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FEAR OR REASSURANCE? EVALUATING HEALTH COMMUNICATION STRATEGIES FOR ADDRESSING CONTRACEPTIVE MISCONCEPTIONS AMONG WOMEN IN ADO-EKITI, NIGERIA

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Abstract

This study investigated the effectiveness of fear appeal and reassurance messages in combating and reducing misconceptions of using birth control methods, particularly in the culturally conservative communities like Ado-Ekiti, Ekiti State. The study was based on the Protection Motivation Theory and the Health Belief Model to examine the relationship between emotional and cognitive reactions to various health communication strategies and the attitude and behavioural intentions of women towards the use of contraceptives. The study adopted a descriptive research design, with a sample size of 307 women aged 18-45 years, who were sampled using a multistage sampling technique in four wards and eight streets in Ado-Ekiti. Data were analysed using descriptive and inferential statistical methods such as independent samples t-tests, chi-square tests, and ANCOVA. Findings showed that myths like contraceptives making women infertile or only suitable for married women are still prevalent. Reassurance messaging also had a significant reduction in these false beliefs ($M = 2.4$, $SD = 1.1$) over fear appeal messaging ($M = 3.0$, $SD = 1.2$), $p = 0.0001$. Moreover, the majority of women indicated that reassurance-based communication was more preferred since it evoked a sense of calmness, trust, and comfort, and fear-based messages caused anxiety and resistance ($2 = 10.32$, $p = 0.0013$). Nevertheless, the two forms of messaging were also effective in promoting intentions to use contraception ($p = 0.933$) but in different ways. The study concludes that a reassurance message is more effective in dealing with misconceptions and developing trust, whereas fear appeal can be used strategically to emphasise urgency.

Keywords: Contraceptive misconceptions, Contraceptive use, Family planning, Health communication, Reproductive health, Women's health

INTRODUCTION

Contraceptives are an important tool for family planning, helping people decide when to have children. However, in most places, there are various misconceptions and anxieties about using them. There are women who feel that contraceptives may lead to long term health issues, infertility or other undesirable consequences. Such beliefs may deny individuals the chance to use contraceptives, even when it may be their best interest in their health and family planning (Mwaisaka et al., 2020).

Health campaigns usually adopt fear appeal and reassurance messages in order to deal with these misconceptions. Fear-based messages attempt to demonstrate the dangers of non-use of contraceptives, such as unwanted pregnancies or health issues. However, studies like Ogundana and Dorcas (2023), state that this method may increase fear or stress, and women will be more reluctant than informed. Conversely, reassurance-based messages attempt to alleviate fear by describing the safety and advantages of contraceptives. This is to establish trust and comfort, which will enable women to have more confidence in decision making (Abidemi et al., 2023). Nevertheless, it remains unclear which approach is more effective, particularly in societies where there are strong cultural beliefs regarding fertility.

Although there are studies on the effect of fear and reassurance messages on the health decisions of people, not many have focused on the effect of these messages on the misconception of contraceptives

use. For instance, the earlier studies tend to concentrate on the overall application of such strategies in healthcare, but not on the particular impact of these strategies on the proliferation of false beliefs about contraceptives among women. This creates a knowledge gap on how precisely these messages influence the particular fears and doubts that women in Ado-Ekiti have towards contraceptives (Adongo et al., 2014).

In addition, limited research has examined the psychological implications of fear-based messages on contraceptive attitudes of women. Worry and avoidance may be the results of fear appeal instead of positive changes. Fear messages should be managed with care because women might perceive contraceptives as harmful (Ogundana & Dorcas, 2023). They may be reassured, though, that they are safe with contraceptives. Yet, it is unknown which of these methods is more effective in Ado-Ekiti where local beliefs have a strong impact on health choices.

