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Healthcare Service-Related Predictors of Male Partner Involvement in Maternal and Child Health Care in Rivers East Senatorial District of Rivers State

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Abstract

Male partner involvement is critical in the effective management of maternal and child health services targeted at reducing threatening figures of maternal and child mortalities in Nigeria. This study, therefore, investigated the determinants of male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State. The descriptive correlational research design was adopted with a population consisting of 109,235 married men in Rivers East Senatorial District. A sample size of 1,197 was selected using the multi-stage sampling procedure. Data were collected using questionnaire with a reliability coefficient of 0.84, and analyzed using mean and linear regression model at 0.05 alpha level. The result showed that a high negative relationship was found between male involvement in MCH and variables such as distance to healthcare facility (r = -0.95), waiting time (r = -0.97), and cost of care (r = -0.96), while positive relationship was found for attitude of healthcare workers (r = 0.98). The tested hypotheses revealed that, statistically significant relationship was found between male involvement and all the factors listed above both the ones with positive and negative relationship ($p<0.05$). It was concluded that, male involvement in maternal and child healthcare is determined by multiple factors. It was recommended among others that, health care providers should give priority attention to clients who attend clinic with their male partners and also make the environment comfortable for male partners to relax while waiting for their wives, thereby encouraging male partner involvement.

Keywords: healthcare, male partner, maternal and child, predictors

Introduction

Maternal and child health focuses on improving the well-being of mothers and their children and ultimately determines the health of the society. Maternal and child health care constitutes services provided for women in the course of pregnancy, delivery and postnatal stage. Therefore, MCH refers to services which include promotive, preventive, curative and rehabilitative health care of mothers and children (Chinelo, 2012). The importance of MCH is found in its ability to predict future public health challenges for both families and communities and the overall health care system (Healthy People, 2020). As at 2017, under-five mortality rate in Rivers State was 58 per 1000 live births (National Bureau of Statistics & United Nations Children's Fund, 2018). Going by the Sustainable Development Goal 3.2 which projects a reduction of child mortality to 25 per 1000 live births by the year 2030, Rivers State has not gone out of the danger zone. Still on the multiple indicator cluster survey 2016 – 2017 by NBS and UNICEF (2018), the under-five mortality rates were higher in rural areas than in urban areas (77 per 1000 live births in rural and 53 per 1000 live births in urban). Reduction of maternal and child mortality rate requires multifaceted approaches involving government, caregivers and society. Male involvement comes in under the auspices of society to increase visits to health facilities by families, thereby increasing the uptake of maternal and child health services in the health facilities. Consequently, there will be early detection of complications and diseases that might affect mother and child, resulting in the reduction of maternal and child mortalities. For example, in 2017, the WHO stated that Nigeria was one of the countries with "very high alert" index for maternal mortality rate, an indication of the fact that their lifetime risk of death due to pregnancy was high, including Rivers State.

The number of deaths associated with MCH which are reported by United Nations and World Health Organization is a source of concern and problem. It is more worrisome to note that infectious diseases such as pneumonia, diarrhea and malaria alongside with preterm birth and intrapartum-related complications accounting for under-five deaths could be prevented through active participation of couples in MCH services and interventions. In a nutshell, any nation that overlooks the health of mother and child has already planned to live in poverty as such nation would continually be burdened by morbidity and its consequences on the nation's economy. The morbidity burdens include injuries and depression from male partner violence, hypertension and heart disease, diabetes, anaemia, pneumonia, unhealthy weight, diarrhoea and genetic conditions. Again, the maxim: "a healthy woman is a wealthy nation" further confirms the importance of MCH in actualizing a sustainable health care system. In order to ensure healthy birth outcomes, there should be access to quality MCH which demands male partner's involvement. However, several factors predict male partner involvement in maternal and child healthcare including distance to facility, waiting time at facility, cost of care, and attitude of health workers, (Chizu, 2021; Kumbeni et al., 2019).

Attitude is the tendency to think, feel or act positively or negatively towards another person or an object in an environment. A person's attitude determines their action and preferences. Attitude of health workers as used in the current study refers to harsh, critical behaviour language use by health workers to patients and their families. Byamugisha et al. (2011), for example, revealed that the attitude of health workers is a barrier to male participation in MCH. Craymah et al. (2017), in their study, also found out that attitude of health workers influenced low participation of men in maternal and child health services.

