

Correlates of Long-Acting Reversible Contraceptives Use among Female Youths in Rivers State

Oronwemgbe S. Enyi¹, G. O. Ekenedo², E. U. Asogwa³

Department of Human Kinetics and Health Education, Faculty of Education, University of Port Harcourt, Nigeria.

Abstract

Background: This study explored the factors that correlate with long-acting reversible contraceptive use among female youths in Rivers state. Two specific objectives with corresponding research questions were formulated for the study. Two null hypotheses were tested at a 0.05 level of significance. A mixed-method research design was used. **Subjects & Methods:** The study population comprised 85,197 female youths in Rivers state. A multistage sampling procedure was used to draw a sample of 1,428 female youths. A self-structured questionnaire (CLARCUQ) was used as the research instrument while data analysis was done using mean, standard deviation, linear regression and simple percentage. **Results:** Some of the findings of the study revealed that LARC's service providers' attitude at a correlated rate of 2.6% while access has a correlate of 1.8%, showing low extent altogether. Based on the quantitative outcome, it was concluded that LARC use is low but essential to address health malady among female youths in Rivers state. **Conclusion:** It was therefore recommended that the ministry of education should collaborate with school administrators and women organizations to sensitize the female youths in Rivers state on reproductive health services and the healthcare service providers in Rivers state should be supported by relevant authorities to improve their education, knowledge, skill and awareness about LARC for the younger group in the society.

Keywords: Long-Acting, Reversible, Contraceptive, Larcs, Female, Youths, Service, Planned Parenthood.

Corresponding Author: Oronwemgbe S. Enyi, Department of Human Kinetics and Health Education, Faculty of Education, University of Port Harcourt, Nigeria.

E-mail: akasm29@gmail.com

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Introduction

Long-Acting Reversible Contraceptive (LARC) involves birth control methods for longer prevention of pregnancy without a heavy monetary cost. LARC is generally used to depict techniques for contraception that are exceptionally viable in keeping a lady or female youth from getting pregnant with a long-term effect. LARC has been referenced in a good number of health journals as the best reversible technique for contraception because LARC does not rely upon one making sure to take or utilize them to be effective.^[1] More so, LARC consists of hormonal implant and intrauterine devices (IUD) which are the available methods for long protection, and are effective in keeping one pregnancy free for up to 3, 5 and 10 years, depending on the method (WHO) in Enyi.^[1]

LARC is really a need for planned parenthood through anti-conception medication and it is intended for females. Planned parenthood permits wedded couples to achieve their ideal number of kids and decide the spacing-frame of conception. Notably, LARC methods are reversible, implying that once

a subscriber quit utilizing any of the LARC methods, the prophylactic impacts wear-off rapidly and female youths can get pregnant as conceivable as the individuals who have utilized no preventative by any means. Moreover, LARC is embraced willfully upon the premise of information, demeanor and capable choice. This is on the grounds that before an intending user is given a preventative, the LARC service provider will clear the utilization, advantages and results.^[1]

It is therefore apparent that the use of LARC is expected to be ascertained among female youths in Rivers state. This is owing to the fact that there is an urgent need to dissuade high-risk pregnancies among them due to the high level of misinformation and illiteracy among female youths when compared to their male counterparts in Rivers state as observed in the works of Nnodim and Albert.^[2] In this paper, the correlates of long-acting reversible contraceptives use among female youths in Rivers state has been put forward for measurement and evaluation considering components such as the extent of LARC use, accessibility to LARC services, the attitude of providers, level of information about LARC and

influence of demographic factors.^[1]

Statement of the Problem

The female youths in Rivers state scarcely access the long-acting reversible contraceptive options which have been scientifically documented as being more efficient in preventing pregnancy despite its availability at no cost. This is evidenced as young females especially unmarried and nulliparous, still visits our various health facilities seeking an abortion.

Worst still, so many are observed running into quacks to terminate their pregnancies leading to health complications such as. It is essential to know that one of the safe havens for coronavirus to hibernate is in health complications. Hence, the need to nip this trend into the bud through community health research and development in the use of LARC.

Thus, what bothered the researcher is, how can the female youths in Rivers state be engaged by professional health workers to arrest poor knowledge on contraceptive use. Put simply, the researcher wants to know to what extent correlates of long-acting reversible contraceptives use has contributed to the level of knowledge being exhibited by the female youths in Rivers State in the choice of contraceptive.

