ENVIRONMENTAL IMPACTS OF POOR MONTHLY ENVIRONMENTAL SANITATION EXERCISE IN ONITSHA: A STUDY OF FEGGE, ONITSHA SOUTH LOCAL GOVERNMENT AREA, ANAMBRA STATE

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ABSTRACT
This study explored the environmental impacts of poor monthly environmental sanitation exercise in Onitsha, with a focus on Fegge in Onitsha South Local Government Area, Anambra State. The objectives of the study were to examine the prevalence and major causes of poor participation in monthly environmental sanitation, assess the impact of such poor participation, and proffer solutions for improving participation in Fegge, Onitsha South Local Government Area, Anambra State. The theories used in the study include Nightingale's Theory, Social Control Theory, and the Health Belief Model (HBM). The study adopted a cross-sectional survey design and was anchored on the Health Belief Model to explain factors influencing public perception and participation in monthly environmental sanitation. The sample size was 200 respondents. A multi-stage sampling technique was used in selecting respondents. The instruments for data collection were a structured questionnaire and an in-depth interview guide. Quantitative data were analyzed using descriptive statistics and presented in frequency tables and simple percentages. The study hypotheses were tested using Chi-square (χ^2) inferential statistics. Data from the in-depth interviews were analyzed thematically. The findings revealed that respondents are highly aware of monthly environmental sanitation, but they exhibit a negative attitude toward participation. The study recommends intensified public awareness campaigns on the health risks associated with poor environmental sanitation. It also calls for the enforcement of stringent government policies against violators of monthly sanitation regulations in Anambra State, Nigeria.
Keywords: Environmental degradation, Environmental pollution, Refuse disposal, Sanitation

Introduction
The environmental sanitation has become a prominent, but complex and multidimensional issue on the public policy agenda of states and international organizations recently. This transformation after a long period of benign neglect began in Rio in 1992. The issue of environment is today seen or perceived not simply as a narrow ecological problem of how to ensure a symbiotic and congruent interface between man and the environment, it is more than that. Its inner core has psychological, political, developmental, sociological and scientific ramifications. The metaphor "sustainable *development*" emanated from the report titled "Our Common Future" prepared by the World Commission on Environmental and Development (WCED). This report, also known as the Brundtland Report, recognized that many development activities in many nations, especially in developing countries, were leaving growing numbers of people poor and vulnerable, while at the same time degrading their environment. The report then concluded that a new path for development would be needed to sustain human progress not just in a few places for a few years but globally in the future. This conclusion led the Report to focus on issues such as population, energy, industry, human settlement and quality of life.

The problem of solid, liquid and toxic-waste management in Africa has come with urbanization in the developing world. An important feature of the urbanization of the developing world is the rapid growth of cities and metropolitan areas. The high rate of urbanization in African countries implies a rapid accumulation of refuse. Social and economic changes that most African countries have witnessed since the 1960s have also contributed to an increase in the waste generated per capita. As a result, municipal waste management constitutes one of the most crucial health and environmental issues facing most African cities (Kuffor, 2019).

In Nigeria, environmental issues have characterized public discussion recently. There have been efforts to curb the refuse seen on the environment. Environmental sanitation practices refer to residents' involvement in provision, utilization, and maintenance of environmental sanitation facilities and services and adherence to environmental legislation (Daramola, 2015). Nigeria's adequate environmental sanitation practices have not been

ensured. They are characterized by lack of basic amenities and poor sanitation habits (Ademiluyi & Odugbesan 2018; Afon, 2016). General access to environmental sanitation facilities and services by citizens remains very poor (Akpabio, 2022). Nigerian cities are characterized by rapid population growth which is not accompanied by a corresponding increase in the delivery of environmental sanitation facilities and services capable of enhancing environmental sanitation practices. The resultant effects of these are unsanitary and unhealthy environmental conditions that are prevalent in Nigerian urban centres (Daramola, 2015).

