

UNIVERSITY OF GHANA

COLLEGE OF HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY



**BARRIERS TO CERVICAL CANCER SCREENING UPTAKE AMONG FEMALES IN
THE ASOKWA MUNICIPALITY, ASHANTI REGION.**

BY

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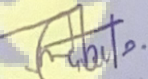
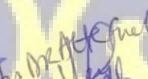
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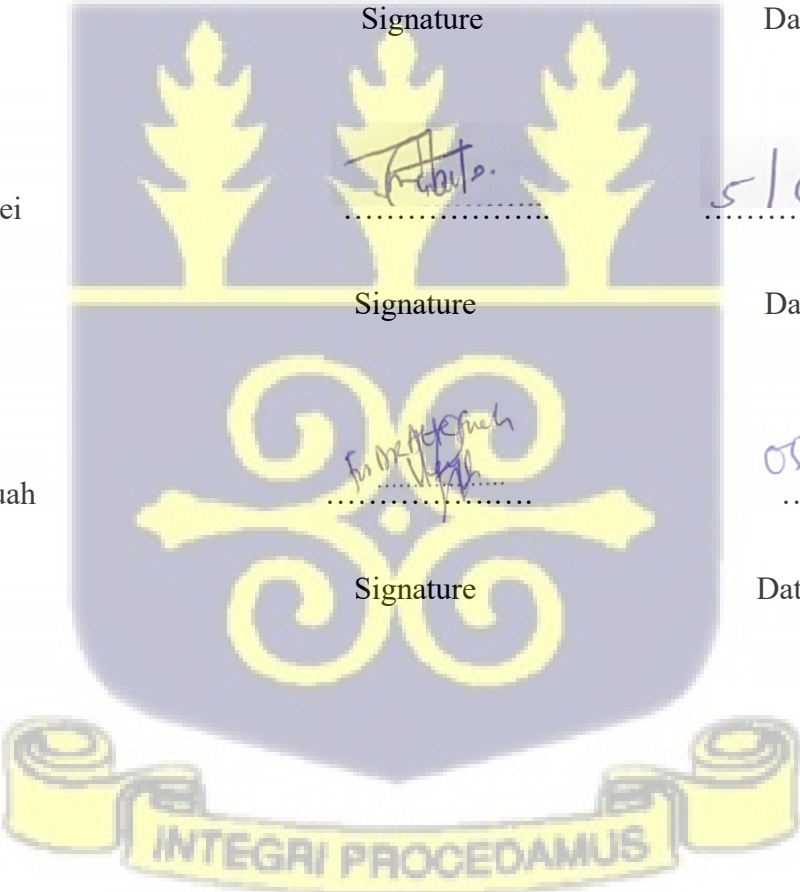
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DECLARATION

"I, Sandra Mawulorm Akos Akuamoah, do hereby, declare that this study is my original work. It was under the supervision of Dr. Josephine Kyei and Dr. Priscilla Attafuah of the School of Nursing and Midwifery, University of Ghana. Acknowledgement of other people's research works used as references has been duly done. This dissertation has not been submitted for the award of a degree in this University or elsewhere either in part or in whole for another degree."

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DEDICATION

I dedicate this work to all my friends and family, especially, to my husband, Rev. Nowell K. Anani.



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I am deeply grateful to God for granting me the strength and perseverance to complete this research successfully. This work would not have been possible without many individuals' invaluable support, guidance, and encouragement. First and foremost, I would like to express my profound appreciation to my supervisors for their relentless guidance, constructive feedback, and unwavering support throughout this research journey. Their expertise and encouragement have been pivotal in the completion of this thesis.

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Thank you all for being a part of this journey.



ABSTRACT

Background: Globally, cervical cancer is on the increase, particularly in sub-Saharan African countries and in the year 2020, up to 604,127 women in the world were diagnosed with the disease and with 341,831 deaths. Cervical cancer remains a significant public health issue, particularly in low- and middle-income countries (LMICs) such as Ghana. This study investigates the barriers to cervical cancer screening uptake among females in the Asokwa Municipality of the Ashanti Region, using the Health Belief Model (HBM) as a framework.

Methodology: A quantitative approach with cross-sectional survey design was employed in collecting and analysing data involving a sample size of 398 females aged 18 years and above. Data were collected through structured questionnaires focusing on knowledge, perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy, and cues to action regarding cervical cancer screening uptake.

Results: The findings revealed that only 17.8% of respondents had ever undergone cervical cancer screening, and 40.3% were aware of cervical cancer as a health issue. Key barriers identified include low knowledge about cervical cancer screening (64.89% had never been screened), lack of awareness about the importance of screening (48.2% felt screening is not important) fear of the screening process (29.9% reported fear), cultural beliefs (30% felt cultural restrictions), and socioeconomic factors (45% cited cost as a barrier).

Conclusion: The study concludes that significant barriers such as low knowledge about cervical screening, cultural beliefs and socioeconomic factors hinder the uptake of cervical cancer screening in the Asokwa Municipality, necessitating targeted interventions. It is recommended that public health campaigns focus on increasing awareness and education about cervical cancer and its prevention. Additionally, healthcare providers should address fears and cultural beliefs

associated with screening through community engagement and counselling. Policy interventions should aim at making screening more accessible and affordable, potentially through subsidized programs or mobile screening units to reach underserved areas.

Keywords: Cervical cancer, screening uptake, Health Belief Model, barriers, Asokwa Municipality, Ghana, public health.



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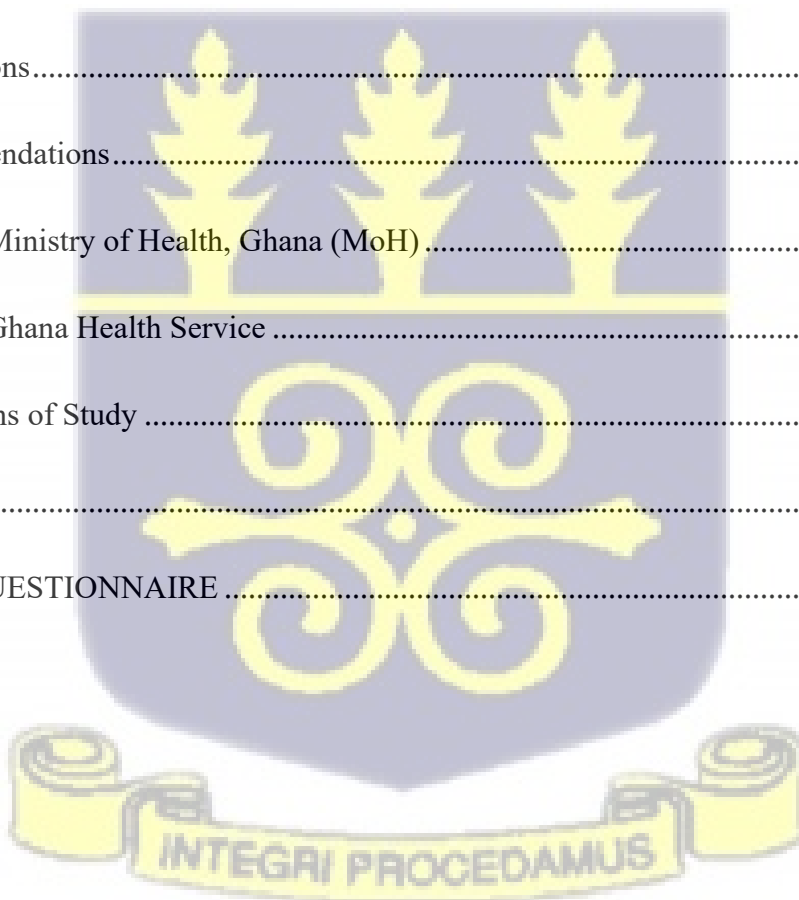
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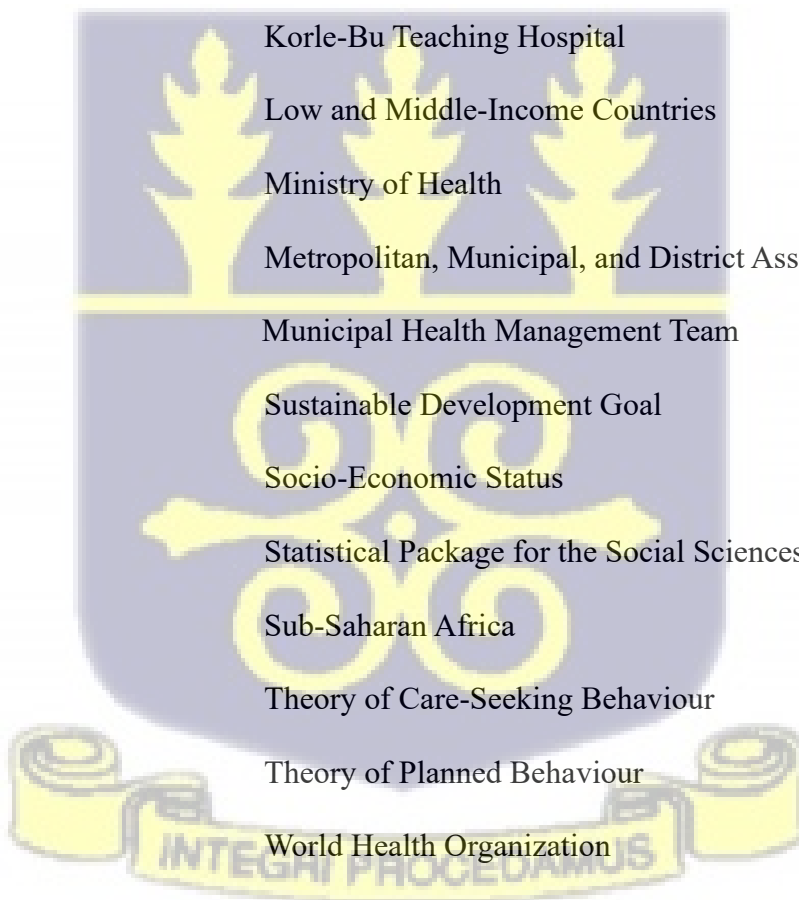
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LIST OF ABBREVIATIONS

AOR	-	Adjusted Odds Ratio
CHPS	-	Community-based Health Planning and Services
GHS	-	Ghana Health Service
HBM	-	Health Belief Model
HICs	-	High-Income Countries
HPV	-	Human Papillomavirus
IRB	-	Institutional Review Board
KATH	-	Komfo Anokye Teaching Hospital
KBTH	-	Korle-Bu Teaching Hospital
LMICs	-	Low and Middle-Income Countries
MOH	-	Ministry of Health
MMDAs	-	Metropolitan, Municipal, and District Assemblies
MHMT	-	Municipal Health Management Team
SDG	-	Sustainable Development Goal
SES	-	Socio-Economic Status
SPSS	-	Statistical Package for the Social Sciences
SSA	-	Sub-Saharan Africa
TCSB	-	Theory of Care-Seeking Behaviour
TPB	-	Theory of Planned Behaviour
WHO	-	World Health Organization



CHAPTER ONE

INTRODUCTION

1.0. Introduction to the Chapter

Cervical cancer is the cancer of the cervix uteri that affects most women globally (Bhatla et al., 2021). Globally, cervical cancer is on the increase, particularly in sub-Saharan African countries and in the year 2020, up to 604,127 women in the world were diagnosed with the disease and with 341,831 deaths (Sung et al., 2021). The incidence, however, is reportedly higher in low- and middle-income countries (LMICs) compared to high income countries (HICs) and has been rated as the 2nd most common cancer in most LMICs (Bray et al., 2018; Canfell et al., 2020). About 15.7 cases are reported per 100,000 women in LMICs as compared to 9.9 cases per 100,000 women in high income countries with approximately 85% of all deaths (Vu et al., 2018; Woo et al., 2021). Current estimates reveals that a total of 2,797 Ghanaian women were diagnosed of cancer in 2022, with 1,699 deaths (60.7%) recorded (Effah et al., 2022). This chapter consist of the background of the study, problem statement, purpose of the study, research objectives, research questions and significance of the study.

1.1. Background of the Study

Globally, cervical cancer is on the increase, particularly in sub-Saharan African countries (Mensah et al., 2023; Pilleron et al., 2019). Evidence suggests that cervical cancer is the fourth most common malignancy among women globally (Perkins et al., 2023). Compared to the global incidence rate of 40.1%, 36.4%, 31.6%, and 22.9% of cervical cancer with its corresponding mortality rates of 28.6, 20.6, 22.7, and 16.6 per 1000 deaths were recorded for Eastern, Southern, Middle and Western Africa respectively, according to GLOBOCAN 2020 (International Agency for Research on Cancer, 2021). In sub-Saharan Africa (SSA), about 34.8 new cases of cervical

cancer per 100,000 and 22.5 per 100,000 deaths occur each year, and this has been estimated to increase by 30% by the year 2030 (World Health Organization, 2020). Empirical evidence shows that this increasing mortality is due to the late presentation of cases (Lemp et al., 2020; Nartey et al., 2017; Stewart et al., 2018). For instance, in SSA countries such as South Africa, about 90% of women with cervical cancer seek healthcare with advanced stage disease (van Schalkwyk et al., 2008).

The situation is not different in Nigeria, as a study proved that approximately 31% of patients with late stage of the disease died during care within a year (Eze et al., 2013). These evidences have been confirmed in other parts of the sub-region including Uganda and Ghana (Awofeso et al., 2018; Dunyo et al., 2018; Mwaka et al., 2021; Stewart et al., 2018). Although Ghana, like most SSA countries, lacks population-based cervical cancer registry, available evidence from GLOBOCAN indicates that cervical cancer is steadily increasing, making it the second most common diagnosed cancer among women in terms of incidence and mortality (Calys-Tagoe et al., 2020; Laryea et al., 2014).

In Ghana, among the teaching hospitals equipped to provide cancer diagnosis and treatment services are the Korle-Bu Teaching Hospital (KBTH) and Komfo Anokye Teaching Hospital (KATH) (Okyere Asante et al., 2024). Records from these hospitals show that women suffering from cervical cancer present their symptoms to the hospital for care when the disease is in its advanced stages. This is because of the absence of a comprehensive national cervical cancer control and prevention programme, and the insufficient advanced oncology health facilities across the country (Appiah-Kubi, 2020; Dunyo et al., 2018; Nartey et al., 2017). This is supported by Nartey et al.'s (2018) results that the majority of these women are diagnosed with invasive cervical cancer where metastasis has occurred due to delays in formal diagnosis.

The magnitude of this challenge is further highlighted by recent epidemiological data which reveals alarmingly low screening uptake rates across the country. A comprehensive analysis using data from the 2022 Ghana Demographic and Health Survey found that only 5.0% of women of reproductive age had ever been screened for cervical cancer (Anaba et al., 2024). This finding is particularly concerning given that cervical cancer remains the second most common cancer affecting women in Ghana, yet the country continues to operate without a national-level cervical cancer screening program (Saaka & Hambali, 2024). The absence of systematic screening infrastructure means that the vast majority of eligible Ghanaian women between 96-98% have never received cervical cancer screening services, creating a critical gap in preventive healthcare delivery.

Evidence from a systematic review conducted in low-and middle-income countries (LMICs) found substantial variation in the time from symptom detection to treatment commencement, which eventually results in poor prognosis of the disease (Gyenwali et al., 2014; Mimouni et al., 2020; van Schalkwyk et al., 2008). In Morocco, for instance, a study found that the time between symptom detection and the start of treatment ranged from 5 to 401 days (Mimouni et al., 2020). Also in South Africa, it took 23.1 weeks before patients presented symptoms to the hospital, and 17.3 months before women who reported their symptoms were finally diagnosed of cervical cancer (Rudd et al., 2017; van Schalkwyk et al., 2008). Although there is a real lack of empirical research in Ghana, findings from the above studies prove that with this length of time, it is not surprising that the incidence of advanced diseases is rampant in SSA and other countries.

Furthermore, patient-related factors include educational level, time of presentation, socioeconomic status, residency (rural/urban), inadequate awareness and knowledge of symptoms

have been found to affect attitude towards cervical cancer screening. According to Deshmukh and Rathod (2017) and Radha and Reena (2016) in their cross-sectional studies, feeling shy to discuss recognised symptoms, and inconsistent experience of symptoms are crucial factors. In a Ghanaian study, knowledge of the symptoms of the disease was reported as a significant facilitating barrier to early detection of the disease (Binka et al., 2017). Earlier studies documents that there is abundant data from a variety of nations to imply that women of lower socio-economic status (SES) are less likely to engage in cancer screening than those who are more advantaged (Ackerson, 2010; Coughlin et al., 2006; Datta et al., 2006; Lofters et al., 2010).

In addition, there is a lack of sufficient understanding about preventive cervical cancer, as well as socio-cultural obstacles such as shame for pelvic examination, which have been claimed as significant reasons of not utilizing accessible screening programs consistently (Sankaranarayanan et al., 2008). One further sociocultural barrier that exists across various nations is a fear of the outcome of the examination (Binka et al., 2019; Opoku et al., 2023). Fear of cancer, humiliation, and inadequate English proficiency were cited as main perceived hurdles by studies conducted with Hispanic women. Understanding these barriers is crucial for implementing effective screening and prevention programs, especially in underserved areas such as the Asokwa Municipality in Ghana, where this study aims to explore the local context and its impact on screening uptake.

1.2.Problem Statement

In Ghana, cervical cancer is the second most common malignancy among women, making it a public health concern, and the second most diagnosed cancer at KATH in Ashanti Region (Amo-Antwi et al., 2022). The problem is worsened by the fact that although cervical cancer is largely preventable with primary prevention (HPV vaccination) and secondary prevention

(screening for and treating precancerous lesions of the cervix), Ghana lacks a national HPV vaccination program and only 3% of eligible women are screened for cervical pre-cancer as a result, many women who have advanced cervical cancer present to medical facilities (Binka et al., 2017; Effah et al., 2022), and during such stages, most patients are more likely to be diagnosed with aggressive tumours and consequently have low survival rates (Appiah-Kubi, 2020; Nartey et al., 2017).

In Ghana, even though studies suggest low level of knowledge regarding cervical cancer and its screening uptake, there is still limited data on barriers to cervical cancer screening uptake among women in most peri-urban communities in the Ashanti Region including the Asokwa Municipality. However, an implementation strategy for cervical cancer screening is not in place for districts and municipal hospitals in the region. Although opportunistic screening takes place, implementation is hindered by psychological and physical barriers for women, as well as insufficient capacity on the part of implementers. Asokwa Municipal District Hospital is the only screening centre for cervical cancer in Ashanti Region and it has been noted that females do not report to the clinic voluntarily for cervical cancer screening unless outreach programs are being conducted. To the best of the researcher's knowledge, no empirical study has investigated females' attitude towards cervical cancer screening uptake in the Asokwa Municipality of Ashanti Region of Ghana, although anecdotal evidence suggests that cervical cancer incidence and mortality is more common in this area. Hence, this quantitative study aims to identify barriers to uptake of cervical cancer screening among females in Asokwa Municipality.

1.3.Purpose of the Study

The study seeks to ascertain the barriers to cervical cancer screening uptake among females in the Asokwa Municipality in the Ashanti Region.

1.4. Specific Objectives

The study seeks to:

1. assess females' knowledge (modifying variable) in the Asokwa Municipality on cervical cancer and screening uptake;
2. assess the perceived susceptibility to cervical cancer screening uptake among females in the Asokwa Municipality;
3. investigate the effect of perceived severity of cervical cancer screening uptake among females in the Asokwa Municipality;
4. ascertain the perceived benefits on intention of uptake of cervical cancer screening among females in the Asokwa Municipality;
5. identify the perceived barriers to uptake of cervical cancer screening among females in the Asokwa Municipality;
6. identify factors contributing to self-efficacy on uptake of cervical cancer screening among females in the Asokwa Municipality; and
7. investigate the factors that contributes to cues to action on cervical cancer screening uptake among females in the Asokwa Municipality.

1.5. Research Questions

In achieving the research objectives, the study will provide answers to the following research questions:

1. What is the level of knowledge of females on cervical cancer and its screening at the Asokwa Municipality?
2. To what extent does perceived susceptibility has on cervical cancer screening uptake among females in the Asokwa Municipality?

3. To what extent do females in the Asokwa Municipality perceived the consequences of not undergoing cervical cancer screening as severe?
4. What is the impact of perceived benefits on decision making process of uptake of cervical cancer screening among females in the Asokwa Municipality?
5. What are the contributing factors to perceived barriers on cervical cancer screening uptake among females in the Asokwa Municipality?
6. What are the contributing factors to self-efficacy and its influence on uptake of cervical cancer screening among females in the Asokwa Municipality?
7. What are some of the factors that contribute to cues to action on cervical cancer screening uptake among females in the Asokwa Municipality?

