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Case Report

Analysis of Factors Accountable for Low Patronage of Maternal Health Care and Skilled Supervised Delivery in the Adaklu District, Ghana

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Abstract: The study focused on examining the awareness level of pregnant women about the free maternal and child health care services, evaluate the effectiveness of the free maternal and child health care policy and to identify factors accountable for low patronage in accessing maternal and child health care services in the Adaklu District, Ghana. A descriptive cross sectional survey was conducted among 300 purposively selected maternal mothers. Both descriptive and exploratory factor analyses were the main analytical tools. Results show that majority respondents were aware of the free maternal and child health care policy. Concerning the effectiveness of the free maternal and child health care policy, 95 out of the 244 respondents who are aware of the exemption policy indicated they policy is highly effective; 107 of them which represent 43.9% said it is effective and finally, 42 of them which represent 17.2% indicated that the policy is not effective. Finally, six salient factors account for the factors accountable for the low patronage of maternal and child health care in the Adaklu District. The first factor is awareness factor, the second is perception factor, the third is access factor, the fourth is restriction factor, and the fifth is attitudinal factor and lastly success factor. The study emphasizes the need to intensify greater awareness on the effects of delivering at home and also government should endeavor to establish more health centres in every community thus making accessibility of maternal and child health care to maternal mothers in remote areas in the country.

Keywords: Low, Patronage, Maternal, Supervised, Delivery

1. Introduction

Problems associated with pregnancy and childbirth are amongst the leading causes of death for women of reproductive age in Africa and worldwide. In modern world, maternal mortality is considered a violation of the rights of women and its rate is perceived as a critical index of the level of development of a country. According to [1], maternal mortality ratios for Ghana stand at 380 deaths per 100,000 live births. This means that Ghana recorded the overall highest MMR in sub-Saharan Africa.

In order to reduce maternal mortality, the Government of Ghana in September 2003 introduced the free delivery policy or exemption policy for users of maternity services from paying fees in the four most underprivileged regions of the country which are Central, Northern, Upper East and Upper West regions. The free delivery policy was later extended to the remaining six regions of Ghana in April 2005 with the aim of reducing financial barriers to using delivery services [2]. It was expected that this would lead to a reduction in maternal and perinatal mortality.

A write up by [3] alarmed that there is now a general agreement hence a growing movement, globally and specifically in the African continent, to reduce financial barriers to health generally. This agreement movement places special emphasis on high priority services and mostly the

vulnerable groups in societies. Hence countries across the globe are implementing policies and programs to improve the quality of health delivery so as to curb the high morbidity and maternal mortality reported cases of the world. Under the policy implemented by the Government of Ghana, it was intended that the government would absorb the 80,000 cedis cost for each delivery in government institutions and pay the 120,000 cedis cost of delivery in private maternal homes. This was done with the understanding that removal of financial and physical barriers to delivery and emergency care would improve access to and use of skilled maternal and new born healthcare services [4]. Skilled attendance at delivery is necessary to prevent needless and avoidable maternal deaths and to ensure the survival of the new born. In spite of all these measures, a significant number of pregnant women still deliver at home and institutional delivery continues to remain relatively low [5].

According to [6] adequate antenatal care (ANC) and skilled obstetric assistance during delivery are important strategies that significantly reduce maternal mortality and morbidity. ANC provides avenue to provide pregnant women with information, treat existing social and medical conditions and screen for risk factors. Indeed, there is compelling empirical evidence that suggests the risk of maternal death is high during labour, delivery and up to 24 hours postpartum [7]. Target 3.1 of the third Sustainable Development Goal (SDG) of United Nations (UN) seeks to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030. Achieving good maternal health therefore requires quality reproductive health services and so skilled attendance at delivery is being promoted towards attainment of optimal maternal health.