There are instances especially in communities where women attending antenatal clinic received harsh and abusive language from health workers. As complaints of such treatments go round the community, men may be dissuaded to participate in MCH services. This can be further complicated when the men themselves are victims of abusive language or cold reception by health workers. Generally, men feel proud and would not like to be humiliated in the presence of their wives. To avoid being embarrassed, male partners would send their wives and children to health facilities unaccompanied. Consequence of this situation is enormous on the health of mother and child as mothers may decide to go to churches or unskilled birth attendants for delivery and other health challenges, compounding the already existing high index profile of maternal and child mortality in rural and urban communities.

Waiting time at facility is another determinant of male partner involvement in maternal and child health. Waiting time refers to hours spent by men and their partners before accessing services at a facility. Many studies have shown that some facilities have rigorous procedures before services are rendered in the midst of unconducive environment. According to Gibore et al. (2019) and Olajubu et al. (2021) waiting time affects men's sensibilities towards participating actively in MCH services. Generally, men are not patient to wait for long hours in a facility because they seem to be very busy in search of daily upkeep of their families.

Also, cost of care could be a determinant of male partner involvement in maternal and child health. Cost of care here refers to the totality of expenses made to access health services in a facility by patients and their families. High charges for services by facilities can impact negatively on MCH uptake and male participation. This is obvious particularly in rural areas where low income earners dominate the population. It is also obvious in urban facilities owned by government where health workers, in their bid to meet up their own needs in the midst of harsh economic situations/poor salaries, exploit patients financially especially when workers see men who have accompanied their partners to the facility. Out of ego, a man pays whatever amount of money the worker asks him to pay without argument, but only gets back home to take a critical analysis of expenditures made at the facility. The man's conclusion of the cost of treatment may not be palatable, hence may affect his decision to accompany his partner to a facility. According to Guspianoto et al. (2022) and Abiiro et al. (2022), the wherewithal to meet up the financial implications of health care services is a barrier to male partner involvement in MCH. It is possible that this assertion may not be true in all facilities. Therefore, the current study would ascertain the influence of cost of care on men's involvement in MCH in Rivers East Senatorial District which comprises rural and urban communities.

Related to high charges made by facilities as a factor for lack of men's involvement in MCH is the issue of distance to facilities. This study considers any health facility which is more than 5 km away as far from a patient and may affect men's decision to attend such facility. This factor was implicated by Morgan et al. (2017) and Craymah et al. (2017) when they stated that the transport means to access health facilities is a barrier to male involvement in health care programmes. Men may be discouraged to accompany their wives to facilities that are far from their homes because of a number of issues such as high transport fare, condition of road and non-availability of commuter buses for convenience. A facility located in a town where the only means of accessibility is motorcycle (known in popular parlance as "Okada") may not attract the interest of a man whose wife is pregnant.

The foregoing discourse brings to mind the issue of the tripod: affordability, accessibility and acceptability by patients. The quality of service rendered by a facility can be a reason for bypassing nearby facilities (Escamilla et al. (2018). We cannot bar the issue of fees charged in this regard. It has been noted that quality of service and free-fee charge can make poor women bypass nearby facilities without considering the effect on their husbands. It is important to state here that the Sustainable Development Goals (SDGs) canvass for universal health care which is predicated on availability and accessibility (United Nations, 2015). No wonder, Escamilla et al. (2018) state that critical to achieving the target of SDGs is the examination of service quality and availability in public facilities with decreased or free charges, and if it attracts uninterrupted care where men and their partners could visit a facility for various health services reducing the burden of travelling. This argument underscores the main thrust of the current study.

Rivers East Senatorial District of Rivers State is patriarchal, men dominate over the women, and decide on their own what they do without much consideration of the woman's opinion so, it becomes difficult for the women to secure their male partner's involvement in maternal healthcare, which is tagged as 'women's affair'. This is not proper given that the time of pregnancy, childbirth and child illness is when a woman needs the support of the male partner to be able to cope adequately and to meet both the emotional, physical, and health demand. Yet, observation shows that males are not fully involved, this is evidence in their absence in the maternity clinics. Certainly several factors might be implicated for this but, there is inattentiveness to such factors both by scholarly research and governmental efforts which are mainly focused on women. This necessitates a study of this sort, for educational diagnosis of such factors in order to provide a clear evidence of what factors to be tackled. Therefore, this study investigated the healthcare service-related predictors of male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State. The study provided answers to the following questions:

1. What is the relationship between distance to functional health facility and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State*?*
2. What is the relationship between waiting time at facility and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State*?*
3. What is the relationship between attitude of health workers and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State*?*
4. What is the relationship between cost of care at facility and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State*?*

Hypotheses

The following hypotheses postulated were tested at 0.05 level of significance:

1. There is no significant relationship between distance to functional health facility and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State.
2. There is no significant relationship between waiting time at facility and male partner involvement in maternal and child health care in Rivers East *S*enatorial District of Rivers State.
3. There is no significant relationship between attitude of health workers and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State.

