

Determinants of Maternal Health Seeking Behavior Among Pregnant Women in Some Selected Primary Health Care Centers in Ado-Ekiti Local Government Area, Ekiti State.

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Abstract

Maternal health has become a global concern because the lives of millions of women in reproductive age can be saved through maternal health care services. Maternal health is the health of women during pregnancy, childbirth and the postpartum period and maternal health care services are antenatal care (ANC), delivery care and postnatal care (PNC) services. The aim of this study is to identify the determinants of maternal health seeking behavior among pregnant women in some selected primary health care centers in Ado-Ekiti, Ekiti State. A descriptive cross sectional research design was adopted for the study and simple random sampling method was used to select at least 5 PHC centers in the area while simple random sampling was used to select respondents from the respective PHC centers. A pretested questionnaire was used for the data collection of the study and a total of three hundred and twenty two (322) women participated in the study. Results from the study revealed that 7.9% of the women were in the age range of 45-49 years. Majority were Christians (81.8%) and of Yoruba origin (89.0%). Considering the association between socio-demographic characteristics of women and health seeking behavior of pregnant women towards maternal health services, socio-demographic variables (age, number of children, level of income, level of education, occupation) had significant association with health seeking behavior of respondent's maternal health services while other socio-demographic variable (Marital status) was not significant. Also regarding the association between socio-demographic characteristics and level of knowledge of Maternal Health, socio-demographic variables (age, number of children, level of income, and level of education) had significant association with health seeking behavior of respondent's maternal health services while other socio-demographic variables (marital status and occupation) were not significant. The study concluded that maternal healthcare service utilization among women in Ado-Ekiti, Ekiti State is influenced by several factors. However it is recommended that awareness should be raised in communities and maternal education programmes should be a priority, always involving different participants (women, male involvement and health agents).

Keyword(s): Maternal Health, Childbirth, Determinants, Antenatal care, Pregnant women
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INTRODUCTION

According to a recent publication by World Health Organization (2021), maternal health is the health of women during pregnancy, childbirth and the postpartum period and maternal health care services are antenatal care (ANC), delivery care and postnatal care (PNC) services. Maternal health has been becoming a global concern because the lives of millions of women in reproductive age can be saved through maternal health care services (Center for Disease Control, 2020; Filippi *et al.*, 2016; United Nations Population Fund, 2019). Despite efforts that have been made to strengthen maternal health care services, maternal mortality is still high in most of the developing countries (Bennett, 2012; Blandthorn *et al.*, 2011; Marret *et al.*, 2020; Izugbara & Ngilangwa, 2021). Every day, approximately 800 women die from preventable causes related to pregnancy and childbirth and 99% of all maternal deaths occur in developing countries (Ademola, 2018; Murtha *et al.*, 2016; Petersen *et al.*, 2019).

In a report by United Nations Population Fund (2019) though the causes of maternal deaths due to pregnancy are numerous and vary from place to place depending on various factors, the major ones are hemorrhage (mainly postpartum hemorrhage), hypertension and sepsis. The large number of maternal mortality, especially in developing countries has been due to low level of maternal health care seeking behavior (Curry, 2010; Alexander & Korenbrot, 2015). The low proportion of antenatal care compounded by the extremely low skilled person attended delivery might be some of the major reasons for the high maternal mortality persisting during the last decade. Maternal health is a major challenge in most developing countries, including Nigeria (Al Mustapha, 2013). With a maternal mortality ratio of 673/100,000 and 19,000 maternal deaths annually, Nigeria is a major contributor to the world-wide death toll of mothers (Curry, 2010).