This study aimed to address these gaps by critically analyzing the effectiveness of fear and reassurance messages on the perception and attitude of women with regard to contraceptives in Ado-Ekiti. It also examined the psychological impact of fear-based communication and found that there are certain misconceptions by women. The study is guided by the following research hypotheses cast in the null format:

H_{01}: There is no significant difference in the reduction of misconceptions about contraceptive use between women exposed to reassurance-based messaging and those exposed to fear appeal messaging.
H_{02}: There is no significant difference in contraceptive uptake intentions between women exposed to fear appeal messaging and those exposed to reassurance-based messaging.
H_{03}: There is no significant difference in women's preference between fear-based and reassurance-based contraceptive messaging in Ado-Ekiti.
H_{04}: There is no significant difference in the effectiveness between fear appeal messaging and reassurance-based messaging in addressing contraceptive misconceptions among women in Ado-Ekiti.

LITERATURE REVIEW

Misconceptions about Contraceptive Use

There are lot of misconceptions among women regarding contraceptives. These misconceptions, as they are also referred to, may prevent women using contraceptives even when they are not even interested in getting pregnant. Part of these beliefs are based on what others say, culture or absence of the right information. Such myths cause fear or uncertainty among women to use such means as pills, injections, implants, or condoms. Such misguided notions may continue to complicate good health choices among women even when health workers provide advice (Chukwuma et al., 2022). A myth is that contraceptives render a woman permanently sterile. There are women who feel that when they employ some of the family planning methods such as injections or implants, they cannot get pregnant even when they are willing to bear children. This perception causes a number of women to shun birth control methods as they fear that they will not be able to bear children again. But studies have revealed that the majority of contraceptive methods do not lead to permanent infertility. After a woman ceases to use them, she is generally able to conceive again after a certain period of time (Oluwasanu & John-Akinola, 2019).

The other misconception is that contraceptives lead to severe health issues, including cancer or harmful diseases. Others claim that contraceptive pills or implants can cause a woman to have breast cancer or even have a rot in her womb. These beliefs are not true. Scientific research has established that contraceptives are safe to most women. Although certain women might develop some side effects, including weight gain, headaches, or alterations in their menstrual cycles, these are normally temporary (Feyisetan et al., 2021). Another myth about contraceptives is that they cause excessive bleeding or permanent cessation of menstruation. Other women are afraid that the implant or injection will cause them to bleed continuously or even cease their monthly menstrual cycles. Although it is factual that contraceptives may interfere with the period of a woman, such interferences are usually natural and not detrimental. The health workers can recommend how to cope with such changes, and in the majority of situations, the body of a woman adapts with time (Darroch et al., 2020).

Other women feel that contraceptives make them less appealing to their husbands. They believe that family planning will render their bodies weak, lose weight or even smell bad and this will make their

husbands lose interest in them. Such beliefs cause women to be concerned about their marriages and not to use contraception. Nevertheless, research indicates that the use of contraceptives does not decrease the attractiveness of a woman or damage her relationship when both partners are aware of the advantages (Alemayehu et al., 2018).

The other myth is that contraceptives are only used by women who have already delivered. There are those who feel that young women or women who have never given birth to a baby should not use family planning since it will destroy their wombs or destroy their fertility. This idea is wrong. Family planning methods can be safely used by young women, whether they have given birth or not. Contraceptives developed today are aimed at enabling women to decide when they wish to bear children without long-term effects (Brittain et al, 2018).

Some women think that using contraceptives will lead to promiscuity or immoral behaviour. It can be said that family planning allows women to have numerous sexual partners since they are not afraid of getting pregnant. This is not a fact but a moral judgment. Contraceptives are a health service and the role of contraceptives is to assist women to plan their families and guard their health. Their use does not imply that a woman is immoral; it demonstrates that she is making good decisions in her life and family (Naseem and Ahmed, 2020).

It is also believed that family planning is contrary to religion. Other women are informed that contraceptives are not in line with their religion and that it is a sin to prevent pregnancy in such a way. Although there are religious groups that are strict on family planning, there are many other groups that assist women to use contraceptives to safeguard their health and to manage the needs of their families. In most instances, religious leaders have begun to promote family planning to minimize maternal mortality and healthy families (Adedini et al., 2018).

A few women think that contraceptives are too expensive or hard to find. They feel they cannot afford them or have to go long distances to acquire them. The fact is that there are numerous health centres and clinics where free or cheap contraceptives are provided. They are also offered at low costs by government and non-government organisations to assist women and families (Ijadunola et al., 2020). There are those who believe that contraceptive methods are effective in everyone. They fail to realize that various approaches are effective with various women. Consequently, when a process fails to fit a woman or has side effects, she might inform others that all contraceptives are bad. Health workers can help women choose the method that best suits them and explain what to expect with each method (Onwuhafua et al., 2017).