In Anambra state, especially Onitsha metropolis population surges has given rise to a heavily built up environment wherein houses are closely built than before, which has then resulted in the dumping of more refuse on the streets(Okoye,2022). Most inhabitants tend to dumb refuse indiscriminately. The inadequate management of wastes poses grave danger to environmental health risk on human populations and is also, capable of inflicting permanent damage on the ecological system. Also, considering the magnitude of waste released daily into the environment and, considering the fact that there appears to be no serious organized programme for the efficient management and disposal of these waste, in spite of their environmental effects on human health, there is need for an understanding of the dynamics that are essential for the explanation of the trends and emerging disease epidemics on the human environment in order to ensure the evolution of effective government and public policies and programmes towards controlling the damaging effects of indiscriminate refuse dumping(Amadi & Effiong,2024).

Onitsha urban in Onitsha South Local Government Area of Anambra State, South-East Nigeria is occupied mostly by traders, civil and public servants as well as students of tertiary institutions with so much commercial activities. The town encounters environmental pollution which remains an issue of a public concern despite end of the month sanitation exercises that takes place in the entire state.

It is evident that people's attitude towards the disposal of wastes or refuse have not been favourable. Most people prefer to dumb things where they are not supposed to just because it is convenient for them to do so. In this case, the attitude or behaviours of people play a big role as to whether the environment would be clean or dirty. The perception of one's capability is said to set a limit to what to do and ultimately what can be achieved (Holland & Rosenberg, 1996). Perception influences how a person views himself and the world around him and how it tends to govern his behaviour. Dann (2019) reported that residents' perception is positively correlated with solid waste management practices. This suggests that residents with positive environmental perception tend to perform responsible solid waste management which entails waste collection and proper disposal.

Also, there have been issues with the designation of refuse dumps in places where they are not supposed to be. Those in authorities sometimes do not provide adequate facilities that would aid in the proper disposal of refuse and also, when they do provide it, they place them where it would be too far for the masses to access. There is lack of commitment from the government and this fact the whole process. Governments at different levels have not shown the willingness to fight the battle against improper disposal of refuse. In some areas, there are no refuse dumps, and in this case, the people struggle so much to find a way of disposing their wastes. They would have no option than to dispose the dirt in places they can (Onyia, 2019).

The inability of the population to pay some levies in order to help the government manage the sanitation issues is another problem. It is evident that the government only cannot carter for all waste disposals. Individuals who are capable can help the government by donating some waste cans and dumping. The burden of refuse has gone beyond the government. Individuals should learn to properly dispose their refuse, not because, it is not a duty, but because if the refuse is not properly dumped, it will adversely affect them too (Saigo, 1999).

More so, according to Purdon and Anderson (1983), the way a person perceives the environment reflects his or her previous experience, education, life style and interest. In other words, the way a person treats the environment depends on his or her knowledge or level of awareness about the environment. Despite the low level of formal education most especially in the villages, various communities managed the waste generated properly. Promotion of healthy environment depends on how individuals and community see themselves in relation to their environment. Illiteracy, ignorance, poverty and greediness are some of the major contributors of environmental degradation because each influences people's behaviour and attitudes toward the environment. A person who is ignorant of his action on his or her environment will likely have wrong perception about the effects of his or her action on his or her health. People should be thought to be aware of the dangers of disposing refuse indiscriminately (Niobi, 1992).

Research Questions

1. What are the causes of poor participation in the monthly environmental sanitation exercise in Onitsha South LGA?
2. What are the consequences of poor level participation in monthly sanitation exercise in Onitsha South LGA?

Review of Relevant Literature

Causes of low Level of Participation in Monthly Sanitation

In a study conducted by Nweke (2021) where he investigated the consequence of poor environmental sanitation. He used a sample size of 431 and a simple percentage for the analysis of data. The result of his study showed that sanitation-related diseases exacerbate poverty by diminishing productivity and household income. He also noted in his study that besides, a dirty environment with its attendant health consequences, prevailing in most of our cities, can discourage tourists/investors and undermine the economic benefit of tourism to the country. He therefore, recommended that wide-ranging actions are required to solve Environmental Sanitation problems in order to reduce and avert their adverse health, economic and developmental effects.

Chaile and Peterson (2023) in their study on poor sanitation showed that poor environmental sanitation accounts for almost 50 percent of a child being underweight since it has a direct link to diarrhoea. According to their research, sanitation is a serious issue that is affecting most parts of the world especially the developing countries. Their study also showed that on a global scale, the most affected are children who in most cases lose their lives due to diseases caused by poor sanitation. A pleasant environment that promotes healthful living and is hazard free is a fundamental right of all Nigerians.