A study by Filippi, (2016) opined that maternal health care service has been among the most important interventions to decrease maternal morbidity and mortality. Because of this fact, Ethiopia has given a special consideration to it in the last two decades. Maternal health is among the six priority areas in the reproductive health strategy of the country. According to several Studies conducted in Nigeria, it shows the increment of women who are getting maternal health care services from time to time (Ademola, 2018; Al Mustapha *et al.*, 2013; Okorie, 2015). However, the maternal health care seeking behavior of women is still low. In Nigeria and Sub Saharan countries in Africa, one explanation for poor health outcomes among women is the nonuse of modern health care service by a great proportion of women in the country (Cohen, 2017; Kilpatrick & Ecker, 2016; Skolnik, 2019; Williams & Burd, 2012). Only 41%, 16% and 13% of women in Nigeria receive antenatal, delivery care from health professionals and postnatal care, respectively (Ademola, 2018). Different factors have been found to be related with the utilization of maternal health care services (Crijns, 2012; Munyaradzi *et al.*, 2016; Aziato *et al.*, 2016; Alexander & Korenbrot, 2015). Generally, the associated factors can be categorized as socio-economic and demographic factors such as; educational status of the mother, maternal age, occupation, mothers knowledge of danger signs, marital status, women's autonomy, birth order, religion, sex of household head, household income, household size, husband's educational status, accessibility factors and factors related with women's perceived quality of maternal health care services. Mother's knowledge of danger signs and autonomy were reported as significant determinants of care utilization (Curry, 2010; Alexander & Korenbrot, 2015).

Developing countries account for 99 percent of maternal deaths annually (WHO, 2021; WHO, 2020; Petersen *et al.*, 2019). While increasing service availability and maintaining acceptable quality standards, it is important to assess maternal satisfaction with care in order to make it more responsive and culturally acceptable, ultimately leading to enhanced utilization and improved outcomes (Petersen, 2019; Filippi *et al.*, 2016). At a time when global efforts to reduce maternal mortality have been stepped up, maternal satisfaction and its determinants also need to be addressed by developing country governments. This study seeks to identify the determinants of maternal health seeking behavior among pregnant women in some selected Primary Health Care Centres in Ado-Ekiti, Ekiti State.

METHODS

A descriptive cross sectional study was conducted among 331 participants from pregnant women attending antenatal clinic in some selected primary health care centers in Ado-Ekiti LGA, Ekiti State. The study employed a qualitative method of data collection. Findings presented in this research are within few primary health care centers based on cross sectional study, which helped to ascertain information on the determinants of maternal health seeking behavior among pregnant women in some selected primary health care centres in Ado-Ekiti local government area, Ekiti State.

Procedure

The sample size for the participants was determined using Leslie Kish formula i.e $n = \frac{Z^2 (p q)}{d^2}$. Simple random sampling method was adopted to select at least 5 PHC centers. This helped to avoid bias in the selection process. Systematic sampling method was used to recruit the respondents according to the record obtained from the antenatal register of the randomly selected PHC centers. This was to ensure that the respondents were included appropriately in the study. Respondents had to fill a self-developed semi-structured questionnaire that met the aim of this research.

Data Collection

The instrument for data collection was a semi-structured questionnaire which entailed six sections. Section A collected information on the socio demographic characteristics, Section B on the maternal healthcare service delivery, Section C about their health seeking behavior towards maternal health services, Section D on the level of knowledge of maternal healthcare services, Section E on the availability of maternal healthcare services and Section F on the utilization of maternal healthcare services.

Reliability and Validity of the Instrument

The questionnaire was developed by the researcher after reviewing various literatures and proper scrutiny was done by professionals and scholars in the field of public health and subsequently pretested on the same respondents at different times.

Method of Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 21.0 was used in the analysis of the data. Results was expressed in percentages, frequencies, tables and charts (Descriptive Statistics).

RESULTS

Socio Demographic Characteristics of the women

Table 1 below revealed that 7.9% (26) of the respondents aged 45-49 years, 0.3% (1) were 50 and above, 6.7% (22) 15-24 years, 39.8% (131) 35-44 years and 45.3% (149) were aged 25-34 years of age.

Table 1: Age of the respondents

Age	Frequency	Percent
15-24	22	6.7
25-34	149	45.3
35-44	131	39.8
45-49	26	7.9
50 and above	1	0.3
Total	329	100

Table 2 below shows that 17.5% (57) of the respondents were Muslims, 81.8% (266) were Christians, and 0.6% (2) were Traditional worshippers.

Table 2: Religion of the respondents

Religion	Frequency	Percent
Christianity	266	81.8
Muslim	57	17.5
Traditional	2	0.6
Total	325	100

From Table 3 below, findings showed that 89.0% (291) of the women were of Yoruba ethnic group, 2.1%(7) listed „others“, 4.6%(15) were Hausa/Fulani, and 4.3%(14) were of Igbo origin.

