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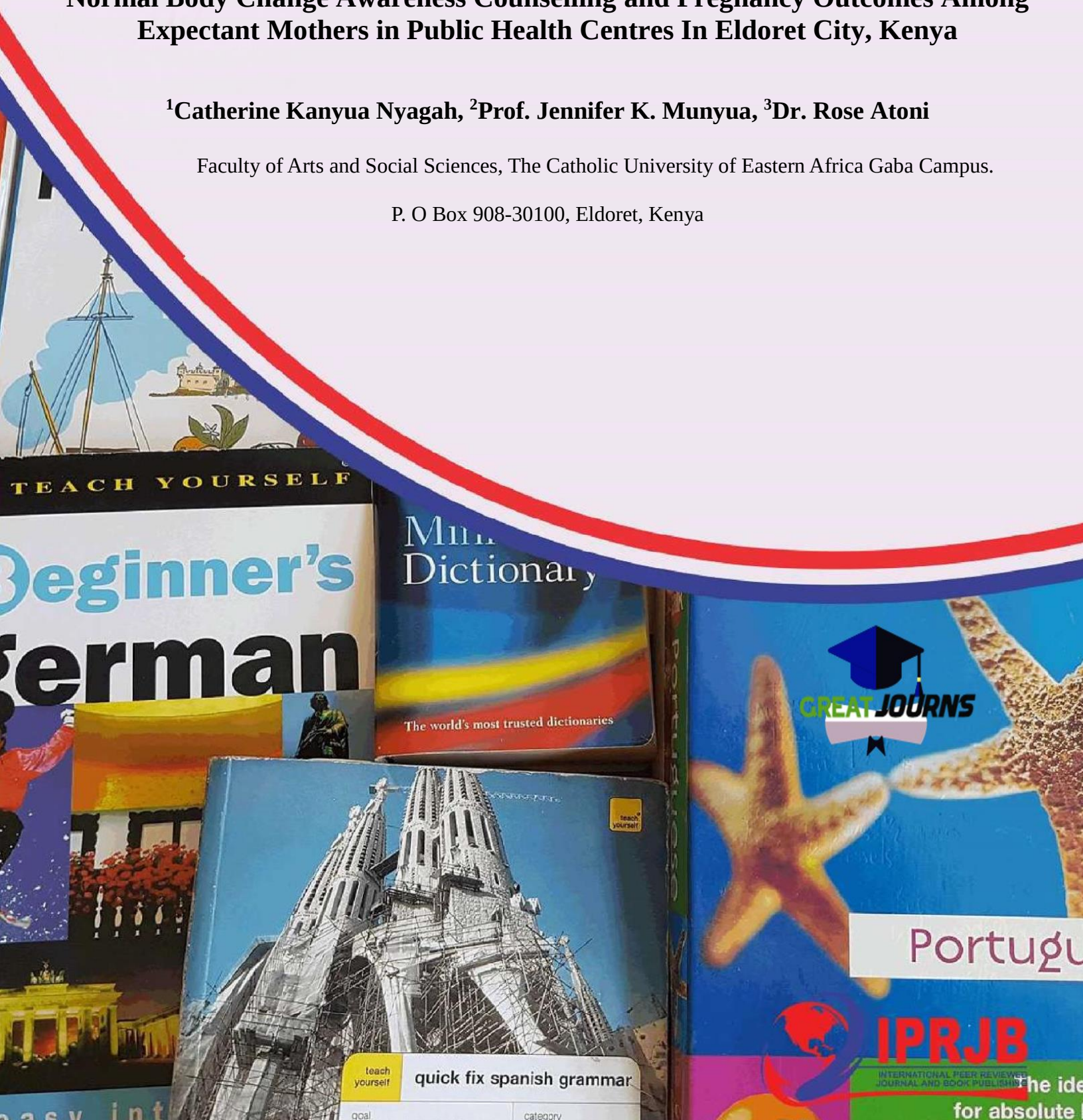
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Normal Body Change Awareness Counselling and Pregnancy Outcomes Among Expectant Mothers in Public Health Centres In Eldoret City, Kenya

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ABSTRACT

This study sought to investigate the influence of normal body changes counselling on pregnancy outcomes among expectant mothers in public health centers in Eldoret City, Kenya. This was in the light of concern that many mothers lack adequate and timely information on antenatal health care before, during and after delivery which has led to high mortality rates. The study was anchored on Cognitive Behavioral Theory (CBT), which posited that dysfunctional thinking patterns are at the core of emotional distress and maladaptive behavior Ex-post facto research design was engaged. The target population included 88 expectant out of which 72 mothers were selected using simple random sampling. The study utilized questionnaire for data collection. The analysis of the data involved both the use of descriptive and inferential statistics. The study results demonstrated that normal body changes awareness counselling significantly influenced pregnancy outcomes ($p<0.05$). The study concluded that normal body changes awareness counselling contributed positively to pregnancy outcomes. Healthcare providers should therefore enhance antenatal counseling. Policymakers should implement structured counseling programs to improve maternal health literacy and outcomes. Strengthening midwife training and increasing community awareness on the benefits of antenatal care will improve maternal and neonatal health in Kenya.

Key words: Normal Body Change, Awareness Counselling, Pregnancy Outcomes, expectant mothers, public health centers

1.1 Introduction

Antenatal healthcare counselling is a supportive process where healthcare professionals provide pregnant women and their families with information, guidance, and emotional support to help them make informed decisions about their health during pregnancy, childbirth, and the postpartum period (Escañuela Sánchez, Linehan, O'Donoghue, Byrne & Meaney, 2022). It covers various topics, including nutrition, exercise, birth options, potential risks, and newborn care, empowering expectant mothers to maintain their health, manage changes, and ensure the well-being of both themselves and their baby. Antenatal care (ANC) as special care for pregnant women with the aim of preventing, detecting and treating health problems in both the fetus and mother (Wolde, Tsegaye & Sisay, 2019).