4. There is no significant relationship between cost of care at facility and male partner involvement in maternal and child health care in Rivers East Senatorial District of Rivers State.

Methodology

The descriptive correlational research design was adopted with a population consisting of 109,235 married men in Rivers East Senatorial District, based on the data from the National Social Safety (Nets Coordinating Office, 2021). A sample size of 1,197 was selected using the multi-stage sampling procedure which included three stages. The first stage involved the use of the simple random sampling technique to select three local government areas in Rivers East Senatorial District (from three clusters representing the three language blocs) through balloting. Stage two involved Simple random sampling technique was used to select two communities from each of the three Local Government Areas selected in stage one through balloting. At the final stage, the systematic sampling technique was used to select married men from the households in each selected community, applying inclusive and exclusive criteria of having a female partner who is pregnant or nursing a baby or had delivery, at most, three years before the study.

Data were collected using questionnaire with a reliability coefficient of 0.88. The questionnaire was titled "Healthcare service-related predictors of Male Partner Involvement in Maternal and Child Health Questionnaire" (HSPIMPCHQ). The questionnaire was structured by the researcher based on the research questions. The questionnaire consisted of five sections A–E. Section "A" elicited information on male partner involvement in main components of maternal and child health care with 19-item with response option on a modified four point Likert scale of "very high extent" – 4 points, "high extent" – 3 points, "low extent"– 2 points and "very low extent" – 1 point. Sections "B" – "E" consisted of statements based on Likert scale ranging from strongly disagreed as = 1 to strongly agreed as = 4. Specifically, Section "B" focused on distance to functional health facility, section "C" on waiting time at health facility, "D" on attitude of health of health workers, and "E" on cost of care at facility. Data was collected by a face-to-face delivery of the questionnaire to the respondents and analysis was done with the aid of the Statistical Product and Service Solution (SPSS V-23) using linear regression model at 0.05 alpha level.

Results

The results of the study are shown below:

Table 1: Regression analysis on relationship between distance to functional health facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Decision
1	-.95	.92	.92	.98	**Very High relationship**

Table 1 illustrated the relationship between distance to functional health facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District. The result of the study indicated that there was a very high negative relationship between distance to healthcare facility and male involvement (r = -0.95). The result further showed that distance to functional healthcare facility contributed 92.0% of the variance in male involvement (R^2 = 0.920). Therefore, the relationship between distance to functional health facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District was very high.

Table 2: Regression analysis on relationship between waiting time at facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Decision
1	-.97	.95	.95	.73	**Very High relationship**

Table 2 illustrated the relationship between waiting time at facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District. The result of the study indicated that there was a very high negative relationship between waiting time at facility and male involvement (r = -0.97). The result further showed that waiting time at facility contributed 95.6% of the variance in male involvement (R^2 = 0.956). Therefore, the relationship between waiting time at facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District was very high.

Table 3: Regression analysis on relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Decision
1	.98	.95	.95	.73	**Very High relationship**

Table 3 illustrated the relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare in Rivers East Senatorial District. The result of the study indicated that there was a very high positive relationship between attitude of healthcare workers and male involvement (r = 0.98). The result further showed that attitude of healthcare workers contributed 95.3% of the variance in male involvement (R^2 = 0.953). Therefore, the relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare in Rivers East Senatorial District was very high.

Table 4: Regression analysis on relationship between cost of care and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Decision
1	-.96	.91	.91	.99	**Very High relationship**

Table 4 illustrated the relationship between cost of care and male partner involvement in maternal and child healthcare in Rivers East Senatorial District. The result of the study indicated that there was a very high negative relationship between cost of care and male involvement (r = -0.96). The result further showed that cost of care contributed 91.8% of the variance in male involvement (R^2 = 0.918). Therefore, the relationship between cost of care and male partner involvement in maternal and child healthcare in Rivers East Senatorial District was very high.

Table 5: Regression analysis on significant relationship between distance to functional health facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model		Sum of Squares	Df	Mean Square	F	Sig.	Decision
1	Regression	5563.51	1	5563.51	5732.19	.00*	**H_oRejected**
	Residual	485.28	1178	.97			
	Total	6048.80	1179				

***Significant; P<0.05**

Table 5 revealed the regression analysis on the relationship between distance to functional health facility and male partner involvement in maternal and child healthcare. The findings of the study revealed that there was a significant relationship between distance to functional health facility and male partner involvement in maternal and child healthcare [f(1,1178) = 5732.19, p<0.05]. Therefore,

the null hypothesis which stated that there is no significant relationship between distance to functional health facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District, Rivers State was rejected.