Influence of Messaging on Contraceptive Use Decisions

The manner in which information is exchanged can strongly influence the thoughts of women on family planning and their attitude towards using family planning. The sources of messages are varied, such as health workers, radio programs, television adverts, posters, social media, and even community leaders. The nature of the message, the manner of its delivery, and the person delivering it can either make women take contraceptives or be scared and skeptical about them (Okigbo et al., 2017).

Fear is one of the significant ways messages can impact contraceptive decisions. The fear-based messages tend to dwell on the negative aspects that may occur when women fail to use contraceptives. To illustrate, there are messages that discuss the risks of bearing too many children, including health issues, economic struggle or even death during delivery. The messages are meant to frighten women into using contraceptives by making them consider the dangers of not using family planning. These messages may influence some women to take action to defend themselves by using contraception. Nevertheless, fear may also cause some women to be anxious or helpless, particularly when they do not trust the information or when they think that using contraceptives is harmful (Pérez et al., 2018). Conversely, reassuring messages can be used to make women feel safe and confident to use contraceptives. Reassurance messages usually emphasize on the advantages of family planning, including improved health, reduced concerns about unwanted pregnancy, and improved family care. Such messages attempt to reassure a woman of any fears that she might have by giving her the right information and dispelling the myths. To illustrate, most women feel that contraceptives are infertile or have severe side effects. When communicated in a clear and truthful manner, reassuring messages can be used to clarify that these beliefs are not true and that the use of modern contraceptives is safe when used properly (Akinyemi et al., 2020).

The individual who is conveying the message is also important. Women will believe the message more when it is delivered by a trusted health worker. Health workers are able to clarify, respond to questions and give personal advice. Such communication fosters trust and supports women. Community or religious leaders can also have a powerful message since people tend to listen to them and listen to their views. With such leaders encouraging the use of contraceptives and posting positive messages, women might be more open to thinking about family planning (Blake et al., 2019).

Another powerful message-sharing tool on contraceptives is the mass media. Radio shows, TV advertisements, and social media campaigns are exposed to a large number of women, including those in the countryside. Such messages have the potential to shape the knowledge and thinking of women regarding contraception. When the messages are simple, positive and benefit-oriented, they may motivate women to make informed choices. Nevertheless, when the messages are unclear or solely aim to instill fear, they can deter women to learn more or ask questions (Lori et al., 2020).

In certain cases, fear appeal messages can be effective, particularly when they render the dangers of not using contraceptives real and serious. Nevertheless, they may also lead to fear and misconception, and women will not want to plan a family at all. Safety, health, and benefits reassurance messages tend to assist women in making peaceful, self-assured decisions. They also minimize the dissemination of myths and misconceptions about contraceptives (Marrone et al., 2014).

Reassurance messages are quite essential in areas where myths and misconceptions are prevalent. False information on contraceptives has been spread among many women that contraceptives cause cancer, permanent infertility or extreme weight gain. These stories are often shared by friends or family members who may not have the correct information. These misguided notions can be corrected by reassurance messages by trusted sources and assist women in knowing the truth (Ajayi et al., 2017).

The other impact of messaging is the way it influences women in terms of their self-image. The positive and respectful messages make women feel valued and respected in making decisions. Women will listen more and make their own decisions that are correct to them and their families when they feel that they are being given good information without judgment and pressure. That is why a respectful communication is an important part of any message about contraception (Sedlander et al., 2018).

Comparative Analysis of Fear Appeal and Reassurance Messaging

Providing information to people to change their behaviour or decisions comes in two forms: fear appeal and reassurance messaging. They have been utilized in health education both in the process of correcting misguided notions about contraceptives. They operate differently and each of them may have varied effects in relation to the manner in which they are utilized as well as the recipient of the message. These two kinds of messages can be compared closely to realize which one is more effective in this or that situation.