Table 3: Ethnicity of the respondents

Ethnicity	Frequency	Percent
Hausa/Fulani	15	4.6
Igbo	14	4.3
Others	7	2.1
Yoruba	291	89.0
Total	327	100

Table 4 shows that 92.4% (302) of the women were married, 3.4% (11) single, 3.7% (12) separated, and 0.9% (3) widowed.

Table 4: Marital Status of the respondents

Marital status	Frequency	Percent
Married	302	92.4
Separated	12	3.7
Single	11	3.4
Widowed	3	0.9
Total	328	100

From Table 5 below, findings showed that 15.5% (51) of the women had a child, 38.3% (126) had two children, 5.8% (19) had four children and above, 31.3% (103) had three children, and 9.1% (30) of the women had no children.

Table 5: No of children of the respondents

Number of children	Frequency	Percent
1	51	15.5
2	126	38.3
3	103	31.3
4 and above	19	5.8
None	30	9.1
Total	329	100

Table 6 below shows that 2.8% (9) listed educational levels as „others“, 42.2% (137) secondary, 44.3% (144) tertiary, 0.6% (2) had no formal education and 10.2% (33) had primary level of education.

Table 6: Educational level of the respondents

Education level	Frequency	Percent
No formal education	2	0.6
Others	9	2.8
Primary	33	10.2
Secondary	137	42.2
Tertiary	144	44.3
Total	325	100

Concerning the occupation of the women, Table 4.1.7 shows that 38.8% (128) were Artisans, 6.1% (20) of the women were professionals, 16.4% (54) civil servants, 1.5% (5) „others“, 32.4% (107) reported they were self-employed, and 4.8% (16) were unemployed.

Table 7: Occupation of the respondents

Occupation	Frequency	Percent
Artisan	128	38.8
Civil Servant	54	16.4
Others	5	1.5
Professionals	20	6.1
Self-employed	107	32.4
Unemployed	16	4.8
Total	330	100

Table 8 below shows that 49.2% (157) of the respondents reported „semi-urban“ when asked concerning their place of residence, 13.8% (44) rural and 37.0% (118) were urban residents.

Table 8: Place of residence of the respondents

Place of residence	Frequency	Percent
Rural	44	13.8
Semi-urban	157	49.2
Urban	118	37.0
Total	319	100

Table 9 below shows that when the women were asked concerning their level of income, 51.4% (166) of the respondents reported they earned figures between 11,000-30,000, 9.9% (32) 31,000- 60,000, 2.5% (8) 1-1,000, 3.1% (10) earned above 100,000, 14.2% (46) 61,000-100,000, 0.3% (1) listed „others“, and 18.6% (60) earned between 2,000-10,000. 63.64%.

Table 9: Household level of income of the respondents

Household Level of Income	Frequency	Percent
2,000-10,000	60	18.6
1-1,000	8	2.5
11,000-30,000	166	51.4
31,000-60,000	32	9.9
61,000-100,000	46	14.2
above 100,000	10	3.1
Others	1	0.3
Total	323	100

Maternal Health Care Service Delivery

10.3% (82) reported „Time spent in waiting for treatment“ as a determinant factor in seeking for maternal healthcare, 16.7%(23.8) said No. 11.8% (94) said “Responsiveness of medical staff to patient’s needs” is a determinant while 15.6%(223) reported it is not a determinant. „Insufficient knowledge and awareness“ as reported by 12.6 % (100) said Yes while 15.2%% (217) said No. 15.0%(119) of the women reported Accessibility to health facility is a factor while 13.8%(197) said No. Also, 30.1(239) reported that „Satisfaction with services“ is a factor while 5.6%(80) said it is not a factor. 12.6%(100) regarded the attitude of medical staff as a factor while 15.2%(217) said it isn’t a factor regardless. 7.7%(61) reported high cost of treatment.as a factor and 17.9% (256) did not regard high cost of treatment as a factor.