Consequences of Low Level Participation in Monthly Sanitation

Eguvbe, Ekokotu, Emojorho, Ogbuta and Umukoro (2024) conducted a study titled, "Implications of poor environmental sanitation management on the health of humans in the Niger Delta, Nigeria". Regarding the sanitization program, 67.3% of respondents agreed and strongly agreed that it controlled the negative health attitudes, particularly with regard to littering and refuse, 61.0% of respondents agreed and strongly agreed that poor sanitization aids in the spread of illnesses, compared to 24.5% who disagreed and strongly disagreed and 1.2% who were unclear. Also, 64.8% agreed and strongly agreed that poor sanitization shortens people's lives and decreases their quality of life, whereas 1.2% were unclear and 21.7% disagreed and severely disagreed. Regarding item 4, 71.2% of participants concurred and strongly concurred that inadequate sanitation practices lead to an unclean environment. In contrast, 14.5% strongly disagreed with the statement and 1% expressed uncertainty. Finally, 65.8% of respondents agreed and strongly agreed that a lack of cleanliness contributes to the growth or spread of bacteria and diseases.

The analysis that follows indicates that item 4 has the highest percentage (71.2%). That is to say, the main reason for a dirty atmosphere is insufficient sanitization. The findings are consistent with the research of (Olaitan et al. 2022), who examined the cholera pandemic in Nigeria and promoted environmental sanitation practices to promote good health. They found that a number of factors, including inadequate living conditions and a dearth of WASH services, contribute to the prevalence of cholera in Nigeria. The analysis of study question two indicates that inadequate environmental sanitation management has a negative impact on human health. An individual's environment has a significant impact on their general health. Actually, a lot of diseases that affect humans may be traced back to unhealthy environmental factors such air, water, and soil pollution, poor housing, the presence of animal reservoirs, and insects that can spread diseases that could be hazardous to humans (Adenrele et al. 2017; Laita et al., 2024). It is observed that 74.0% of respondents agreed and strongly agreed that all community members participate in the environmental cleanliness program. Regarding item 2, sixty-one percent of respondents agreed and strongly agreed, while twenty-four percent disagreed and strongly disagreed and two percent were undecided. Also, 64.8% of respondents agreed and strongly agreed that taking part in the environmental cleanliness program is necessary, whilst 1.2% were doubtful and 21.7% disagreed and strongly disagreed with the answer.

Theoretical Framework

This work study is anchored on Health Belief Model propounded by Irwin & Rosenstock, in 1950's. The theory assumes that those individuals who perceive that they are susceptible to a particular health problem will engage in behaviours to reduce their risk of developing the health problem. Individuals with low perceived susceptibility may deny that they are at risk for contracting a particular illness. Others may acknowledge the possibility that they could develop the illness, but believe it is unlikely. Individuals who believe they are at low risk of developing an illness are more likely to engage in unhealthy, or risky, behaviours. Individuals who perceive a high risk that they will be personally affected by a particular health problem are more likely to engage in behaviours to decrease their risk of developing the condition.

This model explains and predicts health-related behaviours, particularly in regard to the uptake of health services. The health belief model suggests that people's beliefs about health problems perceived benefits of action and barriers to action, and self-efficacy which explain engagement (or lack of engagement) in health-promoting behaviour. It assumes that they should be a stimulus, or cue to action, which must be present in order to trigger the health-promoting behaviour. This model is appropriate in this study in that when people are well informed on the impact of poor sanitation, it will trigger them to take effective action and influence perception for good sanitation practice.

Hypothesis

H1: Educational qualifications of residents significantly affect their views towards consequences of level of participation in environmental sanitation in Onitsha South L.G. A.

Materials and Methods

The study adopted a Mixed Method Research Design. This research design is considered the most appropriate for this study because, it enables the researcher to collect data relevant to the study at a particular point in time.The study location was Fegge in Onitsha South Local Government Area. The sample size for this study was determined using Fisher, Laing, Stockel, and Townsend (1998) formula for generating sample size, when the population under study is unknown at the time of the study. The researcher used the mixed method for data collection in this study, which includes the Questionnaire and In-depth Interview Guide, which are quantitative and qualitative methods of data collections respectively. Structured questionnaire was used to gather information from randomly selected residents in the towns studied. However, In-depth Interview (IDI) Guide was afterwards used to gather more information from some of the residents using purposive sampling method. The collected data was computer-processed and analysed using the statistical package for social sciences (SPSS) software. This involved the use of simple percentage, frequency distribution tables, and graphical illustrations to describe the main characteristics of the study participants. The stated hypotheses were tested using Chi-Square (X^2) statistical tool.