1.6. Significance of the Study

To inform health policymakers and stakeholders based on the findings of the current study to develop and implement a model that is tailored to the needs and preferences of patients that would improve their screening for cervical cancer especially in Sub-Saharan Africa. The study will identify factors, which could be used by healthcare practitioners, particularly oncology specialists, the Ghana Health Service (GHS) and the Ministry of Health (MOH) to inform health policy and program initiatives that aim at ameliorating the increasing mortality rate associated with cervical cancer. The findings from this study will inform health management of Asokwa Municipal District Hospital involved in the cancer care and prevention continuum to put in place appropriate interventions tailored towards addressing barriers associated with the beliefs of patients in screening for cervical cancer. Furthermore, it could provide the basis and directions for public education initiatives provided by health professionals to women on the possible cervical cancer symptoms, and the need to seek urgent care when such symptoms are recognized. Consequently,

the study could contribute to Ghana's efforts towards SDGs, particularly, goal 3.4. that aims to decrease premature mortality rate associated with non-communicable diseases including cancer.

1.7 Operational Definitions

1. Cervical cancer: Cervical cancer refers to a malignancy that occurs in the cervix, usually caused by the Human Papillomavirus (HPV).
2. Female: Female in this context refers to a woman aged 18 years and above who is eligible for cervical cancer screening and falls within the population at risk for cervical cancer.
3. Health beliefs: Health beliefs encompass the attitudes, perceptions, and knowledge that women hold regarding cervical cancer and its prevention. This includes perceived susceptibility to the disease, perceived severity, perceived benefits of undergoing screening, and perceived barriers to accessing screening services.
4. Screening: Screening in the context of cervical cancer refers to the early detection of abnormal cells in the cervix before they develop into cancer. It typically involves procedures such as the Pap smear or HPV testing, which are crucial for preventing cervical cancer through early diagnosis.

1.8. Organisation of the Study

This thesis is structured into six chapters. Chapter One introduces the research, outlining the background, problem statement, objectives, research questions, and significance of the study. Chapter Two provides a comprehensive review of the existing literature on cervical cancer and the barriers to screening uptake and discusses the theoretical frameworks guiding the study. Chapter Three details the research methodology, including the design, sampling techniques, data collection methods, and ethical considerations. Chapter Four presents the results of the study, offering a clear and concise analysis of the data collected. Chapter Five is dedicated to the discussion, where the

results are interpreted in the context of existing literature, and the implications of the findings are explored. Finally, Chapter Six concludes the study with a summary of the key findings, conclusions, and recommendations for policy, practice, and future research.



CHAPTER TWO

LITERATURE REVIEW

This chapter consist of the theoretical framework and the literature review. A theoretical framework is a model or framework that provides a structure for understanding, analysing, and interpreting a particular phenomenon or research problem. It serves as a guide for researchers by defining the key concepts, variables, relationships, and assumptions involved in their study. The theoretical framework helps researchers organize their thoughts and develop a logical structure for their research. It establishes the foundation for formulating research questions, hypotheses, or objectives, and provides a basis for designing research methods and data collection tools.

2.0. Theoretical Framework

The study has identified three theoretical frameworks. These are the Theory of Planned Behaviour (TPB), the Theory of Care Seeking Behaviour (TCSB) and the Health Belief Model (HBM).

2.0.1. The Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) was originally coined by Ajzen et al. (1985). He posits that human behaviour is influenced by three main determinants: attitude toward the behaviour, subjective norms, and perceived behavioural control. Nevertheless, this theory was not used as the basis to develop the theoretical perspective of this study because its constructs do not go with the study objectives.

2.0.2. The Theory of Care-Seeking Behaviour (TCSB)

Theory of Care-Seeking Behaviour (TCSB) was developed by Lauver (1987) with three variables including clinical and socio-demographic variables, affect utility expectations and facilitating

conditions. However, this model was not applied in the determination of the conceptual framework for this study because the constructs of this model do not fit into the study objectives and therefore cannot be applied.

2.0.3. The Health Belief Model (HBM)

The study adopted the health belief model to guide the research. The health belief model was first established in the 1950s by a group of social psychologists (Rosenstock, 1974) working for the United States Public Health Service to provide an explanation for why many individuals did not engage in programs designed to identify and prevent illness. Later, the model was expanded to investigate people's reactions to symptoms of a disease as well as the behaviours they exhibited in response to a confirmed disease, particularly their adherence to treatment regimens (Glanz et al., 2008). The HBM suggests that preventive health behaviours and screening behaviours are influenced by perceived susceptibility to and severity of the condition, perceived health benefits from action, and perceived barriers to action. Several studies have extensively used the HBM to investigate cancer screening behaviours both international and national settings in different populations, including Ghana to comprehend cervical cancer screening behaviours (Ampofo et al., 2020). The HBM will help to measure, knowledge on cervical cancer and its screening, perceived susceptibility to cervical cancer screening, perceived benefits of screening, barriers related to cervical cancer screening uptake and cues to action. Overall, the HBM is a well-established and validated theoretical framework that is highly relevant to my study objectives, and it will help the study to highlight the barriers to cervical cancer screening uptake among females in the Asokwa Municipality and again, will be used here to review the existing literature that has advanced my understanding of barriers to cervical cancer screening uptake.

The Health Belief Model is comprised of several fundamental ideas, all of which are geared at predicting why individuals would take measures to avoid illness, test for disease, or manage disease conditions. It comprises six constructs, which include modifying factors including knowledge, perceived susceptibility to severity of a disease, perceived benefits, perceived barriers, perceived self-efficacy and cues to action (Champion & Skinner, 2008). According to Glanz et al. (2008), the health belief model hypothesizes that women will be more likely to comply to the advice for cervical cancer screening if they believe that they are vulnerable to developing cervical cancer, suffer from dire consequences from the disease, will benefit from cervical cancer screening, other factors signal them to (cues to action), and have the capacity to engage in the screening (Mutuyaba et al., 2006). Hence, the model is considered appropriate in understanding the barriers hindering cervical cancer screening uptake.

Below are the constructs of the adapted Health Belief Model.

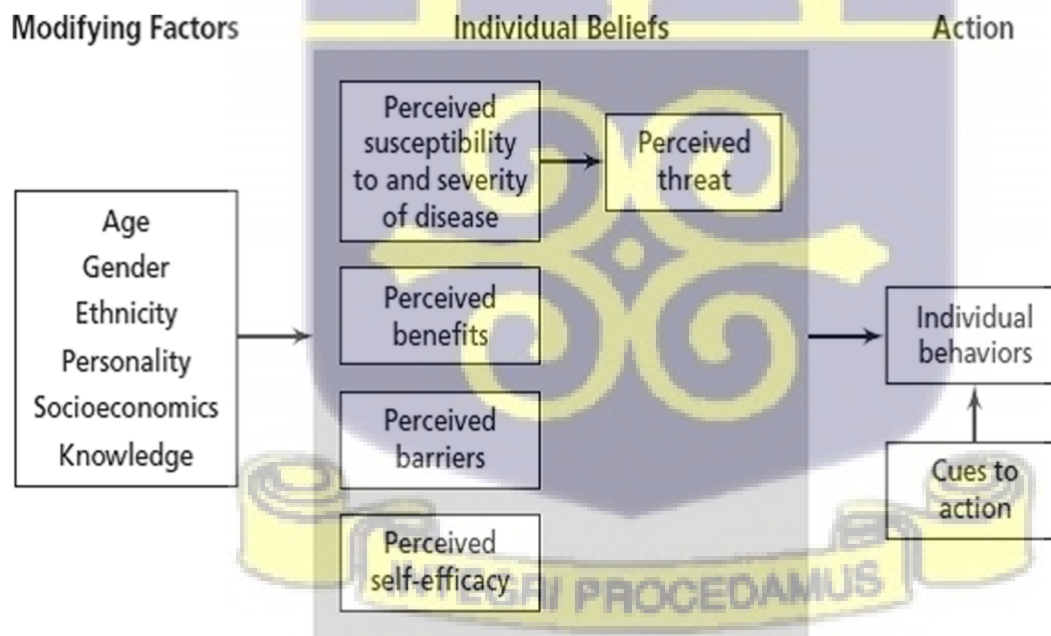


Figure 2.1: Constructs of the Health Belief Model

The Health Belief Model (HBM) consists of several key constructs/concepts that help explain health behaviour, including knowledge (modifying factor), perceived susceptibility, perceived severity, perceived benefits, perceived self-efficacy, perceived barriers and cues to action.

1. **Knowledge:** Knowledge refers to an individual's understanding and awareness of a specific health issue, such as breast cancer and its screening practices. In the HBM, knowledge is considered an important factor that influences health behaviours. It is believed that individuals with greater knowledge about breast cancer and its screening practices are more likely to engage in preventive behaviours.
2. **Perceived Susceptibility** refers to an individual's belief or perception of their own vulnerability or likelihood of experiencing a particular health condition or risk. It is how individuals perceive and respond to health-related information, make decisions about health behaviours, and engage in preventive measures. People who perceive themselves as more susceptible to a particular health condition or risk are more motivated to take action to reduce that risk or prevent the condition from occurring.
3. **Perceived Severity** refers to an individual's belief about the seriousness of a particular health condition or risk. It involves evaluating the potential consequences, impacts, and harm associated with a specific condition or risk. Individuals who perceive a health condition or risk as severe are more likely to take it seriously and engage in preventive or protective actions. Individuals may perceive the severity of a condition differently based on their own beliefs, values, and experiences.
4. **Perceived benefits** refer to an individual's belief regarding outcomes, associated with a particular action, behaviour, or intervention. Perceived benefits play a crucial role in

motivating individuals to adopt and maintain certain actions that are beneficial for their health. When individuals perceive a behaviour as being beneficial, they are more likely to engage in it.

5. Perceived barriers are obstacles or challenges that individuals or groups perceive as hindrances to achieving their goals or fulfilling certain tasks. It may be real or imagined and can vary depending on the context and the perspectives of the individuals involved.
6. Self-efficacy is an individual's belief in their own ability to successfully accomplish a specific task or achieve a particular goal. They do this with motivation, performance, and resilience ensuring that they achieve their goals. Self-efficacy is for personal growth, achievement, and well-being. By fostering a sense of efficacy, individuals can cultivate resilience, overcome challenges, and pursue their goals with confidence.
7. Cues to action are the triggers that motivate individuals to take actions or adopt certain behaviours to address any health issues. These cues serve as reminders or motivators to engage in a particular activity or adopt a specific behaviour.

2.1. Empirical Review

Cervical cancer incidence and mortality are rapidly growing worldwide with an estimated 570,000 cases and 311,000 deaths in 2018 globally, this disease ranks as the fourth most frequently diagnosed cancer and the fourth leading cause of cancer death among women; ranks second in incidence and mortality behind breast cancer in low and middle countries and the leading cause of cancer death in 42 countries, the majority of which are in Sub-Saharan Africa (Bray et al., 2018). Although there is high incidence of cervical cancer in Sub-Saharan Africa countries including Ghana, the screening programs that serve as secondary prevention that will help eliminate the burden of the disease is lacking (Bray et al., 2018); meanwhile, WHO has recommended screening

of all women in high risk countries using visual inspection with acetic acid in low-resource settings for every 3-5 years and HPV testing for every 5 years for early detection of disease and prompt intervention.

2.1.1. Knowledge on Cervical Cancer and its Screening

Awareness of cervical cancer and its screening among women is vital to facilitate early detection and effective management of the disease. However, literature reveals mixed findings regarding women's understanding of cervical cancer across different contexts. A considerable number of studies report low knowledge of cervical cancer and its screening guidelines among women. For instance, in a cross-sectional study, among 318 healthcare professionals working in tertiary hospitals across Republic of India, it was noted that even though screening modalities have been in place for more than fifty years, the burden of the disease has not yet reduced as expected (Chellapandian et al., 2021). The findings of the study revealed that 90.6% of the respondents were aware of cervical cancer and 75.5% of the professionals know that cervical cancer is often prevented by screening (Chellapandian et al., 2021).

In a systematic review of literature using meta-analysis involving Sub-Saharan Africa countries (including Ghana) on the objective to pooled uptake of cervical cancer screening and to identify its predictors in SSA, they searched and reviewed articles between 2000 and 2019 and their findings of the survey revealed that knowledge on cervical cancer and screening uptake was 12.87% (Yimer et al., 2021). The above findings is consistent with a quantitative study conducted in Sidama, Southern Ethiopia, which noted that among 838 women, only 17.8% have ever undergone cervical cancer screening (Nigussie et al., 2019).

A study undertaken by Nyaaba and Akurugu (2023) from the Upper East of Ghana reported poor knowledge and low uptake of cervical cancer screening where 267 respondents representing

100% have heard about cervical cancer but did not know it is a sexually transmitted disease and 170 representing (64.89) out of 267 respondents had never been screened and only 92 (56.38%) that had screened. Similarly, this finding is consistent with a study conducted by Adamu et al. (2020).

A survey among health and allied students in Saudi Arabia showed that while 70% had heard of cervical cancer, only a small percentage understood its prevalence and transmissibility. Students from medical backgrounds exhibited better knowledge, suggesting that educational programs targeting health professionals could improve awareness and screening practices in the general population (Aga et al., 2022). A study in Ethiopia identified that urban women, those with a family history of cervical cancer, and those with accessible health services were more knowledgeable about cervical cancer screening. The survey found that 53.5% of participants had knowledge about cervical cancer screening, and 36% of respondents had had cervical cancer screening. The presence of a family history of cervical cancer (AOR=2.5, 95% CI (1.04 to 6.44)), the location of residence (AOR=3.68, 95% CI (2.23, 6.54)), and the availability of health services nearby (AOR=2.03, 95% CI (1.134, 3.643)) were found to have a significant association with knowledge of cervical cancer screening. Additionally, educational status (AOR=2.811, 95% CI (1.038 to 7.610)) was also found to be significantly associated. This suggests that socioeconomic factors and healthcare accessibility significantly influence awareness levels (Gelassa et al., 2023).

In Ghana, a study by Sampson et al. (2021) in the Ajumako-Eyan-Essiam District of Ghana found that most women had limited knowledge about cervical cancer and its screening. The findings indicated that 61.3% of women lack awareness regarding the specific organs affected by cervical cancer and the appropriate timing for follow-up after a normal smear test, suggesting a potential knowledge gap: 36% of respondents stated that the Pap test is performed just once, while

57.1% considered it to be costly, which hinders its usage. 48.8% of the respondents declined to undergo screening due to their fear of the unfamiliar, while 65.8% stated they were not susceptible to the danger. Almost half (46.7%) believed that cervical cancer is incurable. Ultimately, the insufficient understanding and misguided health attitudes of women had a significant impact on their perspective toward cervical cancer screening.

Research across various demographics consistently indicates that knowledge about HPV, risk factors, and the benefit of screening is often insufficient. For instance, many women do not recognize the importance of regular screening even when asymptomatic, emphasizing the need for de-stigmatizing discussions around cervical health (Usman et al., 2023). The collective findings from these studies underscore the urgent need for comprehensive educational initiatives to improve knowledge and attitudes toward cervical cancer and its screening. Addressing cultural beliefs, enhancing healthcare provider education, and utilizing mass media effectively are crucial steps in increasing screening uptake and ultimately reducing cervical cancer incidence.

2.1.2. Perceived Susceptibility to Cervical Cancer Screening Uptake

Perceived susceptibility to cervical cancer plays a crucial role in screening uptake. The study by Gibson et al. (2019) investigated the perceived susceptibility to cervical cancer among African American women in the Delta region. The participants were divided into three groups: 1) women who attended screening appointments (screened); 2) women who attended a colposcopy clinic after receiving an abnormal Papanicolaou test result (colposcopy); and 3) women who had not undergone any screening in the past three years or longer (unscreened/under-screened). The study showed that women's perception of their risk for cervical cancer significantly influences their screening behaviour. Factors associated with perceived susceptibility include age, education, family history, and awareness of HPV risk.

Annan et al. (2019) analysed the explicit and implicit impacts of knowledge about cervical cancer on the act of undergoing screenings, by considering individuals' perceptions of cervical cancer as influenced by the health belief model. The study employed a cross-sectional survey approach, utilizing a purposive sample of 200 female students. The researchers employed standardized questionnaires to assess participants' level of knowledge regarding cervical cancer, their perception of vulnerability to the disease, their understanding of its seriousness, their awareness of the potential benefits of screening, their recognition of the barriers to screening, and their actual behaviours related to cervical cancer screening. The findings indicate that the perceived seriousness of cervical cancer plays a significant role in mediating the connection between knowledge about cervical cancer and the behaviour of undergoing screening. These findings highlight the necessity for greater knowledge, specifically emphasizing the gravity of cervical cancer among females, since it significantly affects their screening behaviours.

Similarly, Chisale Mabotja et al. (2021) found that higher perceived susceptibility scores are significantly associated with an increased likelihood of ever having had a Pap smear. AlShamlan et al. (2023) also found significant associations between age and perceived susceptibility, with older women more likely to perceive themselves as susceptible. In summary, studies show that increasing women's perceived susceptibility to cervical cancer, through education and awareness campaigns, can lead to higher uptake of cervical cancer screening. However, lack of awareness remains a major barrier, especially among younger women, highlighting the need for targeted interventions to improve screening rates.

2.1.3. Perceived Severity of Cervical Cancer Screening Uptake

Research on cervical cancer screening uptake reveals varying levels of perceived severity across different populations. In Botswana, most women expressed a high level of certainty on the

severity of cancer, as they predominantly agreed or strongly agreed with statements pertaining to the severity of cervical cancer. The average responses ranged from 2.58 to 3.56. Upon comparing the groups of women who had undergone cervical cancer screening and those who had not, it was noted that both groups had the same belief regarding the existence of effective treatment for cervical cancer, as well as the impact of cervical cancer on a woman's quality of life. There was no statistically significant correlation between the perceived severity of cervical cancer and the likelihood of undergoing screening ($\chi^2 = 1.0795$; $p = 0.2988$). Thus, women generally recognized the severity of cervical cancer, but this perception did not significantly influence screening rates (Hoque et al., 2019).

Similarly, in a research by Osei and Ani-Amponsah (2022) in Ghana, women perceived cervical cancer as severe. The findings of this study revealed that participants saw cervical cancer (CC) as a grave matter due to its high mortality rate among women, as well as its association with depression, social isolation, suicidal ideation, and impaired sexual functioning but uptake remained low. In Indonesia, the results of the study by Sagala et al. (2022) showed that all participants knew that the severity of cervical cancer can harm women and can cause death. The participants' awareness of cervical cancer screening remains insufficient. All participants had an awareness of the severity and importance of cervical cancer, although they have not undergone cervical cancer screening yet.

A study in the United States found that under screened, low-income women had high perceived severity of cervical cancer, but knowledge about screening was low (Bukowski et al., 2023). To improve the rate of cervical cancer screening and ensure adherence, it is important to address any lack of awareness and misconceptions about the screening process. Additionally, it is beneficial to capitalize on positive opinions of screening. Factors associated with screening

attempts included doctor visits, perceived risk, positive perceptions of screening, and nervousness about the procedure. These findings suggest that while perceived severity is generally high, other factors may play a more significant role in screening uptake.

Conversely, the study by Chisale Mabotja et al. (2021) found that perceptions of cervical cancer as a serious illness correlate with higher screening uptake. Women, who fear the consequences of cervical cancer, including its potential to cause infertility or mortality, are more likely to seek screening. In a broader context, research indicates that women who are older and more knowledgeable about cervical cancer are more likely to view it as a severe disease and are thus more inclined to participate in screening programs. This correlation underscores the importance of targeted public health interventions that enhance awareness and address misconceptions about cervical cancer and screening processes (Annan et al., 2019).

2.1.4. Perceived Benefits on Intention of Uptake of Cervical Cancer Screening

Cervical cancer screening uptake is influenced by various perceived benefits, which significantly shape women's intentions to participate in screening programs. Research indicates that while many women recognize the importance of cervical cancer screening, actual participation rates remain low, particularly in low- and middle-income countries. For instance, in the study by Ibekwe et al. (2020), most respondents (87%) felt that screening is crucial, 75% believed it may detect cervix abnormalities before full cancer, and 84% believed early detection can readily cure cervical cancer. Compared to never screened, both groups strongly agreed that screening is necessary (88.8% vs. 87.3%), detects alterations before cancer (83% vs. 69.8%), and early detection helps cure cervical cancer (92.4% vs. 79.5%). Perceived benefits did not significantly predict cervical cancer screening (OR=1.291, p=0.33). Still, the screening percentage is too low

for the national aim of above 75%. Thus, cervical cancer uptake was poor despite understanding its benefits.