Early antenatal care attendance promotes early detection and treatment of complications which result in proper management during delivery. According to World Health Organization (WHO, 2024) antenatal care was the care provided by skilled health-care professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy (Bagherzadeh, Gharibi, Safavi, Mohammadi, Karami & Keshavarz, 2021). The components of antenatal care refer to the process of risk identification, prevention and management of pregnancy-related or concurrent diseases.

Pregnancy outcomes is defined at the results of conception and ensuing pregnancy, such as sex ratio, birth weight, spontaneous abortion, congenital malformations, lower birth weight, preterm delivery or stillbirth (Doke, Palkar, Gothankar, Patil, Chutke, Pore, Deshpande, Bhuyan, Karnataki, & Shrotri, 2021). Hall, Benton, Copas and Stephenson (2017) investigated pregnancy outcome in terms of miscarriage, stillbirth, low birth weight, and neonatal mortality. According to Abd-Elaziz, El Sherbiny, Elsharkawy and Saleh (2019)), pregnancy outcome referred to the clinical end of pregnancy. In this study, the pregnancy outcomes were measured in terms of: Spontaneous abortion, Preterm delivery, intrauterine growth restriction (IUGR), intrauterine fetal death (IUFD), Pre-labor rupture of membranes (PPROM), Low birth weight, Preeclampsia, and Type of delivery.

The World Health Organization's data harmonization toolkit (WHO, 2020) categorized pregnancy outcome as the final result of a fertilization event, encompassing Live birth, Still birth, Preterm birth, Low Birth weight, Congenital anomalies at birth, Spontaneous abortion or miscarriage and Induced abortion. Positive pregnancy outcomes are characterized by a healthy pregnancy for both the mother and baby. It includes the prevention and treatment of risks and complications (Gamberini, Angeli & Ambrosino, 2022). It also encompasses an effective transition to positive labor and birth, and achievement of positive experience of motherhood, including maternal well-being and competence **(**Lateef, Kuupiel, Mchunu & Pillay, 2024). The world health organization emphasizes a person-centered approach ensuring women have access to the type of care they need and want, while also respecting their rights and preferences to care (Fontein-Kuipers, de Groot & van Staa, 2018). In this current study, pregnancy outcomes were measured in terms of how well the expectant mother managed normal body changes including morning sickness, increased body size, breast enlargement, frequent urination and mood swings, how well expectant mothers detected and reported danger signs or pregnancy complications, coped with labour and delivery process, and managed postnatal routines.

This study was conducted in Eldoret city which is the headquarters of Uasin Gishu County in Kenya. Eldoret has a robust healthcare system, with a multiple of health centers serving different levels of care. Its healthcare facilities include private and public hospitals, clinics, and health centers (Moses, Korir, Zeng, Musiega, Oyasi, Lu, Chuma, & Di Giorgio, 2021). There are a total of 30 wards in the 6 sub-counties of Uasin Gishu County. Soy has the highest (7) number of wards while Ainabkoi has the lowest (3). According to Labflow (2022), Ainabkoi has the highest number (53) of health facilities (19% of Uasin Gishu County & 0.37% of Kenya. Turbo has the highest number of Faith-Based Health Facilities (Total of 7 out of 27). Moiben has the highest number of Ministry of Health Facilities- Public (Total of 31 out of 144). Ainabkoi has the highest number of non-governmental organization Health Facilities. (Total of 2 out of 5). Ainabkoi has the highest number of Private Health Facilities. (Total of 26 out of 96).

According to the Kenya demographic and health survey (2022), Uasin Gishu had 14 % of children under the age of five stunted, 4 % of children under five were wasted, 6% of children under five were underweight and 2 % of children under five were overweight. Other figures presented in the same document indicate that Uasin Gishu had a neonatal mortality rate of 17 deaths per 1000 live births and infant mortality rate of 31 deaths per 1000 live births and an under five mortality rates of 37deaths per1000 live births. Mortality rates, distribution of health facilities combined with the fact that people residing in Eldoret are of different tribes and cultures, with different social back grounds, made it attractive to the researcher's study.

The most significant importance of antenatal counselling is its role in reducing maternal and neonatal mortality rates. Regular check-ups and timely interventions can identify and address potential complications, significantly reducing the risk of complications during childbirth (Orange Healthcare, 2023). Expectant women can be counselled on several factors that can affect their pregnancy outcome. This study investigated normal body changes during pregnancy, how to prepare for child birth, medical interventions pregnancy complications that may arise during pregnancy and effects of socio demographic factors.

Normal body changes awareness counselling involves validating that bodies are resilient and adapt over time, fostering body awareness to understand signals and needs, and providing tools like affirmations and therapy to cope with negative body image and promote acceptance (Mehling, Wrubel, Daubenmier, Price, Kerr, Silow, Gopisetty, & Stewart, 2021). This approach helps people connect with their "lived body" rather than just an "objective body," leading to increased well-being and better emotional regulation (Matera, Casati, Paradisi, Di Gesto & Nerini, 2024). Normal body changes awareness counselling plays a crucial role in improving pregnancy outcomes by reducing maternal anxiety, enhancing adherence to antenatal care, and promoting healthy behaviors (Feli, Heydarpour, Yazdanbakhsh & Heydarpour, 2024).

Expectant mothers often receive counseling and education regarding the normal physiological and psychological changes they experience during pregnancy, which can include hormonal fluctuations, body shape changes, and the transition to motherhood (Grant & Erickson, 2022). When women are informed about expected physical and emotional changes, they are more likely to respond positively to the physiological demands of pregnancy thereby reducing unnecessary worry and fostering a sense of control. This supportive approach has been linked to increased maternal satisfaction, better self-care practices, and improved birth preparedness, ultimately contributing to better maternal and neonatal outcomes (Al-Mutawtah, Campbell, Kubis & Erjavec, 2023).