Aim and Objectives of the Study

This paper investigated the correlates of LARC use among the female youths in Rivers state, Nigeria. Specifically, the objectives were to:

1. Identify if the attitude of LARCs service providers is a correlate of LARCs' use among the female youths in Rivers state; and,
2. Ascertain if access to LARCs' services is a correlate of LARCs' use among the female youth in Rivers state.

Research Questions

1. To what extent does the attitude of LARCs' service providers be a correlate of LARCs' use among the female youth in Rivers state?
2. To what extent does access to LARCs' services be a correlate of LARCs' use among the female youths in Rivers state?

Hypotheses

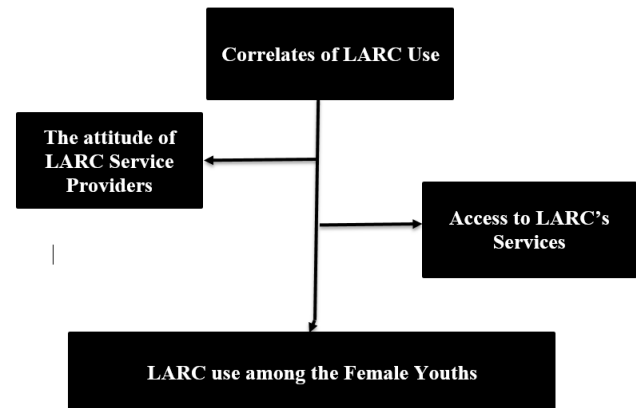
Two null hypotheses guided the study and tested at a 0.05 level of significance.

H₀₁ : The LARC service providers' attitudes have no significant relationship with the use of LARC among female youths in Rivers state.

H₀₂ : Access to LARC's services have no significant relationship to the use of LARC among female youths in Rivers state.

Conceptual Framework

The concepts of this study are hinged on the impact service providers' attitude and access to LARCs services have on LARC use among the female youths as diagrammatically represented below.



Researchers' conceptualization (2020).

Conceptual Review

Contraception and Planned Parenthood

The establishment of contraception in relation to planned parenthood according to Enyi,^[1] is a medically prescribed action taken by an individual to prevent, delay or achieve a pregnancy. More so, it is a voluntary but medically assisted program to regulate the number and spacing of children in a family as noted in American Heritage Dictionary cited by Enyi.^[1] Also, Onuzulike,^[3] stated that the use of contraception to facilitate planned parenthood is imperative on account of the fact that individuals and couples are assisted to decide on the number of children they will have either by limiting or spacing birth and avoiding unwanted pregnancy. By reducing the paces of unintended pregnancy, family arranging likewise diminishes the attempt for hazardous fetus removal. Contraception as a factor for planned parenthood can forestall poorly spaced and not well-planned pregnancies and births, which add to a portion of the world's most noteworthy newborn child death rates. Babies of mothers who unfortunately lost their lives during delivery likewise have a more serious danger of death and chronic frailty. Planned parenthood as such accordingly diminishes the danger of unintended pregnancies among ladies living with HIV,

bringing about less infected children and vagrants. Male and female contraception gives double security against unintended pregnancy and against STIs including HIV.^[1]

LARC and Planned Parenthood Methods

LARC methods are planned parenthood procedures and techniques of birth control that give viable contraception to an all-inclusive period without requiring clients activity which implies that the strategy helps female youths avoid monthly trips to refill supplies or quarterly visits to health care providers.^[1] The planned parenthood methods in this instance involve pharmacological preparations with active ingredients and interventions carried out by a service provider in order to prevent pregnancy. Their use requires the active involvement of the service provider. They include the following: hormonal contraceptive (oral pills, injectable and implants); intrauterine contraceptive device and voluntary surgical methods (Tubal ligation and vasectomy).^[4]

Hormonal contraceptives contain estrogen and progesterone for the females and are prepared either in a single form or combined form.^[5] In application, hormonal contraceptives consist of 5 types to meet an individual's choice of usage wit: combined oral contraceptives (COC's); combined injectable contraceptive (CICs); progesterone-only pills (POP's); progesterone-only injectable (POI's); implants; and, emergency contraceptive pills (ECPs). COC is a type of female contraception; it contains estrogen and progesterone in standard doses. COC has been observed over time to yield a 99% result of effectiveness, with ease of use and does not get in the way of sexual intercourse. More so, it accommodates lighter less crampy periods or no period at all with a quick return to fertility.^[6,7]