Among HIV-positive women, high cues about screening, perceived benefits are significant predictors of screening intention (Ebu & Ogah, 2018). However, awareness of benefits alone may not be sufficient to increase screening rates (Ibekwe et al., 2020). In the study by Baskaran et al. (2023), the majority of respondents (75.6%) expressed agreement or strong agreement with four statements regarding the perceived advantages of cervical cancer screening yet uptake was low. Socio-demographic factors, such as age, employment status, ethnicity, and education level, are associated with perceived benefits (Baskaran et al., 2023). These findings suggest that interventions should focus on increasing awareness of screening benefits, addressing perceived barriers, and emphasizing the seriousness of cervical cancer to improve screening uptake.

The findings from the studies show that the relationship between perceived benefits and the intention to uptake cervical cancer screening is complex. While many women recognize the importance of screening, various barriers—both psychological and systemic—prevent them from acting on this knowledge. Addressing these barriers through targeted health education and improving healthcare accessibility is essential for increasing screening uptake and ultimately reducing cervical cancer incidence and mortality.

2.1.5. Perceived Barriers to Cervical Cancer Screening Uptake

Guillaume, Chandler, and Igbino (2020) systematically reviewed existing literature with the objective of identifying obstacles to cervical cancer screening among women living with HIV in low- and middle-income countries (LMICs). Their study involved an extensive exploration of

relevant research, followed by a thorough analysis of the selected studies. The primary aim was to extract key themes concerning barriers to cervical cancer screening for this specific population within LMICs. A prevalent and consistent theme that emerged from their analysis was the limited knowledge about cervical cancer and the importance of screening among the patients themselves. This knowledge gap stood out as the most significant barrier to the uptake of cervical cancer screening. The study underscored the urgent necessity for interventions aimed at enhancing awareness and understanding of cervical cancer screening among women living with HIV in LMICs. Additionally, the authors emphasized the need to address broader systemic challenges within healthcare systems that hinder effective screening efforts. However, it is important to note that the study conducted by Guillaume, Chandler, and Igbinoba (2020) is a systematic review, which involves the compilation and synthesis of existing research rather than the generation of new empirical data. Furthermore, the findings of their study were based on a range of LMICs and might not fully capture the unique context of Ghana. In the Ghanaian context, there could be specific cultural, social, or structural factors that may contribute to barriers in cervical cancer screening uptake among females either living with HIV or not living with HIV. These factors might not have been adequately addressed in the systematic review. Therefore, there is a research gap because the study lacks first-hand empirical investigations within the Ghanaian setting. To comprehensively understand the barriers and challenges faced by females, a specific population in Ghana, empirical research that delves into the local context is necessary. Such research would not only identify barriers but also consider how Ghana's socioeconomic and healthcare landscape influences females' perceived susceptibility regarding cervical cancer screening uptake.

According to Fletcher et al. (2014), their study delves into the intricacies of barriers and facilitators associated with cervical cancer screening within a cohort of HIV-infected women

seeking care at an integrated HIV clinic in Houston, Texas. Employing an inductive qualitative methodology, the research sourced data from five focused group discussions, engaging 33 HIV-infected women who predominantly self-identified as Black (69.7%) and with 75.8% acquiring HIV through heterosexual contact. The study highlights barriers including procedural discomfort, limited awareness of preventable cervical cancer, transportation obstacles, and systemic challenges in gynaecological appointment scheduling.

However, a notable gap arises from the study's disproportionate emphasis on the HIV context rather than delving deeply into cervical cancer screening dynamics. This lopsided focus diminishes the comprehensive understanding of barriers specifically related to screening uptake, obscuring valuable insights. Furthermore, employing a phenomenological design could have enabled a more nuanced exploration of the women's perspectives, potentially revealing hidden dimensions that the current approach may have missed. It is imperative to recognize the contextual disparities between Houston, Texas, and Ghana, making findings' direct applicability challenging. Therefore, the study's findings might not fully encapsulate the unique challenges women face in Ghana. To address these gaps, future research should prioritize a more balanced approach to investigate barriers and facilitators while considering the contextual nuances of the target population. Moreover, employing a quantitative methodology could offer deeper, comprehensive study findings as a larger population of females would be reached, ensuring that the findings align more closely with the realities of females seeking cervical cancer screening in diverse settings such as Ghana.

In a similar study, Chan and So (2022) examined influential barriers perceived by South Asians in Hong Kong to undergoing cervical cancer screening to report the uptake rate of cervical cancer screening (the Pap test) and to identify the perceived barriers associated with screening

uptake among South Asian women in Hong Kong. Their cross-sectional study involved a structured survey of 776 women aged 21 and above recruited from the community. Pap test uptake findings were 40.3% of the total responses, and multivariate analysis identified two perceived barriers associated with uptake of cervical cancer screening not knowing where to have the test and the belief that they did not need a test if they felt well. Although language problems and embarrassment are commonly reported barriers to screening by South Asian women, the participants were more concerned about where to have the test and whether they needed it. Their finding is a comparative one that has given a research idea to delve into our Ghanaian communities to find out what might be the relative perceived barriers to the uptake of cervical cancer among females in Ghana. As the study does not include the Ghanaian communities, it has created a research gap here for us to survey and come out with a concise finding regarding perceived barriers to cervical cancer screening uptake.

Africa has one of the highest burdens of cervical cancer in the world. The unacceptably high incidence and mortality rates could be reduced by implementing a comprehensive approach to its prevention and control that includes screening, which is low in most low-and-middle-income countries. Hence, this systematic review aims to explore factors that prevent women from utilising cervical cancer screening services in the region. A mixed method systematic review was conducted (Mantula et al., 2024). The primary barriers were identified as poor access to screening services, lack of awareness and knowledge on cervical cancer and screening, and socio-cultural influences. Service providers perceived lack of skills, screening equipment and supplies, and staff shortages as major obstacles in providing comprehensive cervical cancer screening services. These limitations further hinder the ability of healthcare systems to implement effective screening programs, especially in low-resource settings across Africa. The combination of limited resources,

insufficient training of healthcare professionals and socio-cultural barriers creates a significant gap in the prevention and early detection of cervical cancer, resulting in higher incidence and mortality rates.

An analytical cross-sectional study design was conducted between January and March 2019 at Kenyase, the Ashanti Region of Ghana. The study aims to determine the barriers influencing CC screening among women in the Ashanti Region of Ghana using the health belief model. It was noted that unemployed women were less likely to be interested in CC screening than those employed (adjusted odds ratio (aOR) = 0.005, 95%CI:0.001–0.041, $p = 0.005$). Women who were highly educated were 122 times more likely to be interested in CC screening than those with no or low formal education (aOR = 121.915 95%CI: 14.096–1054.469 (Ampofo et al., 2020)).

2.1.6. Factors Contributing to Self-Efficacy on Uptake of Cervical Cancer Screening

Self-efficacy plays a significant role in the uptake of cervical cancer screening, with various studies identifying key factors that influence this construct. A qualitative study by Zhang et al. (2023) among rural females in China found that personal screening experiences and cognitive mastery significantly contribute to self-efficacy. Women who had completed screenings reported higher self-efficacy, but a cognitive understanding of the screening process was even more influential. The study identified four main sources of self-efficacy: personal screening experience, vicarious experiences (hearing about others' experiences), professional health education, and emotional status.

Research conducted in Iran highlighted that increased knowledge about cervical cancer correlates positively with self-efficacy. Every unit increase in knowledge was associated with a significant increase in self-efficacy scores, which in turn influenced the likelihood of women participating in screening (Ghalavandi et al., 2021). Similarly, a study among Muslim women in

Ghana indicated that a positive attitude towards screening significantly enhanced self-efficacy, while cultural factors such as Islamic modesty negatively impacted it (Enyan et al., 2022). The study in Ghana also emphasized the importance of addressing sociocultural barriers to improve screening uptake. Factors like gender and faith alignment with health providers affect self-efficacy levels, suggesting that tailored interventions that respect cultural values are necessary.

An explanatory model developed in Chile indicated that beliefs about the benefits and barriers to screening, and family support, are crucial for enhancing self-efficacy. Women with better knowledge of cervical cancer and its prevention, along with supportive family dynamics, reported higher self-efficacy levels (Corrales et al., 2024). Comprehensive educational programs aimed at increasing awareness and knowledge about cervical cancer have been recommended as effective strategies to boost self-efficacy and, consequently, screening uptake. Such programs should be culturally sensitive and address specific barriers faced by different populations (Ghalavandi et al., 2021).

Overall, enhancing self-efficacy for cervical cancer screening involves a multifaceted approach that includes improving knowledge, addressing sociocultural barriers, and providing supportive healthcare interactions. Tailored interventions based on these factors can significantly increase the likelihood of women participating in cervical cancer screening programs.

2.1.7. Factors that Contribute to Cues to Action on Cervical Cancer Screening Uptake

The study by Mensah et al. (2020) investigated the factors influencing cervical cancer screening and examined women's opinions of the response to a cervical cancer diagnosis in the Shai Osudoku District. The study identified several key factors that significantly influence women's decision to undergo cervical cancer screening. These factors include the presence of

health workers, the influence of peers and spouses, the creation of awareness, and the reduction of screening costs.

The systematic review by Faradisa et al. (2020) examines factors influencing cervical cancer screening uptake, particularly in low and middle-income countries. Knowledge about the disease, knowing someone with cervical cancer or who has been screened, attitudes, husband approval, healthcare provider advice, and distance to services were identified as important factors. For Hispanic women in the U.S., Spanish media and reminders from mothers and doctors were significant cues to action (Moore de Peralta et al., 2017).

Provider recommendations, female providers, flexible appointment times, reminders, and organizational commitment to quality were associated with higher screening uptake (Plourde et al., 2016). The Health Belief Model, including perceived threats, benefits, barriers, and self-efficacy, was a useful explanatory model for screening behaviours, particularly when considering cues to action (Moore de Peralta et al., 2017). These findings highlight the importance of both intrapersonal and organizational factors in promoting cervical cancer screening uptake. In summary, a combination of education from health workers, positive peer influence, media awareness, and perceiving screening as beneficial and necessary can serve as powerful cues to action to increase cervical cancer screening uptake among women. Addressing barriers and misconceptions is also key.

2.2. Summary of Literature Review

The literature review explored the theoretical and empirical foundations surrounding cervical cancer screening uptake, particularly within the context of the Asokwa Municipality. The Health Belief Model (HBM) was adopted as the guiding framework due to its relevance in explaining preventive health behaviours. The HBM's constructs knowledge, perceived

susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy, and cues to action were each reviewed to understand their role in influencing cervical cancer screening behaviour. The review revealed that knowledge about cervical cancer and its screening is generally low across various populations, including women in Ghana. Despite some awareness of the disease, many women lack in-depth understanding of risk factors, symptoms, and screening guidelines, which hampers early detection and preventive practices.

Perceived susceptibility and severity were found to influence screening behaviour, although inconsistently. While some women recognized their vulnerability and the serious consequences of cervical cancer, this awareness did not always translate into action. Studies also showed that perceived benefits of screening—such as early detection and prevention were widely acknowledged, yet screening rates remained low, suggesting that knowledge alone may be insufficient to motivate uptake.

Perceived barriers such as limited access, fear, cost, cultural beliefs, and systemic healthcare challenges were consistently highlighted as major obstacles to screening. These factors were particularly prevalent in low-resource settings, including parts of Ghana. Self-efficacy was identified as a significant predictor of screening behaviour, with factors like prior experience, educational interventions, and sociocultural influences shaping women's confidence to undergo screening.

Lastly, cues to action such as recommendations from health professionals, media campaigns, and peer encouragement played a crucial role in prompting women to seek screening. Studies emphasized that enhancing these cues through targeted awareness programs, community engagement, and healthcare provider support could improve screening uptake.

CHAPTER THREE

RESEARCH METHODOLOGY

Methodology in research work refers to the systematic approach and set of techniques or procedures that research employs to gather, analyse, and interpret data to answer research questions or address research objectives. It is a critical component of research and serves as a roadmap for conducting the study in a structured and organized manner. The chapter provides information on the research setting, research design, target populations, inclusion and exclusion criteria, sampling and sampling technique, data management, data analysis, as well as the ethical consideration.

3.0. Research Design

Plans and processes for doing research are known as research approaches, and they cover everything from general hypotheses to specific techniques for gathering, analysing, and interpreting data. Thus, the main decision is which method should be employed to study a subject (Creswell, 2014). According to him, research approaches are in three strands. These include the quantitative, qualitative and mixed-methods approaches (Creswell & Creswell, 2018). This study employed a quantitative approach to gather numerical data to conduct statistical analysis to ascertain the barriers to cervical cancer screening uptake among female residents of the Asokwa Municipality. A cross-sectional survey design was used to describe the population of interest. In social science research, cross-sectional research are widely used to gather information on the prevalence of disease, behaviours, intentions, knowledge, attitudes, and respondent opinions, as well as used to examine the connection between variables of interest in a study (Connelly, 2016).

3.1. Research Setting

The study was conducted in the Asokwa Municipality in the Ashanti Region of Ghana. Ghana is a Sub-Saharan African (SSA) country with an estimated population of 31,658,206 in

2021 with the women population of about 50.7%. There are 16 regions in the country and the Ashanti Region is the second most populated region with a population of about 5,432,485 (Ghana Statistiscal Services (GSS), 2021). The Asokwa Municipal is one of the 261 Metropolitan, Municipal and District Assemblies (MMDAs) in Ghana, and forms part of the 43 of MMDAs in the Ashanti Region. The Asokwa Municipal Assembly was carved out of the Kumasi Metropolitan Assembly (KMA) as one of the 38 newly created and upgraded District Assemblies in March 2018. The population of the municipality, according to 2021 population and housing census, stands at 125,642, with 61,000 males and 64,642 females. There are 18 communities in the municipality grouped into six sub-metro or zonal councils, namely Asokwa, Ahinsan, Atonsu-Agogo, Dompoease, Gyinyase, and Kaase. Politically, the municipality is divided into 12 Electoral Areas, representing the entire Asokwa Constituency. Asokwa is at the centre of the Ashanti Region and is located between Latitude 6.35oN and 6.40oS and Longitude 1.30oW and 1.35oE and elevated 250 to 300 meters above sea level. The municipality shares boundaries with Oforikrom to the East, Subin to the Northwest, Nhyiaeso to the West and Bosomtwe District to the South. The municipality covers an estimated land area of 23.04km square, which is about 0.094% of the Ashanti Region's land area (24,389 Km square) (Asokwa Municipal Assembly, 2021).

Industry and commerce/services are the major drivers of the municipal economy. Economic activities are dominated by the provision of services mainly retail and wholesale trading. Industrial activities are concentrated around Kaase light industrial area. Agricultural activities have been on the downturn due to competing interest of land for commercial and other purposes rather than agric. The private sector employs a greater number of people in the Municipality. Out of the 41% of the gainfully employed population in the municipality, about 91.2% are in the private sector with 79.2% of them engaging in private informal economic activities (GSS 2010). 'Trotro' and

taxis are the major means of transport in the municipality with the GPRTU and PROTOA as the main transport system. Transportation in the municipality is faced with inadequate enforcement of road traffic regulations, which manifests in reckless driving, traffic jams and poor conditions. The municipality has mainly mobile telecommunication network with generally stable network coverage with access to 3G and 4G network service. There are also internet cafes within the municipality. Christianity is the main religion in the district although Muslims and practitioners of African Traditional religion also exist. There are three main ethnic groups in the district; these are the Akans, the Krobos /Dangbes, and the Ewes.

The Asokwa Municipal Hospital is located at Kumasi South sub metro and now referred to us as the Ashanti regional hospital. This hospital offers a range of medical services to the residents of Asokwa and its surrounding environs including cervical cancer screening, general medical care, surgeries, maternity services, public health services, outpatient clinics, and more. It's always recommended to verify the most up-to-date information about the hospital's services, location, and contact details before visiting or seeking medical assistance. Health delivery in the Asokwa Municipality is through two government health facilities (1 hospital, 1 health centre), 19 CHPS zones and 14 Private Health Facilities to cater for healthcare delivery within the municipality. The 14 private health facilities comprise of six hospitals and eight clinics/maternity/child health facilities. With respect to health personnel in the public sector of the Municipal Health Directorate, it has a Municipal Director of Health Services, accountants 3, accounts clerk 1, 20 midwives, 16 enrolled nurses and 26 community health nurses. Public health nurses 2, disease control officers 2, health information officers 2, field technician 2, and a human resource officer. It also has 2 administrative managers, 12 staff nurses, laboratory technicians 3, a pharmacy technician, 2 nutrition officers, a technical officer and a health assistant making a total of 98 health professionals

providing health care in the Municipality in addition to other government and private health care facilities (Asokwa Municipal Assembly, 2021). The Municipal Health Management Team (MHMT) is responsible for management of health in the municipality through planning and implementation of municipal specific health activities within the broad framework of National and Regional goals, monitoring and evaluation of health and health related activities in the municipal and ensure collaboration with other 'partners in health' among others.

The second most common cancer diagnosed and treated in the region is cervical cancer, next to breast cancer (KATH Cancer Records, 2020). This is likely to suggest that cervical cancer is one of the predominant health problems in the Asokwa Municipality.

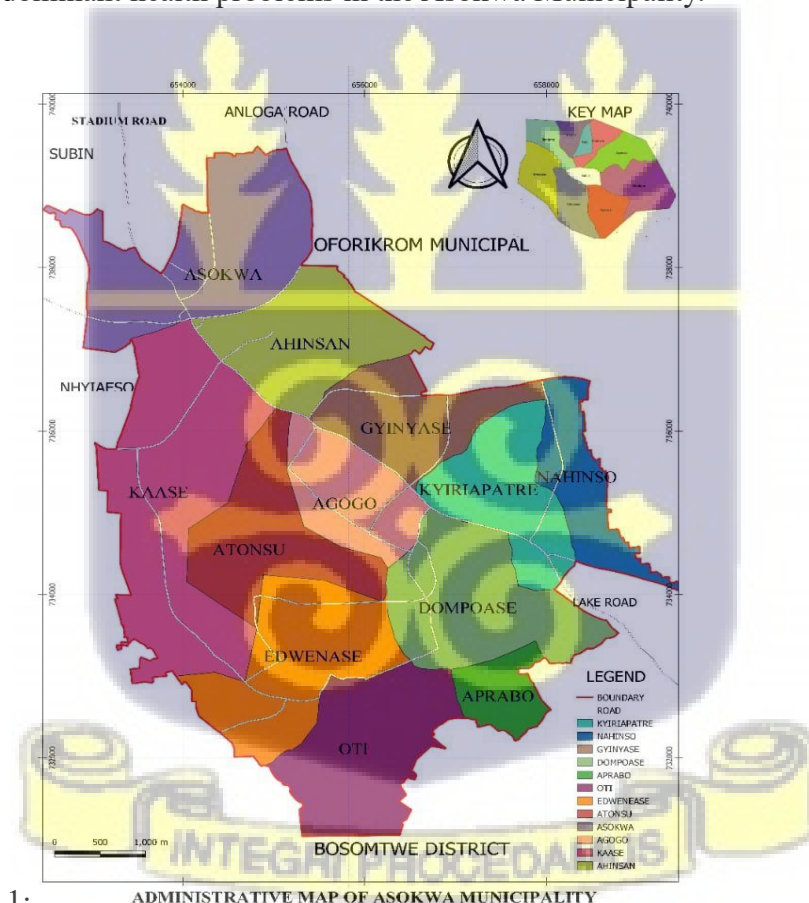


Figure 3.1:

3.2. Research Population

Target population refers to the total number of people who have been assessed as eligible to participate in a research study (Asiamah et al., 2017). This study's target population comprised of females who live in the Asokwa Municipality and are in their reproductive ages of at least 18 years and above. Compared to the target population, the study population comprises specific individuals a researcher will select a sample from for a study (Guest et al., 2017).

Inclusion Criteria

The inclusion criteria comprise a set of predefined criteria developed based on the purpose of the study to guide the selection of respondents as argued by Guest et al. (2017). As a result, the following inclusion criteria guided the first sampling phase. The following inclusion criteria guided the study:

1. Females who are 18 years and above.
2. Screened or not screened for cervical cancer.
3. Live in the Asokwa Municipality.

Exclusion Criteria

1. Females aged 18 years and above who declined to participate or did not provide informed consent were excluded from the study.

3.3. Sampling Technique

Sampling, as argued by Khan (2020), is choosing a subset of a population and drawing conclusions from that subset. In selecting sampling technique for this study, the study employed probability stratified sampling techniques with simple random sampling.

