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## **SOCIO-ECOLOGICAL RISK FACTORS AND HEALTH-SEEKING BEHAVIOUR AMONG RESIDENTS OF OIL-PRODUCING COMMUNITIES IN AKWA IBOM SOUTH SENATORIAL DISTRICT, AKWA IBOM STATE**

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### **ABSTRACT**

This study examined socio-ecological risk factors and health-seeking behaviour among residents of oil-producing communities in Akwa Ibom South Senatorial District, Akwa Ibom State. Specifically, the study examined the influence of youth restiveness and soil pollution on health-seeking behaviour among residents of oil-producing communities in the study area. The study adopted a descriptive survey research design. The population comprised 625,240 adult residents in selected oil-producing communities in Akwa Ibom South Senatorial District. A sample size of 400 respondents was determined using Taro Yamane's formula and selected through a multistage sampling procedure. Data were collected using a structured questionnaire titled Environmental Risks and Health-Seeking Behaviour Questionnaire (ERHSB). The instrument was validated by experts, while its reliability was established through a pilot study involving 30 respondents, yielding an overall reliability coefficient of 0.84. Data were analysed using mean and standard deviation to answer the research questions, while simple linear regression was used to test the hypotheses at the 0.05 level of significance. The findings showed that youth restiveness did not influence health-seeking behaviour, as indicated by a grand mean of 2.36, which was below the criterion mean of 2.50. In contrast, soil pollution influenced health-seeking behaviour, with a grand mean of 3.02. Regression analysis revealed that youth restiveness did not significantly influence health-seeking behaviour, whereas soil pollution significantly influenced health-seeking behaviour. The study concluded that youth restiveness was not a significant determinant of health-

seeking behaviour, while soil pollution significantly influenced healthcare-seeking decisions among residents. It was recommended among others, that relevant authorities strengthen environmental monitoring, soil remediation, health education and healthcare accessibility in oil-producing communities.

**KEYWORDS:** Socio-ecological risk factors, youth restiveness, soil pollution, health-seeking behaviour, oil-producing communities, Akwa Ibom State.

## 1. INTRODUCTION

Health-seeking behaviours are the actions individuals take when they perceive a need for healthcare. It includes decisions to visit hospitals and health centres, seek medical advice, attend preventive health programmes, use prescribed treatment and, in some cases, resort to self-medication or alternative healthcare. Health-seeking behaviour is influenced by several personal, social, economic and environmental factors. The environment in which people live can influence both their health status and their decisions concerning healthcare utilisation. This is particularly important in oil-producing communities where petroleum exploration and production activities may create environmental and social conditions capable of affecting residents' wellbeing. The present study conceptualises these conditions within a socio-ecological perspective, with particular attention to youth restiveness and soil pollution.

Oil-producing communities in the Niger Delta are often characterised by environmental degradation and socioeconomic challenges. Residents depend heavily on their natural environment for farming, fishing and other livelihood activities. Consequently, environmental degradation can have implications beyond physical environmental quality, extending to livelihoods, community wellbeing and health.

Youth restiveness refers to persistent agitation, protests, violence and other forms of social disorder arising from perceived marginalisation, unemployment, inequality, environmental degradation and neglect. In oil-producing communities, youth restiveness may arise from dissatisfaction associated with environmental degradation, unemployment and inadequate social amenities. Youth restiveness can disrupt normal social and economic activities. Businesses may close, schools may be affected and access to healthcare services may become difficult because of fear of violence or insecurity. Chado and Saba (2023) noted that youth restiveness can create insecurity and disrupt community activities, while Ezecheta (2023) linked youth restiveness with social disorder and reduced access to public services.

In communities experiencing frequent unrest, residents may feel unsafe travelling to healthcare facilities. Violence can also damage healthcare infrastructure and discourage healthcare workers from remaining in affected communities. Consequently, residents may delay seeking medical attention or rely on alternative forms of healthcare. The economic consequences of youth restiveness may further affect healthcare utilisation. Disruption of businesses and employment can reduce household income and make healthcare less affordable. Under such conditions, residents may delay treatment or rely on cheaper alternatives such as self-medication or traditional healing.

However, the empirical evidence is not uniform. Ugwu (2020) found that conflict and youth restiveness significantly reduced healthcare utilisation because of mobility restrictions, fear of violence and destruction of healthcare infrastructure. Ezecheta (2024) similarly reported that insecurity and social tension associated with youth restiveness could discourage healthcare access. Obilor (2024) found that insecurity, poor infrastructure and community instability could influence healthcare access and decision-making.