Notwithstanding, the downsides of COC involve: abdominal pains (severe) – may signify rupture of liver or tumor of the liver; chest pain (severe) with shortness of breath, signifying heart problems. Others are headaches (severe) signifying stroke; eye issues - obscured vision or loss of vision; and, extreme leg aches (which may indicate thromboembolism).^[1,8] Furthermore, in terms of Progesterone only Contraceptives Pills (POPs) or Minipill, progestin is in very low doses just like the natural hormones (progesterone) in a woman's body. The doses consist of the following- overette, microlut, neogest, excluton, norsteel, microgynon, postinon and pregnon. They are used as daily pills and while breastfeeding, and as emergency contraceptives. It is imperative to take a small pill simultaneously and consistently. They act by thickening cervical mucus and prevent ovulation. However, the identified side effects are frequent or irregular bleeding; prolonged bleeding; amenorrhea headaches; dizziness; nausea; mood changes; abdominal pains; and, breast tenderness.^[1,9]

Nevertheless, The American College of Obstetricians and Gynecologists has proven that over an extended time-frame, LARC techniques are multiple times more viable than conception prevention pills, the patch, or ring. Utilizing contraception implants is healthier, non-complicated and advantageous.^[10] The capacity to become pregnant returns immediately when the technique is ended. It gives constant durable anti-conception medication without disinfection. There is no medication to require each day; no medical protocol is required to be observed should before vaginal intercourse.

Obviously, the need for LARC is pervasive, that requires comprehensive sexuality education to ensure young people have the adequate knowledge to make an informed decision about the choice of LARC methods in preventing unwanted pregnancies and protecting themselves from sexually transmitted infections.^[1,11] Hence, the introduction of LARCs to female youths within the communities in Rivers state, Nigeria and utilization of LARCs in respect to planned parenthood methods is capable of reducing female youths' pregnancies which are bound to result in preterm or low birth-weight infants and prevent sudden death arising from risky behaviors that are being carried out by affected female youths to terminate unplanned pregnancy.^[1,12] It has also been discovered that teenagers' infants have a higher extent of neonatal mortality. While numerous juvenile females who become pregnant need to abandon their education for the task of parenthood.^[1,13,14] This, if not addressed with this review sub-topic, will have long-term repercussions for them as individual female youth, their families and also, the communities they belong to.

Identified Clinical Challenges in the usage of LARCs

Enyi,^[1] while citing ACOG identified the following as clinical challenges in the usage of LARCs:

1. Observed difficulty in the insertion of LARCs' intrauterine device especially in nulliparous women,
2. LARCs' intrauterine device string may not be visualized if not properly located in the endometrial cavity,
3. LARCs' intrauterine device may be non-fundal, indicating a partial expulsion, given the increased risk of complete expulsion which may likely lead to pregnancy.
4. The LARC implant may not be palpable due to expulsion, or deep insertion

Theoretical Framework

The Health Belief Model (HBM)

The HBM was propounded during the 1950s by Irwin M. Rosenstock, Godfrey M. Hochbaum, et al at the U.S. General Health Service. It expressed that wellbeing conduct is dictated by discernments about infection and the techniques accessible to diminish its emergence.^[15] The model is diagrammatically represented below.