According to Przybyła-Basista, Kwiecińska and Ilska(2020), higher levels of negative evaluation of appearance increased chances of depression in pregnant women by almost one-and-a-half. The analysis revealed that positive attitudes toward pregnancy and maternity were the most important protective factor for depression. In conclusions the results confirmed the importance of dissatisfaction with body image during pregnancy as a predictor of the onset of prenatal depression. It is therefore important that expectant mothers were counselled on normal body changes during pregnancy to avoid negative evaluation that may lead to depression and other ailments such as high blood pressure. Effective counselling fosters self-awareness, resilience and emotional wellbeing, leading to positive life changes (Heather, 2020). This in turn leads to positive pregnancy. The goal is to aid clients in developing the psychological tools needed to deal with complicated feelings and situations. It is against this background that the study was conducted to investigate the influence of normal body changes awareness counselling on outcome of pregnancy in Eldoret City, Kenya.

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1.3 Statement of the Problem

The estimated annual global perinatal and neonatal death is four million. (Shiferaw, Mengiste, Gobena, and Dheresa, 2021). Globally, approximately one in seven newborns is born with low birth weight. These babies are more likely to die during their first month of life or face lifelong consequences (Mekonnen, Wolde, Bekele [...] and Salasibew, 2023). According to the Kenya demographic and health survey (2022), Uasin Gishu had 14 % of children under the age of five malnourished, 4 % of children under five were wasted, 6% of children under five were underweight and 2 % of children under five were overweight. Uasin Gishu had a neonatal mortality rate of 17 deaths per 1000 live births and infant mortality rate of 31 deaths per 1000 live births and an under five mortality rates of 37deaths per1000 live births (Kenya demographic and health survey 2024). This is a worrying trend that require action.

Antenatal care is crucial for ensuring the health of pregnant women and their newborns. Although antenatal care coverage has improved globally, its quality remains suboptimal in some settings. Evidence on the association between antenatal care quality and perinatal outcomes in low-resource countries is still limited. (Yang, Sabwa, Mebratie Sabwa, Mebratie, Amboko, Mugenya, Kim, Smith, Chaudhry, Mzolo, Mfeka-Nkabinde, Getachew, Taddele, Mariam, Mohan, Jarhyan, Kruk, and Arsenault, 2025). The study identified important gaps in antenatal care quality and found that receiving essential antenatal care services were associated with a lower risk of fetal loss. Antenatal care is generally thought to be an effective method of improving pregnancy outcomes, but none of the studies conducted had evaluated its influence on pregnancy outcomes in Kenya. Hence the researcher's decision to carry out a study to assess the influence of normal body changes awa on pregnancy outcomes in Eldoret city, Kenya.

1.4 Research Objective

The study was guided by the following research objective:
To determine the influence of normal body changes awareness counselling on pregnancy outcomes among expectant mothers in public health centers in Eldoret City, Kenya.

1.5 Research Questions

The study was guided by the following research question

i. What is the influence of normal body changes awareness counselling on pregnancy outcomes among expectant mothers in public health centers in Eldoret City, Kenya?

1.6 Research Hypotheses

H_{01} There is no significant relationship between normal body changes awareness counselling on pregnancy outcomes among expectant mothers in public health centres in Eldoret City, Kenya.

1.5 Theoretical Framework

The study was anchored on Cognitive Behavioral Theory (CBT), developed by Aaron T. Beck in the 1960s, is a widely used psychological approach focusing on the interplay between thoughts, emotions, and behaviors (Lu et al., 2022). Beck posited that dysfunctional thinking patterns are at the core of emotional distress and maladaptive behavior. According to Cognitive Behavioral Theory, individuals' perceptions and interpretations of events significantly influence their emotional and behavioral responses. Cognitive Behavioral Theory involves identifying and challenging negative thought patterns and beliefs, and replacing them with more realistic and constructive thoughts.

Techniques such as cognitive restructuring, behavioral experiments, and exposure therapy are commonly used in CBT to help individuals modify their thinking and behavior (Lu et al., 2022). The goal is to promote healthier emotional responses and develop coping strategies for various psychological issues, including depression, anxiety, and stress. Cognitive Behavioral Theory's structured, goal-oriented, and evidence-based nature has contributed to its widespread acceptance and application in various therapeutic settings. It emphasizes active collaboration between the therapist and the client, encouraging self-reflection and problem-solving skills to facilitate lasting change (Fang and Ding, 2023).

The relevance of Cognitive Behavioral Theory to the study of pregnancy outcomes and antenatal healthcare counseling lies in its focus on the interplay between thoughts, emotions, and behaviors, which are crucial aspects of maternal mental health and well-being. Cognitive Behavioral Theory's emphasis on identifying and modifying negative thought patterns can be particularly beneficial for pregnant women experiencing stress, anxiety, or

depression. These mental health issues can adversely affect pregnancy outcomes, making Cognitive Behavioral Theory a valuable framework for addressing these concerns. The study aimed to examine the effectiveness of antenatal healthcare counseling.

Cognitive–behavioral therapy (CBT) helps individuals to eliminate avoidant and safety-seeking behaviors that prevent self-correction of faulty beliefs, thereby facilitating stress management to reduce stress-related disorders and enhance mental health (Nakao, Shirotsuki & Sugaya, 2021). Cognitive Behavioral Theory provides evidence-based techniques, such as cognitive restructuring and behavioral activation, which can be integrated into counseling programs to help expectant mothers manage their emotional and psychological challenges more effectively.

2.0 LITERATURE REVIEW

Przybyła-Basista, Kwiecińska, and Ilska (2020) examined predictors of prenatal depression and found that negative appearance evaluation increased the risk of prenatal depression by nearly 1.5 times, whereas positive attitudes toward pregnancy and motherhood were protective. However, their study was limited in exploring sociocultural and healthcare-related factors that may shape body image and mental health outcomes in diverse populations. Shen et al. (2024) conducted a systematic review of body image interventions during pregnancy and postpartum and concluded that lifestyle and psychological interventions significantly improved body image, with psychological approaches proving particularly effective. Nevertheless, there is a need for studies that assess the long-term sustainability, scalability, and cultural adaptation of these interventions, especially in low- and middle-income countries (LMICs).