Skilled attendance at delivery is necessary to prevent needless and avoidable maternal deaths and to ensure the survival of the new born. In spite of the introduction of the free maternal care policy, a significant number of pregnant women still deliver at home and institutional delivery continues to remain relatively low. Meanwhile, in a research conducted by [8] in Nigeria, exclaimed that maternal mortality may arise as a result of poor usage or underutilization of antenatal care. However, many research works have been done on and focused only on the causes of maternal mortality but have failed to acknowledge the factors that are responsible for low patronage of free maternal health care service. [9] conducted an empirical analysis of causes of maternal mortality among different socio-demographic groups in Ghana but failed to study the factors accountable for low patronage of maternal health care. [10] also reviewed maternal mortality in Ghana but failed to link it to low patronage of maternal health care services. This implies that a research gap exists. This study therefore seeks to fill this gap by establishing the links between cause of low patronage of maternal health care services and maternal mortality.

Thus this study is aimed towards assessing the impact of free maternal and child health care services in Adaklu District, Ghana. Specifically, the study sought to examine the awareness level of pregnant women about the free maternal and child health care services; identify factors accountable for low patronage in accessing maternal and child health care services. and evaluate the effectiveness of the free maternal and child health care policy.

2. Literature Review

2.1. The Concept of Maternal Health Care

According to [11] maternal health is the health of women during pregnancy, childbirth, and the postpartum period. It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality. Maternal health practices' can therefore be understood to refer to the activities and habits of women throughout these periods, which impact their health.

In their contention [12] stated that maternal health care service utilization is important for the improvement of both maternal and child health. In a study of six African countries, lower rates of maternal and neonatal mortality and morbidity were shown to have a positive relationship with giving birth in a health facility with the help of skilled medical personnel. Improving maternal and child health requires increasing the percentage of women giving birth in health institutions with the assistance of trained staff, which is the central goal of the safe motherhood and child survival movements [13].

2.2. Skilled Supervised Delivery

Supervised delivery is one of the important key strategies for reduction of maternal morbidity and mortality. According to [14] the presence of skilled or qualified health attendant in every health facility during childbirth and immediate postpartum newborn period is essential in saving women and their babies from certain complications. They have the special skills necessary to deliver essential maternal and newborn care in many settings including home, the community health post and hospitals.

In view of [15] skilled birth attendance is the availability of health professionals with midwifery skills (doctors, nurses or midwives) to promote utilization, conduct normal deliveries and provide first aid, the enabling environment of health policy and system, drugs, equipment, supplies, and transportation, knowledge and skills to refer from one level of skilled attendance to another and the demand for skilled care by community as evidenced by utilization.

A study conducted by [16] indicated that an increase in the proportion of deliveries with skilled attendance has been identified as an important approach to reduce maternal mortality and morbidity in developing countries. The term skilled birth attendance has been defined as the process by which a woman is provided with adequate care during labour, delivery and the early postpartum period [17]. This requires skilled personnel to attend the delivery and an 'enabling environment', which was initially defined as including adequate supplies and equipment, transport and effective communication systems. It has also been suggested that the

enabling environment should not be limited to just these factors but be seen more broadly to include the political will, policy and, sociocultural influences as well as other factors such as the education and training of skilled attendants at pre-service and in-service levels, and following that supervision and deployment [5].

3. Methodology

The study employed descriptive, cross-sectional survey design. The setting was the Adaklu District in Volta Region, Ghana. The population for the study encompass women of child bearing age (15 - 49) in the Adaklu District as prescribed by the Adaklu District Health Directorate. The target population was pregnant women and women who delivered babies within three months before the study and were living in the District. Due to the fact that the target population has no available sampling frame, a sample of 300 was conveniently used as the study population.

Data for the study was obtained by the administration of a questionnaire. The questionnaire had two sections. The first section consisted of demographic information such as age, and religion of respondents. The second section dealt with awareness of free maternal health care; and factors accountable for the low patronage of maternal health care and skilled supervised delivery services.

Data analysis was done in two sections. The first section which is the preliminary analysis was done using descriptive univariate analysis to assess the frequency distribution of the various items using distribution tables, graph and charts. The second section which is the further analysis uses exploratory factor analysis; this technique would be used to scale down the seventeen original factors accountable for the low patronage in accessing maternal health care and skilled supervised delivery services. All analysis will be executed by the use of the SPSS and Microsoft Excel software.

4. Results and Discussion

This section comprises the presentation, analysis and the discussion of findings of the study based on the responses from pregnant women and women who delivered babies within three months before the study and were living in the District about the factors accountable for the low patronage of maternal health care and skilled supervised delivery services as structured in the questionnaire. This section is subdivided into preliminary and further analyses.