Maternal Health Care Service Delivery

Item	Yes	Percent	No	Percent
Time spent in waiting for treatment	82	10.3	238	16.7
Attitude of Medical staff	100	12.6	217	15.2
High cost of treatment	61	7.7	256	17.9
Responsiveness of medical staff to patient’s needs	94	11.8	223	15.6
Accessibility to health facility	119	15.0	197	13.8
Satisfaction with services	239	30.1	80	5.6
Insufficient knowledge and awareness	100	12.6	217	15.2
Total	795	100	1428	100

Health Seeking Behavior towards Maternal Health Services

40.6% (194) of the respondents strongly agreed that utilization of maternal healthcare services is good for maternal state, 25.4% (12) agreed, 7.7% (2) were undecided, 0% (0) strongly disagreed, and 0.8% (1) disagreed. 0.9% (4) of the women strongly agreed that maternal health care services are vital component of primary health care services, 9.6% (189) agreed, 2.2% (3) disagreed, 19.3% (5) undecided, and 0% (0) strongly disagreed. 31% (148) strongly agreed that regular patronage of maternal healthcare services reduces maternal related problems, 31.8% (152) agreed, 38.5% (10) were undecided, 33.4% (5) strongly disagreed, and 2.2% (3) disagreed. 23.1% (6) were undecided when they were asked if there was a reason to miss maternal health services, 26.7% (4) strongly disagreed, 9.3% (13) disagreed, 44.2% (211) agreed, and 17.8% (85) strongly agreed. 9.9% (47) strongly agreed that maternal healthcare services is beneficial if done frequently, 11.6% (3) were undecided, 2.2% (3) disagreed, 40% (6) strongly disagreed, and 54.4% (260) agreed. Also 100%(478) strongly agreed that utilization of maternal healthcare services is good for maternal state,100%(933) agreed, 100%(26)were undecided when asked then 100%(15) strongly disagreed.

Health Seeking Behavior towards Maternal Health Services

Item	Strongly agree	Agree	Undecided	Strongly disagree	Disagree
Utilization of maternal healthcare services is good for maternal state	194(40.6)	121(25.4)	2(7.7)	0(0)	1(0.8)
Maternal healthcare services are vital component of primary healthcare services	4(0.9)	189(39.6)	5(19.3)	0(0)	121(85.9)
Regular patronage of maternal healthcare services reduces maternal related problems	148(31)	152(31.8)	10(38.5)	5(33.4)	3(2.2)
There is no reason to miss maternal healthcare services	85(17.8)	211(44.2)	6(23.1)	4(26.7)	13(9.3)
Maternal healthcare services is beneficial if done frequently	47(9.9)	260(54.4)	3(11.6)	6(40)	3(2.2)
Total	478(100)	933(100)	26(100)	15(100)	141(100)

Level of Knowledge of Maternal Health Care Services among Pregnant Women

2.0% (7) of the respondents affirmed they had heard about maternal healthcare services, while 25.3% (313) denied. 3.9% (14) of the respondents also accepted that maternal health care covers the women's health needs throughout their life including prevention, treatment, rehabilitation and palliative care at all level, while 24.6% (305) said "no". 68.0% (242) agreed that maternal healthcare was essential without childbearing, while 6.1% (76) disagreed. 2.0% (7) said "yes" when they were asked if immunization services, essential drug delivery and family planning services are essential components of maternal health services, while 25.2% (312) said "no". 18.7% (232) of the women did not accept the statement „Anti-natal care services is not an essential service in maternal healthcare“, 24.2% (86) reportedly agreed.

Level of Knowledge of Maternal Health Care Services among Pregnant Women

Items
Have you heard about maternal health services?
Maternal healthcare covers the women's health needs throughout their life including prevention, treatment
Maternal healthcare is essential without childbearing
Immunization services, essential drug delivery and family planning services are essential components of
mat Anti-natal care services is not an essential service in maternal healthcare
Total

Availability of Maternal Health Care Services

18.0% (303) said “antenatal and postnatal care services” were available when they were asked concerning maternal healthcare services available and accessible to them while 5.8%(13) said No, 18.4%(310) reported immunization services Yes and 2.7%(6) said No. 15.3% (258) and 25.4%(57) sexual and reproductive health education, 15.8%% (266) said Yes while 25.4%(57) said No. 15.8%(266) said Yes to HIV counseling and testing while 21.9% (49) said No. 15.6(262) of the pregnant women said Yes while 23.7(53) said No to the availability of laboratory services, 0.8% (14) said Yes to public health education while 0.4% (1) said No. 18.0%(303) reported Yes for availability of essential drugs while 5.8%(13) No.