The study adopted a multi-phased sampling technique comprising a purposeful stratified sampling process, where the researcher employed three main stages in sampling respondents for the study. Initially, the study engages in the purposive selection of respondents. To do this, the researcher focused on identifying residents who satisfy the purpose of this study using inclusion criteria. As a result, the following inclusion criteria guided the first phase of sampling. Subsequently, the researcher after identifying residents who satisfy the above inclusion criteria, engaged in a stratified sampling process. Yamane's (1973) calculation for a finite population adjustment factor, where sample size $(n) = N / 1 + N(e)^2$, where N is the total population screened and unscreened using the inclusion criteria (that is, the total number of females in the municipality), e is the margin of error (5% or 0.05). Using statistics from the 2021 population and housing census that estimated the number of females in the municipality to be 64,642; hence the sample size includes:

$$N = 64,642 / 1 + 64,642 (0.05)^2$$

$$N = 64,642 / 162.605$$

$$N = 397.5 \text{ (approximately 398)}$$

Hence, the study will rely on a sample of 398 females in their reproductive ages of 18 years or more, with an anticipated non-response rate of 3%.

The study population will then be divided into different non-overlapping strata using the six-sub metro of residence as the stratification variable. This activity is important since the municipality comprises six sub metro, namely Asokwa, Ahinsan, Dompase, Gyinyase, Atonsu-Agogo and Kaase. Since current data on the population of each major community is not available to the researcher now, the non-proportional allocation method (Oribhabor & Anyanwu, 2019) was

employed to choose the sample for the study. Therefore, the researcher did not consider the population of each sub metro prior to the selection of the sample. The third and final phase involves the researcher carrying out a separate simple random sampling from each community stratum to constitute the total sample size for this study.

3.4. Data Collection Tool

A well-structured questionnaire adapted from the study by Ampofo et al. (2020) was employed as data collection tool to gather data from sampled respondents for this study. Using this tool helped facilitate the collection of numerical data from a larger sample size within the shortest period and helps in statistical analysis and generalization of results.

3.5. Data Collection Procedure

To collect the data, a questionnaire was prepared in a google form that required about 10 minutes to answer and was administered in two forms including self-administered, and researcher's own administered. Prior to each questionnaire administration, the purpose of the study was explained to all respondents, and their consent was sought to ensure that they willingly participate in the study. The self-administered questionnaire was involving sampled respondents personally reading and providing responses to the questions without or with little assistance from the principal investigator and the research assistants. This form of questionnaire was mainly administered to sample female residents who are literate and could independently read and respond to the questions. In situations where a potential respondent did not have adequate educational background or has never had any formal education that affects her ability to read, understand and provide responses to the questions, the principal investigator resort to the use of the researcher administered questionnaire where the questions and their corresponding responses was read to

participants and translate in the language they understand by the principal investigator and her research assistants that was employed and trained for data collection purpose and the applicable responses were chosen on their behalf with their consent. The details of the questionnaire comprised the following: The socio-demographic characteristics of respondents, as shown in Section 1, include age, level of education, ethnicity, religion, employment status, income level, religion, marital status, number of children, personal history and family history of cancer. Section 2 comprised six items with yes/no/maybe responses and seven other scales that required responses of Strongly Disagreed, Disagreed, Neither Agreed nor Disagreed, or Agreed and Strongly Agreed on the respondent's knowledge on cervical cancer and screening uptake while Section 3 contained two scales, which measured respondent's perceived susceptibility to cervical cancer and screening uptake. Section 4 asked questions regarding to the perceived severity of cervical cancer if one does not uptake in screening comprised five scales. Section 5 sought to find out the respondent's perceived benefits to uptake of cervical cancer screening, which was measured with five items/scales. The sixth section of the questionnaire sought respondent's view on the perceived barriers to cervical cancer screening uptake, which was put into three subheadings, namely i. Psychosocial barriers comprising of 11 items, ii. Socioeconomic barriers, which consist of three scales, iii. Healthcare access and utilization with six scales, iv. Finally, the seventh section sought answers to respondent's cues to action to cervical cancer screening uptake with four items and two additional open-ended questions that seek the respondent's views on suggestions for improvement. For some of the items, respondent's will be asked to answer yes, no or maybe, likely, very likely, extremely likely or not likely while others will be asked to choose from strongly agree, agree, disagree, and strongly disagree.

3.6. Data Management and Analysis Plan

All data was initially managed on the google drive platform for data cleaning. Cleaning was done to check for incomplete questionnaire, and missing data. After all these had been checked, the researcher exported the data into the Statistical Package for Social Sciences (SPSS, version 25.0). Data was numerically coded and stored for analysis using the SPSS. Descriptive statistics was used to summarize continuous variables using mean scores and categorical data was analysed with the aid of percentages. Further analysis comprised Pearson's correlations and regression statistics to determine the relationship between dependent variables and explanatory variables.

3.7. Ethical Considerations

Using humans as research participants require adherence to ethical principles as argued by De Roche and Silver (2024). Ethical considerations are the moral principles that a researcher must follow in the field of a research work (West, 2020). To ensure that the study was conducted in an ethical manner, the following procedures were employed. First, ethical clearance was sought from an appropriate Institutional Review Board, Noguchi Memorial Institute for Medical Research, University of Ghana, Legon, Accra. The questionnaire was reviewed by the supervisors for cultural and context appropriateness to ensure that it fit and was devoid of any stigmatising words or phrases that could cause harm to participants. Secondly, the principle of anonymity and confidentiality was adhered to in carrying out the study.

Anonymity

This was done by initially explaining the purpose of the study to sampled respondents and then their consent was sought to participate in the study clearly spelling out the research topic and study objectives. It was also ensured that respondents willingly participate in the study without

any form of coercion from the researcher. In designing the data collection instruments, the researcher did not seek personal data of respondents such as names and addresses. This was ensured that traceable details of respondents are not obtained that could prevent them from any possible repercussions that might arise from participating in the study. Besides, data was analysed in aggregation and not individually.

Confidentiality

Participants were assured of confidentiality and their identity remained anonymous: as such their responses were not disclosed to each other. To ensure privacy and confidentiality, the questionnaire was administered one after the other in a well-defined setting in the participants' home or workplace for convenience and comfortability. They were also informed that their participation was voluntary, and each participant had the right to opt out of the study if they wished to. Answered questionnaires were kept by the principal investigator with a password.

Possible Benefits

The respondents were informed that the results of the study will inform stakeholders, policymakers, and Ghana Health Service, especially the Ashanti Regional Health Directorate as well as the Asokwa Municipal Health Directorate and its environs clinics and hospitals, in developing strategies to bridge the gap to barriers to cervical cancer screening uptake. Moreover, the study would identify the high incidence rate of cervical cancer in the Ashanti Region among females in the municipality and help develop preventing measures.

3.8. Validity and Reliability

To ensure the validity of the research findings, several strategies were employed. The questionnaire was reviewed by the supervisor to ensure that the questions are clear, relevant, and

capable of eliciting the necessary information. Pre-test was carried out using 15 females in their reproductive ages, 18 years and above in the municipality not selected for the study to ensure that the items on the questionnaire are clear and free from ambiguity. This was piloted through the administration of questionnaires face-to-face with the respondents in order to refine any questions that may be unclear or ambiguous. To further enhance reliability, member checking was employed, whereby participants were given the opportunity to review their responses and confirm the accuracy of their responses. Those respondents who cannot read were assisted to confirm their responses. This process helped to ensure that the data accurately reflects the participants' views and experiences, thereby increasing the credibility of the research findings.



CHAPTER FOUR

RESULTS

This chapter contains the presentation of the study's empirical results, and analysis. The section comprises a breakdown of the population characteristics, findings, and analysis aligned with the study's objectives.

4.0. Demographics of the Respondents

As indicated in Table 4.1, the demographic results of the study on cervical cancer screening uptake among females in the Ashanti Region of Ghana reveal several key trends. Most of the participants, 48.5%, were in the 25-34 age group, indicating that most of the women were of reproductive age. This is followed by 30.9% in the 35-44 age group, 17.8% in the 18-24 age group, and only 2.8% aged 45 and above. This suggests that the study population is predominantly composed of females in their reproductive ages.

In terms of marital status, most of the women, 56.5%, were married, while 41.2% were single and 2.3% were divorced or in other marital statuses. This indicates that many of the women were in stable relationships. The employment status of the participants also shows a significant trend. A large proportion of the females, 76.6%, were employed, while 14.8% were students and 8.5% were unemployed. This suggests that most women were economically active. The monthly income of many of the participants, 68.6%, was moderate, indicating that most of the women had a stable income. However, 14.3% had very low income, 11.3% low income, and 5.8% above moderate income. This suggests that there was a significant income disparity among the participants.

The participants were predominantly Akan, making up 60.1% of the study population, while 39.9% were non-Akan. Additionally, most of the participants, 69.3%, identified as Christian,

while 28.6% were Muslim, and 1.8% practiced traditional religion. Only 0.3% identified with other religions. Regarding the number of children, 23.9% of the participants had no children, 21.6% had one child, 18.1% had two children, 18.8% had three children, and 17.6% had four or more children. This suggests that most of the women were either childless or had a moderate number of children. Only 4.3% of the participants had ever been diagnosed with cervical cancer, while 94.2% had not and 1.5% did not know. A family history of cancer was reported by 7.8% of the participants, while 89.2% had no family history and 3% were unsure. In summary, the study population consisted mainly of employed, married women of reproductive age, with moderate income and no personal history of cervical cancer. The majority were Akan and Christian, with a varying number of children. A small proportion had a family history of cancer.



Table 4.1: Summary of Demographic Characteristics of Frequency Totals

Variable	Frequency (N=398)	Frequency (%)
Age		
18-24	71	17.8
25-34	193	48.5
35-44	123	30.9
45-54	10	2.5
55 and above	1	0.3
Marital Status		
Divorced	8	2.0
Married	225	56.5
Single	164	41.2
Others	1	0.3
Employment Status		
Employed	305	76.6
Student	59	14.8
Unemployed	34	8.5
Monthly Income		
Above Moderate	23	5.8
Low	45	11.3
Moderate	273	68.6
Very Low	57	14.3
Ethnicity		
Akan	239	60.1
Non-Akan	159	39.9
Religion		
Christian	276	69.3
Islam	114	28.6
Traditional Religion	7	1.8
Others	1	0.3
Number of Children		
No Children	95	23.9
One	86	21.6
Two	72	18.1
Three	75	18.8
Four and above	70	17.6
Cervical Cancer Diagnosis		
Yes	17	4.3
No	375	94.2
I don't know	6	1.5
Family History of Cancer		
Yes	31	7.8
No	355	89.2
Maybe	12	3.0

Source: (Field Data, 2024)

4.1. Statistical Tests

To run the Pearson regression analysis to determine the impact of perceived severity on cervical cancer screening update, the data must satisfy the assumptions of parametric test, which is normality. The test of normality as indicated in Table 4.4 shows that the data is not normally distributed based on the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality. For the "Cervical Screening Update" variable, the Kolmogorov-Smirnov statistic is 0.520 with a p-value less than 0.001, and the Shapiro-Wilk statistic is 0.389 with a p-value also less than 0.001. Since both p-values are less than the significance level of 0.05, the null hypothesis is rejected that the data is normally distributed. Similarly, for the "Perceived Severity" variable, the Kolmogorov-Smirnov statistic is 0.212 with a p-value less than 0.001, and the Shapiro-Wilk statistic is 0.830 with a p-value less than 0.001. Since both p-values are less than 0.05, it is concluded that this variable is also not normally distributed.

Furthermore, for the "Perceived Benefit" variable, the Kolmogorov-Smirnov statistic is 0.272 with a p-value less than 0.05, and the Shapiro-Wilk statistic is 0.826 with a p-value less than 0.05. Since both p-values are less than 0.05, it is concluded that this variable is also not normally distributed; and for the perceived susceptibility, the p-value for either the Kolmogorov-Smirnov or Shapiro-Wilk test is less than the chosen significance level (e.g. 0.05), the null hypothesis of the data following a normal distribution is rejected. Even after log transformation, the variables were still not normally distributed; thus, in assessing the impact of perceived susceptibility, perceived severity, perceived benefit on cervical cancer screening update, the ordinal regression analysis was used instead of the linear regression analysis.

Table 4.2: Test for Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Cervical Screening Uptake	.520	398	.000	.389	398	.000
Perceived Susceptibility	.490	398	.001	.451	398	.001
Perceived Severity	.212	398	.000	.830	398	.000
Perceived Benefit	.272	398	.001	.826	398	.001

4.2 Results

4.2.1. The Knowledge of Females in the Asokwa Municipality on Cervical Cancer and Screening Uptake

Table 4.2 presents findings on the knowledge of females in the Asokwa Municipality regarding cervical cancer and screening uptake. The findings reveal that while the majority (59.3%) of the participants had heard of cervical cancer, a significant proportion (38.9%) had not, and 1.8% were unsure. This highlights the need for increased awareness campaigns and education about cervical cancer in the community. Despite the moderate awareness of cervical cancer, the

uptake of screening services was alarmingly low. Only 11.1% of the participants had been screened for cervical cancer before, while a staggering 87.4% had never been screened, and 1.5% were unsure. This lack of screening uptake could be attributed to various factors, including lack of access to screening facilities, lack of knowledge about the importance of screening, or cultural and societal barriers.

Furthermore, the data revealed a significant gap in knowledge regarding cervical cancer screening types. The majority (73.1%) were not aware of any screening types, while only 14.1% had heard of the Pap smear test, 11.5% were aware of both the HPV test and Pap smear test, and a mere 1.3% had heard of the HPV test. This lack of knowledge about screening options could contribute to the low uptake of screening services. Interestingly, while a significant majority (87.4%) were aware that cervical cancer is preventable, there was a considerable lack of understanding regarding its transmission. Only 37.9% knew that cervical cancer is a sexually transmitted infection (STI), while 53.3% did not know this, and 8.8% were unsure. This knowledge gap could potentially impact preventive measures and risk perception.

On a positive note, the majority (88.9%) of the participants were aware that cervical cancer is curable in hospitals when detected early, indicating an understanding of the importance of early detection. However, 3.8% did not know this, and 7.3% were unsure, suggesting a need for further education in this area. These findings suggest that there is a significant lack of awareness and knowledge about cervical cancer among women in the Asokwa Municipality, particularly regarding screening types and the preventability and curability of the disease.

Table 4.3: Level of Awareness in the Asokwa Municipality about Cervical Cancer

Variable	Frequency (N=398)	Percentages (%)
Have you ever heard of cervical cancer?		
Yes	236	59.3
No	155	38.9
Maybe	7	1.8
Have you ever been screened for cervical cancer?		
Yes	44	11.1
No	348	87.4
Maybe	6	1.5
Which of the following screening types have you heard of?		
HPV Test	5	1.3
Pap Smear Test	56	14.1
Both	46	11.5
None	291	73.1
Do you know that cervical cancer is a Sexually Transmitted Infection (STI)?		
Yes	151	37.9
No	212	53.3
Maybe	35	8.8
Are you aware cervical cancer is preventable?		
Yes	348	87.4
No	26	6.5
Maybe	24	6.0
Do you know cervical cancer is curable in hospitals when detected early?		
Yes	354	88.9
No	15	3.8
Maybe	29	7.3

Source: (Field Data, 2024)

The provided data (Table 4.3) includes the responses of 398 women on a five-point scale regarding the risks and signs of cervical cancer. The scale ranges from 1 (strongly disagree) to 5 (strongly agree). From 1 to 1.8 means strongly disagree; from 1.81 to 2.60 means disagree; from 2.61 to 3.40 means neutral; from 3.41 to 4.20 means agree and from 4.21 to 5.0 means strongly

agree. The first statement, "A woman is at lower risk for developing cervical cancer if she smokes" has a mean response value of 2.22. This indicates that most women disagree with the statement. This implies that most women do not believe that smoking reduces the risk of cervical cancer. The second statement, "A woman is at higher risk of developing cervical cancer if she has had more than five sexual partners in her lifetime" has a mean response value of 3.85. This indicates that most women agree with the statement. This suggests that most women believe that having more than five sexual partners increases the risk of cervical cancer.

The remaining statements all have mean response values above 3, indicating that most women agree with the statements. For example, "Vaginal bleeding between periods can be a sign of cervical cancer" has a mean response value of 3.29. Similarly, "Discomfort or pain during sex can be a sign of cervical cancer" has a mean response value of 3.61. Overall, the results indicate that most women agree that certain signs, such as vaginal bleeding during or after sex, persistent vaginal discharge, discomfort or pain during sex, and vaginal bleeding after menopause, can be signs of cervical cancer.

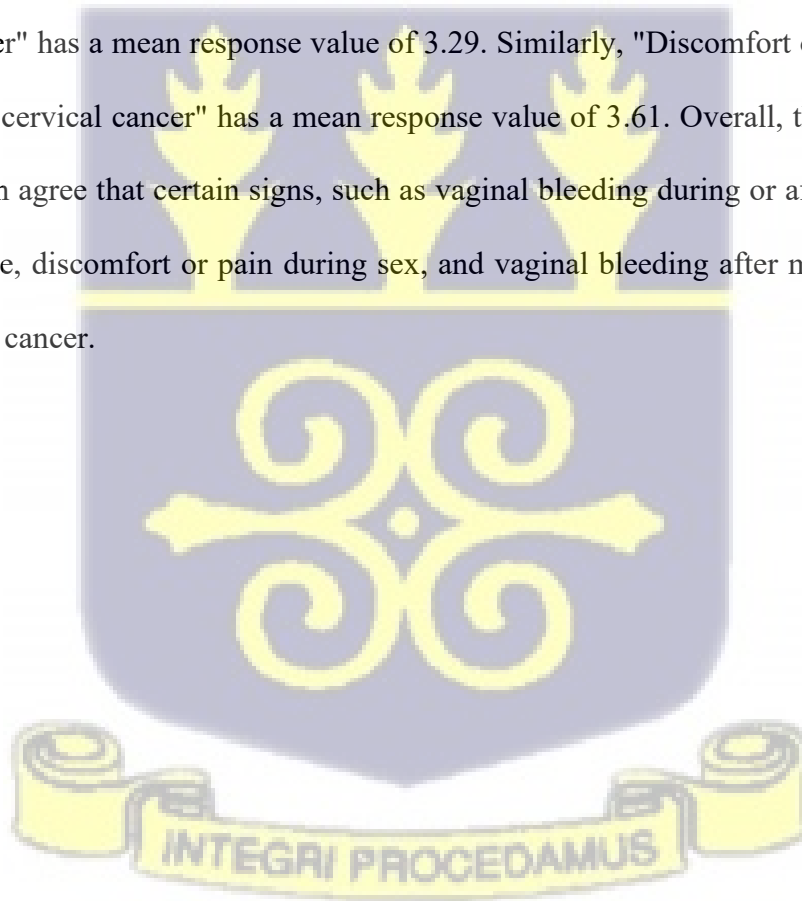


Table 4.4: Descriptive Statistics on the Level of Awareness in the Asokwa Municipality about Cervical Cancer

Statements	N	Minimum	Maximum	Mean	Std. Deviation
A woman is at lower risk for developing cervical cancer if she smokes	398	1	5	2.22	.989
A woman is at higher risk of developing cervical cancer if she has had more than five sexual partners in her lifetime	398	1	5	3.85	.720
Vaginal bleeding between periods can be a sign of cervical cancer	398	1	5	3.29	.950
Persistent vaginal discharge that smells unpleasant can be a sign of cervical cancer	398	1	5	3.43	.866
Discomfort or pain during sex can be a sign of cervical cancer	398	1	5	3.61	.831
Vaginal bleeding after menopause can be a sign of cervical cancer	398	1	5	3.74	.670
Vaginal bleeding during or after sex can be a sign of cervical cancer	398	1	5	3.71	.767
Valid N (listwise)	398				

Source: (Field Data, 2024)

Note: 1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: Agree; 5: Strongly Agree

4.2.2. The Impact of Perceived Severity of Cervical Cancer Screening Uptake among Females in the Asokwa Municipality

The Nagelkerke R-squared value of 0.040 as shown in Table 4.6 shows that the model explains approximately 4.0% of the variation in cervical cancer screening uptake. This suggests

that the perceived severity of cervical cancer has a relatively small but significant impact on the likelihood of females getting screened. This implies that efforts to increase awareness about the severity of cervical cancer and its consequences may be effective in improving screening rates. However, the relatively low R-squared values indicate that there may be other factors not included in the model that also play a significant role in determining screening uptake.