Tesfaye, Tamiru, and Belachew (2024) investigated the effect of nutritional behavior change communication (NBCC) on pregnant adolescents and found significant improvements in mid-upper arm circumference and gestational weight gain among those receiving NBCC compared to controls ($p \leq 0.001$). Despite these promising results, they recommended the development of model-based national guidelines to standardize adolescent-focused nutritional counselling. Similarly, Gribbin et al. (2022) studied postnatal depression in Kisumu, Kenya, and reported that 37% of mothers scored ≥12 on the Edinburgh Postnatal Depression Scale. These mothers breastfed less frequently and their infants gained less weight, with key stressors including financial insecurity and lack of social support. However, most of this research focused on postnatal outcomes, leaving a gap in understanding preventive interventions for prenatal depression.

Riang'a, Nangulu, and Broerse (2017) explored health beliefs and nutritional behavior among pregnant Kalenjin women in rural Uasin Gishu, revealing that practices were guided by cultural perceptions of threats such as having "big babies" or consuming "evil foods." Although informative, this study was qualitative and focused solely on rural populations, limiting its generalizability to urban and mixed contexts. Escañuela Sánchez et al. (2023) conducted a meta-synthesis on facilitators and barriers to antenatal care (ANC) attendance in high-income countries and identified administrative delays, lack of culturally sensitive care, and poor communication as key barriers. Facilitators included supportive healthcare professionals and family support. Nonetheless, the applicability of these findings to LMIC urban settings remains limited, and few studies have examined how the quality of ANC counselling influences maternal outcomes.

Bagherzadeh et al. (2021) found that women were highly motivated to adopt healthy lifestyles during pregnancy due to fetal health concerns but often reverted to old habits postpartum in the absence of continued support, suggesting a need for structured ANC interventions to sustain behavior change. In India, Doke et al. (2021) identified pre-existing illness, consanguinity, heavy physical work, and tobacco use as major risk factors for adverse pregnancy outcomes, yet they did not explore targeted ANC counselling interventions that could address these modifiable risks. Gamberini, Angeli, and Ambrosino (2022) emphasized the role of systemic health system strengthening to improve ANC in resource-limited settings, citing socio-cultural norms and weak infrastructure as persistent barriers. Their work, however, lacked empirical evidence linking improved ANC counselling to measurable maternal or neonatal outcomes in Kenyan settings.

Lateef et al. (2024) performed a scoping review on ANC and skilled birth delivery utilization in sub-Saharan Africa and highlighted persistent gaps due to infrastructure, literacy, and socio-economic constraints. While their work focused on coverage, it did not address counselling quality or its effect on pregnancy outcomes. Fontein-Kuipers, de Groot, and van Staa (2021) conducted a concept analysis of woman-centered care (WCC) and found it to be a mature, multidimensional concept integrating both physical and interpersonal aspects of maternity care, but they noted that implementation evidence from low-resource settings remains scarce.

Matera et al. (2024) demonstrated that body image coping strategies mediated the relationship between body appreciation and psychological wellbeing, but their cross-sectional design limited causal inference and lacked cultural diversity. Feli et al. (2024) used a randomized controlled trial to assess mindfulness-based counselling for pregnant women and found significant reductions in anxiety and higher childbirth satisfaction among the intervention group ($p \leq 0.001$). However, their study was geographically limited and did not assess postpartum outcomes. Finally, Dewidar et al. (2023) conducted a systematic review of nutrition counselling in LMICs and reported improved dietary intake, gestational weight gain, and breastfeeding initiation, but little or no effect on anemia, stillbirth, or caesarean section rates. They highlighted the need for more African studies, greater methodological rigor, and equity-focused analyses to address context-specific barriers.

3.0 RESEARCH DESIGN AND METHODOLOGY

This study adopted an ex post facto research design, suitable for examining how past experiences specifically antenatal counseling affect current pregnancy outcomes. Conducted in Eldoret City, Uasin Gishu County, Kenya, the study targeted expectant mothers attending antenatal counseling in six public health centers, representing a monthly average of 88 mothers. Using Yamane's (1967) formula, a sample size of 72 respondents was determined. Simple random sampling ensured equal selection chances, minimizing bias.Primary data were collected through structured questionnaires and in-depth interview guides, designed to capture both demographic data and variables aligned with study objectives. Questionnaires were validated through face and content validity, reviewed by experts, and refined after a pilot study with a small sample. Reliability was assessed using Cronbach's alpha, with values of 0.7 or higher considered acceptable.

Data collection followed ethical procedures: permission was obtained from The Catholic University of Eastern Africa, a research permit was secured from NACOSTI, and approval was sought from county authorities and health center heads. Questionnaires were administered directly, with interviews scheduled at participants' convenience. Data analysis employed descriptive statistics (means, frequencies, percentages, and standard deviations) to summarize demographic characteristics and responses. Pearson correlation was used to determine relationships between antenatal counseling (independent variable) and pregnancy outcomes (dependent variable). Analysis was conducted using SPSS.

Ethical considerations included beneficence (protection from harm, voluntary participation), respect for human dignity (informed consent, withdrawal rights), justice (fair selection of participants), and confidentiality (use of codes to protect identities). Findings were reported anonymously and shared with the university without personal identifiers. This methodology ensured rigor, representativeness, and ethical integrity, providing a robust framework for examining the impact of antenatal counseling on pregnancy outcomes.

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4.0 PRESENTATION, INTERPRETATION AND DISCUSSION OF THE FINDINGS

4.3.2 Normal Body Changes Awareness Counselling and Pregnancy Outcomes

The study sought to investigate the influence of normal body changes awareness counselling on pregnancy outcomes among mother attending ANC clinics in Uasin Gishu County, Kenya. The objective was measured using five items rated on a five Likert scale and presented in Table 1.