Table 6: Regression analysis on significant relationship between waiting time and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model		Sum of Squares	df	Mean Square	F	Sig.	Decision
1	Regression	5781.61	1	5781.61	10819.1	.00*	**H_oRejected**
	Residual	267.19	1178	.53			
	Total	6048.80	1179				

***Significant; P<0.05**

Table 6 revealed the regression analysis on the relationship between waiting time at facility and male partner involvement in maternal and child healthcare. The findings of the study revealed that there was a significant relationship between waiting time at facility and male partner involvement in maternal and child healthcare [f(1,1178) = 10819.1, p<0.05]. Therefore, the null hypothesis which stated that there is no significant relationship between waiting time at facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District, Rivers State was rejected.

Table 7: Regression analysis on significant relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model		Sum of Squares	df	Mean Square	F	Sig.	Decision
1	Regression	5764.11	1	5764.11	1012.32	.00*	**H_oRejected**
	Residual	284.69	1178	.56			
	Total	6048.80	1179				

***Significant; P<0.05**

Table 7 revealed the regression analysis on the relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare. The findings of the study revealed that there was a significant relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare [f(1,1178) = 1012.32, p<0.05]. Therefore, the null hypothesis which stated that there is no significant relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare in Rivers East Senatorial District, Rivers State was rejected.

Table 8: Regression analysis on significant relationship between cost of care at facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District

Model		Sum of Squares	Df	Mean Square	F	Sig.	Decision
1	Regression	5550.49	1	5550.49	5569.32	.00*	**H_oRejected**
	Residual	498.30	1178	.99			
	Total	6048.80	1179				

***Significant; P<0.05**

Table 8 revealed the regression analysis on the relationship between cost of care at facility and male partner involvement in maternal and child healthcare. The findings of the study revealed that there was a significant relationship between cost of care at facility and male partner involvement in

maternal and child healthcare [f(1,1178) = 5569.32, p<0.05]. Therefore, the null hypothesis which stated that there is no significant relationship between cost of care at facility and male partner involvement in maternal and child healthcare in Rivers East Senatorial District, Rivers State was rejected.

Discussion of Findings

The finding of the study in Table 1 showed that there was a significant relationship between distance to healthcare facility and male involvement (p<0.05) as distance to functional healthcare facility contributed 92.0% of the variance in male involvement (R^2 = 0.920). This relationship found is expected because men are very busy by their nature and position in the family which makes them the head to provide for the family, this takes most of their time used for income generative adventures with little time to spare. By implication, when the distance to the healthcare facility is far away, they may not meet up but if it is close, they can easily accompany their female partners, finish up with what they have to do at the facility and also with their work or activities for the day. The findings of this study is in tandem with that of Kumbeni et al. (2019) whose study on factors influencing male partner involvement in Ghana revealed a statistically significant relationship between distance to healthcare facility and level of male involvement in maternal and child healthcare.

The finding of this study is also in agreement with the result of Jelagat et al. (2021) whose study in Nairobi County of Kenya revealed a significant relationship between distance to healthcare facility and level of male involvement in maternal and child healthcare. The finding of this study is also in keeping with that of Singh et al. (2022) whose study in Nepal revealed distance to functional healthcare facility as a significant predictor of male partner involvement in maternal and child healthcare. This similarity found between the previous studies and the present one might be attributed to the homogeneity of the study respondents as they were both focused on men only. On the contrary, the findings of this study is in dissonance with that of Craymah et al (2017) whose study in Ghana revealed that distance to health facility had no significant relationship with male involvement in maternal and child healthcare. The findings of this study is also at variance with that of Annoon et al. (2020) whose study on the barriers to male involvement in maternal care revealed that distance to healthcare facility had no significant association with male partner involvement. This variation found between the present study and previous ones might be due to the difference in the sample sizes as the sample size used in the present study was much larger than those used in the previous studies which were all carried out in Ghana unlike the present study carried out in Nigeria, these could explain for the variation found in both studies.

The result in Table 2 of this study illustrated a relationship between waiting time at facility and male partner involvement in maternal and child healthcare; which was significant [f(1,1178) = 10819.1, p<0.05], also, waiting time at facility contributed 95.6% of the variance in male involvement (R^2 = 0.956). This finding is not surprising because men are very busy by their nature and lack patience to spend much time at the healthcare facility, which implies that when women are made to wait for a long time before attended to probably due to much crowd or shortage of healthcare workers, more men may decline their involvement. On general note, men are often impatient especially when they are forced to stay at a place waiting for an exercise which ordinarily to them could be carried out with or without their presence such as MCH services. It is therefore important to arrange the waiting room attractive to men in order to assuage their impatience. By implication, when the waiting room is made attractive more men will be involved.