Findings and Results

Table 1: Distribution of Respondents by Socio-Demographic Characteristics (n = 160)

Sex	**Frequency**	**Percentage**
Male	78	48.75
Female	82	51.25
Total	160	100.0
Marital Status	**Frequency**	**Percentage**
Single	63	39.37
Married	75	46.88
Divorced	11	6.88
Separated	5	3.12
Widowed	6	3.75
Total	160	100.0
Religious Affiliation	**Frequency**	**Percentage**
Christianity	105	65.63
Islam	48	30
ATR	7	4.37
None	0	0
Total	160	100.0
Place of Residence	**Frequency**	**Percentage**
Urban	86	53.75
Rural	74	46.25
I don't know	0	0
Total	160	100.0
Academic Qualification	**Frequency**	**Percentage**
FSLC	26	16.25
SSCE	30	18.75
OND/NCE	78	48.75
HND/BSC	18	11.25
PGD/MSC/PhD	8	5
Total	160	100.0
Occupation of Respondents	**Frequency**	**Percentage**

Civil Servant	31	19.37
Artisan	70	43.75
Unemployed	3	1.88
Student	23	14.38
Trader/Farmer	32	20
Total	160	100.0
Monthly income range of respondents	**Frequency**	**Percentage**
Below N30,000	55	34.37
N31,000 – N60000	76	47.5
N61,000 – N90,000	4	2.5
N91,000 – 120,000	11	6.88
N121,000 and above	14	8.75
Total	**160**	**100.0**

Field Survey, 2025

Table 1 shows that out of the returned questionnaires, 78 were males and 82 were females. Majority (51.25%) of the respondents fall within the age bracket of 28-32 years, while the minority (48.75%) of the respondents was within the age bracket of 53-57 years. The mean age of respondents was 39.7 years old. Most of the respondents of about (46.88%) were married, while the minority (5%) of the respondents is separated. Majority of the respondents which represent (65.63%) of the sample were Christians, while (4.37%) minority of the respondents responded to belong to African Traditional Religion (ATR). Majority of the respondents which represent (53.75%) live in urban areas, while (46.25%) minority of the respondents lives in rural areas. Most of the respondents (51.96%) have low level formal education, while the minority (11.73%) of the respondents possesses high level formal education. Most of them (43.75%) were artisans, while the minority (1.88%) of them was unemployed. Majority of the respondents (47.50%) said their monthly income is between N31, 000 - N60, 000; while (2.5%) of the respondents said that theirs is within N61, 000-N99, 000.

Distribution of Respondents according to the extent they participate in environmental sanitation

Living condition	**Frequency**	**Percentage**
Very high	10	3.63
High	12	6.98
Low	100	67.93
Very low	17	12.88
I don't know	21	22.58
Total	**160**	**100**

Field Survey 2025

Table 3 shows the frequency distribution of respondents on the way they participate in the monthly environmental sanitation. Majority (67.93%) of the respondents rated it as low; while minority (3.63%) of the respondents saw it as very high. It is therefore, observed that there is a low level of participation in the monthly environmental sanitation among residents in Onitsha South LGA.

One of the IDI respondents in Fegge agued thus:

> As far as they are concerned, do not engage in the monthly environmental sanitation. But the issue is not just the fact that, but the fact that our community leaders do not monitor or enforce the process on those days designed by the government for the environmental sanitation, thus people don't take the programme serious (Male, 36 years old, Bricklayer, Fegge).

Another member of IDI respondents in Fegge admitted to poor absence of environmental sanitation in Fegge, she maintained thus:

> There are gross abuses of the environmental sanitation programme in this town. We are most times chosen to clean up our immediate environment, but as for complying with the month end sanitation, nobody does that here. The only thing we do is just sweep our compound at our convenient and nobody make town for cleaning of markets and street in this community (Female, 44 years old, Haberdasher, Woriwo).