Fear appeal messages are messages that are meant to instil fear in people about the negative things that may occur in case they fail to do a specific action. It is concerned with warnings and severe risks. As an illustration, it can discuss the risks of having too many children at once, including bad health, childbirth, or poverty. The aim is to ensure that women are scared enough to consider family planning and use contraceptives to prevent such issues (Popova, 2012). However, fear appeals can sometimes backfire. Other women might be too scared to an extent of being on the defensive. Others can disregard the message since they feel that it is overstated or they feel powerless and cannot do anything about the threat (Witte and Allen, 2000).

Conversely, reassurance messaging is aimed at alleviating fears and providing solace. This kind of message puts the positive and encouraging effects of using contraceptives in the limelight. It describes how family planning can assist women to remain healthy, offer better care to their families, and have more control over their lives. The reassurance messages are usually gentle and respectful and they correct the false beliefs in a gentle manner. As an illustration, when a woman feels that using contraceptives will render her infertile in the future, a reassurance message would be given to her calmly that this is not the case and that fertility will resume once she stops using contraceptives (Akinyemi et al., 2020).

The emotion that they produce is one of the obvious differences between these two approaches. Fear appeals arouse anxiety, and reassurance messages evoke the feeling of safety. Fear may cause individuals to take immediate action when they believe that they are in danger but may also cause people to avoid the message altogether when they believe that the message is too frightening or unbelievable

(Tannenbaum et al., 2015). Reassurance messages are more likely to develop trust and confidence and enable women to make informed choices in their own time. Such messages tend to be more effective in the environment where mistrust already exists or where misguided notions are widespread since they do not cause individuals to feel assaulted or judged (Sedlander et al., 2018).

The other area of comparison is the response of the audience. Fear appeals can be effective in the case of women who already believe in health messages and who believe that they can take action to prevent the risks. To these women, the warning is logical and they are encouraged to take care of themselves. However, for women who have doubts or feel they lack the power to make changes, fear may make them feel worse (Witte & Allen, 2000). Women who require reassurance and clear explanations tend to respond better to reassurance messages. These messages help them feel more empowered to make their own decisions and less coerced (Blake et al., 2019).

The message of fear appeal is usually brief and to the point. It might not elaborate much or provide a lot of information on the advantages of contraceptives. It dwells primarily on the dangers of not using them. Conversely, reassurance messaging tends to provide more information, how contraceptives work and discusses common fears or rumours. It provides examples and stories of other women who have had positive experiences. This helps women to relate to the message and feel more comfortable (Ajayi et al., 2017).

The other difference is the permanence of the effects. Fear appeals can be quick to react, but this can be short lived unless the woman has complete faith or trust in what is being said. When the fear has passed, she can revert to her previous beliefs. Reassurance messages are more likely to be long-term since they develop awareness and alter the way women perceive contraceptives as time goes on (Marrone et al., 2014). It also makes women ask questions and seek more information with trusted sources, which can assist them in making better decisions in the future.

There are advantages and disadvantages to both fear appeal and reassurance messaging. Fear appeals can be helpful in generating a sense of urgency and capturing attention. They are most effective in the presence of a definite threat, and when individuals feel that they can do something. Nonetheless, they may result in stress or make women shun the message when they do not feel safe or supported. Reassurance messages contribute to establishing trust and open dialogue. They assist in overcoming misconceptions and decreasing fear, yet they can be more difficult to make people act (Tannenbaum et al., 2015).

Theoretical Framework

This study is anchored on the protection motivation theory (PMT). The theory assists in understanding why individuals will opt to embrace behaviours that safeguard their health in times when they are threatened. According to it, when people see a message that there is a health risk, they undergo a mental process of deciding whether to take protective measures or not. This choice is based on how severe they perceive the threat to be, how probable they think the threat is to occur to them, and whether they feel that they can take some action to prevent it. Protection motivation theory can be applied to comprehend the reactions of people to messages on health risks, including messages on the use of contraceptives.

The ability to break down the process of how individuals process health-related threats and weighing their options before acting is one of the major strengths of Protection Motivation Theory. It offers a clear framework to design messages that can promote healthy behaviour. Protection motivation theory can help health communicators to create messages that not only inform people about the risks but also provide hope and solutions. This two-pronged approach facilitates the development of effective communication that can inspire behaviour change, including inspiring women to use contraceptives to prevent unwanted pregnancies or medical problems (Milne, Sheeran and Orbell, 2000).

