culturally aware, skilful, knowledgeable, encountered, and desired	Possibility of culturally competent ASRHs delivery
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Source: Fieldwork, 2023.

Campinha-Bacote model: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire

** Themes not categorised into the contextual domain.*



APPENDIX IX

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.



Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Email: ethics_research@ghsmai.org
12th July, 2022

My Ref. GHS/RDD/ERC/Admin/App 122/249
Your Ref. No.

Ransford Kwaku Afeadie
School of Public Health
College of Health Sciences
University of Ghana
P.O. Box LG 13
Legon
Accra-Ghana

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC: 016/04/22
Study Title	Development of a Culturally Competent Behaviour Change Intervention to Enhance Utilisation of Sexual and Reproductive Health Services for Rural-Urban Migrant Adolescents in Greater Accra Region, Ghana
Approval Date	12 th July, 2022
Expiry Date	11 th July, 2023
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
Dr. Cynthia Bannerman
(GHS-ERC Chairperson)

In case of reply, the
number and date of this
Letter should be quoted.

My Ref. no.: GHS/UPS/069
Your Ref. No.....

PEOPLE CENTERED
PROFESSIONALISM
TEAM WORK
EXCELLENCE
DISCIPLINE
INTEGRITY



Ussher Hospital
Ghana Health Service
P. O. Box GP2105,
Accra

Tel: 0302 663007

Ussherhospital23@gmail.com

GPS: GA-225-5119

26th March, 2024

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

COMPLETION OF RESEARCH
MR. RANSFORD KWAKU AFADIE

TOPIC: DEVELOPMENT OF A CULTURALLY COMPETENCE BEHAVIOUR
CHANGE INTERVENSION TO ENCHANCE UTILIZATION OF SEXUAL AND
REPRODUCTIVE HEALTH SERVICE OF RURAL URBAN MIGRATION,
ADOLESCENT IN GREATER ACCRA REGION, GHANA

I write to inform you that the above mentioned officer, came to do his research work in our facility from **September, 2022 to October, 2022** he has successfully completed his research.

Thank you

Yours faithfully

A handwritten signature in blue ink, appearing to read "M. Atuah", is written over a large, faint watermark of the Ghana Health Service logo.

DR. MICHAEL OFOSU ATUAH
MEDICAL SUPERINTENDENT (AG)

DR. MICHAEL OFOSU ATUAH
MBChB, MPH
MEDICAL OFFICER
USSHER HOSPITAL, ACCRA

PROCEDAMUS

In case of reply the number and the date of this letter should be quoted.

My Ref: GHS/LNMMHD/RSH/10/2024

Your Ref:



La-Nkwantanang Madina Municipal Health Directorate
P.O.BOX MD 839
Madina

Email: lanmmhd2020@gmail.com
TEL: 0244-232525, 0302527093

Date: 9th January, 2023

**THE HEAD OF DEPARTMENT
DEPARTMENT OF SOCIAL AND BEHAVIOURAL SCIENCES
SCHOOL OF PUBLIC HEALTH**

**COMPLETION OF DATA COLLECTION FOR RESEARCH
MR. RANSFORD KWAKU AFEADIE**

This serves to inform you that the above-named personnel has completed his data collection for his thesis titled **“Development of a culturally competent behaviour change intervention to enhance utilisation of sexual and reproductive health services for rural-urban migrant adolescents in Greater Accra Region, Ghana”**.

The data collection period was from **September, 2022 to December, 2022**.

Thank you.

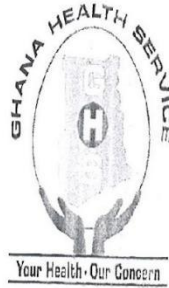
LA-NKWANTANANG MADINA MUNICIPAL
HEALTH DIRECTORATE

MUNICIPAL PUBLIC HEALTH NURSE

MS. GRACE A. APREKU
PRINCIPAL NURSING OFFICER (PUBLIC HEALTH)
FOR: MUNICIPAL DIRECTOR OF HEALTH SERVICES
LA-NKWANTANANG MADINA MUNICIPAL HEALTH DIRECTORATE

Ghana Health Service CORE VALUES: People Centeredness, Professionalism, Teamwork, Innovation, Discipline and Integrity

In case of reply my Ref. No. and the date of this letter should be quoted.



GHANA HEALTH SERVICE
MALLAM ATTA GOV'T
CLINIC.
GREATER-ACCRA REGION
P. O. BOX 184
ACCRA.

My Ref. No.

Your Ref. No.
Tel. 0302 - 220755

16TH FEBRUARY, 2024.

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

LETTER OF CONFIRMATION OF DATA COLLECTION
MR. RANSFORD KWAKU AFEADIE

I wish to inform you that the above-named PhD Student from the University of Ghana visited the facility in August 2022 to collect data for his thesis which is titled "Development of a culturally competent behaviour change intervention to enhance utilization of sexual and reproductive health services for rural-urban migrant adolescents in Greater Accra Region, Ghana".

Thank you.

[Handwritten signature]
FREDERICK KOBENA ADDISON
DEPUTY CHIEF PHYSICIAN ASSISTANT
MALLAM ATTA GOVERNMENT CLINIC

FREDERICK K. ADDISON
DEPUTY CHIEF PHYSICIAN ASSISTANT I/C





PENTECOST HOSPITAL, MADINA
(Member of CHAG)

P. O. Box GP 20790, Accra
Tel: +233 30 250 8396
Email: info@pentecosthospital.org
Website: www.pentecosthospital.org
G.P.S - GM-023-1576

Ransford Kwaku Afeadie
School of Public Health
College of Health Sciences
University of Ghana
March 10th, 2023

Dear Sir,

ETHICAL CLEARANCE

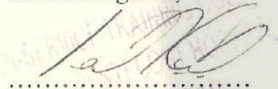
This is to inform you that the Pentecost Hospital Ethical Review Board (PH ERB) has reviewed and granted approval for the study;

“ Development of a Culturally Competent Behaviour Change Intervention to Enhance Utilisation of Sexual and Reproductive Health Services for Rural -Urban Migrant Adolescents in in Greater Accra Region , Ghana.”.

Kindly note that, any modification/ amendment to the approved study without notification and approval from the Pentecost Hospital Ethical Review Board renders this certificate invalid.

Again, note that, you are required to submit a final report on completion of the study to PH ERB.

Sincere regards,


.....
PS. DR. EDWARD ARKO KORANTENG
THE DIRECTOR
CHAIR (PH ERB)
Cc:PH ERB TEAM MEMBERS

Formerly Alpha Medical Centre

Core Values: Quality Service, Integrity, Discipline, Punctuality, Loyalty, Respect, Fairness, Commitment and Dedication to duty.