4.1. Preliminary Analysis

This subsection looks at the summary statistics of the respondents. A total of 300 maternal mothers completed the questionnaire on the factors accountable for low patronage in accessing maternal and child health care services. Table 1 summarizes the socio-demographic information of the respondents.

Table 1. Demographic information of the participants (n=300).

| Variables	Frequency	Percentages
Age		
Below 18 years	22	7.3
18-25years	67	22.3
26-35years	142	47.4
36-45years	69	23.0
Religion		
Christian	184	61.3
Muslim	98	32.7
Traditionalist	18	6.0

Source: Field data (2016)

From table 1 above, the distribution of respondents by age indicated that majority of people who responded to this questionnaire are between 26 and 35, followed by 36 and 45. This means that close to 77.7% = (47.4 + 30.3) of the time, views leading to conclusions drawn from this research could be attributed largely to maternal mothers of that age group. The analysis further revealed that about 7.3% of the respondent were below 18 years indicating that there exist teenage pregnancy cases in the Municipality. Furthermore, out of the total 300 respondents, about 184 of them which represent 61.3% were Christian; 98 of them which represent 32.7% were Muslim whiles the rest 18 of them which represent 6% were Traditionalist.
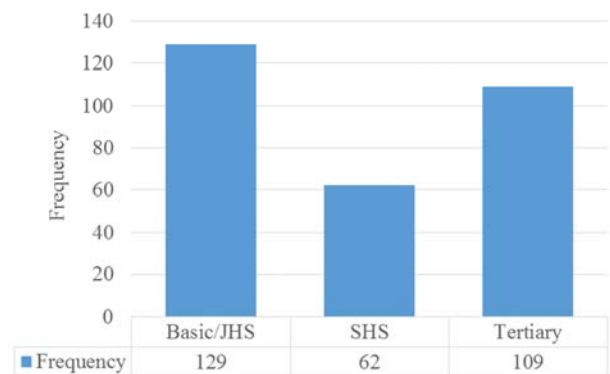
Figure 1. Distribution of Respondents by Level of Education.

Figure 1 above shows the proportion of respondents by level of education. It could be seen that out of the total 300 respondents, about 109 of them had tertiary education; 62 of them had Senior High education and finally, about 129 had basic/Junior High education.
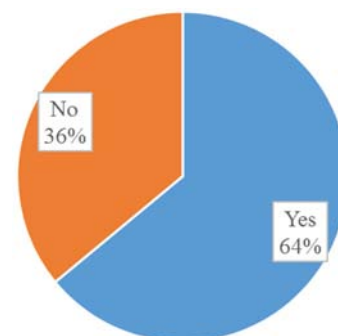
Figure 2. Awareness of the free maternal and child health care policy.

Figure 2 above indicated that about 64% of the total respondent indicated that they are aware of the free maternal and child health care policy whist the rest 36% indicated that they are not aware.

Table 2. Type of Service and Effectiveness of the Exemption Policy.

Variables	Frequency	Percentages
Type of Service		
Antenatal	98	40.2
Delivery	92	37.7
Postnatal	54	22.1
Effectiveness of the Exemption Policy		
Highly effective	95	38.9
Effective	107	43.9
Not effective	42	17.2

Source: Field data (2016)

The respondents' distribution by type of service the exemption policy cover in table 2 above appears to be evenly distributed among the three categories of service with antenatal, delivery and postnatal recording about 40.2%, 37.7% and 22.1% of the respondents respectively. The table further reveals that 95 out of the 244 respondents who are aware of the exemption policy indicated they policy is highly effective; 107 of them which represent 43.9% said it is effective and finally, 42 of them which represent 17.2% indicated that the policy is not effective.

4.2. Further Analysis

This sub-section looks at the factors that were related to the low patronage of maternal health care and skilled supervised delivery in Adaklu District.

Definition of factors accountable for low patronage of maternal health care
X1=Long distance to health facility
X2=Ignorance
X3=Traditional beliefs and cultural practices
X4=Financial constraint
X5=Seeking help from herbalist
X6=Negative attitude of health workers
X7=Un-kept health facilities
X8=Lack of privacy
X9=Lack of health insurance
X10=Poor performances of the health workers
X11=Reduce quality of time spent with client
X12=Insufficient supply of drugs
X13=No delivery complications at home
X14=My husband's refusal
X15=Religion forbids
X16=Lack of awareness of preconception care
X17=Unavailability of means of transport

Table 3. Reliability Analysis.