Protection motivation theory can be applied to the interpretation of the impact of health messages on the decisions of women with regard to contraceptives. It aids in understanding why fear-based messages, emphasizing the risks associated with not using contraceptives, may be effective with some women but not others. Such messages are more likely to motivate women who feel themselves at risk personally and who think that contraceptives will help them, and who believe they can use them correctly. The theory, thus, offers a systematic method of developing messages that can encourage women to make informed, positive decisions regarding their reproductive health.

METHODOLOGY

Research Design

The study adopted a descriptive research design to investigate and compare the effectiveness of fear appeal and reassurance message in dispelling the myths surrounding the use of contraceptives among women in Ado-Ekiti, Ekiti State. The design was selected because it is appropriate to describe existing conditions, perceptions and behavioural responses systematically without manipulating variables. It enabled a deeper investigation of the beliefs of the participants, exposure to various communication strategies, and their impact on the knowledge and attitudes of the participants to contraceptive use. The descriptive method was especially suitable since the research was to focus on the natural experiences and perspectives of women.

Population of Study

The population of the study was women aged 18-45 years living in Ado-Ekiti. The age group was chosen since it is a group of women of reproductive age who are most likely to need and access contraceptive services. Based on the data given by the Ekiti State Bureau of Statistics (2023), there are 293,152 women in Ado-Ekiti.

Sample Size and Sampling Procedure

The sample size of this study was calculated usingTaro Yamane formula, a margin of error was a decimal (0.057, or 5.7%), and the sample size was 307 respondents.

This study adopted a multistage sampling method to guarantee a representative sample that was manageable since the number of women aged 18-45 years living in Ado-Ekiti is large. The multistage methodology enabled the systematic selection of women at various levels thus enhancing validity and reliability of the results. The study location was purposely chosen in the first stage as Ado-Ekiti Local Government Area was the capital of the state and it has a high population density and various cultures.

Simple random sampling was used to select six wards in Ado-Ekiti in the second stage. The wards chosen were Odo-Ado, Oke-Ila, Okesa, and Ajilosun. These wards were chosen among the available administrative divisions of the local government area so as to have sufficient geographical coverage and socio-economic diversity. The third stage involved identifying selected streets in each ward that had been selected, and houses were selected through systematic sampling. The chosen streets include: Oke Oniyo Street, Owode Street, Oke Ila Street, Stadium Road, Isato Street, Okesa Road, Agriculture Road, and Ifedoju Road.

The number of houses on a street was used to determine the sampling interval. In each chosen house, a single eligible woman aged 18-45 years was chosen. This included the allocation of 76 questionnaires in the 4 wards of choice, 38 per street.

The study instruments were administered face to face because this will guarantee personal contact with the respondents and enable the researcher to clarify questions where necessary.

Research Instrument

A structured questionnaire was the main data collection tool in this research.

In section A, the researcher aimed at gathering pertinent demographic information of the respondents.

Section A focused on collecting relevant demographic data from respondents.

Section B consisted of 25 carefully crafted items directly aligned with the study's research objectives and questions. The items were designed to assess respondents' exposure to contraceptive messages, their understanding and belief in common misconceptions, and their reactions to both fear-based and reassurance-based health messages. The section also measured how these messages influenced their willingness to adopt contraceptive methods. All items in Section B were formatted using a 4-point Likert scale with the following response options: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). This scale allowed respondents to express varying degrees of agreement or disagreement with each statement.

Validity of Instrument

The validity of the structured questionnaire was ensured through a pilot study. The pilot study was conducted by administering the questionnaire to 20 women in a local community with similar

characteristics as those of the main study population but they are not the members of the main study population.

Method of Data Collection/Analysis
A structured questionnaire was the primary source of data in this study. The descriptive and inferential statistical methods were used in the data analysis of this study to answer the research questions and hypotheses. Inferential statistical tests like the t-test, Chi-Square Test of Independence, and the Analysis of Covariance (ANCOVA).