Table 4: Frequency Distribution of Respondents participation in monthly sanitation (N = 160)

Options	Frequency	Percentage (%)
Yes	93	58
No	66	42
Total	160	100

Table 4 shows that 93(58%) of the respondents do participate in monthly environmental sanitation while 66(24%) do not. This indicated that good number of the respondent devoted time to environmental sanitation monthly, due to the fact that they are aware of the positive effect of it.

Table 5: Distribution of Respondents according to their responses on if there are cultural practices that prevent them from active participation in environmental sanitation

cultural practices that prevent them from active participation in environmental sanitation	Frequency	Percentage
Yes	6	8.66
No	110	81.29
I don't know	44	10.05
Total	**160**	**100**

Field Survey, 2019

Table 5: shows the frequency distribution of respondents on the whether there are cultural practices that prevent them from active participation in environmental sanitation. It is then observed that majority of the respondents admitted that there are no cultural practices that prevent them from active participation in environmental sanitation, while the minority of the respondents said that there are cultural practices that prevent them from active participation in environmental sanitation. The study reveals that, most residents in Onitsha South LGA have no cultural practices that prevent them from active participation in environmental sanitation.

Data from the IDI session agrees with that of the questionnaire. An IDI respondent stated that:

> I think the major factors that encourage the low level involvement in environmental sanitation are due to the fact that there is no government presence to enforce it. There ought to be presence of environmental protection agents to encourage public participation in the process. Another reason is because, we are neglected by the government so we don't seem to be law abiding anymore and nobody forces us to participate in the monthly exercise (Female, 38 years old, Hairdresser, Modebe).

Also another respondent from Odoakpu argued thus:

> The nature of the treatment we receive from the government is part of the reason we don't participate in the environmental sanitation. The government doesn't make provision for garbage dispose bean, so we don't even have a place to dispose the dirt even if we decide to participate (Male, 37 years old, Commercial Motorist, Ozomagala).

Table 6: Distribution of Respondents view on the consequences of the current level of participation in clean up exercise

Consequences of the current level of participation in clean up exercise	Frequency	Percentage
Increased environmental pollution	7	11.79
Decreased environmental pollution	8	5.20
Increased in blockage of drainage channels during rainfall	10	9.50
Increased chances of erosion due to obstructed drainage channels	21	24.53
Increased risk of airborne diseases	15	18.10
All of the above	79	61.30
None of the above	5	9.55
Total	**160**	**100**

Table 6: shows the frequency distribution of the respondents on current level of participation in clean up exercise. It could be observed that majority (61.30%) of the respondents pointed out that the consequences of the current level of participation in clean up exercise to be all of the above identified challenges; while the minority of the respondents (5.20%) identified that none of the above responses is a likely consequence. It is therefore found that the major consequences of the current level of participation in clean up exercise to be all of the above identified challenges.

Table 7: Frequency Distribution of Respondents extent of participation on monthly Sanitation (N = 160)

Option	Frequency	Percentage (%)
Very High	53	33
High	41	26
Low	21	13
Very low	44	28
Total	**160**	**100**

Table 7 shows that 53(33%) of the respondents agree that to very high level they participate in environmental monthly sanitation, 41(26%) agree that they participate on it on high level, 21(13%) to low level while 44(28%) said it's to a very low extent. The high responses of the respondent that agree to very high is an indication that most of the respondents participate in environmental sanitation.

Table 8: Do your neighbours participate in the monthly environmental sanitation?

Option	Frequency	Percentage (%)
Yes	47	30
No	30	19
Don't know	82	51
Total	**160**	**100**

Table 4.1 shows that 47(30%) of the respondent agree that their neighbours participate in monthly environmental sanitation, 30(19%) disagree while 82(51%) says they don't know. This result shows that most of the respondents are not really aware if their neighbours participate on environmental sanitation why some are aware of that their neighbours do.

Table 9: If Yes, to what extent do your neighbours participate in the monthly environmental sanitation?

Option	Frequency	Percentage (%)
Very high	43	27
High	55	35
Low	31	19
Very low	15	9
I don't know	15	9
Total	**160**	**100**

Table 9: indicated that 43(27%) agree that their neighbour participate on environmental sanitation very highly, 55(35%) agree that it's to high level, 32(19%) is low, 15(9%) said it's to very low level and 15(9%) responded that they don't know. These responses indicated that the extent people participate on environmental sanitation varies.