Table 4.5: Pseudo R-Square

Pseudo R-Square	Values
Cox and Snell	.023
Nagelkerke	.040
McFadden	.027

The parameter estimates as indicated in Table 4.7 provides information about the threshold values, which represent the estimated cutoff points on the logit scale that differentiate adjacent categories of the ordinal dependent variable (cervical cancer screening uptake). The location parameter estimate (0.711) represents the effect of the independent variable (perceived severity) on the logit of the dependent variable. A positive value indicates that as the perceived severity increases, the likelihood of being in a higher category of cervical cancer screening uptake also increases. The standard error, Wald statistic, and p-value are provided to assess the statistical significance of the parameter estimate.

Thus, the positive location parameter estimate (0.711) suggests that as the perceived severity of cervical cancer increases, the likelihood of females in the Asokwa Municipality having a higher level of cervical cancer screening uptake also increases. This relationship is statistically significant (p-value = 0.002). In summary, the analysis indicates that the perceived severity of cervical cancer is a significant factor influencing the uptake of cervical cancer screening among

females in the Asokwa Municipality. Higher perceived severity is associated with a higher likelihood of screening uptake.

Table 4.6: Parameter Estimates for Perceived Severity

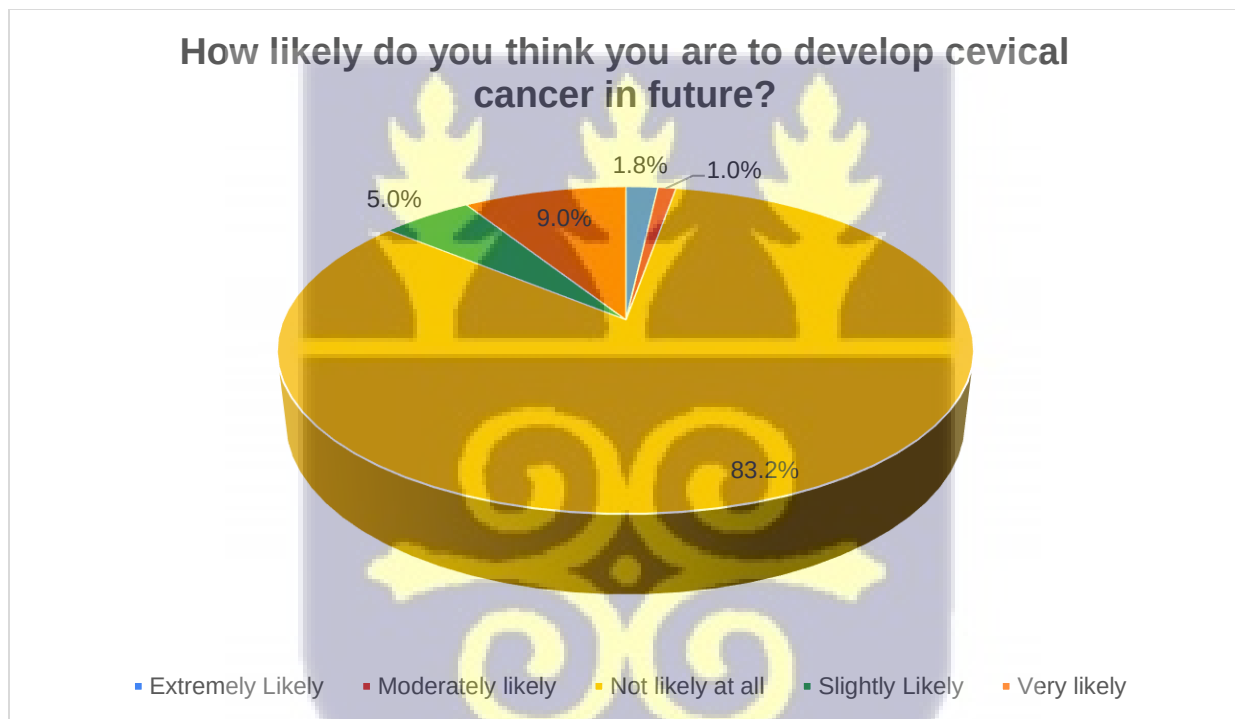
		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Threshold	Cervical Cancer Uptake = .0]	3.859	.659	34.336	1	.000	2.568	5.149
	Cervical Cancer Uptake = .5]	4.007	.662	36.656	1	.000	2.710	5.304
	Location Severity	.711	.229	9.668	1	.002	.263	1.159

4.2.3. The Perceived Susceptibility to Cervical Cancer Screening Uptake among Females in the Asokwa Municipality

Figure 4.1 shows the perceived susceptibility to cervical cancer among women. The responses are categorized into five levels, ranging from "extremely likely" to "not likely at all". Most women, 331 (83.2%), do not perceive themselves as likely to develop cervical cancer in the future. This suggests that many women are not overly concerned about their risk of contracting the disease. In contrast, a smaller proportion of women, 7 (1.8%), believe they are extremely likely to develop cervical cancer, indicating a higher level of concern about their risk. A moderate number of women, 4 (1.0%), perceive themselves as moderately likely to develop cervical cancer. This group may be more aware of their risk factors or have had previous experiences that have increased their concern. On the other end of the spectrum, 20 women (5.0%) believe they are slightly likely

to develop cervical cancer, indicating a moderate level of concern. Finally, 36 women (9.0%) perceive themselves as very likely to develop cervical cancer. This group may have a higher risk due to factors such as a family history, previous abnormal Pap tests, having multiple partners or other health conditions. Overall, the distribution of responses suggests that while many women are not overly concerned about their risk of developing cervical cancer, a significant proportion are more aware of their risk and may be more likely to engage in preventive measures such as regular screening.

Figure 4.2: Perceived Susceptibility to Cervical Cancer Screening Uptake



Source: (Field Data, 2024)

Further analysis (Table 4.5) shows that the coefficients for the threshold variables indicate that for every unit increase in cervical cancer screening uptake, the predicted probability of uptake increases by 1.962 units when the threshold is set at 0%, and by 2.107 units when the threshold is

set at 50%. These coefficients are statistically significant at $p < 0.001$, indicating that the relationship between cervical cancer screening uptake and the threshold variables is strong and reliable. The coefficient for perceived susceptibility is 0.015, indicating that a one-unit increase in perceived susceptibility is associated with a 0.015-unit increase in cervical cancer screening uptake. However, this coefficient is not statistically significant at $p = 0.918$, suggesting that perceived susceptibility does not have a significant impact on cervical cancer screening uptake. This suggests that cervical cancer screening uptake is significantly influenced by the threshold variables, but not by perceived susceptibility. This implies that the likelihood of cervical cancer screening uptake is more closely tied to the specific levels of uptake (0% or 50%) rather than individual perceptions of susceptibility.

Table 4.7: Parameter Estimate for Perceived Susceptibility

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	Cervical cancer screening uptake = .0]	1.962	.259	57.257	1	.000	1.454	2.471
	Cervical cancer screening uptake = .5]	2.107	.264	63.483	1	.000	1.589	2.626
Location	Perceived susceptibility	.015	.148	.011	1	.918	-.275	.305

4.2.4. The Perceived Benefits to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

As indicated in Table 4.8, the perceived benefits of cervical cancer screening among females in the Asokwa Municipality is high. An overwhelming majority (93.7%) believe that cervical cancer screening is necessary, indicating a strong awareness of its importance. Over 90% of respondents believe that screening is effective, very effective, or extremely effective in detecting potential issues at an early stage. Almost all respondents (99%) believe that getting screened for cervical cancer can greatly reduce their risk of developing serious health problems. This suggests a high perceived benefit of screening in terms of risk reduction. Furthermore, a significant proportion of respondents are confident (53.8%) or very confident (36.9%) that undergoing cervical cancer screening will help them maintain good health, reflecting a strong belief in the benefits of screening for overall well-being.

Notably, an overwhelming majority (97.2%) agree that early detection through cervical cancer screening increases the chances of successful treatment. This perception of the screening's ability to improve treatment outcomes further reinforces the perceived benefits among the respondents. In summary, the data indicates that females in the Asokwa Municipality have a highly positive perception of the benefits associated with cervical cancer screening. Most respondents believe that screening is necessary, effective in early detection, can reduce the risk of developing serious health problems, and can increase the chances of successful treatment. This positive perception of the benefits contributes to uptake of cervical cancer screening services in the municipality. The Nagelkerke R-squared value of 0.049 as shown in Table 4.9 shows that the model explains approximately 4.9% of the variation in cervical cancer screening uptake. This

suggests that the perceived benefits of cervical cancer have a relatively small but significant impact on the likelihood of females getting screened.

Table 4.8: Perceived Benefits to Uptake of Cervical Cancer Screening

Question	Frequency (N=398)	Percentage (%)
Is cervical cancer screening necessary?		
Yes	373	93.7
No	6	1.5
Maybe	19	4.8
How effective do you believe cervical cancer screening is in detecting potential issues at an early stage?		
Effective	224	56.3
Very Effective	141	35.4
Extremely Effective	33	8.3
To what extent do you think getting screened for cervical cancer can reduce your risk of developing serious health problems?		
To a great extent	394	99.0
Don't know	4	1.0
How confident are you that if you undergo cervical cancer screening, it will help you maintain good health?		
Not confident at all	3	0.8
Confident	214	53.8
Very confident	147	36.9
Extremely confident	34	8.5
Do you believe that early detection through cervical cancer screening increases the chances of successful treatment?		
Agree	387	97.2
Disagree	7	1.8
Not sure	4	1.0

Source: (Field Data, 2024)

Table 4.9: Pseudo R-Square of Perceived Benefits

Pseudo R-Square

Cox and Snell	.028
Nagelkerke	.049
McFadden	.033

Further analysis, as seen in Table 4.10, shows that the perceived benefit variable has a positive coefficient estimate of 2.012, which is statistically significant (Sig. = 0.001). This suggests that as the perceived benefit of cervical cancer screening increases, the likelihood of higher levels of cervical screening uptake also increases. In other words, females who perceive greater benefits from cervical cancer screening are more likely to participate in the screening program. This finding highlights the importance of promoting awareness and education about the benefits of cervical cancer screening to increase uptake rates among the female population in the Asokwa Municipality.

Table 4.10: Parameter Estimates for Perceived Benefits to Uptake of Cervical Cancer Screening

		Estimate	Std. Error	Wald	Df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	Cervical screening uptake= .0]	4.449	.776	32.90	1	.000	2.929	5.969
	Cervical screening uptake = .5]	4.598	.779	34.85	1	.000	3.071	6.124
Location	Perceived Benefit	2.012	.589	11.67	1	.001	.858	3.166

4.2.5. The Perceived Barriers to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

The data provided in Figure 4.2 shows the reasons among females in the Asokwa Municipality for not undergoing cervical cancer screening. The most cited reason for not

undergoing cervical cancer screening was a lack of awareness about the importance of screening. This reason was selected by the highest number of respondents (192), accounting for 48.2% of the total. Lack of awareness can lead to delayed or missed screening, increasing the risk of cervical cancer going undetected. Addressing this issue through targeted awareness campaigns and educational efforts could potentially improve screening rates.

The second most common reason was fear or anxiety about the screening process, with 119 respondents (29.9%) selecting this option. This highlights the need for better education and counselling to alleviate fears and anxieties related to the screening process. Providing accurate information and addressing concerns could help reduce this barrier. Cost-related concerns were also a factor, with 48 respondents (12.1%) citing this as a reason. This suggests that financial barriers may prevent some individuals from accessing cervical cancer screening services. Efforts to improve access and affordability, such as subsidized or free screening programs, could help mitigate this issue.

Interestingly, 24 respondents (6.0%) perceived a low susceptibility to cervical cancer health issues, which could stem from a lack of knowledge about risk factors and the importance of regular screening. Targeted education campaigns could help address this misconception. Lastly, the lack of access to healthcare facilities was the least cited reason, with 15 respondents (3.8%) selecting this option. While a smaller proportion, it still highlights the need for improved access to screening facilities in certain areas or communities.

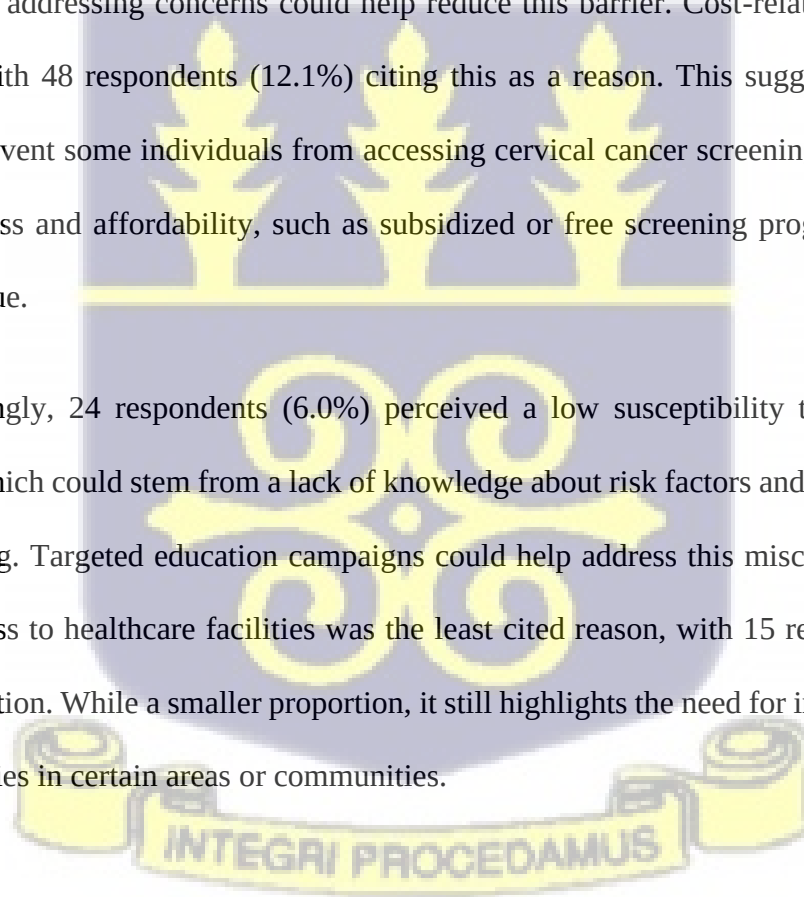
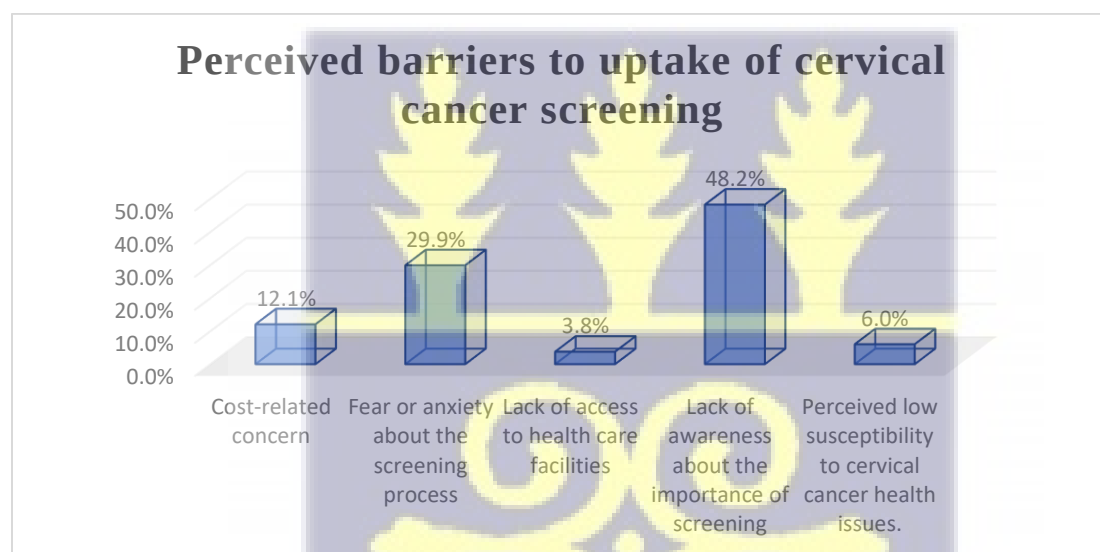


Figure 4.3: Perceived Barriers to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality



Source: (Field Data, 2024)

Psychosocial Barriers

In terms of psychosocial barriers, the data (Table 4.11) suggests that the perception of pain (49.2%), discomfort (64.1%), and potential embarrassment (16.3%) are significant barriers to cervical cancer screening uptake. While cultural and religious beliefs are not major factors for the

majority, addressing concerns through education, awareness campaigns, and proper counselling could help increase screening rates and improve early detection of cervical cancer.



Table 4.11: Psychosocial Barriers to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

Question	Frequency (N=398)	Percentage (%)
Do you think cervical cancer screening is painful?		
Yes	196	49.2
No	70	17.6
Maybe	132	33.2
Does your culture forbid cervical cancer screening uptake?		
Yes	13	3.3
No	362	91.0
Maybe	23	5.8
Does your religion have anything to do with uptake of cervical cancer screening?		
Yes	15	3.8
No	357	89.7
Maybe	26	6.5
Do you think cervical cancer screening is embarrassing?		
Yes	26	6.5
No	307	77.1
Maybe	65	16.3
Are you concern about discomfort of the screening?		
Yes	255	64.1
No	57	14.3
Maybe	86	21.6

Source: (Field Data, 2024)

Socio-economic Barriers

Regarding concerns about socio-economic barriers to cervical cancer screening, the data (Table 4.12) shows that the majority, 87.2%, reported being "very concerned" about cost of screening while an additional 8.8% were "extremely concerned", and 4.0% stated they were "not concerned at all" about the cost. When asked about the affordability of cervical cancer screening tests, 70.1% of respondents perceived them as unaffordable. In contrast, only 5.5% considered the tests affordable. A notable proportion (24.4%) answered "Maybe", suggesting uncertainty or a lack of definitive perception regarding affordability. The data also provides insights into the respondents' time management for cervical cancer screening. A substantial majority of 71.9%

reported that they do not make time for screening. Only 20.9% of respondents stated that they make time for screening, while 7.3% answered "Maybe", indicating indecision or a lack of clear prioritization.

Table 4.12: Socio-economic Barriers to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

Question	Frequency (N=398)	Percentage (%)
How concerned are you about the cost of cervical cancer screening?		
Very concerned	347	87.2
Extremely concerned	35	8.8
Not concerned at all	16	4.0
Do you think Cervical cancer screening test is affordable?		
Yes	22	5.5
No	279	70.1
Maybe	97	24.4
Do you make time for screening?		
Yes	83	20.9
No	286	71.9
Maybe	29	7.3

Source: (Field Data, 2024)

Healthcare Access and Utilization Barriers

The data (Table 4.13) suggests that the majority of respondents (83.2%) do not perceive reaching a health facility for screening as a significant challenge. However, a small proportion (8.8%) reported it as difficult, and 8.0% were uncertain. In line with the previous finding, most respondents (85.4%) did not face challenges in accessing cervical cancer screening services. Only 7.5% reported facing challenges, while 7.0% were unsure.

Regarding the availability of service providers, the responses were divided. While 42.5% confirmed the availability of providers at the time of their access, a nearly equal proportion

(48.7%) expressed uncertainty. Only 8.8% reported unavailability of providers. These mixed responses highlight potential variability in provider availability across different healthcare facilities or regions. The data on waiting times shows a divergence in experiences. While 31.4% did not experience long waiting times, a significant majority (61.3%) answered "Maybe", indicating uncertainty or variability in waiting times. Only 7.3% confirmed experiencing long waits. This suggests that waiting times could be a concern for some individuals, but the extent may vary.

Notably, a large majority (85.9%) reported knowing a health facility that offers cervical cancer screening in their municipality. This suggests a generally good awareness of available screening services in the local area. However, a small proportion (7.3% answering "No" and 6.8% "Maybe") did not have clear knowledge. In summary, while the data indicates that accessibility and availability of screening services are generally not major barriers for most respondents, there are variations in experiences related to provider availability, waiting times, and awareness of local screening facilities.