RESULTS
Table 1: *Frequency and Percentage Distribution of Respondents by Age*

Age		
Variable	**Frequency**	**Percentage**
18–24 years	131	42.67%
25–31 years	94	30.62%
32–38 years	53	17.27%
39–45 years	29	9.45%
Total	**307**	**100%**

Table 1 shows the age distribution of the respondents. Of the 307 respondents, 131 were aged 18-24, accounting for 42.67%. 94 were between 25 and 31 years old, representing 30.62%. A total of 53 respondents were aged 32 to 38 years, representing 17.27%, while 29 were aged 39 to 45, representing 9.45%. This shows that most respondents were between 25 and 31 years old.

Table 2: *Frequency and Percentage Distribution of Respondents by Level of Education*

Level of Education		
Variable	**Frequency**	**Percentage**
No Formal Education	0	0.00%
Primary School	7	2.28%
Secondary School	134	43.65%
Tertiary Education	166	54.07%
Total	**307**	**100%**

Table 2 shows the educational levels of the respondents. None of the respondents said that they had no formal education. 7 was only primary school, which constituted 2.28. One hundred and forty-four respondents had attended secondary school, which constituted 43.65. The highest number of 166 respondents had a tertiary education, which is 54.07. This shows that the majority of the respondents were tertiary educated.

H_{01}: There is no significant difference in the reduction of misconceptions about contraceptive use between women exposed to reassurance-based messaging and those exposed to fear appeal messaging.
The test of hypothesis was as follows: a statement was deemed a statistically significant communication challenge when its p-value was less than 0.05 and its mean score was more than the neutral level of 2.50. To test the hypothesis, Table 6 data were pooled and an Independent Samples T-Test was used to test the hypothesis. The result of the analysis is presented and interpreted below:

Table 3: ***Independent Sample T-Test on the Difference in the Level of Contraceptive Misconceptions***

Group	**N**	**Mean Score**	**Std. Dev**	**t-value**	**p-value**	**Decision**
Reassurance-based Messaging	153	2.4	1.1	-4.12	0.0001	Reject
Fear Appeal Messaging	154	3.0	1.2			

Interpretation

The independent-samples t-test results show that there is a statistically significant difference between the level of contraceptive misconceptions in women who were exposed to reassurance-based messaging and those who were exposed to fear-appeal messaging, t(305) = -4.12, p = 0.0001. The women in the reassurance-based group had a much lower misconception score (M = 2.4, SD = 1.1) than the women in the fear appeal group (M = 3.0, SD = 1.2). This implies that reassurance message is more effective in dispelling false beliefs about contraceptive use among Edo-Ekiti women. Thus, the null hypothesis (H 01) according to which the difference in the reduction of misconceptions between the two groups is not significant is rejected.

H_{02}: There is no significant difference in contraceptive uptake intentions between women exposed to fear appeal messaging and those exposed to reassurance-based messaging.

The hypothesis test decision rule was as follows: a statement was a statistically significant communication challenge with p-value lower than 0.05 and with a mean score exceeding the neutral mean of 2.50. The data in Table 3 were pooled to test the hypothesis with an Independent Samples T-Test. The analysis is shown and discussed below:

Table 4: *Independent Sample t-test on differences in Contraceptive Uptake Intentions*

Group	Mean Score	Std. Dev.	N
Fear Appeal	2.70	0.429	3
Reassurance-Based	2.72	0.426	3
T-Statistic	-0.087		
P-Value	0.933		
Conclusion	Accept H_{02}. No significant difference		

Interpretation

Independent Samples T-Test showed no statistically significant difference in contraceptive uptake intentions between women who received fear appeal messaging (M = 2.70, SD = 0.43) and women who received reassurance-based messaging (M = 2.72, SD = 0.43) with a p-value of 0.933. The high p-value means that any difference in the mean scores of the two groups could have been as a result of chance and not necessarily as a result of the type of messaging. Thus, the null hypothesis (H 0 2) was not rejected by the researcher, which indicates that the nature of messaging (fear-based (risks and consequences) or reassurance-based (benefits and safety)) does not have a significant impact on the intentions of women to use contraceptives. These results suggest that the two messaging tactics can be equally effective or ineffective in the development of contraceptive intentions, and other variables may be more influential in decision-making concerning contraceptive use.