Table 1 Normal Body Changes Awareness Counselling and Pregnancy Outcomes

Normal Body Changes		A	O	ST	R	N	Mean	S.D
I have experienced weight gain, breast enlargement, and tenderness	F	30	33	4	1	0	4.26	0.81
	%	44.1	48.5	5.9	1.5	0.0		
I have experienced an increased frequency of urination	F	27	23	11	5	2	4.06	0.91
	%	39.7	33.8	16.2	7.4	2.9		
Mood swings or emotional changes	F	26	18	10	12	2	3.58	1.09
	%	38.2	26.5	14.7	17.6	2.9		
Anxiety or worries about pregnancy and childbirth	F	23	21	8	13	3	3.69	1.07
	%	33.8	20.9	11.8	19.1	4.4		
I have noticed skin changes	F	25	20	9	12	2	3.14	1.18
	%	36.8	29.4	13.2	17.6	2.9		
I have noticed in my digestive systems changes	F significant	21	31	12	4	0	4.04	0.94
	%	30.9	45.6	17.6	2.8	0.0		

Source: Survey Data, 2025

Results from the table showed that weight gain, breast enlargement and tenderness had a mean of 4.26 and S.D of 0.81. 92.6% of respondents selected “Always” or “Often.” This high mean suggests nearly all women experience these physical changes regularly. Low variability (S.D = 0.81) indicates strong agreement across respondents. Increased Urination had a mean score of 4.06 and S.D of 0.91. 73.5% reported experiencing it “Always” or “Often.” A common and well-known symptom in pregnancy due to hormonal and physical changes (pressure on bladder). On mood swings/emotional changes 64.7% selected “Always,” “Often,” or “Sometimes.” Mean score was 3.58 and S.D of 1.09. Responses were more dispersed, reflecting varied emotional experiences. Emotional instability can be influenced by hormonal changes and individual psychological resilience.

Anxiety/Worries about pregnancy and childbirth had a mean of 3.69 and S.D of 1.07. 54.7% of respondents experienced this at higher frequency (Always/Often) reflecting psychological stress and concern about childbirth

outcomes, especially in first-time mothers. Skin changes mean of 3.14 and S.D of 1.18. This experience had the lowest mean score, indicating that skin changes were the least frequently experienced. The highest variability (S.D = 1.18) also shows inconsistent experiences among women. Digestive System changes mean of 4.04 and a S.D of 0.94. 76.5% of respondents reported experiencing this frequently. This suggested a strong presence of gastrointestinal symptoms during pregnancy such as constipation and nausea.

The high prevalence of physical symptoms (weight gain, urination, digestion issues) reflects normal physiological responses to pregnancy. Emotional symptoms (mood swings, anxiety) were moderately frequent but varied, indicating a need for individualized emotional support. According to Lorenz, Krebs, Nawabi, Alayli, Stock (2022), negative body image from these changes may increase depression risk, which could escalate to serious health conditions such as hypertension and gastrointestinal disorders. The findings reinforce Esan, Adugbo, Fawole, Akingbade, (2023), who noted that pregnancy brings both joy and discomfort, requiring psychosocial support. One way of maintaining good feelings and remaining healthy during pregnancy was doing physical exercise. Antenatal care providers should encourage, educate and reassure pregnant women, their spouses and their families about the benefits, type and frequency of safe physical activity in pregnancy. (Dolatabadi, Amiri-Farahani, Ahmadi & Pezaro, 2022).

The findings of the reviewed studies largely resonate with one another, collectively underscoring the importance of antenatal counselling, birth preparedness, and psychosocial support in improving maternal and neonatal outcomes. Clement, Mirembe, Deus, and Archabald's (2019) report that only 28.3% of pregnant women were prepared for childbirth echoes the low levels of preparedness reported by Orwa, Gatimu, Mantel, and Temmerman (2020) in Kenya and Tanzania (11.4% and 7.6%, respectively). Both studies are in agreement that spousal involvement, higher education, household income, and antenatal counselling significantly enhance preparedness, pointing to the central role of socio-demographic and relational factors. Similarly, Ihomba, Nyamari, Murima, and Were (2020) found that 56.7% of women at Kenyatta National Hospital demonstrated satisfactory with preparedness strongly associated with marital status, formal employment, multiparity, and ANC attendance. These findings mirrored Soubeiga, Gauvin, Hatem, and Johri's (2014) meta-analysis showing that high-coverage interventions significantly reduced neonatal mortality by 18% and maternal mortality by 53%, further aligning with evidence that structured counselling and community mobilization are vital to saving lives.

The psychosocial dimension of pregnancy, reflected in this study's data, corresponds with global evidence on maternal mental health. High prevalence of physical symptoms such as weight gain, digestive changes, and frequent urination was accompanied by emotional symptoms like mood swings (64.7%) and anxiety about pregnancy and childbirth (54.7%). These results resonate with Khwepeya, Lee, Chen, and Kuo's (2018) findings in Malawi, which linked childbirth fear to illiteracy, unemployment, and perineal trauma, suggesting that psychosocial vulnerability may amplify emotional distress during pregnancy. Moreover, Lorenz, Krebs, Nawabi, Alayli, and Stock's (2022) observation that negative body image can increase depression risk aligns with this study's finding that emotional responses vary widely, highlighting the need for individualized psychological support.

Evidence from Gribbin, Achieng, K'Oloo, Barsosio, Kwobah, Kariuki, and Nabwera (2022) in Kisumu further echoes these findings by showing that postnatal depression adversely affects breastfeeding and infant weight gain, and that social support improves maternal mood and caregiving ability. This is in tandem with Riang'a, Nangulu, and Broerse's (2017) conclusion that health beliefs shape nutritional choices and that counselling is more effective when culturally grounded. Together, these studies mirror the conclusion that antenatal care should go beyond physical health monitoring to incorporate emotional counselling, partner involvement, and culturally sensitive health education.

Overall, the convergence of these findings suggests that physical, emotional, and behavioural dimensions of pregnancy are deeply interconnected. Interventions that combine structured antenatal counselling, education on danger signs, partner participation, and psychosocial support align with WHO's recommendations for comprehensive, woman-centred care and are essential to reducing preventable maternal and neonatal morbidity and mortality.