Measure	Value
Cronbach's Alpha	0.746
Number of items	17

Source: Field Data, 2016

The alpha value of 0.746 shows a good level of consistency in the data generated for factor analysis. This further indicates that the scale used is uni-dimensional and hence responses to similar or homogenous indicators are about 74.6% of the time consistent with each other.

The next output examines the inter-correlations among the seventeen indicators

Table 4. Correlation among the Seventeen Indicator Variables.

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17
X1	1.00																
X2	0.63	1.00															
X3	0.25	0.28	1.00														
X4	0.15	0.12	0.33	1.00													
X5	0.28	0.28	0.38	0.48	1.00												
X6	0.34	0.31	0.29	0.23	0.38	1.00											
X7	0.17	0.20	0.34	0.17	0.26	0.25	1.00										
X8	0.18	0.16	0.36	0.23	0.22	0.28	0.36	1.00									
X9	0.22	0.19	0.18	0.17	0.18	0.08	0.29	0.19	1.00								
X10	0.15	0.09	0.36	0.16	0.40	0.13	0.20	0.42	0.29	1.00							
X11	0.16	0.20	0.08	0.17	0.24	0.09	0.13	0.25	0.20	0.40	1.00						
X12	0.14	0.11	0.29	0.13	0.21	0.11	0.22	0.43	0.21	0.62	0.37	1.00					
X13	0.31	0.25	0.22	0.20	0.22	0.28	0.21	0.25	0.15	0.15	0.15	0.24	1.00				
X14	0.05	0.07	0.03	0.08	0.18	0.10	0.07	0.03	0.02	0.04	-0.01	0.05	-0.07	1.00			
X15	0.09	0.13	-0.05	0.05	0.12	0.09	-0.05	-0.01	0.04	-0.01	-0.01	-0.01	-0.01	0.53	1.00		
X16	-0.03	0.01	-0.05	0.03	0.07	0.06	-0.05	0.00	0.01	0.05	-0.06	-0.03	-0.05	0.01	0.23	1.00	
X17	-0.05	0.03	0.00	-0.05	0.03	0.09	-0.02	-0.04	-0.06	-0.03	-0.02	-0.04	-0.10	-0.02	0.20	0.45	1.00

Source: Field Data, 2016

The table 4 above reveals that there exist inter-correlations among the variables, implying that the indicator variables correlate quite highly with one another. This multicollinearity among the variables should be an indication that there exist similarities in the respondents' ratings of the seventeen factors accountable for low patronage of maternal health care and skilled supervised delivery in Adaklu District. The correlation coefficient must be 0.3 or greater since anything lower would suggest a really weak relationship between the variables [18]. Thus, the highest correlation value of 0.63 recorded between X1 (Long distance to health facility) and X2 (Ignorance); indicates that about 63% of the respondents rated the long distance to health facility and ignorance almost the same. More so, there is a relatively high correlation between variable

X10 (Poor performances of the health workers) and X12 (Insufficient supply of drugs), X14 (My husband's refusal) and X15 (Religion forbids), X4 (Financial constraint) and X5 (Seeking help from herbalist), X16 (Lack of awareness of preconception care) and X17 (Unavailability of means of transport), X8 (Lack of privacy) and X12 (Insufficient supply of drugs), and variable X5 (Seeking help from herbalist) and X10 (Poor performances of the health workers).

Although there are some few negative correlations too among the variables, showing an inverse relationship, none of them appear to be high. The information obtained from the correlation matrix may be used to construct factor groupings that might be existing in the data set. The factor groupings that may be obtained are depicted below:

$$f_1 = \{X1, X2, X13\} \; f_4 = \{X8, X10, X12\} \; f_5 = \{X10, X11, X12\}$$

$$f_2 = \{X4, X5\} \; f_6 = \{X14, X15\} \; f_7 = \{X16, X17\}$$

$$f_3 = \{X5, X6, X10\}$$

The groupings above indicate that there are similarities between variables in the same group; thus they have high loadings on each other in the correlation matrix. Their likelihoods would be more explained in the subsequent outputs.