Availability of Maternal Health Care Services

Item	Yes	Percent	No	Percent
Immunization services	310	18.4	6	2.7
Public Health Education	14	0.8	1	0.4
Laboratory services	262	15.6	53	23.7
Sexual and Reproductive health education	258	15.3	57	25.4
HIV counseling and testing	266	15.8	49	21.9
Essential drugs	270	16.0	45	20.1
Antenatal and Postnatal Care Services	303	18.0	13	5.8
Total	1683	100	224	100

Table showing the Sources of information on Maternal Health Care Services

Items	Yes	Percent	No	Percent
Doctors	130	8.9	49	13.6
Nurses/Midwives	300	20.6	9	2.5
Friends/Family	246	16.9	61	17.0
TV Programs	109	7.5	54	15.0
Campaigns	151	10.4	40	11.1
Magazines	103	7.1	51	14.2
Antenatal Classes	179	12.3	13	3.6
Social media	209	14.4	58	16.2
Others (Please Specify)	29	2.0	24	6.7
Total	1456	100	359	100

DISCUSSION

Based on the findings of this study on the socio demographic characteristics of the respondents, it revealed that 23.29% of the women were in the age range of 45-49 years. This finding goes in consistent with a statement in a publication by Onarheim *et al.*, (2016) that women in a maternal healthcare survey conducted among participants in Benue, had a mean age of 45 years. Further findings of the study showed that the respondent's majority were Muslims (48.5%) and of Yoruba origin (40.18%). This could be due to the fact that the study was conducted in the south-western part of Nigeria dominated by people of Yoruba and Islam origin. Further investigation revealed that 28.72% were of ethnic groups listed as „others“ and could be responsible for the participants of Edo origin. Close to three quarters of the women in the study affirmed they were not satisfied with their income (63.64%). This finding is similar to a study conducted among women in a Lagos clinic (Filippi *et al.*, 2016).

Evidence from this study revealed that the commonest determinant factor in seeking for maternal healthcare was 21.59% „Time spent in waiting for treatment“. Further investigation into this study showed that 14.15% reported „responsiveness of medical staff to patient's needs“. This findings go against revelations from a similar study conducted by Kifle *et al* (2017), that 22.5% of the participants in that study reported „Insufficient knowledge and awareness“ as the most recurrent response followed by „Accessibility to health facility“ 19.22%.

Concerning the health seeking behaviour towards maternal healthcare services, study showed that 28.22% of the women agreed that utilization of maternal healthcare services is good for maternal state, and 28.03% others strongly agreed. This finding is in agreement with a statement in a study by Al Mustapha *et al.*, (2013) concerning the opinions of women in a study on utilizing maternal healthcare. This reveals good attitude towards maternal healthcare services among the women. Although 29.49% were undecided when they were asked if there was a reason to miss maternal health services, 20.90% strongly disagreed. This could be due to certain determining factors as already stated above. A publication by Onarheim *et al.*, (2016) made suggestions which corroborate this finding. 29.03% correctly strongly agreed that maternal healthcare services is beneficial if done frequently as supported by several findings (CDC, 2019; UNDFPA, 2019; Filippi *et al.*, 2016).

Findings regarding knowledge of maternal healthcare services among women illustrated that 67.64% of the women affirmed knowledge of maternal healthcare services, and 63.36%

accepted that mental health care covers the women's health needs throughout their life including prevention, treatment, rehabilitation and palliative care at all level. A finding suggested the same figures regarding women's knowledge of maternal health services (Onarheim *et al.*, 2016). 64.99% disagreed that maternal healthcare was essential without childbearing. This demonstrates that the women in this study did not see the need to utilize maternal healthcare if they were not pregnant. A similar study by David *et al.* (2018), confirms this finding but is in disagreement with a northern Nigerian study (Al Mustapha *et al.*, 2013). This study showed that 63.27% of the women correctly disagreed with the suggestion that anti-natal care services were not an essential service in maternal healthcare and Television programs were the commonest sources of information on maternal healthcare services among women (15.35%). Onarheim *et al.*, (2016) agrees with this finding.