4.3.8 Pearson Correlation

Pearson correlation was used to explore the relationship between the dependent and independent variables. Pearson correlation helped determine whether a statistical association exists between variables such as antenatal care counseling (independent variable) and pregnancy outcomes (dependent variable).

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Table 15 Normal Body Changes Awareness Counseling and Pregnancy Outcomes

Independent Variable	Pregnancy Outcomes
Normal body Changes	r = 0.65, p = 0.002

The Pearson correlation analysis revealed significant associations between antenatal care counseling factors and pregnancy outcomes. A moderate positive correlation was observed between normal physiological changes and pregnancy outcomes ($r = 0.65$, $p = 0.002$), suggesting that mothers who understand normal pregnancy changes tend to have better outcomes due to increased awareness and preparedness. Conversely, pregnancy complications showed a moderate negative correlation with pregnancy outcomes ($r = -0.48$, $p = 0.010$), indicating that higher complications are linked to poorer outcomes, emphasizing the need for early identification and management to improve maternal and fetal health.

5.2.1 Normal Changes counselling and Pregnancy Outcomes

The study found that most respondents experienced normal physiological changes such as increased urination (69.4%), digestive system changes (72.3%), and mood swings (54.2%). However, symptoms like skin changes were less commonly reported (40.3%). Regarding complications, morning sickness was the most prevalent (96.4%), followed by heartburn and constipation (89.1%). In contrast, backache and leg cramps were less frequently experienced (mean score 2.55). The findings also highlighted significant knowledge gaps regarding critical pregnancy complications such as urinary tract infections (UTIs) and hypertension. Only 15.2% of respondents demonstrated awareness of pregnancy-related high blood pressure risks. Vaginal bleeding, though a serious condition, was rarely reported. The results suggested that while most women recognize common pregnancy symptoms, awareness of serious complications remained low. This calls for targeted maternal health education focusing on pregnancy risks and warning signs.

5.3 Conclusion

The study concluded that while most pregnant women experience common physical and emotional changes, awareness of serious pregnancy complications remains low. Conditions such as hypertension and UTIs are poorly understood, despite their potential risks. This lack of awareness increases the likelihood of complications going undetected, which could affect maternal and neonatal health. The findings highlight a significant lack of childbirth preparedness, with most women receiving inadequate information on labour, birth planning, and support systems. Without proper antenatal education, expectant mothers may struggle to recognize labour signs or make informed decisions about their delivery process. This calls for the integration of comprehensive childbirth education programs into antenatal care services.

5.4 Recommendations

Healthcare providers should implement targeted ANC health counselling programs to improve awareness of pregnancy-related complications. Routine antenatal check-ups should incorporate discussions on high-risk conditions such as hypertension and UTIs, ensuring that women recognize warning signs early. Antenatal care programs should emphasize comprehensive childbirth counselling, covering labour signs, birth planning, and support systems. Hospitals and clinics should integrate structured childbirth counselling to enhance preparedness for delivery. Additionally, community-based interventions can help raise awareness at the grassroots level.

REFERENCES

Abd Elaziz, G. M., El Sherbiny, W., Elsharkawy, M., & Saleh, A. (2021). Pregnancy outcome in cases of threatened miscarriage. *The Egyptian Journal of Hospital Medicine, 77*(3), 5125–5130. https://doi.org/10.21608/ejhm.2019.34348 among pregnant women in hard-to-reach areas in Bangladesh. PLoS ONE12 (12):

Adalia, E. G., Hernández-Luengo, M., Bartolomé-Gutiérrez, R., Rodríguez-Martín, B., Jiménez-López, E., & Martínez-Andrés, M. (2021). Expectations and Experiences of Women in Pregnancy, Childbirth, and Infant Feeding: A Qualitative Research Protocol. *International Journal of Qualitative Methods*, *20*. https://doi.org/10.1177/16094069211011901 (Original work published 2021

Akong'o, O. R., Masaba, I. E., Rajesh, O. O., Nyarinda, V. M., & Okolla, Z. (2023). Obstetrics outcomes among women with incomplete antenatal care visits. *African Journal of Health Sciences, 36*(3), Article 10. https://doi.org/10.4314/ajhs.v36i3.10

Al-Mutawtah, M., Campbell, E., Kubis, H. P., & Erjavec, M. (2023). Women's experiences of social support during pregnancy: a qualitative systematic review. *BMC pregnancy and childbirth*, *23*(1), 782. https://doi.org/10.1186/s12884-023-06089-0

Asadzadeh L, Jafari E, Kharaghani R, Taremian F. (2020): Effectiveness of midwife-led brief counseling intervention on post-traumatic stress disorder, depression, and anxiety symptoms of women experiencing a traumatic childbirth: a randomized controlled trial. BMC Pregnancy Childbirth. 2020 Mar 6;20(1):142. doi: 10.1186/s12884-020-2826-1. PMID: 32138707; PMCID: PMC7059371.

Assaf S.(2018) Counseling and Knowledge of Danger Signs of PregnancyComplications in Haiti, Malawi, and Senegal. Matern Child Health J. 2018 Nov; 22(11):1659-1667. doi: 10.1007/s10995-018-2563-5. PMID: 29936656; PMCID: PMC6208654.

Bagherzadeh, R., Gharibi, T., Safavi, B., Mohammadi, S. Z., Karami, F., & Keshavarz, S. (2021). Pregnancy; an opportunity to return to a healthy lifestyle: A qualitative study. *BMC Pregnancy and Childbirth*, *21*(1), 751. https://doi.org/10.1186/s12884-021-04215-

Chersich, M.F., Kley, N., Luchters, S.M. Yard, E Othigo M. J & Temmerman,M. (2009):Maternal morbidity in the first year after childbirth in Mombasa, Kenya; A needs assessment. *BMC Pregnancy and Childbirth* 9,51(2009). https://doi.org/10.1186/1471-2393-9-51

Clement, M., Mirembe, M.E., Deus, T. and Archbald, B., (2019). Socio-demographic and maternal determinants of birth preparedness among pregnant women seeking skilled birth Services at a Rural General Hospital,Mid-Western Uganda. *Open Journal of Nursing*, *9*(1), pp.6877.