The finding of this study is in line with that of This Gibore et al. (2019) whose study on factors influencing men's involvement in in a low resource setting, Central Tanzania found out that waiting time at facility was one of the factors that significantly influenced male involvement in maternal and child healthcare (p<0.05). The findings of this study is in tandem with that of Kumbeni et al. (2019) whose study on factors influencing male partner involvement in Ghana revealed a statistically significant relationship between waiting time and level of male involvement in maternal and child healthcare. Furthermore, the finding of this study corroborates that of Falade-Fatila and Adebayo (2020) whose study in Ibadan of Nigeria established waiting time as one of the factors that significantly influenced male involvement in maternal and child healthcare. This similarity found between the previous studies and the present one might be attributed to the homogeneity of the study

respondents as they were both focused on men only. On the contrary, the findings of this study is at variance with that of Annoon et al. (2020) whose study on the barriers to male involvement in maternal healthcare revealed that waiting time had no significant association with male partner involvement. This variation found between the present study and previous ones might be due to the difference in the study location and sample sizes as the sample size used in the present study was twice the one used in the previous study.

The finding of this study in Table 3 illustrated that there is a relationship between attitude of healthcare workers and male partner involvement in maternal and child healthcare which is statistically significant [$f(1,1178) = 1012.32$, $p<0.05$]. This finding is also not surprising because unfriendly attitude is a repellant to male involvement and health workers whose disposition towards pregnant women is satisfactory to men, are likely to encourage men to accompany their wives for facility visits. By implication, unkind, critical language by health workers is a barrier to male participation in MCH. In the same vein, harsh treatment of men by health workers may not allow men to come back to ANC facilities. The finding of this study is in agreement with Craymah et al. (2017) whose study in the Central Region of Ghana revealed a significant relationship between attitude of healthcare workers and male involvement in maternal and child healthcare. The findings of this study is in tandem with that of Kumbeni et al. (2019) whose study on factors influencing male partner involvement in Ghana revealed a significant relationship between attitude of healthcare workers and male involvement in maternal and child healthcare. The finding of this study is also in line with that of Gibore et al. (2019) whose findings on male involvement in Central Tanzania revealed a significant relationship between attitude of healthcare workers and male involvement in maternal and child healthcare. The finding of this study corroborates that of Bagenda et al. (2021) whose study in Ibanda District, Southwestern, Uganda also revealed a significant relationship between attitude of healthcare workers and male involvement in maternal and child healthcare.

The findings of the study in Table 4 illustrated a relationship between cost of care and male partner involvement which was found to be statistically significant [$f(1,1178) = 5569.32$, $p<0.05$]. The result further showed that cost of care contributed 91.8% of the variance in male involvement ($R^2 = 0.918$). This finding is not surprising given to the rising economic challenges in Nigeria. This finding could be explained by the fact that the respondents were drawn from both rural areas where low income earners dominate andin urban facilities owned by government where health workers, in their bid to meet up their own needs in the midst of harsh economic situations/poor salaries, exploit patients financially especially when the workers see men who have accompanied their partners to the facility. These scenarios which are cost related could actually discourage the involvement of males. The finding of this study is in line with the finding Guspianoto et al. (2022) in Indonesia which showed a significant relationship between cost of services and male partner involvement in maternal and child healthcare. The findings of this study is also in keeping with that of Abiiro et al. (2022) which revealed that to meet up the financial implications of health care services is a barrier to male partner involvement in MCH. This consonance found between the present study and the previous ones could be due to the consonance in the study design as they all adopted the descriptive research design.

Conclusion

It was concluded that male partner involvement in maternal and child healthcare is predicted by multiple factors such as distance to healthcare facility, waiting time, cost of care, and attitude of healthcare workers which should all be focused on in any effort geared towards the promotion of maternal and child healthcare.

Recommendations

Based on the findings of the study the following recommendations were put forward.

1. Government should build more functional health facilities to increase access to health care and improved male partner involvement in maternal and child health.
2. Health care providers should give priority attention to clients who attend clinic with their male partners and also make the environment comfortable for male partners to relax while waiting for their wives, thereby encouraging male partner involvement.

3. Health care managers and their partners should sustain and encourage good health workers' attitude by constantly organizing workshops/seminars for health workers on better ways of rendering services with friendly attitude, thereby increasing staff-client relationship.
4. Policy makers should monitor and re-evaluate the implementation of cost-free maternal and child health care services. Consumables that are not cost-free in facilities should be subsidized to encourage male partner involvement in maternal and child health care.

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