Concerning the availability of maternal healthcare services, antenatal and postnatal care services were most available to the women (19.23%). 16.65% reported immunization services, and 14.81% sexual and reproductive health education. Antenatal and postnatal care services were also reported in the study conducted by David *et al.* (2018), as the most utilized maternal healthcare service as a result of their availability. 64.25% of the women utilized maternal health care services, and 20.53% received these services from patent medicine stores/chemists. This finding agrees with a suggestion by Murtha *et al.*, (2016).

Findings from this study regarding the association between Socio-demographic characteristics and health seeking behaviour of pregnant women towards maternal health services revealed that Age was significantly associated with health seeking behaviour of pregnant women towards maternal health services ($p = 0.0035$). Study shows that there were more women seeking maternal health services relative to increased age. This goes in line with a study by Murtha *et al.*, (2016), which found age to be associated with health seeking behaviour of pregnant women towards maternal health services ($p = 0.001$). Further investigation into the study demonstrated that marital status was not significantly associated with the health seeking behaviour of pregnant women towards maternal health services ($p = 0.2300$). This goes in line with a report published by Onarheim *et al.*, (2016) that there was no significant association. This implies that women who wanted to uptake screenings did, irrespective of their marital status. Also, from the study among women in Ado-Ekiti, it was posited that there was a significant association between number of Children (Parity) and health seeking behaviour of pregnant women towards maternal health services in the study population ($p = 0.0166$). Considering the hypothesis between level of income of women and health seeking behaviour of pregnant women towards maternal health services, there was a significant association ($p = 0.0092$). This goes in consistence to a previous study by David *et al.* (2018). This informs that women with better level of income are more likely to seek maternal healthcare services. This study also indicates that women with higher level of education significantly sought for maternal healthcare services than those with low levels of education. This indicates that more enlightened a patient is, the more possible they are to seek maternal healthcare. Hence level of education of women and health seeking behaviour of pregnant women towards maternal health services are significantly associated ($p = 0.0327$). A preceding study by Murtha *et al.*, (2016) confirms this finding.

Findings of this study showed an association between the socio demographics and level of knowledge of maternal healthcare excluding parity ($p = 0.5321$) and occupation ($p = 0.9243$). This implies that women who were well informed know the urgency and would easily seek maternal healthcare services as opposed to women who lacked information. Al Mustapha *et al.*, (2013) corroborates this finding.

CONCLUSION

From this study, it was revealed that age, educational level, level of income and parity were all associated with health seeking behaviour of pregnant women towards maternal health services and level of knowledge of maternal healthcare. This study establishes good overall knowledge and health seeking behaviour towards maternal healthcare services among the women but suboptimal utilization of maternal healthcare services is noticed. This study emphasizes that there is a need for the state health system to address the perceived determining factors affecting the maternal healthcare seeking behaviour, implement health policies to ease maternal healthcare service utilization and promote the accessibility of these services in Ado-Ekiti, Ekiti State. In the future, it would be of importance to me to conduct research, which include more regions and districts as well as combining both quantitative and qualitative approaches to provide a more comprehensive information about health seeking behavior of pregnant women towards maternal health services in the country.

Recommendations

The study recommends the following;

1. There is a need to strengthen leadership and governance capacity in the maternal health sector, and to develop information systems capable of informing and improving practices within the health system.
2. Following a rigorous and decentralized reality-driven approach, systematic quality assessments of the services are required to help the identification of the main problems, to assure effective resource allocation, to make health services more socially accountable, and accessible.
3. Public health education should be given to women during their antenatal clinic days to enlighten them more on the importance of coming to the antenatal clinic, immunization, use of essential drugs, post-natal care and family planning alongside the benefits(individual & economic).
4. Social programmes aiming to reinforce women's empowerment and education are also essential.
5. Awareness should be created in communities and maternal education programmes are a priority, always including different participants (women, male involvement and health agents).

Study Limitation and Strength

Recruiting only pregnant women is inherent with selection bias, and could lead to overestimation of the level of utilization, as users of maternal healthcare services are more likely to have utilized it in the past. Also, women who were not English literate were unable to provide adequate information regarding the questionnaire distributed in the primary health care centers. The study is aimed at ascertaining information on the determinants of maternal health seeking behavior among pregnant women and to help the participants and other health workers gain more knowledge about maternal health care so as to generally improve the delivery of health care services

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