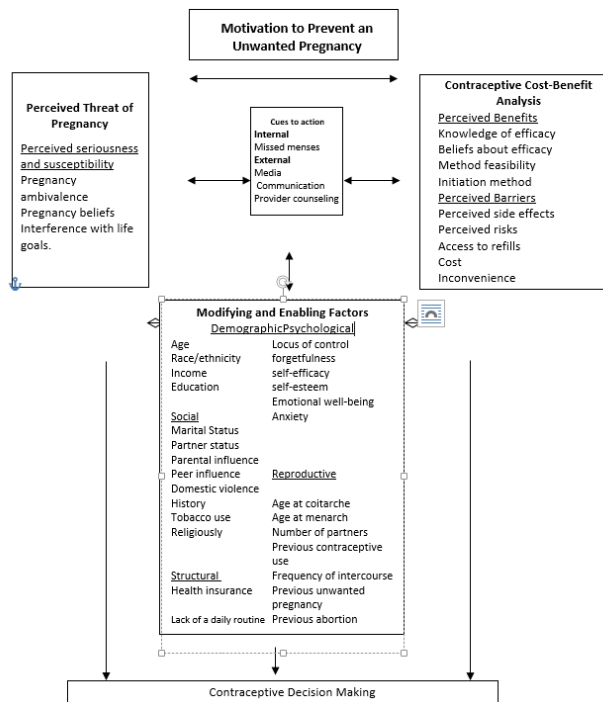


Diagram Showing System of Hbm

Source: Adapted from Hall in Enyi thesis (2020)

The HBM has been identified by health institutions and scholars such as National Cancer Institute (NCI),^[16] as well as Glanz, Rimer and Lewis,^[17] as the most ordinarily utilized theory in wellbeing advancement and wellbeing education. This was corroborated by Hall,^[18] when he noted that HBM, as a well-known experimented and thorough social – intellectual system, has been of popular demand in predicting and explaining variations in contraceptive behavior among women since 1970 and even up to date. The HBM is therefore essential as a theoretical framework at this time to properly expatiate on present-day prophylactic conduct determinants and encourage methodologies to forestall unintended pregnancy and advance positive planned parenthood results.^[1]

Empirical Reviews

Tobin-West, Maduka, OkpaniOkon, and Ezedinachi,^[19] studied the identification of contraceptive uptake that meets current health realities among women in Port Harcourt city-Rivers state, Nigeria with a cross-sectional household-based examination, utilizing a cluster inspecting strategy proportionate to measure to select respondents. A questionnaire with anonymous principle was administered to 772 female youths of regenerative age, typically inhabitant in five communities bar-

ring non-residents. Gathered Information was dissected utilizing SPSS rendition 20 programming bundle. Chi-square test was utilized to decide the relationship between prophylactic (contraceptive) use, demographic and financial factors while logistic relapse was utilized to distinguish determinants of preventative subscribers. 94.7% thought about current contraceptives and their advantages more female youths had multiple times higher chances of prophylactic use than more seasoned ladies and ladies with preventative information had 19% higher chances of utilization than prophylactic innocent ladies. The discovering underscores the significance of youthful age and information about prophylactic in advancing its acknowledgment among female youths. The study was wrapped up by noting that early presentation of educational based planned parenthood to female students in schools and the advancing of local area based planned parenthood activity through nearby media community dialogues and peer education to create awareness of the benefits of contraceptives among female youths will go a long way in engendering safe pregnancies among them.

Gemechukejela, Temesgen and Sahilemichael,^[20] studied determinants of long-acting reversible contraceptives use among child-bearing age women in Dendi District, Western Ethiopia. They identified why unmet-need –for-family-planning remains high in Dendi District, Western Ethiopia, using a community-level analysis, institution-based cross-sectional study was conducted among childbearing age women that came to planned parenthood unit of Dendi district health centers western Ethiopia from May to June 2013. A total of 317 women were nominated using the systematic sampling technique after selecting two health centers using simple random sampling. They found that a total of 301, women of childbearing age participated in the study, of which 78.4% were married, 54.5% were 25-34 age group with a mean age of 29.3 and SD of 7. The prevalence rate among WCA was 17.6%; educational status, spousal discussion, spousal approval and family sizes were found to have significantly associated with the long-acting reversible contraceptive method used.

Summary of Reviews

The theoretical framework by Rosenstock, Hochbaum, Kegeles, and Leventhal as examined in this paper revealed a tested and proven model of modern contraceptives such as LARC. It lays emphasis on sticking to the fundamentals of professionalism in healthcare practices especially as it concerns younger persons. In order to expatiate on the dynamics of this paper, three (3) concepts were reviewed to wit: contraception and planned parenthood; LARC and planned parenthood methods; and, identified clinical challenges in the usage of LARC methods. For the purpose of checking for duplication of research and proof of complementary/interrelated empirical studies, empirical reviews were carried out and it turned out that a

paucity of empirical works exists in this regard. This is the gap this paper purposed to fill.