Dewidar, O., John, J., Baqar, A., Madani, M. T., Saad, A., Riddle, A., Ota, E., Kung'u, J. D., Arabi, M., Raut, M. K., Klobodu, S. S., Rowe, S., Hatchard, J., Busch-Hallen, J., Jalal, C., Wuehler, S., & Welch, V. (2023). Effectiveness of nutrition counseling for pregnant women in low- and middle-income countries to improve maternal and infant behavioral, nutritional, and health outcomes: A systematic review. *Maternal & Child Nutrition*, *19*(4), e12431. https://doi.org/10.1111/mcn.12431

Doke, P. P., Palkar, S. H., Gothankar, J. S., Patil, A. V., Chutke, A. P., Pore, P. D., Deshpande, A. V., Bhuyan, K. K., Karnataki, M. V., & Shrotri, A. N. (2021). Association between adverse pregnancy outcomes and preceding risk factors: A cross-sectional study from Nashik District, India. *BMC Pregnancy and Childbirth*, *21*(1), 681. https://doi.org/10.1186/s12884-021-04139-2

Dolatabadi, Z., Amiri-Farahani, L., Ahmadi, K., & Pezaro, S. (2022). Barriers to physical activity in pregnant women living in Iran and its predictors: a cross sectional study. *BMC pregnancy and childbirth*, *22*(1), 815. https://doi.org/10.1186/s12884-022-05124-w

Fang, S., and Ding, D., (2023): The differences between acceptance and commitment therapy (ACT) and cognitive behavioral therapy: A three-level meta-analysis. Journal of Contextual Behavioral Science. Volume 28, April 2023, Pages 149-168. https://doi.org/10.1016/j.jcbs.2023.03.015

Feli, R., Heydarpour, S., Yazdanbakhsh, K., & Heydarpour, F. (2024). The effect of mindfulness-based counselling on the anxiety levels and childbirth satisfaction among primiparous pregnant women: A randomized controlled trial. *BMC Pregnancy and Childbirth, 24*(1), 751. https://doi.org/10.1186/s12884-024-06421-4

Fontein-Kuipers, Y., de Groot, R., & van Staa, A. (2021). Woman-centered care 2.0: Bringing the concept into focus. *Women and Birth, 34*(2), 104–111. https://doi.org/10.1016/j.wombi.2020.12.001

Gamberini, C., Angeli, F., & Ambrosino, E. (2022). Exploring solutions to improve antenatal care in resource-limited settings: An expert consultation. *BMC Pregnancy and Childbirth, 22*(1), 449. https://doi.org/10.1186/s12884-022-04738-2

Grant, A. D., & Erickson, E. N. (2022). Birth, love, and fear: Physiological networks from pregnancy to parenthood. *Comprehensive psychoneuroendocrinology*, *11*, 100138. https://doi.org/10.1016/j.cpnec.2022.100138

Gribbin, C., Achieng, F., K'Oloo, A., Barsosio, H. C., Kwobah, E., Kariuki, S., & Nabwera, H. M. (2022). *Impact of postnatal depression on neonatal outcomes: An exploratory study in Kisumu County, western Kenya*. *medRxiv*. https://doi.org/10.1101/2022.10.25.22281500

Hall, J. A., Benton, L., Copas, A., & Stephenson, J. (2017). Pregnancy outcome in women who conceive after treatment for cervical intraepithelial neoplasia: A retrospective cohort study. *The Lancet Oncology, 18*(4), 429–437. https://doi.org/10.1016/S1470- 2045(17)30102-3

Heather S. L. (2020) 12 popular counselling approaches to consider, https://positivepsychology.com/popular-counselling-approaches

Ihomba, P. K., Nyamari, J. M., Murima, F. N., & Were, T. (2020). Birth Preparedness and Complication Readiness among Women with Pregnancy and Childbirth related Complications at Kenyatta National Teaching and Referral Hospital, Kenya. *The East African health research journal*, *4*(1), 26–32. https://doi.org/10.24248/eahrj.v4i1.618

Lateef, M. A., Kuupiel, D., Mchunu, G. G., & Pillay, J. D. (2024). Utilization of antenatal care and skilled birth delivery services in sub-Saharan Africa: A systematic scoping review. *International Journal of Environmental Research and Public Health, 21*(4), 440. https://doi.org/10.3390/ijerph21040440

Lorenz L, Krebs F, Nawabi F, Alayli A, Stock S.(2022). Preventive Counseling in Routine Prenatal Care-A Qualitative Study of Pregnant Women's Perspectives on a Lifestyle Intervention, Contrasted with the Experiences of Healthcare Providers. Int J Environ Res Public Health. 2022 May 18;19(10)

Matera, C., Casati, C., Paradisi, M., Di Gesto, C., & Nerini, A. (2024). Positive body image and psychological wellbeing among women and men: The mediating role of body image coping strategies. *International Journal of Environmental Research and Public Health, 21*(4), 860. https://doi.org/10.3390/ijerph21040860

McNestry, C., Killeen, S. L., Crowley, R. K., & McAuliffe, F. M. (2023). Pregnancy complications and later life women's health. *Acta obstetricia et gynecologica Scandinavica*, *102*(5), 523–531. https://doi.org/10.1111/aogs.14523

Mehling, W. E., Wrubel, J., Daubenmier, J. J., Price, C. J., Kerr, C. E., Silow, T., Gopisetty, V., & Stewart, A. L. (2021). Body Awareness: a phenomenological inquiry into the common ground of mind-body therapies. *Philosophy, ethics, and humanities in medicine : PEHM*, *6*, 6. https://doi.org/10.1186/1747-5341-6-6