H_{03}: There is no significant difference in women's preference between fear-based and reassurance-based contraceptive messaging in Ado-Ekiti

The hypothesis test decision rule was as follows: a statement was deemed a statistically significant communication challenge when its p-value was below 0.05 and the mean score exceeded the neutral score of 2.50. To test the hypothesis, the data in Table 4 were pooled together and tested using the Chi-Square Test of Independence. The result of the analysis is presented and interpreted below:

Table 5: *Chi-Square Test of Independence conducted on women's preferences between fear-based and reassurance-based messaging*

Preference Type	**Agree (Observed)**	**Agree (Expected)**	**Disagree (Observed)**	**Disagree (Expected)**	**(O-E)^2/E Agree**	**(O-E)^2/E Disagree**
Fear-based messaging	449	423.0	164	190.0	1.60	3.56
Reassurance messaging	398	424.0	216	190.0	1.60	3.56
Chi-Square Statistic					**10.32**	

Degrees of Freedom	**1**
p-value	**0.0013**

Interpretation

According to the Chi-Square Test of Independence of the preferences of women on the use of fear-based and reassurance-based contraceptive messaging in Ado-Ekiti, the findings indicate that there is a statistically significant difference (2 = 10.32, 1 = 1, p = 0.0013). This implies that the reactions of women do not depend on the nature of messaging they like. In particular, a greater number of women responded positively to the reassurance-based messages as compared to the fear-based messages, indicating that women tend to respond better to positive and reassuring contraceptive messages as compared to fear-inducing messages. Thus, the null hypothesis is rejected. The study inferred that there is a significant difference in preferences of women between fear based and reassurance based contraceptive message in this population.

H_{04}: There is no significant difference in the effectiveness between fear appeal messaging and reassurance-based messaging in addressing contraceptive misconceptions among women in Ado-Ekiti

The hypothesis test decision rule was as follows: a statement was a statistically significant communication challenge when its p-value was less than 0.05 and its mean score was higher than the neutral mean of 2.50.

To test the hypothesis, the data in Table 10 were combined and analyzed using ANCOVA. The analysis outcome is shown and and interpreted below:

Table 6: *ANCOVA results on the difference in the effectiveness of messaging types*

Source	SS	df	MS	F	p-value	Partial Eta Squared
Message Type	2.25	1	2.25	12.50	<0.001	0.04
Covariate	1.50	1	1.50	8.33	0.004	0.03
Std. Error	43.95	300	0.1465			
Total	47.70	302				

Interpretation

The ANCOVA results revealed a statistically significant difference in the effectiveness of messaging types on addressing contraceptive misconceptions among women in Ado-Ekiti, F(1, 300) = 12.50, p < 0.001. Specifically, fear appeal messaging was found to be more effective than reassurance-based messaging. This suggests that women in this community respond better to messages that focus on risks associated with not using contraceptives. Therefore, the null hypothesis that there is no difference in effectiveness between the two messaging types is rejected.

DISCUSSION OF FINDINGS

Preferences and emotional responses of women in Ado-Ekiti toward fear-based versus reassurance-based contraceptive messaging

The hypothesis test provided 0.0013 p-value and 10.32 0.0013. More women accepted reassurance-based messaging than fear-based messaging. This corroborates the descriptive data by indicating that preference is not random or even. These preferences are similar to those of Mwaisaka et al. (2020) where young people stated that they needed gender-sensitive and culturally relevant interventions. The content that instilled fear was identified to push them away instead of involving them. Equally, Abidemi, Amu, and Olayinka (2023) found that spousal communication, which was usually in reassuring tones, enhanced the use of contraceptives. Messages that establish trust and understanding were found to be more effective than fear provoking messages. Theoretically, the Protection Motivation theory describes this result through its coping appraisal element: when women observe that they can efficiently act on health information, their drive to adopt contraceptive use increases. Reassurance-based

messages reinforce this logic of response effectiveness and self-efficacy, making contraceptive use feel manageable and valuable. Fear appeals, by contrast, can intensify anxiety without building confidence, thereby undermining the coping assessment process and dropping the likelihood of behavioural acceptance. Reassurance messages aid in the creation of the impression that contraceptive use is something that can be controlled and helpful, which enhances the chances of adoption.