Materials and Methods

Research Design

The study adopted a descriptive survey design using a cross-sectional approach. Reason being that it analyzes data from a population or a representative subset at a specific point in time. It permits the investigation of the current status of the phenomenon from a population in their natural settings and sorts out the existence and magnitude of causal effects of one or more independent variables upon a dependent variable of interest at a given point in time. As substantiated by Elendu,^[21] descriptive survey design using a cross-sectional approach is aimed at describing, explaining and analyzing events or behaviors as they occur at a particular period without the researcher introducing his or her own idea. This research design was considered relevant because it is one in which a group of people is studied by collecting and analyzing data from a number of people considered to be representative of the entire group. This design has been tested and proven by Tebeje and Workneh,^[22] Tobin-West, Maduka, Okpani; Okon and Ezedinachi,^[19] as well as Sahilemichael, Temesgen and Gemechukjda,^[20] in similar studies. The study covered the whole of Rivers state. As of the time of this investigation, Rivers state is made up of 23 Local Government Areas. The state has 363 primary health care facilities, 27 secondary and 5 tertiary health facilities

The study population consisted of an estimated 85,197 female youths (ages 15-29years) population projection of national Population Commission, 2006 (National Bureau of Statistic Annual Abstract of Statistics, 2011) from the 23 Local Government Areas of Rivers state while a sample of 1428 female youths was drawn from 20 different communities in 10 Local Government Areas in Rivers state through a multistage sampling technique.

The instrument used for data collection in eliciting response on the extent of LARCs' use was a self-structured questionnaire titled: "Correlates of Long-acting Reversible Contraceptive Use Questionnaire" (CLARCUQ). The questionnaire was made up of sections A and B. Section A contained the demographic data used to elicit information from the respondents; while section B contained 61 questionnaire items structured based on the variables of the study. The items were responded on a modified Likert scale of four-point ratings, thus, Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE) as well as Always (A), Sometimes (S), Rarely (R), and Never (N).

The instrument was validated and reliability was carried out using a test-retest method, which was calculated with

Pearson's Product Moment Correlation coefficient; and the reliability index was 0.75. The administration of 1428 copies of the questionnaire took the researcher two weeks to be completed and returned. In the end the whole of the administered questionnaire was completely filled and returned for data analysis representing a 100% return rate. For the purpose of data analysis, numerical values were assigned to each of the response scales. Based on this, a criterion mean of 2.5 was calculated as a benchmark for accepting or rejecting the mean response of the respondents. Simple regression and percentage statistics were used to answer the research questions while a t-test was used to test the hypotheses.

Additionally, the ethical considerations made in this study were based on the Helsinki as cited by Enyi,^[1] ethical declaration on research using humans as subjects. Among the ethical declarations by Helsinki in Enyi,^[1] on research using humans as subjects are; protecting the life, health, privacy and dignity of the human subject. The ethical clearance was sought from the Ethics Review Committee of the University of Port Harcourt while the final draft of the proposal together with ethical approval letter was submitted to the Rivers state Primary Health Care Management Board for permission to carry out the study in their facilities.

Results

Research Question 1: To what extent does the attitude of LARC service providers be a correlate of LARCs use among the female youths in Rivers state?

Table 1: Model summary of simple regression on a correlate of LARC service providers' attitude on LARCs use among the female youths in Rivers state.

Model R	R ²	Adj R ²
0.160	0.026	0.024

Results in [Table 1] revealed that regression (R) and regression square (R²) coefficients are 0.16 and 0.026 respectively. The extent of correlation is obtained from the coefficient of determinism. The coefficient of determinism is 2.6% (0.026 x 100). This showed that that LARC service providers' attitude is a correlate of LARCs use among the female youths by 2.6% in Rivers state.

Research Question 2: To what extent does access to LARC services be a correlate of LARC use among the female youths in Rivers state?

Results in [Table 2] revealed that R and R² coefficients are 0.13 and 0.018 respectively. The extent of prediction is obtained from the coefficient of determinism. The coefficient of determinism is 1.8% (0.018 x 100). This showed that adequate access to LARC services is a correlate of LARCs use among the female youths by 1.8% in Rivers state.

Table 2: Model summary of simple regression on a correlate of access to LARC services on LARCs use among the female youths in Rivers state.