Table 10: Frequency Distribution of Respondents on the consequences of current level of participation in clean-up exercise (N = 160)

Option	Frequency	Percentage (%)
Increased environmental pollution	16	10
Decreased environmental pollution	106	67
Increased blockage in drainage channels during rain fall	20	12
Increased chances of erosion due to obstructed drainage channels	12	8
Increased risk of airborne disease	5	3
All of the above	-	-
None of the above	-	-
Total	**160**	**100**

Table 10 shows that 16(10%) of the respondents agree that the current level of participation of increase environmental pollution, 106(67%) agree that the current of participation in environmental sanitation decrease environmental pollution, 20(12%) responded that it increases blockage in drainage channels during

rain fall. 12(8%) of the respondent agree that it increased chances of erosion due to obstructed drainage channel while 5(3%) responded that it increased risk of airborne disease. The high responses of the respondent who agree that it reduces pollution mean that environmental sanitation participation is necessary.

H1:Residents with high educational qualifications significantly affect their views towards environmental sanitation in Onitsha South L.G. A.

Data in H_0 table 1 and 3 forms the basis for hypothesis 2.

Table 13: Cross Tabulation between Academic Qualification of Residents and their views towards consequences of level of participation in environmental sanitation

		views towards consequences of level of participation in environmental sanitation					Total	χ2
		Increased environmental pollution	Decreased environmental pollution	Increased in blockage of drainage channels	Increased chances of erosion	Increased risks of airborne diseases		
Academic qualification	None	0	3	12	0	29	**28**	Df = 12 P =0.00 N=160 **409.640**
	Low	78	16	82	10	0	**100**	
	High	11	31	0	0	0	**14**	
	No response	3	0	39	34	10	**18**	
Total		92	50	133	44	39	**160**	

(Field Survey, 2025). X2 = 409.640, df = 12, N = 160, P< 0.000

Table 13 shows that the computed value of Chi-square is 409.640 while the value of chi-square at 0.05 level of significance with a degree of freedom (df) of 12 is 21.03. Since the computed value of chi-square is greater than the table value, the researcher accepted the alternative hypothesis. It follows therefore that residents with higher education significantly differ from those with low education on the consequences of low level participation in environmental sanitation. Thus, there is a significant relationship between respondents' educational qualifications and their perceived consequences of residents' poor attitudes towards environmental sanitation. Therefore, the respondents with high level of education view consequences of poor attitude to sanitation as more detrimental than their counterparts with low levels of education.

Findings

The study found that residents of selected towns in Onitsha South Local Government Area exhibit negative attitudes toward environmental sanitation. This is reflected in their responses, where many respondents indicated poor attitudes toward environmental sanitation practices. This finding aligns with the observation of Muoneke (2008), who reported that the attitudes of residents toward environmental sanitation are poor and largely unsatisfactory. Furthermore, the study revealed that the standard of living of residents in Onitsha South Local Government Area is significantly affected by poor environmental sanitation practices. The study also identified inadequate waste management facilities in Onitsha South. For instance, in Onitsha, liquid waste and urine from households are discharged through drainage channels constructed along expressways, thereby contributing to air pollution in the environment. Additionally, it was observed that solid waste is not effectively managed or properly disposed of by relevant authorities, leading to environmental degradation and making parts of the area unhealthy and difficult to inhabit. Residents expressed concern over the adverse effects of these conditions on their health and overall well-being.

Recommendations

Based on the findings of the study, the followings are recommended.

1. The urgent need for the government to create more jingles on various media outlets encouraging the proper waste management ideology.
2. The need for the various communities and stakeholders to rise up to the challenge of making and implementing laws that would guard against indiscriminate dumping of refuse.
3. The need for environmental sanitations practice in primary and secondary schools in Nigeria to be encouraged.
4. The need for the government to make and enforce environmental laws on environmental sanitation.
5. Provision of facilities for environmental sanitation practices should be made available by government and individual in order to enable adequate participation of the public in environmental sanitation.

6. Government should make provision to monitor the level of environmental sanitation practices and make polices that will ensure that all persons irrespective of social status of the person to engage in environmental sanitation. This will ensure that environmental sanitation participation of the public is enhanced.

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