The next output table 5 examines the appropriateness of factor analysis

Table 5. KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.732
Bartlett's Test of Sphericity	Approx. Chi-Square	1245.197
	Df	136
	Sig.	.000

Source: Field Data, 2016

The KMO value of 0.732 suggests that test is adequate for factoring. This implies that factor analysis is appropriate and would provide good result. The Bartlett's test is significant with a p-value of 0.00, hence we conclude that the variables are correlated. This is also shown in the large chi-square value of 1245.297 which is relatively large enough to support factor analysis.

Table 6. Total variance explained.

Component	Total	% of Variance	Cumulative %
1	5.17	24.31	24.31
2	2.80	13.18	37.48
3	2.05	9.62	47.11
4	1.55	7.27	54.38
5	1.51	7.09	61.47
6	1.28	6.02	67.49
7	1.13	5.33	72.82
8	0.96	4.49	77.31
9	0.82	3.87	81.19
10	0.75	3.52	84.71
11	0.67	3.13	87.84
12	0.62	2.93	90.77
13	0.58	2.72	93.49
14	0.39	1.84	95.33
15	0.39	1.82	97.15
16	0.35	1.66	98.81
17	0.25	1.19	100.00

Source: Field Data, 2016

From table 6 above, the Eigen value greater than one rule is used to determine the number of components adequate for explaining the variations in the data. Out of the seventeen original indicator variables, only seven eigen-values appear to be significantly greater than one; one of the eigen-values, though greater than one, is insignificant. This indicates that only six components are adequate with cumulative percentage of 67.49. Just as the correlation matrix showed earlier, that there are seven main components, the total variance explained by these component accounts for about 67.49% of variations. The most essential component accounts for 24.3%, the next 13.2%, followed by 9.6%, 7.3%, 7.1% and lastly 6.0% with the eigen-values of 5.2, 2.8, 2.1, 1.6, 1.5 and 1.3 respectively.
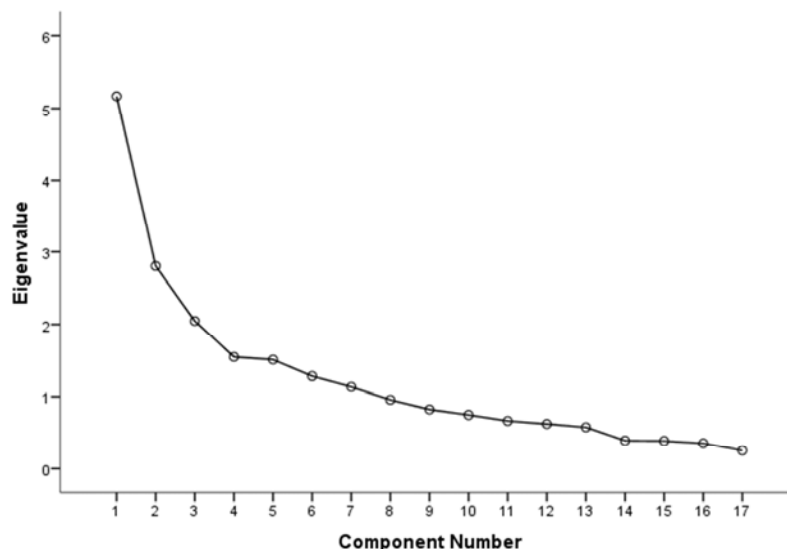
Figure 3. A Scree Plot of the Seventeen Indicator Variables.

The scree plot also suggests that six components are suitable for extraction; this can be seen in the fact that the plot shows a steep from the first to the sixth factor; from the seventh to the seventeen factor it exhibits a gradual decline. This suggests that the number of factors that must be extracted must not exceed six.

The table below gives the un-rotated factor matrix of the six components. The utilization of a factor depends on the cut-off point of 0.50 for use in interpreting the factors.

Table 7. Un-rotated Factor Matrix.