Mekonnen, Y., Wolde, E., Bekele, A., Mehari, Z., Abebe, S., Hagos, T., Tadesse, Y., Taye, T., Asire, G., Nigatu, T., Kumar, S., Girma, S., & Salasibew, M. (2023). Effect of the enhancing nutritionand Antenatal infection treatment (ENAT) intervention on birth weight in Ethiopia: A cluster Randomized controlled trial. *BMC Pregnancy and Childbirth, 23*, 620. https://doi.org/10.1186/s12884-023-05912-y

Moses, M. W., Korir, J., Zeng, W., Musiega, A., Oyasi, J., Lu, R., Chuma, J., & Di Giorgio, L. (2021). Performance assessment of the county healthcare systems in Kenya: a mixed-methods analysis. *BMJ global health*, *6*(6), e004707. https://doi.org/10.1136/bmjgh-2020-004707

Nakao, M., Shirotsuki, K., & Sugaya, N. (2021). Cognitive-behavioral therapy for management of mental health and stress-related disorders: Recent advances in techniques and technologies. *BioPsychoSocial medicine*, *15*(1), 16. https://doi.org/10.1186/s13030-021-00219-w

Orange Healthcare. (2023). *The importance of antenatal care: A comprehensive guide for Expecting mothers*. https://www.orangehealthcare.in/uncategorized/the-importance-of- antenatal-care-a-comprehensive-guide-for-expecting-mothers

Orwa J, Gatimu S.M., Mantel M., Luchters, S., Mugerwa M.A., Brownie, S., Subi, L., Mrema S, Nyaga L, Edwards G, Mwasha L, Isangula K, Selestine. E., Jadavji, S., Pell, R., Mbekenga, C., Temmerman, M., (2020) Birth preparedness and complication readiness among women of reproductive age in Kenya and Tanzania: a community-based cross-sectional survey. BMC Pregnancy Childbirth. 2020 Oct 19;20(1):636. doi: 10.1186/s12884-020-03329-5. PMID: 33076869; PMCID: PMC7574438.

Przybyła-Basista H, Kwiecińska E, Ilska M.(2020) Body Acceptance by Pregnant Women and Their Attitudes toward Pregnancy and Maternity as Predictors of Prenatal Depression. Int J Environ Res Public Health. 2020 Dec 16;17(24)

Riang'a, R. M., Nangulu, A. K., & Broerse, J. E. W. (2017). "When a woman is pregnant, her grave is open": Health beliefs concerning dietary practices among pregnant Kalenjin women in rural Uasin Gishu County, Kenya. *Journal of Health, Population and Nutrition, 36*(1), 53. https://doi.org/10.1186/s41043-017-0130-0

Shen, Md., Gao, Rt., Chen, Sb., Xu, Zh. & Ding Xd(2024). The effectiveness of interventions on improvingbody image for pregnant and postpartum women: a systematic review of randomized clinical trials. *BMC Pregnancy Childbirth* 24, 581(2024). https://doi.org/10.1186/s12884-024-06787-3

Shiferaw, K., Mengiste, B., Gobena, T., & Dheresa, M. (2021). The effect of antenatal care on perinatal outcomes in Ethiopia: A systematic review and meta-analysis. *PLOS ONE, 16*(1), e0245003. https://doi.org/10.1371/journal.pone.0245003

Soubeiga D, Gauvin L, Hatem MA, Johri M. (2014) Birth Preparedness and Complication Readiness (BPCR) interventions to reduce maternal and neonatal mortality in Developing countries: systematic review and meta-analysis. BMC Pregnancy Childbirth; 14:129. doi: 10.1186/1471-2393-14-129. PMID: 24708719; PMCID: PMC4234142.

Tesfaye A, Tamiru D, Belachew T. (2024): Effect of nutrition counseling on Nutritional status and gestational weight gain of pregnant adolescents in West Arsi, Central Ethiopia: a cluster randomized controlled trial. Sci Rep. 2024 Mar 1;14(1)

Wolde, H. F., Tsegaye, A. T., & Sisay, M. M. (2019). Late initiation of antenatal care and associated factors among pregnant women in Addis Zemen primary hospital, South Gondar, Ethiopia. *Reproductive Health, 16*(1), 73. https://doi.org/10.1186/s12978-019-0745-2

World_Health_Organization (2013) Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills.) https://www.ncbi.nlm.nih.gov/books/NBK304178/

World Health Organization, WHO (2024).- Newborn mortality,14 March 2024 .

World Health Organization. (2018). *WHO recommendations on antenatal care for a positive pregnancy experience*. World Health Organization. https://www.who.int/publications/i/item/9789241549912

Yamane, Y. (1967). Mathematical Formulae for Sample Size Determination. [Cited by American Journal of Industrial and Business Management**,** Vol.11 No.5**,** ISSN Online: 2164-5175 www.scirp.org/journal/ajibm**]**

Yang, W.-C., Sabwa, S., Mebratie, A. D., Amboko, B., Mugenya, I., Kim, S., Smith, E. R., Chaudhry, M., Mzolo, N. C., Mfeka-Nkabinde, N. G., Getachew, T., Taddele, T., Mariam,D. H., Mohan, S., Jarhyan, P., Kruk, M. E., & Arsenault, C. (2025). *Quality of antenatal care and perinatal outcomes: Evidence from a cohort study in Ethiopia, Kenya, South Africa, and India*. medRxiv. https://doi.org/10.1101/2025.04.10.25325357

Zash, R., Caniglia, E.C., Diseko, M., Mayondi, G., Mabuta J., Luckett, B.J., R, Hofmeyr, G.J, Morroni, C., Ramogola-Masire, D., Williams, P.L., Zera, C., Makhema, J., Lockman, S. & Shapiro, R.L., (2021) Maternal weight and birth outcomes among women on antiretroviral treatment from 2021 conception in a birth surveillance study in Botswana. J Int AIDS Soc.Jun;24(6), 2021 Jun 27;24(6)