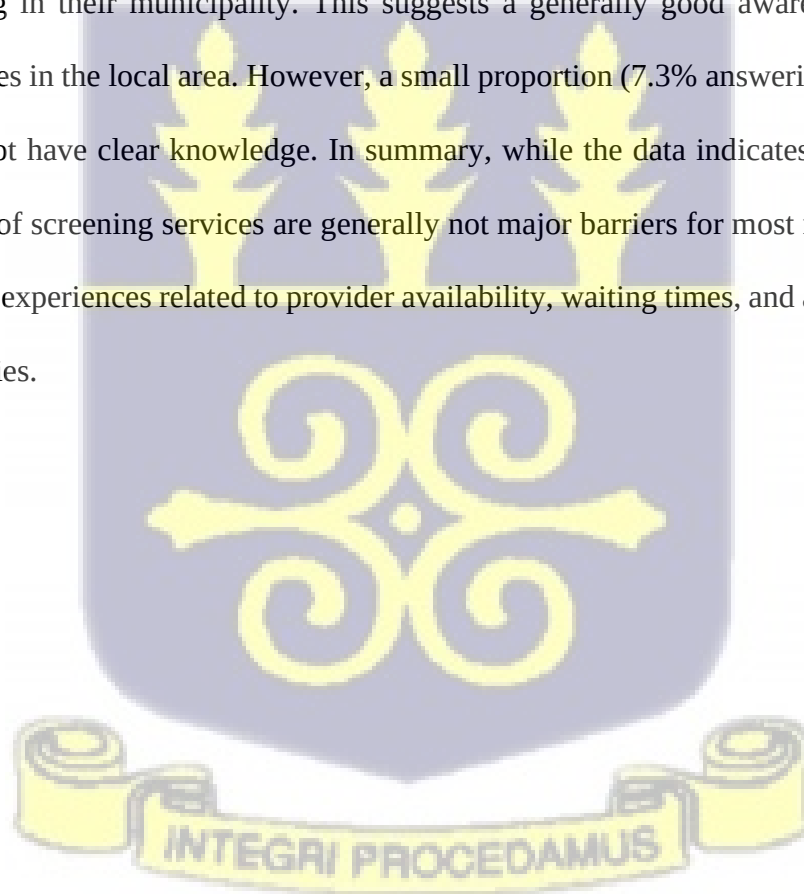


Table 4.13: Healthcare Access and Utilization Barriers to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality.

Question	Frequency (N=398)	Percentage (%)
Do you think it is hard to reach a health facility for screening?		
Yes	35	8.8
No	331	83.2
Maybe	32	8.0
Do you face any challenges in accessing cervical cancer screening services?		
Yes	30	7.5
No	340	85.4
Maybe	28	7.0
Are the service providers available at the time of your access?		
Yes	169	42.5
No	35	8.8
Maybe	194	48.7
Do you experience long awaiting time?		
Yes	29	7.3
No	125	31.4
Maybe	244	61.3
Do you know any health facility that offers cervical cancer screening uptake in your municipality?		
Yes	342	85.9
No	29	7.3
Maybe	27	6.8

Source: (Field Data, 2024)

Further analysis (Table 4.14) shows that the pseudo-R-square values suggest that perceived barriers influence cervical cancer screening uptake. The Nagelkerke value of 0.158 indicates that around 15.8% of the variation in cervical cancer screening uptake can be explained by the perceived barriers predictor.

Table 4.14: Pseudo R-Square for Perceived Barriers on Cervical Cancer Screening Uptake

Cox and Snell	.090
Nagelkerke	.158
McFadden	.112

Table 4.15 presents parameter estimates for perceived barriers to cervical cancer screening uptake. The analysis reveals significant effects of various barriers on the likelihood of individuals undergoing cervical cancer screening. Psychosocial barriers have a non-significant negative effect on cervical cancer screening uptake, with an estimated coefficient of -1.330 and a p-value of 0.203. This suggests that psychosocial barriers do not significantly influence the likelihood of screening. On the other hand, socio-economic barriers have a significant positive effect, with an estimated coefficient of 2.451 and a p-value of less than 0.001.

Lastly, healthcare access and utilization barriers have a non-significant positive effect on cervical cancer screening uptake, with an estimated coefficient of 1.603 and a p-value of 0.104. This indicates that healthcare access and utilization barriers do not significantly influence the likelihood of screening. Overall, the analysis suggests that socio-economic barriers have the most significant positive effect on cervical cancer screening uptake, while psychosocial barriers have a non-significant negative effect.

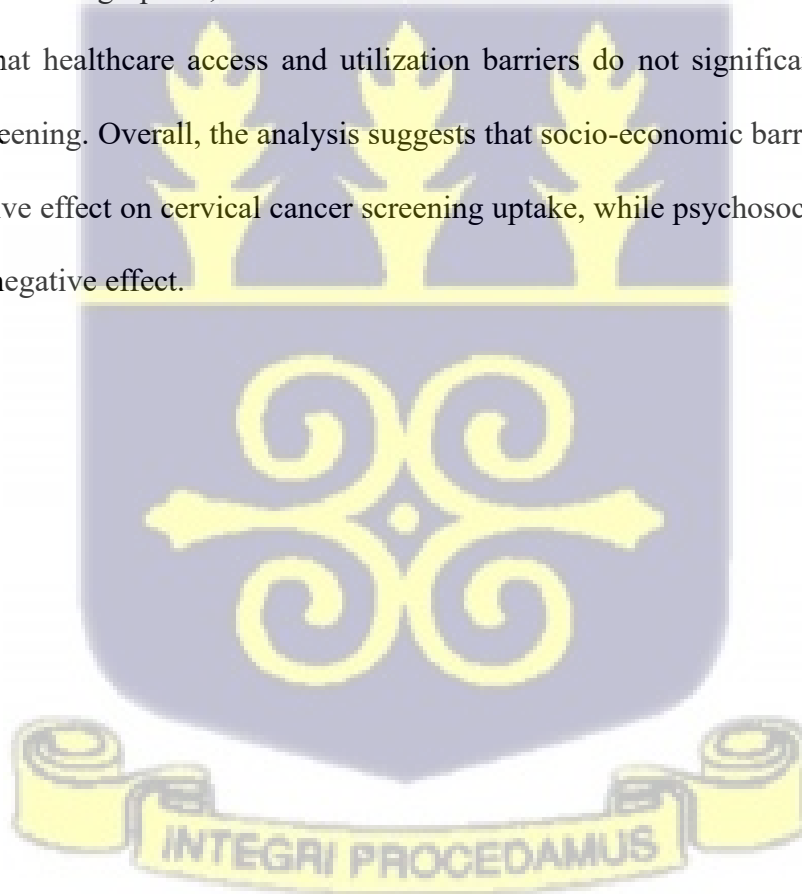


Table 4.15: Parameter Estimates for Perceived Barriers to Cervical Cancer Screening Uptake

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	Cervical cancer screening uptake = .0]	2.980	.512	33.864	1	.000	1.977	3.984
	Cervical cancer screening uptake = .5]	3.143	.516	37.036	1	.000	2.131	4.155
Location	Psychosocial barriers	-1.330	1.046	1.617	1	.203	-3.380	.720
	Socio-economic barriers	2.451	.491	24.883	1	.000	1.488	3.414
	Healthcare access and utilization barriers	1.603	.985	2.650	1	.104	-.327	3.533

4.2.6. Factors Contributing to Self-Efficacy on Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

The data (Table 4.16) reveals that a significant majority (85.9%) of the respondents are aware of the potential consequences of not undergoing cervical cancer screening. Furthermore, most (87.4%) believe that understanding these consequences increases their motivation to undergo screening. This awareness and recognition of the consequences of screening contributes positively to their self-efficacy, as evidenced by the high percentage (98.5%) willing to undergo cervical cancer testing to stay safe and healthy constantly. Overall, the data suggests that awareness of potential consequences and understanding the benefits of screening are key factors contributing to self-efficacy and uptake of cervical cancer screening among females in the Asokwa Municipality.

Table 4.16: Factors Contributing to Self-Efficacy on Uptake of Cervical Cancer Screening

Question	Frequency (N=398)	Percentage (%)
Are you aware of the potential consequences of not undergoing cervical cancer screening?		
Yes	342	85.9
No	28	7.0
Maybe	28	7.0
If you are aware of the potential consequences, do you believe that understanding these consequences increases your motivation to undergo cervical cancer screening?		
Yes	348	87.4
No	13	3.3
Maybe	37	9.3
I will constantly go for cervical cancer test to stay safe and healthy		
Yes	392	98.5
No	6	1.5

Source: (Field Data, 2024)

4.2.7. Factors that Contribute to Cues to Action on Cervical Cancer Screening Uptake among Females in the Asokwa Municipality

The data (Table 4.17) provides insights into the factors contributing to cues to action on cervical cancer screening uptake among females in the Asokwa Municipality. Most respondents (52.5%) reported being confident in their ability to take steps to prevent cervical cancer, while 38.7% were very confident, and 8.5% were extremely confident. This suggests that most females in the area have a reasonable level of self-efficacy when it comes to taking preventive measures against cervical cancer.

An overwhelming majority (92%) of respondents believed that taking action to prevent cervical cancer is within their control, indicating a strong sense of personal agency and control over cervical cancer prevention. Additionally, most respondents (45.5%) reported being very likely

to undergo cervical cancer screening if recommended by a healthcare professional, while 40.5% were likely, and 11.6% were extremely likely. This highlights that recommendations from healthcare providers are a strong cue to action for cervical cancer screening among the respondents.

However, the responses were somewhat mixed regarding the extent to which reminders from healthcare providers influence the decision to schedule and attend cervical cancer screening. While 57.8% reported that reminders were not influential, a substantial portion (17.3%) found them influential, 19.1% found them very influential, and 5.8% found them extremely influential. Notably, an overwhelming majority (88.9%) of respondents believed in ensuring facility improvement for screening behaviour, recognizing the importance of having adequate facilities and resources for promoting cervical cancer screening.

Overall, the data suggests that females in the Asokwa Municipality have a reasonable level of self-efficacy and perceived control over cervical cancer prevention. Recommendations from healthcare providers appear is a strong cue to action for cervical cancer screening, while reminders may be a moderate cue for some. Additionally, the respondents recognize the importance of having adequate facilities and resources for promoting cervical cancer screening behaviour.

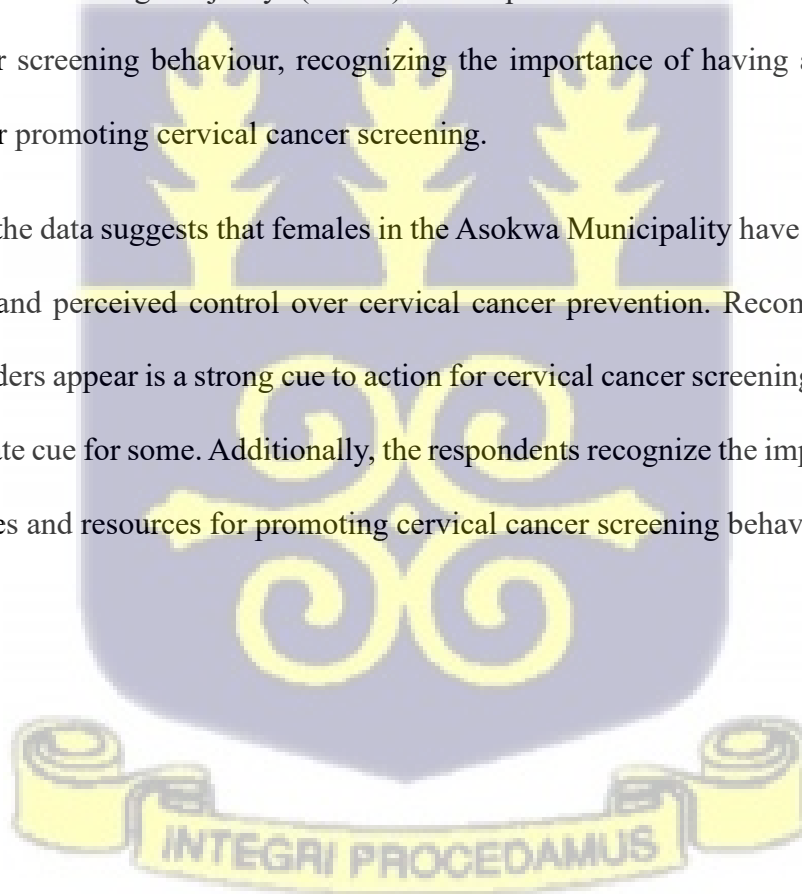


Table 4.17: Factors that Contribute to Cues to Action on Cervical Cancer Screening Uptake

Question	Frequency (N=398)	Percentage (%)
How confident are you in your ability to take steps to prevent cervical cancer?		
Not confident at all	1	0.3
Confident	209	52.5
Very confident	154	38.7
Extremely confident	34	8.5
Do you believe that taking action to prevent cervical cancer is within your control?		
Yes	366	92.0
No	15	3.8
Maybe	17	4.3
How likely are you to undergo cervical cancer screening if recommended by a healthcare professional?		
Not likely at all	10	2.5
Likely	161	40.5
Very likely	181	45.5
Extremely likely	46	11.6
To what extent do reminders from healthcare providers influence your decision to schedule and attend cervical cancer screening?		
Not influential	230	57.8
Influential	69	17.3
Very influential	76	19.1
Extremely influential	23	5.8
Do you believe in ensuring facility improve behaviour for screening?		
Yes		
No	354	88.9
Maybe	15	3.8
	29	7.3

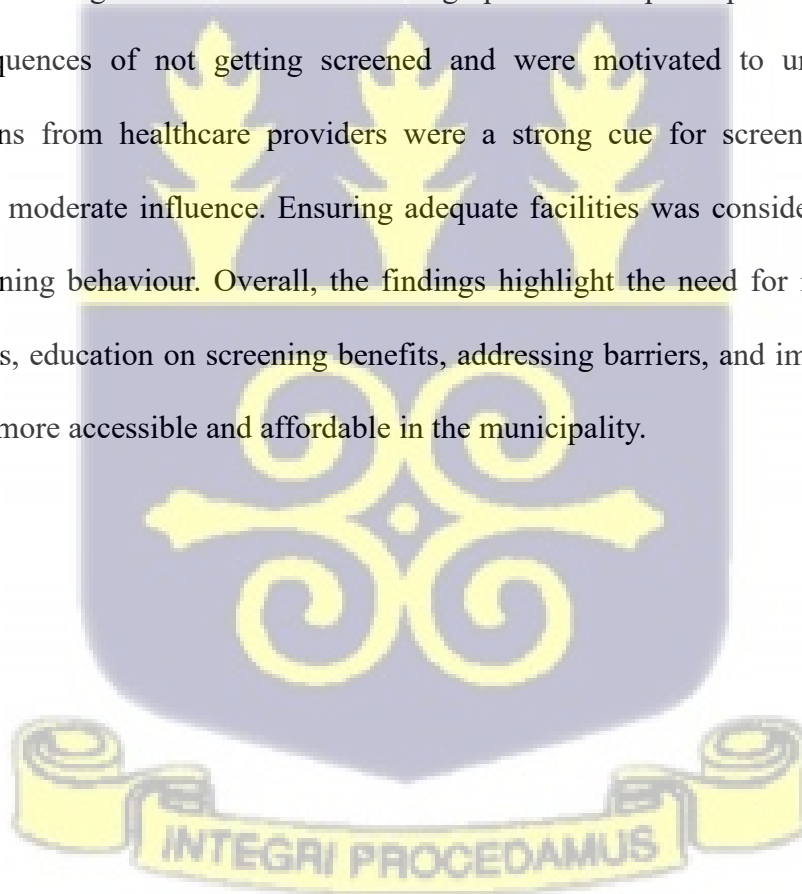
Source: (Field Data, 2024)

4.3. Chapter Summary

This chapter presented the empirical findings and analysis of a study on cervical cancer screening uptake among females in the Ashanti Region of Ghana. The demographic data shows most participants were married, employed women of reproductive age with moderate income levels. Most were of Akan ethnicity and Christian religion. The results reveal a significant lack of

awareness and knowledge about cervical cancer and screening among the participants. Only 59.3% had heard of cervical cancer, and just 11.1% had been screened before. There were knowledge gaps around screening types, transmission, and preventability of cervical cancer.

Analysis showed that perceived susceptibility did not significantly impact screening uptake. However, higher perceived severity was associated with higher likelihood of screening. Participants had a highly positive perception of the benefits of screening for early detection and risk reduction. The major barriers to screening included lack of awareness of its importance, fear/anxiety about the process, cost concerns, and low perceived susceptibility. Socio-economic barriers had the most significant effect on screening uptake. Most participants were aware of the potential consequences of not getting screened and were motivated to undergo screening. Recommendations from healthcare providers were a strong cue for screening action, while reminders had a moderate influence. Ensuring adequate facilities was considered important for promoting screening behaviour. Overall, the findings highlight the need for increased cervical cancer awareness, education on screening benefits, addressing barriers, and improving access to make screening more accessible and affordable in the municipality.



CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter presents a discussion of the study's findings in line with the literature reviewed and the theoretical framework, which is the Health Belief Model (HBM).

5.0. The Knowledge of Females in the Asokwa Municipality on Cervical Cancer and Screening Uptake

The knowledge of females on cervical cancer and the Pap smear test are critical in cervical cancer prevention strategies. The study reveals that while most participants had heard of cervical cancer, a significant proportion (38.9%) had not, and 1.8% were unsure. This finding is consistent with existing literature, which suggests that there is a lack of awareness about cervical cancer among women, particularly in low- and middle-income countries. A study by Diallo et al. (2023) in Cape Coast, Ghana found that the majority of participants (64.7%) were unaware of cervical cancer. Taneja et al. (2021) in India, reported low levels of knowledge and screening practice among women with overall knowledge on cervical cancer among women at 40.22%. A study by Dahiya et al. (2019) conducted in New Delhi, India also found a lack of awareness among women regarding cervical cancer and its screening modalities. Only half of the women had heard of cervical cancer, and knowledge was higher among students and unmarried women. Educating women about cervical cancer and available resources through media and health discussions is crucial in providing healthcare. Promoting opportunistic screening in health institutions can increase uptake, particularly among women from lower socioeconomic groups.

In this study, the majority (73.1%) lacked awareness about the various screening types for cervical cancer screening. Previous studies conducted in West Africa found a lack of awareness about cervical cancer screening among both nursing staff and women. In Cape Coast, out of the

individuals who were knowledgeable about cervical cancer, 64.8% were aware of the availability of preventive measures. The most widely recognized means of prevention was the pap smear (Diallo et al., 2023). Similarly, in Kenya, the level of awareness regarding HPV was notably deficient, most likely because 55% of the participants in the survey reported being unfamiliar with HPV (Gitonga et al., 2022). Another study in Ethiopia found that only 26.2% of women knew about cervical cancer screening (Endalew et al., 2020). These findings highlight the need for targeted education and mass screening programs to improve awareness and uptake of cervical cancer screening in these populations.

In this study, a significant majority (87.4%) were aware that cervical cancer is preventable. The results are consistent with the findings of Gitonga et al. (2022) who found that a total of 89% of the individuals involved in the study considered cervical cancer to be preventable. However, in a study by Mengesha et al. (2020) in Ethiopia, a survey found that only 65.3% of women were aware that cervical cancer can be prevented. Cervical cancer is attributed to the Human Papillomavirus (HPV), a sexually transmitted infection that mostly affects sexually active individuals of both genders, as stated by the World Health Organisation (WHO) (World Health Organization (WHO), 2020). However, in the current study, only 37.9% knew that cervical cancer is a sexually transmitted infection (STI). This implies that a greater proportion of sexually active women might acquire HPV through sex without them knowing the source of the infection.

This finding is consistent with several previous studies. A study in the Ajumako-Eyan-Essiam District in Ghana revealed that the majority of women lacked awareness regarding the nature of cervical cancer, as well as proper understanding of its screening methods and modes of transmission (Sampson et al., 2021). Similarly, a study undertaken by Nyaaba and Akurugu (2023) from the Upper East of Ghana reported poor knowledge and low uptake of cervical cancer

screening where 267 respondents representing 100% have heard about cervical cancer but did not know it is a sexually transmitted disease and 170 representing (64.89) out of 267 respondents had never been screened and only 92 (56.38%) that had screened.

Another study in Zimbabwe reported that only 23% of women with cervical cancer knew that HPV was the cause of the disease (Tapera et al., 2019).

Although compelling data is supporting the effectiveness of screening in improving early intervention and reducing the occurrence and death rates of cervical cancer, a significant number of women in low to middle-income countries have not taken advantage of screening options. In this study, only 11.1% of the participants had been screened for cervical cancer before, while a staggering 87.4% had never been screened. The potential explanation suggests that women are more likely to undergo cervical screening if they have adequate knowledge about the procedure and if there are enabling factors present that facilitate effective screening uptake. This explanation is supported by the findings from a study conducted in Zimbabwe, where Chirenje et al. (2019) reported that although more than 95% of healthcare institutions had the basic infrastructure to conduct cervical screening, the absence of clear policies, procedures, and competent cytotechnicians hindered the utilization of these screening facilities. Similarly, in Ghana, the lack of a comprehensive policy on mass cervical cancer screening could be a contributing factor to the low screening rates observed in the country. This highlights the importance of having well-defined policies and guidelines in place to promote and facilitate effective cervical screening programs.