	Component					
	1	**2**	**3**	**4**	**5**	**6**
X1	0.70	-0.03	-0.54	-0.04	0.18	-0.07
X2	0.67	0.08	-0.52	-0.02	0.25	-0.13
X3	0.58	-0.06	0.32	-0.03	0.09	-0.26
X4	0.46	-0.03	0.36	0.25	-0.14	-0.03
X5	0.63	0.09	0.30	0.28	-0.04	-0.10
X6	0.66	0.19	0.01	-0.03	-0.62	-0.18
X7	0.47	-0.09	0.26	-0.08	0.06	-0.14
X8	0.49	-0.10	0.37	-0.07	0.12	0.01
X9	0.36	-0.10	0.12	0.04	0.32	0.04
X10	0.44	-0.08	0.51	0.04	0.42	0.01
X11	0.33	-0.09	0.19	0.00	0.32	0.05
X12	0.41	-0.13	0.42	-0.05	0.39	0.14
X13	0.55	-0.19	0.01	-0.36	-0.18	0.68
X14	0.13	0.17	-0.03	0.71	-0.04	0.17
X15	0.13	0.46	-0.15	0.67	0.03	0.39
X16	0.01	0.66	0.11	-0.05	0.08	0.17
X17	-0.02	0.90	0.10	-0.29	0.11	-0.04

Source: Field Data, 2016

The un-rotated factor matrix in table 7 gives clues to the interpretation of the underlying factors that seeks to explain the factors accountable for the low patronage of maternal and child health care. At a cut-off point of 0.5, the first factor is highly loaded on X1 (long distance to health facility), X2 (Ignorance), X3 (Traditional belief and cultural practices), X5 (Seeking help from herbalist), X6 (Negative attitude of health workers), X13 (No delivery complications at home). From the correlation matrix, these indicators turn to have commonality among each other. These however seems to be related to the perception individuals. The second factor also, appears to be highly loaded on X16 (Lack of awareness of preconception care) and X17 (Unavailability of means of transport). This factor turns to be related to the awareness of individuals.

The third factor is also quite highly loaded significantly by the indicator. The highest loading there is from the indicator X1 (Long distance to health facility), X2 (Ignorance), and X10 (Poor performance of health workers). This indicator is associated with the belief of individuals. The forth factor is also having high loadings from two indicators, X14 (My husband's refusal) and X15 (Religion forbids). This however relates to how much respondents' feel they restricted.

The fifth factor has a significant loading from only X6 (Negative attitude of health workers). This factor is concern with the worker's attitude. Finally, the sixth factor is highly loaded on X13 (No delivery complications at home). This factor here is related to successful trials at home.

Below is the rotated factor matrix. This would offer an opportunity to have simpler factor structure that can be meaningfully interpreted.

Table 8. Rotated Factor Matrix.

	Component					
	1	**2**	**3**	**4**	**5**	**6**
X1	0.15	0.15	0.87	0.05	-0.06	0.13
X2	0.17	0.13	0.87	0.06	0.03	0.03
X3	0.52	0.45	0.16	-0.11	-0.02	-0.07
X4	0.35	0.49	-0.06	0.22	-0.08	0.04
X5	0.44	0.55	0.13	0.27	0.03	-0.02
X6	-0.10	0.88	0.25	0.01	0.10	0.19
X7	0.43	0.34	0.11	-0.12	-0.03	0.03
X8	0.55	0.30	0.03	-0.06	-0.01	0.13
X9	0.47	0.01	0.18	0.06	-0.04	0.04
X10	0.79	0.11	-0.02	0.03	0.04	-0.02
X11	0.49	0.01	0.12	0.02	-0.01	0.05
X12	0.72	0.03	0.00	-0.01	0.01	0.13
X13	0.23	0.15	0.17	-0.05	-0.04	0.93
X14	0.02	0.11	0.02	0.75	-0.04	-0.09
X15	-0.05	-0.02	0.10	0.88	0.25	0.06
X16	0.02	-0.01	-0.04	0.18	0.67	0.04
X17	-0.04	0.03	0.02	-0.06	0.95	-0.09

Source: Field Data, 2016

After the rotation, it is observed in table 8 that the loadings on the first factor are now on X3 (Traditional belief and cultural practices), X8 (Lack of privacy), X10 (Poor performance of health workers) and X12 (Insufficient supply of drugs). This implies that people rank these indicators highly to be a major factor related to how much maternal mothers feel the need to conform to certain rules and situations. Hence the first factor is term the "*perception factor*".