Model R	R ²	Adj R ²
0.133	0.018	0.016

Test of Hypotheses

H₀₁ : The LARC service providers' attitudes have no significant relationship with the use of LARC among female youths in Rivers state.

Results in [Table 3] showed that the variance in the mean scores of LARC service providers' attitudes and use of LARC among female youths in Rivers state when correlated using T-test associated with simple regression equals 0.16. With an estimated sample size of 1427 and a correlation of 0.16, LARC service providers' attitudes as a correlate of use of LARC among female youths in Rivers state is significant at 0.00 when subjected to an alpha level of 0.05. Therefore, the null hypothesis 2 is rejected. By implication, LARC service providers' attitudes significantly correlate with the use of LARC among female youths in Rivers state.

H₀₂ : Adequate access to LARCs' services have no significant relationship with the use of LARC among female youths in Rivers state.

The result in [Table 4] showed that the variance in the mean scores of access to LARCs' services and use of LARC among female youths in Rivers state when correlated using T-test associated with simple regression equals 0.13. With an estimated sample size of 1427 and a correlation of 0.13, access to LARCs' services as a correlate of use of LARC among female youths in Rivers state is significant at 0.00 when subjected to an alpha level of 0.05. Therefore, the null hypothesis 2 is rejected. By implication, access to LARCs' services significantly correlate use of LARC among female youths in Rivers state

Summary of Findings

1. It showed that only 2.6% of the respondents are satisfied with LARC service providers' attitudes in Rivers state.
2. It revealed that only 1.8% of the respondents have access to LARCs' services in Rivers state.
3. It showed that LARCs' service providers' attitudes significantly determine the use of LARC among female youths in Rivers state.
4. It showed that access to LARCs' services significantly determines the use of LARC among female youths in Rivers state.

Discussion

LARC service providers' attitudes as a correlate of LARCs' Usage among Female Youths

According to the result obtained from the answer to research question one that attempted to fathom the relationship between LARC service providers' attitudes and the use of LARCs among female youths in Rivers state, it was shown that LARC service providers' attitudes is a significant factor influencing the usage of LARCs among female youths. This was based on the respondents' report that LARCs service providers are: unfriendly and judgmental, providers counsel based on client's age with lack of reassurance. This result confirms that findings of Chibosha,^[23] and Abdul-Razak,^[24] who obtained that service providers behaviour is a significant hindrance towards the uptake of modern contraceptives by many women.

Access as a correlate of LARCs' Usage among Female Youths

According to the result obtained from the answer to research question one that attempted to ascertain the relationship between access and the use of LARCs among female youths in Rivers state, it was shown that inadequate access is a significant factor influencing the usage of LARCs among female youths. The result revealed that because respondents reported that they have to wait for a long time before access and the distance is far from their location. This result confirms that findings of Chibosha,^[23] who obtained that logistics barriers is a significant hindrance towards the uptake of modern contraceptives by many women.

Conclusion

Based on the findings of this study, LARC use was low due to poor attitude among LARCs' service providers and inadequate access to LARCs' services but essential to address health malady among female youths in Rivers state.

Recommendations

The findings of this study gave rise to the following recommendations.

1. Ministry of education should collaborate with school administrators and women organizations to sensitize the female youths in Rivers state on reproductive health services.
2. The healthcare service providers in Rivers state should be supported by relevant authorities to improve their education, knowledge, skill and awareness about LARC for the younger group in the society.

Contributions to Knowledge

Table 3: T-Test Associated with Simple Regression on LARC service providers' attitudes and use of LARC among female youths in Rivers state.

Variables	N	Correlation	Sig.
LARC service providers' attitudes	1427	0.160	0.000
Use of LARC among female youths in Rivers state			

Table 4: T-Test Associated with Simple Regression on access to LARC's services and use of LARC among female youths in Rivers state.

Variables	N	Correlation	Sig.
Access to LARCs' services	1427	0.133	0.000
Use of LARC among female youths in Rivers state			

Based on the findings, the study has added to the body of knowledge as follows:

1. The study has empirically documented that LARCs' service providers' attitude is paramount in promoting the use of LARCs among female youths.
2. It also discovered that female youths are interested in the use of LARCs if they can have adequate access to LARCs' services.

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