Differences in contraceptive uptake intentions among women in Ado-Ekiti after exposure to each communication approach

The statistical outcome ($p = 0.933$) indicated that the difference between the contraceptive uptake intentions in the two message types was not significant. This implies that the differences in intention observed, though significant in real life, are not statistically significant enough to make a general conclusion that one of the methods is better than the other. This implies that although fear may be a temporary cause of concern, it does not motivate long-term behaviour. Women will not start the conversation or seek assistance without emotional safety or a supportive framework. These results are consistent with the specifics of contraceptive messaging seen by Durowade et al. (2017) and Sanchez et al. (2020), both of which emphasized the use of risks and supportive information to impact attitudes. Abidemi, Amu, and Olayinka (2023) discovered that uptake was higher when spousal communication was promoted, especially with supportive messaging. This ambivalent reaction is consistent with the Protection Motivation Theory that states that threat and coping appraisal have an effect on motivation. Fear can be the start of concern, but reassurance enhances coping. However, in cases where both strategies result in the same intentions, it can be an indication that message framing is not enough without any changes in support structures and accessibility.

Messaging strategy is more effective among women in Ado-Ekiti; fear appeal or reassurance?

ANCOVA was used to test the hypothesis to establish whether there is statistically significant difference in the effectiveness of fear appeal and reassurance-based messaging in addressing contraceptive misconceptions. The analysis revealed a significant result: $F(1, 300) = 12.50$, $p < 0.001$. The effect size (Partial Eta Squared = 0.04) also indicates that message type has a moderate effect. The results indicated that fear-based communication was more efficient than reassurance in decreasing the misperceptions about contraceptives.

The study found that fear-based messages were more persuasive in general when it came to dealing with contraceptive matters. ANCOVA revealed that fear appeal had a significant effect ($F(1, 300) = 12.50$, $p < 0.001$), thus rejecting the null hypothesis (H 0 4). While reassurance messaging was more effective in correcting misconceptions, fear-based messages seemed more impactful in drawing attention to the issues and spurring initial engagement. This dual efficacy is observed in Akhigbe e al. (2026) who observed that fear of side effects was a deterrent to use, but risk awareness like unwanted pregnancy was a motivator to use. Durowade et al. (2017) also discovered that although the awareness was high, effective messaging needed to transcend information and touch emotional and social aspects. The Protection Motivation Theory also explains the use of fear as a motivator in the presence of high response efficacy and self-efficacy. Fear messages can be effective in action provided women have the belief that the threat is real and that they can effectively prevent it with the help of contraceptives. However, the theory cautions against scaring people without giving them power since this may result in avoidance. That is why emotional reassurance was better, whereas fear messaging was more effective in general.

CONCLUSION AND RECOMMENDATIONS

The study concludes that reassurance messages are more effective than fear messages in countering misconceptions about the use of contraceptives among women in Ado-Ekiti. It makes women feel relaxed, educated and more inclined to believe health advice. Although fear messages can attract attention and make some women consider more the dangers of not using contraceptives, they can be stressful and fail to dispel popular myths. The two kinds of messages contributed to a rise in interest in using contraceptives, although reassurance messaging made women more comfortable when discussing with health workers.

Based on the findings of this study, the following were recommended to address the misconceptions better:

i. Public health campaigns should focus more on direct education that conveys clear and factual messages that are crafted to describe the safety, benefits and correct use of contraceptives, specifically addressing the common myths, and repeated in various locations like clinics, schools, markets and religious meetings.
ii. Health programmes producers should adopt a more positive and encouraging tone in the way they design materials and outreach. This should involve the use of friendly language, benefits, real-life success stories, and the creation of an encouraging atmosphere where women feel free to ask questions and seek advice.
iii. The health sector should promote more interactive programs where women can freely talk to the healthcare providers in a more relaxed environment.
iv. Messages based on fear were also found to be more effective; hence, the study suggests adopting a mixed strategy by employing strategies that strike a balance between urgency and comfort by combining both fear appeal and reassurance messages.

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