The second factor has its high loadings on X5 (Seeking help from herbalist) and X6 (Negative attitude of health workers). This factor turns to be related to how much maternal mothers feel the need to turn away from arrogance of workers. Therefore, the second factor would be "*attitudinal factor*".

The high loadings in factor three were recorded by indicator X1 (Long distance to health facility), and X2 (Ignorance). It could be noted that these indicators have something to do with the access to health facility; therefore, these are enough to explain the factor "*access factor*".

The next factor, factor four has high loadings on X14 (My husband's refusal) and X15 (Religion forbids). They appear to have the highest loadings from the factor matrix. However, these factors relate to how much respondents' feel they should stay at home because of their husbands, thus the forth factor is termed "*restriction factor*".

The fifth factor has its high loadings on X16 (Lack of awareness of preconception care) and X17 (Unavailability of transport). These indicators however are related to the respondents' awareness, hence will be enough to explain the fifth factor as "*awareness factor*".

The sixth factor has high loadings from only X13 (No delivery complication at home) which suggest that this factor is specifically based on the high level of importance attached to it. This therefore reflects the "*success factor*".

We now present the factors in order of importance. This can be done by observing the table below.

***Table 9.** Varimax Transformation Matrix.*

Component	1	2	3	4	5	6
1	0.495	**0.581**	0.574	0.097	0.000	0.280
2	-0.168	0.112	0.057	0.247	0.936	-0.140
3	0.575	0.288	-0.750	-0.079	0.128	-0.049
4	0.013	0.088	-0.076	0.881	-0.289	-0.355
5	0.627	-0.663	0.266	0.010	0.131	-0.279
6	0.055	-0.345	-0.170	0.382	0.085	0.834

Source: Field Data, 2016

The Varimax transformation matrix in table 9 above shows that;
- The fifth factor "*awareness factor*" is the most important factor of all, thus this is the major factor accountable for low patronage of maternal and child health care.
- The next most important factor accountable for low patronage of maternal and child health care is the first factor "*perception factor*"
- The third factor "*access factor*" is the third important factor accountable for low patronage of maternal and child health care.
- The fourth factor "*restriction factor*" is the fourth most important factor.
- The fifth most important factor is the second factor "*attitudinal factor*".
- And lastly, the least most important factor is the sixth factor "*success factor*" in describing the factors accountable for low patronage of maternal and child health care.

5. Conclusion and Recommendation

At the end of the study it was realized majority about 64% of the total respondent indicated that they are aware of the free maternal and child health care policy whilst the rest 36% indicated that they are not aware. This was also reflected in the fact that type of service the exemption policy cover appears to be evenly distributed among the three categories of service with antenatal, delivery and postnatal recording about 40.2%, 37.7% and 22.1% of the respondents respectively. Concerning the effectiveness of the free maternal and child health care policy, 95 out of the 244 respondents who are aware of the exemption policy indicated they policy is highly effective; 107 of them which represent 43.9% said it is effective and finally, 42 of them which represent 17.2% indicated that the policy is not effective. Finally, on the factors accountable for the low patronage of maternal and child health care using factor analysis, six factor solution is appropriate and adequate in explaining the factors accountable for the low patronage of maternal and child health care in Adaklu District, Ghana. The first factor is awareness factor, the second is perception factor, the third is access factor, the fourth is restriction factor, and the fifth is attitudinal factor and lastly success factor.

It is therefore recommended that although the awareness of free maternal care is high, health promotion and community education aimed at increasing the awareness of the free maternal and child health care services in all communities is encouraged since some people are still unaware of the exemption policy. There is the need to intensify greater awareness on the effects of delivering at home. Thus, these are important factors for reducing maternal morbidity and mortality.

Also, facilities in the locality should regularly conduct training workshop for staff on respectful care in view of the staff attitudes which pose a barrier to utilisation of the free maternal health services. Moreover, men should be sensitized on maternal health services, importance of their approval for women to seek care and also encourage their involvement in maternal health services. Finally, government should endeavour to establish more health centres in every community thus making accessibility of maternal and child health care to maternal mothers in remote areas in the country.

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