The findings of this study highlight the critical gaps in knowledge and practice regarding cervical cancer and its screening among females, which aligns with the patterns observed in other low- and middle-income countries. The study emphasizes the need for sustained education and awareness programs, stronger healthcare policies, and improved access to screening facilities to

enhance cervical cancer prevention efforts. By addressing both the knowledge gap and systemic barriers, more females could be encouraged to participate in screening, thereby reducing the incidence and mortality rates associated with cervical cancer in Ghana.

5.1. The Perceived Susceptibility to Cervical Cancer Screening Uptake among Females in the Asokwa Municipality.

Perceived susceptibility is one of the key constructs in health behaviour theories such as the Health Belief Model that can influence an individual's likelihood of engaging in preventive health behaviours, including cervical cancer screening. In this study, perceived susceptibility was found not to have a significant impact on cervical cancer screening uptake. The results contradict the findings of previous studies. Ibekwe et al. (2020) found a high level of perceived susceptibility to cervical cancer among women in Botswana, with a significant association between perceived susceptibility and screening.

Findings by Annan et al. (2019) among female university students in Ghana found that perceived susceptibility to cervical cancer was significantly associated with cervical cancer screening uptake. The difference in results can be attributed to the fact that in this study most women, 331 (83.2%), do not perceive themselves as likely to develop cervical cancer in the future. According to the Health Belief Model, women who perceive themselves as being at higher risk for developing cervical cancer are more likely to participate in regular screening compared to those with lower perceived susceptibility. Thus, because females in the Asokwa Municipality do not perceive themselves as likely to develop cervical cancer in the future, they do not participate in screening. This suggests interventions aimed at increasing awareness about the health risk of not screening may be needed to improving screening uptake in this population.

5.2. The Impact of Perceived Severity of Cervical Cancer Screening Uptake among Females in the Asokwa Municipality

The perceived severity of cervical cancer can significantly influence a woman's decision to undergo screening tests such as Pap smears or HPV tests. Perceived severity refers to an individual's belief about the seriousness or significance of the disease, including its potential consequences. In this study, perceived severity explains approximately 4.0% of the variation in cervical cancer screening uptake. This suggests that the perceived severity of cervical cancer has a relatively small but significant impact on the likelihood of females getting screened. Several studies have found a positive correlation between perceived severity of cervical cancer and screening uptake. A qualitative study in Ghana found that participants perceived cervical cancer as serious because it causes death in many women and leads to depression, isolation, thoughts of suicide, and poor sexual performance. The women also had high perceived benefits of cervical cancer screening for early detection and reducing mortality (Osei & Ani-Amponsah, 2022). Chisale Mabotja et al.'s (2021) findings in South Africa further corroborate the positive association between perceived severity and screening behaviour. This consistency across different African contexts suggests that the influence of perceived severity may be generalizable, at least within certain cultural or regional boundaries. However, it is crucial to recognize that perceptions of disease severity can be shaped by local beliefs, healthcare access, and health literacy levels, which may vary significantly between and within populations.

The study by AlShamlan et al. (2023) among female healthcare workers in Saudi Arabia is particularly noteworthy because it focuses on a population with presumably higher levels of medical knowledge. The positive correlation between perceived seriousness scores and screening odds in this group indicates that even among those with professional health training, personal risk

perceptions play a role in preventive behaviour. This underscores the importance of not only disseminating information about cervical cancer but also addressing the subjective assessments of its impact. From a public health perspective, these findings suggest that interventions aimed at increasing cervical cancer screening should incorporate messages that accurately convey the seriousness of the disease without inducing paralyzing fear. Educational campaigns might benefit from narratives that illustrate both the potential consequences of cervical cancer and the life-preserving benefits of early detection through screening. However, such efforts must be balanced with strategies that address other determinants of screening behaviour, such as reducing barriers to access, enhancing self-efficacy, and leveraging social norms.

5.3. The Perceived Benefits to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

Cervical cancer screening, primarily through Pap tests and HPV tests, offers several perceived benefits that can encourage females to undergo regular screening. In this study, over 90% of respondents believe that screening is effective in detecting potential issues at an early stage. Almost all respondents (99%) believe that getting screened for cervical cancer can greatly reduce their risk of developing serious health problems. Several studies have consistently shown that women perceive cervical cancer screening as an effective way to detect precancerous lesions and early-stage cervical cancer, which can lead to timely treatment and better outcomes. For instance, a systematic review found that most women had positive attitudes towards cervical cancer screening and recognized its benefits in early detection and prevention of cervical cancer (Nothacker et al., 2022). Similarly, a Dutch study revealed that more than 90% of participants acknowledged the favourable elements of screening, underscoring its significance in identifying health issues at an early stage and providing reassurance about their health condition (Catarino et

al., 2022). This positive perception of the benefits of cervical cancer screening is crucial for promoting participation in screening programs and improving overall cervical cancer prevention efforts.

According to the health belief model, perceived benefits play a crucial role in motivating individuals to adopt and maintain certain actions that are beneficial for their health. When individuals perceive a behaviour as being beneficial, they are more likely to engage in it. In this study, the perceived benefits of cervical cancer have a relatively small (4.9%) but significant impact on the likelihood of females getting screened. Research consistently shows that perceived benefits play a significant role in the uptake of cervical cancer screening. Chisale Mabotja et al. (2021) found that women who perceive themselves as being at risk for cervical cancer and believe in the effectiveness of screening are more likely to participate in screening programs. Studies show that understanding the benefits of screening and recognizing personal vulnerability to cervical cancer are strong predictors of screening uptake. In contrast, a study in Ghana found that nearly all participants were aware of the benefits of cervical cancer screening (CCS) in detecting cancer early and preventing it. However, this high perceived benefit did not positively affect the probability of women undertaking CCS (Osei & Ani-Amponsah, 2022).

In comparing the findings of the study with the literature, a clear trend emerges: the perceived benefits of cervical cancer screening are generally recognized as positive and influential in promoting screening uptake. However, they may not always be the primary driver for screening participation. External barriers such as accessibility, affordability, and cultural or societal factors might mediate the decision-making process, particularly in low-resource settings like Ghana. Therefore, while health promotion strategies emphasizing the benefits of screening are important, addressing these external barriers may be equally crucial in improving screening uptake.

5.4. The Perceived Barriers to Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

Several factors could deter women from adopting appropriate health-seeking behaviours. In this study, the perception of pain (49.2%) and discomfort (64.1%) as indicated by the respondents was a barrier to cervical screening uptake. The psychological anticipation of pain or discomfort can significantly influence health-seeking behaviour, even when the actual experience may not be as severe as imagined. This phenomenon, known as pain catastrophizing, has been well-documented in medical literature and can lead to avoidance of necessary healthcare services (Cocciuti, 2021). Previous studies (Alam et al., 2022; Prowse et al., 2024) have reported factors such as distressing screening encounters and feelings of shame during genital examinations as barriers to participation.

Regarding concerns about socio-economic barriers to cervical cancer screening, the result in this study shows that the majority (87.2%) reported being "very concerned" about the cost of screening. Other studies have shown that even women with insurance may struggle to afford co-pays, making it difficult for them to access screening services (Chirwa, 2022). This finding resonates with broader healthcare accessibility issues and the concept of "underinsurance" where individuals have coverage but still face substantial financial barriers to care (Strane et al., 2021). Such barriers can lead to delayed or forgone care, which is particularly problematic for preventive services like cervical cancer screening, where early detection is crucial.

In this study, a substantial majority of 71.9% reported that they do not make time for screening. Studies have identified various barriers to cervical cancer screening, with time constraints being a significant factor. Garpenhag and Dahlman (2024) found that the time and travel costs associated with clinic-based screening can be considerable, particularly for women

with low socioeconomic status. This can lead to non-compliance with screening, as highlighted by Binka et al.'s (2019) finding that difficulties in taking time off work was a common reason for non-compliance. Caleia et al. (2020) suggests that self-sampling could be a viable alternative for women with low adherence to screening, potentially addressing the issue of time constraints. However Schrier et al. (2022) note that women's hesitancy to undergo less frequent screening, which could save time, is often driven by concerns about developing cancer between screenings.

Unavailability of local health facilities that provide screening services is a major challenge in many regions, including Africa and low-and-middle-income countries (LMICs). However, in this study, the majority of respondents (83.2%) do not perceive reaching a health facility for screening as a significant challenge. The apparent contradiction between this study's findings and the broader literature on healthcare access barriers underscores the importance of context-specific research. While global or regional trends provide valuable insights, local realities can vary significantly. This variability necessitates tailored interventions that address the most salient barriers within each community.

5.5. Factors Contributing to Self-Efficacy on Uptake of Cervical Cancer Screening among Females in the Asokwa Municipality

A key factor influencing women's participation in screening programs is self-efficacy—the belief in one's ability to successfully engage in a health-promoting behaviour. Factors such as knowledge, health beliefs, past experiences, social support, provider influence, and access to care, all play a role in shaping a woman's self-efficacy regarding cervical cancer screening. In this study, a significant majority (85.9%) of the respondents are aware of the potential consequences of not undergoing cervical cancer screening. This awareness and recognition of the importance of

screening contributes positively to their self-efficacy, as evidenced by the high percentage (98.5%) willing to constantly undergo cervical cancer testing to stay safe and healthy.

The high level of awareness (85.9%) regarding the consequences of foregoing cervical cancer screening among respondents is a promising indicator. This awareness translates into a strong willingness to engage in regular screening (98.5%), suggesting a positive relationship between knowledge and self-efficacy. This aligns with Bandura's self-efficacy theory, which posits that individuals are more likely to engage in health-promoting behaviours when they believe in their capability to do so successfully (Abdullah, 2019). The correlation between knowledge, self-efficacy, and screening practices is further corroborated by Ghalavandi et al. (2021) who found that increases in knowledge and self-efficacy scores were associated with a higher likelihood of performing Pap smear tests. The fact that each unit increase in these scores corresponded to 1.61- and 1.41-times higher odds of screening, respectively, quantifies the substantial impact of these factors. This finding has important implications for health education and promotion strategies, suggesting that interventions aimed at enhancing both factual knowledge and confidence in one's ability to act on that knowledge may be particularly effective.

However, it is crucial to recognize that self-efficacy is not solely a product of knowledge. As mentioned, factors such as past experiences, social support, provider influence, and access to care also contribute to its development. For instance, a woman who has had a positive, non-traumatic screening experience in the past may have higher self-efficacy for future screenings. Similarly, encouragement from healthcare providers and peers can reinforce self-efficacy beliefs (Burke et al., 2019). The emphasis on education by Malhotra et al. (2023) further reinforces the idea that knowledge is a cornerstone of self-efficacy and, by extension, screening behaviour.

However, it is important to consider the nature and delivery of this education. Merely providing information may not be sufficient; education should be tailored to address specific barriers, misconceptions, and cultural factors that may influence self-efficacy and screening decisions (De Jesus et al., 2021).

Moreover, while the current study's findings are encouraging, the near-universal willingness to undergo screening (98.5%) raises questions about the potential discrepancy between intention and action. High self-efficacy and positive intentions do not always translate into behaviour, particularly when structural barriers such as cost, transportation, or clinic hours present obstacles (Kirubarajan et al., 2021). Thus, a holistic approach that also tackles systemic barriers is essential to ensure that high self-efficacy and willingness to screen manifest in actual screening behaviour, ultimately contributing to the reduction of cervical cancer morbidity and mortality.

5.6. Factors that Contribute to Cues to Action on Cervical Cancer Screening Uptake among Females in the Asokwa Municipality

Cues to action influences women's decisions to undergo cervical cancer screening and ultimately reducing the incidence and mortality rates of the disease. In this study, most respondents (97.6%) reported being likely to undergo cervical cancer screening if recommended by a healthcare professional. Earlier works have reported that referral and recommendations by a doctor are strong motivators for participating in cervical cancer screening programs. Perkins's et al. (2021) study further elucidates this dynamic by highlighting the dual impact of general practitioners (GPs). First, GPs can proactively prompt women to attend screening, serving as an external motivator. Second, they provide ongoing support, which can help mitigate barriers such as fear, embarrassment, or lack of knowledge that might otherwise deter women from regular screening.

This finding aligns with the broader literature on doctor-patient relationships and their influence on preventive health behaviours.

The mention of both positive and negative impacts is noteworthy. While a supportive, encouraging healthcare provider can boost screening rates, the implication is that an indifferent or discouraging one may have the opposite effect. This points to the need for consistent, positive messaging from all healthcare professionals about the importance of cervical cancer screening. Another study highlighted the importance of healthcare provider perspectives on improving adherence to cervical cancer screening among at-risk women, emphasizing the role of referrals and recommendations in motivating women to participate in screening (Bula et al., 2022). Thus, healthcare professionals, particularly general practitioners, play a pivotal role in influencing women's decisions to undergo cervical cancer screening, which ultimately contributes to reducing the incidence and mortality rates of the disease. The overwhelming majority of respondents in this study (97.6%) indicated that they would likely participate in screening if recommended by a healthcare provider. This underscores the critical impact of provider-patient interactions in preventive health behaviours, as supported by earlier research. Positive recommendations from healthcare providers, along with ongoing support, can mitigate barriers such as fear, embarrassment, and lack of knowledge. Conversely, an indifferent attitude from providers could have a negative effect on screening uptake. Therefore, it is essential that healthcare professionals consistently deliver supportive, encouraging messages about cervical cancer screening. Further exploration into the best communication strategies for healthcare providers and the role of interdisciplinary teams could enhance screening adherence, ultimately leading to improved outcomes in cervical cancer.

CHAPTER SIX

SUMMARY OF THE STUDY, IMPLICATIONS, LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS

This chapter of the study looks at the summary of the findings and the implications for nursing practice and education. The limitations of this research are discussed; and some recommendations to address the limitations of the study have been expounded.

6.0. Summary of the Study

The challenge of cervical cancer in Ghana is a significant public health issue that warrants attention. The Health Belief Model was used to ascertain the barriers to cervical cancer screening uptake among females in the Asokwa Municipality in the Ashanti Region. The study used. The study used the cross-sectional survey design. The study included females who live in the Asokwa Municipality and are in their reproductive ages of at least 18 years and above. The data collected was analysed using descriptive and inferential analysis in SPSS.

The first objective of the study was to assess the knowledge of females in the Asokwa Municipality on cervical cancer and screening uptake. Findings revealed a moderate level of awareness about cervical cancer, with 59.3% of participants having heard of the disease. However, this awareness did not translate into high screening rates, as only 11.1% had been screened before. A significant knowledge gap was identified regarding screening types, with 73.1% unaware of any screening methods. While most women (87.4%) knew cervical cancer is preventable and 88.9% were aware it is curable if detected early, only 37.9% knew that it is sexually transmitted. These findings highlight the need for more comprehensive education about cervical cancer and its screening methods.

The second objective of the study was to assess the perceived susceptibility to cervical cancer screening uptake among females in the Asokwa Municipality. The study found that perceived susceptibility to cervical cancer was generally low, with 83.2% of participants not perceiving themselves as likely to develop the disease in the future. Interestingly, perceived susceptibility did not significantly impact cervical cancer screening uptake ($p = 0.918$). The third objective of the study was to examine the impact of perceived severity of cervical cancer screening uptake among females in the Asokwa Municipality. The study found that the perceived severity of cervical cancer had a small but significant impact on screening uptake (Nagelkerke R-squared = 0.040). As perceived severity increased, the likelihood of higher screening uptake also increased ($p = 0.002$), suggesting that emphasizing the seriousness of cervical cancer may encourage screening behaviour.

The study's fourth objective was to ascertain the perceived benefits of intention of uptake of cervical cancer screening among females in the Asokwa Municipality. The study found that an overwhelming majority (93.7%) believed screening was necessary and over 90% considered it effective. Almost all respondents (99%) believed screening can greatly reduce the risk of serious health problems. These perceived benefits had a small but significant impact on screening uptake (Nagelkerke R-squared = 0.049).

The fifth objective of the study was to identify perceived barriers to cervical cancer screening. The study found that the most common barriers were lack of awareness (48.2%), fear or anxiety about the screening process (29.9%), and cost-related concerns (12.1%). Psychosocial barriers included perceptions of pain (49.2%), discomfort (64.1%), and potential embarrassment (16.3%). Socio-economic barriers, particularly cost concerns (87.2%), significantly affected

screening uptake. Healthcare access was generally not a major barrier, although there were variations in experiences related to provider availability and waiting times.

The sixth objective of the study was to examine factors contributing to self-efficacy in relation to cervical cancer screening. The study found high levels of awareness about consequences of not screening (85.9%) and willingness to undergo testing (98.5%), indicating positive self-efficacy. The seventh objective of the study was to investigate cues to action for cervical cancer screening. The study found that recommendations from healthcare professionals were a strong cue to action, with 86% likely or very likely to undergo screening if recommended. The influence of reminders from healthcare providers was mixed, with 42.2% finding them influential to some degree.

Overall, the study revealed that despite relatively high levels of knowledge and perceived benefits of cervical cancer screening among females in the Asokwa Municipality, uptake remains low. Socio-economic barriers, particularly cost, has the most significant negative impact on screening uptake, suggesting the need for targeted interventions to improve affordability and accessibility of screening services.

6.1. Implications of the Study

The study's findings revealed some important implications that must be addressed. These implications apply to nursing practice and education, research and policy formulation.

6.1.1. Implication for Nursing Practice and Education

This study's findings have significant implications for nurse practice and education regarding cervical cancer screening and prevention. Given the discovered knowledge gaps, particularly in terms of screening methods and the sexual transmission of cervical cancer, there is

an obvious need for more comprehensive health education. Nurses should be in the forefront of developing and implementing awareness campaigns that provide factual, understandable information about cervical cancer, risk factors, and screening options. Nursing education programmes should emphasise the value of patient education and provide future nurses with appropriate communication skills for disseminating this information.

The study identified considerable psychosocial hurdles to screening, including fear of pain, discomfort, and shame. Nurses can help alleviate these anxieties by giving empathic counselling, thoroughly describing the screening technique, and maintaining a pleasant, private examination atmosphere. Nursing curriculums should include trauma-informed care training as well as ways to reducing patient suffering during sensitive procedures. Furthermore, participants' high levels of self-efficacy and willingness to undertake testing provide a chance for nurses to inspire women to take charge of their health. Nurses should encourage and reinforce healthy health behaviours, assisting women in overcoming barriers and following through on screening plans. Nurse education programs should focus on motivational interviewing and other ways to increase patient self-efficacy.

The significant impact of healthcare provider recommendations on screening uptake highlights the critical role nurses can play in raising cervical cancer screening rates. Nurses should be proactive in promoting screening to eligible women at all visits, not just those related to women's health. Nursing education should emphasize the significance of these "cues to action" and prepare nurses to offer effective, personalised screening recommendations.

6.1.2. Implications for Nursing Research

Future nursing research should focus on the development of effective treatments to bridge the knowledge-to-action gap. While the study discovered relatively high levels of awareness about

cervical cancer and its preventability, this did not lead to increased screening rates. Nursing researchers might create and assess educational strategies that not only boost knowledge but also encourage women to be screened. This could include comparing several instructional approaches (e.g., peer-led vs. nurse-led, individual vs. group-based, or technology-enhanced vs. traditional methods) to see which is more effective in increasing screening behaviour.

6.1.3. Implications for Policy Formulation

The study's revelation of cost as a major barrier to cervical cancer screening calls for policies aimed at improving the affordability and accessibility of screening services. Policymakers should consider implementing subsidized or free screening programs, particularly for low-income women. This could involve earmarking funds in national or local health budgets specifically for cervical cancer prevention. Additionally, policies that mandate coverage of cervical cancer screening by the National Health Insurance Scheme (NHIS) without co-pays or deductibles could significantly reduce financial barriers. For women not covered by insurance, the introduction of means-tested voucher systems or sliding-scale fees based on income could make screening more affordable.

6.2. Limitations of the Study

This study on cervical cancer screening uptake among females in Asokwa Municipality provides interesting insights, but various limitations may restrict its interpretation and generalizability. The cross-sectional study design is a major drawback. The study captures cervical cancer screening attitudes, knowledge, and behaviours in one moment. This method cannot examine causal correlations or screening behaviour changes over time. Cross-sectional designs cannot capture changing factors that influence women's screening decisions. To understand the temporal correlations between variables and screening uptake, longitudinal studies are essential.

Another limitation is self-reported data. Participants reported their knowledge, attitudes, and screening history for the study. Participants may misremember past events or behaviours in self-reported data. Participants may have given more socially acceptable answers, especially on sensitive areas like sexual health and personal habits, due to social desirability bias. This may over- or under-report beneficial health behaviours or barriers. While offering vital local background, the study's concentration on Asokwa Municipality may limit its generalizability to other regions of Ghana or beyond. Cultural, healthcare, and economic conditions can vary widely, even within a country. What applies to Asokwa women may not apply to rural or urban women.

Finally, while quantitative methods provide statistical analysis of factors, they may not fully represent the human experiences and decision-making processes of cervical cancer screening. Qualitative research methods like in-depth interviews and focus group discussions may reveal the complicated interactions that affect screening behaviour.

6.3. Conclusions

This study's findings on cervical cancer screening uptake among females in the Asokwa Municipality lead to many key conclusions. First and foremost, there is a substantial gap between cervical cancer preventive awareness and action. While most women have heard of cervical cancer and understand that it is preventable and curable when identified early, this knowledge has not translated into high rates of screening adoption. Only a small percentage of participants had ever been screened, indicating a crucial gap between knowledge possession and health-seeking behaviour. This highlights the importance of initiatives that not only teach but also motivate women to apply their knowledge.

Secondly, socioeconomic constraints, notably cost concerns, are identified as the most significant impediments to cervical cancer screening. Most participants expressed concern about

the cost of screening services, showing that financial restrictions are a major factor in low acceptance rates. This highlights the importance of governmental and programmatic efforts to make screening more inexpensive and accessible, such as subsidies, incorporation into health insurance coverage, and free screening campaigns.

Thirdly, psychosocial concerns such as fear of pain, anxiety, and shame connected with screening procedures pose significant hurdles. These fears, albeit less palpable than economic ones, can dissuade women from obtaining screening. According to the findings, implementing more patient-cantered, sensitive screening environments and processes may assist to reduce these barriers and increase participation.

Fourthly, healthcare providers have a significant role in promoting cervical cancer screening. Medical experts' recommendations were shown to be powerful cues to action, with many women responding that they would undergo screening if encouraged to do so by a healthcare practitioner. This demonstrates the potential of using provider-patient interactions to boost screening rates through focused recommendations and education.

Fifthly, whereas perceived severity of cervical cancer had a small but significant impact on screening uptake, perceived susceptibility had no meaningful effect on behaviour. This calls into question ideas about how women perceive their personal risk and implies that emphasising the seriousness of cervical cancer, rather than individual vulnerability, could be more helpful in promoting screening.

Sixthly, despite widespread awareness of cervical cancer, there is a paucity of precise understanding about screening methods and transmission routes. Many women were ignorant of

the various screening procedures or that cervical cancer is sexually transmitted. This highlights the need for more thorough, detailed health education that fills these knowledge gaps.

Finally, the study found that women have high levels of self-efficacy and willingness to engage in preventative health behaviours when provided the proper support and conditions. Most participants reported a willingness to undergo frequent screening to be healthy, indicating that there is great potential to increase screening rates if structural and psychosocial barriers are addressed appropriately.

In conclusion, this study reveals a complex interaction of factors influencing cervical cancer screening uptake in the Asokwa Municipality. While knowledge and self-efficacy serve as a basis for healthy health behaviours, they are frequently overshadowed by practical obstacles such as cost and emotional worries about the screening procedure. The findings advocate for a multifaceted approach to cervical cancer screening, including policy interventions to improve affordability and accessibility, targeted health education to fill knowledge gaps, healthcare provider training to make effective screening recommendations, and efforts to create more comfortable, less intimidating screening experiences. By tackling these several barriers completely, it may be able to bridge the gap between awareness and action, thereby lowering the burden of cervical cancer through improved early identification and treatment.

6.4. Recommendations

Several recommendations were made based on the findings of this study to the Ministry of Health and the Ghana Health Service.

6.4.1. The Ministry of Health, Ghana (MoH)

The Ministry of Health should:

- Implement targeted interventions to improve affordability and accessibility of screening services, particularly addressing cost-related concerns.
- Conduct public education campaigns through a mix of healthcare facilities and outreach programs, involving teachers, youth groups, community members, and professional bodies.
- Conduct public education campaigns through a mix of healthcare facilities and outreach programs, involving teachers, youth groups, community members, and professional bodies.

6.4.2. The Ghana Health Service

The Ghana Health Service should:

- Conduct workshops and seminars that empower women with knowledge and confidence to take charge of their health and undergo screening.
- Provide ongoing training for healthcare providers and ensure that screening centres are well-equipped with necessary resources.

6.5. Limitations of Study

It was anticipated that the study could face the challenge of participants refusing to participate in the study. In other words, others might not be willing to be included in the study. In such instances, the purpose of the study was communicated in simple terms that the respondent understood, and their consent was sought again. However, those who subsequently refused to take part were replaced with others willing to participate in the study.

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APPENDIX -QUESTIONNAIRE

Topic: Barriers to cervical cancer screening uptake among females of Asokwa Municipality, an application of the health belief model.

Dear Respondent,

This questionnaire is in respect of a research being carried out on the above-mentioned topic. Your contribution to this study by honestly completing this questionnaire is very much appreciated. Respondents are assured of privacy, confidentiality and ethical issues are highly considered in that their responses will be strictly kept confidential and will not be disclose to anyone. You also have the right to withdraw from the study, but your participation is much valued and highly appreciated.

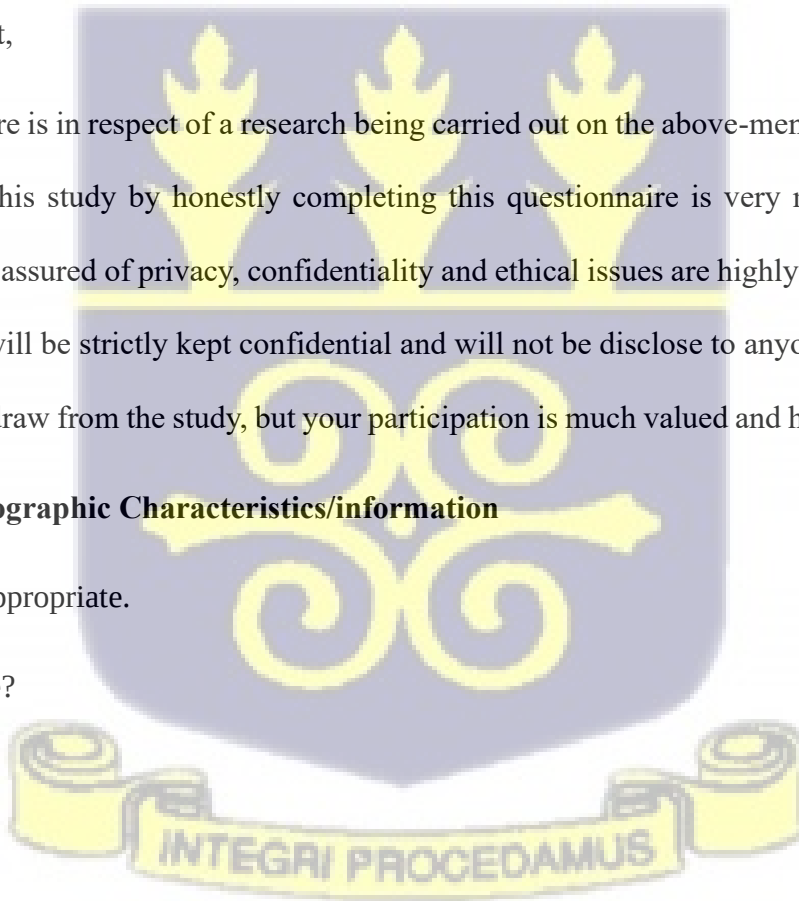
Section 1: Demographic Characteristics/information

Please tick the appropriate.

1. What is your age?

- a) 18 – 24
- b) 25 – 34
- c) 35 – 44
- d) 45 – 54
- e) 55 and above

2. What is your level of education?



- a) Primary
 - b) Senior high school
 - c) Some college/technical school
 - d) Bachelor
 - e) Masters/postgraduate
3. What is your marital status?
- a) Single
 - b) Married
 - c) Divorced
 - d) Widow
 - e) Other (specify)
4. What is your employment status?
- a) Employed
 - b) Unemployed
 - c) Student
5. What is the level of your monthly income?
- a. Low
 - b. Very low
 - c. Moderate
 - d. Above moderate
6. What is your ethnicity?
- a. Akan
 - b. Non-Akan
7. What is your religion?
- a. Christian
 - b. Islamic
 - c. Traditional
8. Number of children
- a. Have not given birth.
 - b. One



- c. Two
- d. Three
- e. other (specify)

9. Previous history of cervical cancer

- a. Yes
- b. No

Section 2: Knowledge on cervical cancer and screening uptake

10. Have you ever heard of cervical cancer?

- a. Yes []
- b. No []

11. Have you ever been screened for cervical cancer?

- a. Yes
- b. No

12. Which of the following screening type have you heard of?

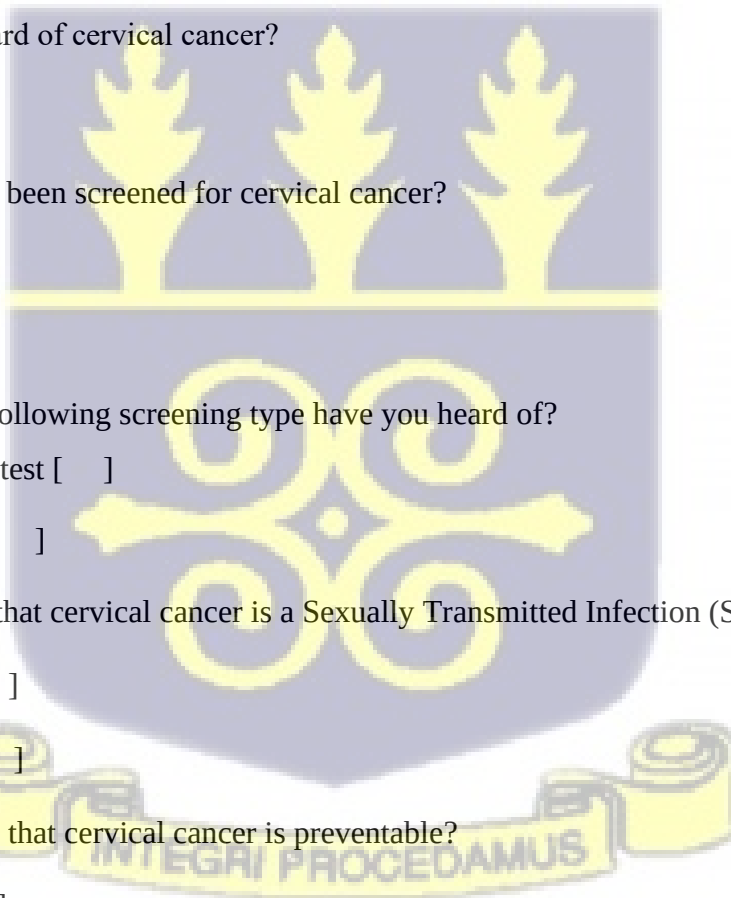
- a. Pap smear test []
- b. HPV test []

13. Do you know that cervical cancer is a Sexually Transmitted Infection (STI)?

- a. Yes []
- b. No []

14. Are you aware that cervical cancer is preventable?

- a. Yes []
- b. No []
- c. I'm not sure []



15. Do you know that cervical cancer is curable through vaccination?

- a. Yes []
- b. No []
- c. I don't know []

16. Do you know that cervical cancer is curable in hospitals when diagnosed early.

- a. Yes []
- b. No []
- c. I don't know []

17. For each of the following, please indicate your answer by a tick (✓): **SD**: Strongly Disagree;

D: Disagree; **NAD**: Neither Agree nor Disagree; **A**: Agree; **SA**: Strongly Agree.

	SD	D	NAD	A	SA
a. A woman is at lower risk for developing cervical cancer if she smokes					
b. A woman is at higher risk of developing cervical cancer if she has had more than five sexual partners in her lifetime					
c. Vaginal bleeding between periods can be a sign of cervical cancer					
d. Persistent vaginal discharge that smells unpleasant can be a sign of cervical cancer					
e. Discomfort or pain during sex can be a sign of cervical cancer					
f. Vaginal bleeding after menopause can be a sign of cervical cancer					
g. Vaginal bleeding during or after sex can be a sign of cervical cancer					

g. The Pap test can detect abnormal cells of the cervix before they become cancerous					
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Section 3: Perceived susceptibility to cervical cancer screening uptake

18. How likely do you think you are to develop cervical cancer in the future?

- a. Not likely at all []
- b. Slightly likely []
- c. Moderately likely []
- d. Very likely []
- e. Extremely likely []

19. What factors contribute to your perceived susceptibility to cervical cancer health issues?.....

Section 4: Perceived Severity to uptake of cervical cancer screening

20. Are you aware of the perceived severity of the consequences of not undergoing cervical cancer screening?

- a. Yes []
- b. No []
- c. I don't know []

21. How severe do you think the consequences of cervical cancer would be if not detected early?

- a. Not severe at all
- b. Severe
- c. Very severe
- d. Extremely severe

22. Do you believe cervical cancer kills?

- a. Agree



b. Disagree

c. Maybe

23. In your opinion, how serious is cervical cancer as a health threat?

a. Not serious at all

b. Serious

c. Very serious

d. Extremely serious

24. To what extent do you think getting screened for cervical cancer can reduce your risk of developing serious health problems?

a. Not at all

b. To a great extent

c. Don't know []

Section 5: Perceived Benefits to uptake of cervical cancer screening

25. Is cervical cancer screening necessary?

a. Yes []

b. No []

c. Maybe []

26. How effective do you believe cervical cancer screening is in detecting potential issues at an early stage?

a. Not effective at all []

b. Effective []

c. Very effective []

d. Extremely effective []

27. To what extent do you think getting screened for cervical cancer can reduce your risk of developing serious health problems?

a. Not at all []

b. To a great extent []

c. Don't know []

28. How confident are you that if you undergo cervical cancer screening, it will help you maintain good health?
- a. Not confident at all []
 - b. Confident []
 - c. Very confident []
 - d. Extremely confident []
29. Do you believe that early detection of cervical cancer through screening increases the chances of successful treatment?
- a. Yes
 - b. No
 - c. Not sure

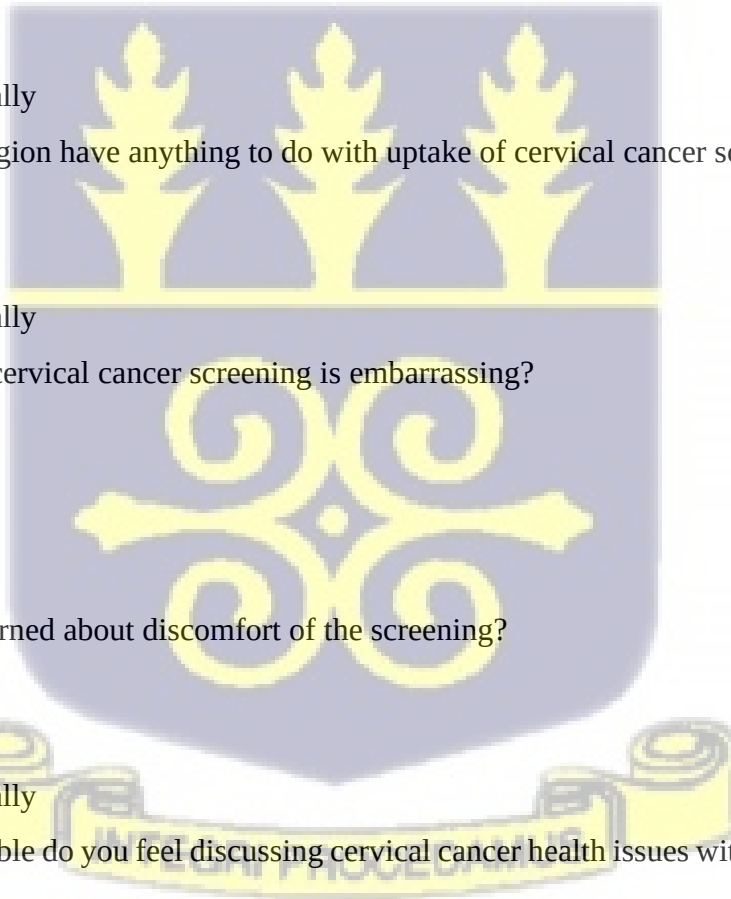
Section 6: Perceived Barriers to cervical cancer screening uptake

30. Have you ever undergone cervical cancer screening (e.g. Pap smears or HPV test)?
- a. Yes
 - b. No
 - c. Maybe
31. If you have not undergone cervical cancer screening, select the reason why:
- a. Lack of awareness about the importance of screening
 - b. Fear or anxiety about the screening process
 - c. Perceived low susceptibility to cervical cancer health issues.
 - d. Lack of access to health care facilities
 - e. Cost-related concern

I. Psychosocial barriers

32. If yes, please indicate the extent to which concerns about pain or comfort during cervical cancer screening would discourage you from getting screened.
- a. Not at all
 - b. Discouraging
 - c. Very discouraging

- d. Extremely discouraging
33. Do you think cervical cancer screening is painful?
- a. Yes
 - b. No
 - c. Maybe
34. How was your experience with the service providers?
- a. Bad
 - b. Very bad
 - c. Good
 - d. Cordial
35. Does your culture forbid cervical cancer screening uptake?
- a. Yes
 - b. No
 - c. Not really
36. Does your religion have anything to do with uptake of cervical cancer screening?
- a. Yes
 - b. No
 - c. Not really
37. Do you think cervical cancer screening is embarrassing?
- a. Yes
 - b. No
 - c. Maybe
38. Are you concerned about discomfort of the screening?
- a. Yes
 - b. No
 - c. Not really
39. How comfortable do you feel discussing cervical cancer health issues with your healthcare professionals?
- a. Very uncomfortable
 - b. Uncomfortable



- c. Neutral
- d. Comfortable
- e. Very uncomfortable

II. Socioeconomic factors

40. How concerned are you about the cost of cervical cancer screening?

- a. Not concerned at all []
- b. Very concerned []
- c. Extremely concerned []

41. Is the screening test affordable?

- a. Yes []
- b. No []
- c. Maybe []

42. Do you make time for screening?

- a. Yes
- b. No
- c. Not really

III. Healthcare access and utilization

43. Is it hard to reach a health facility for screening?

- a. Yes []
- b. No []
- c. Not really []

44. Do you face any challenge in accessing cervical cancer screening services?

- a. Yes []
- b. No []
- c. Not really

45. If yes, what was your challenge? Specify.....

46. Does the service providers available at the time of your access?

- a. Yes []
- b. No []

47. Do you experience long awaiting time?

- a. Yes [☐]
- b. No [☐]
- c. Not really [☐]

48. Do you know any health facility that offers cervical cancer screening uptake in your municipality?

- a. Yes [☐]
- b. No [☐]
- c. Don't know [☐]

Section 6: Self-efficacy to uptake of cervical cancer screening

49. Are you aware of the potential consequences of not undergoing cervical cancer screening?

- a. Yes
- b. No [☐]
- c. I'm not sure [☐]

50. If you are aware of the potential consequences, do you believe that understanding these consequences increases your motivation to undergo cervical cancer screening?

- a. Yes [☐]
- b. No [☐]
- c. I don't know [☐]

51. I will constantly go for cervical cancer tests to stay safe and healthy.

- a. Yes [☐]
- b. No [☐]
- c. I don't know [☐]

Section 7: Cue to action to cervical cancer screening uptake

52. How confident are you in your ability to take steps to prevent cervical cancer?

- a. Not confident at all
- b. Confident
- c. Very confident
- d. extremely confident

53. Do you believe that taking action to prevent cervical cancer is within your control?

- a. Yes
 - b. No
 - c. Not sure
54. How likely are you to undergone cervical cancer screening if recommended by a healthcare professional?
- a. Not likely at all
 - b. Likely
 - c. Very likely
 - d. Extremely likely
55. To what extent do reminders from healthcare providers influence your decision to schedule and attend cervical cancer screening?
- a. Not influential
 - b. Influential
 - c. Very influential
 - d. extremely influential
56. Do you believe in ensuring facility improve behavior for screening?
- a. Yes
 - b. No
 - c. Maybe

Section 7: Suggestion for improvement (additional information)

57. Please share any additional thoughts or concerns you have about cervical cancer screening.....
58. What suggestion do you have to improve awareness and accessibility to cervical cancer screening uptake among females in the Municipality?.....

Thank you.