Soil pollution occurs when harmful substances such as petroleum hydrocarbons, heavy metals, industrial chemicals and toxic wastes contaminate soil and alter its natural characteristics. In oil-producing communities, soil pollution may result from crude oil spills, pipeline leakages, petroleum transportation, refining activities and improper disposal of petroleum-related wastes. Soil pollution is a persistent environmental problem in the Niger Delta. Petroleum hydrocarbons released through oil exploration can contaminate soil, vegetation and surrounding environmental resources. The pollutants may remain in the soil for long periods and gradually affect soil quality, agricultural productivity and community wellbeing.

Contaminated soil can affect residents through direct contact, inhalation of contaminated dust and consumption of crops cultivated on polluted land. Prolonged exposure may contribute to skin diseases, gastrointestinal disorders, respiratory problems, reproductive health problems and other chronic conditions. Such health problems may increase the need for professional healthcare and consequently influence health-seeking behaviour. Soil contamination can also affect the economic wellbeing of residents. Many residents of oil-producing communities depend on agriculture and other natural-resource-based activities. When soil fertility and agricultural productivity decline, household income may be affected, potentially creating barriers to healthcare utilisation.

Empirical evidence supports the health implications of soil pollution. Sule et al. (2023) investigated toxicological risks associated with polycyclic aromatic hydrocarbons in soil from

a petroleum-spillage site in the Niger Delta. The study identified potentially harmful petroleum-related contaminants in polluted soil.

## **2. STATEMENT OF THE PROBLEM**

Oil-producing communities in Akwa Ibom South Senatorial District are exposed to environmental and social conditions associated with petroleum exploration and production. Among these conditions are youth restiveness and soil pollution. These socio-ecological risk factors may affect residents' health and potentially influence their decisions concerning healthcare utilisation.

Youth restiveness may create insecurity, disrupt movement and interfere with normal community activities. During periods of unrest, residents may be afraid to travel to hospitals or health centres. Healthcare workers may also face difficulties reaching affected communities. Although these circumstances suggest that youth restiveness could influence health-seeking behaviour, the extent to which it actually affects healthcare decisions among residents in Akwa Ibom South Senatorial District remains unclear. Soil pollution presents another important concern. Oil spills, pipeline leakages and other petroleum-related activities may contaminate soil and agricultural land. Residents who depend on the environment for farming and other livelihood activities may be exposed to pollutants through contact with contaminated soil and consumption of contaminated crops. Such exposure may contribute to illness and consequently influence healthcare-seeking decisions.

Despite existing studies on youth restiveness, environmental pollution and health outcomes, limited attention has been given specifically to the influence of youth restiveness and soil pollution on health-seeking behaviour among residents of oil-producing communities in Akwa Ibom South Senatorial District. It is against this background that this study examined socio-ecological risk factors and health-seeking behaviour, focusing specifically on youth restiveness and soil pollution.

## **3. RESEARCH OBJECTIVES**

The main objective of the study was to examine socio-ecological risk factors and health-seeking behaviour among residents of oil-producing communities in Akwa Ibom South Senatorial District, Akwa Ibom State. Specifically, the study sought to:

1. Examine the influence of youth restiveness on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District; and

2. Examine the influence of soil pollution on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.

#### **4. RESEARCH QUESTIONS**

The following research questions guided the study:

1. What is the influence of youth restiveness on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District?
2. What is the influence of soil pollution on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District?

#### **5. RESEARCH HYPOTHESES**

The following null hypotheses were tested at the 0.05 level of significance:

H<sub>01</sub>: There is no significant influence of youth restiveness on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.

H<sub>02</sub>: There is no significant influence of soil pollution on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.

#### **6. THEORETICAL FRAMEWORK**

##### **6.1 Risk Perception Theory**

Risk Perception Theory was developed from the pioneering work of Paul Slovic (1987). The theory explains how individuals perceive, interpret and evaluate risks or hazards within their environment. It is based on the assumption that people's responses to hazards are influenced not only by the actual or scientifically measured level of risk but also by how they perceive the risk. The theory emphasises that risk perception is subjective and may differ among individuals depending on their experiences, knowledge and understanding of a particular hazard. Its major tenets include perceived severity of the risk, perceived vulnerability, familiarity with the hazard, perceived controllability, trust in information sources, voluntariness of exposure and perceived consequences of the hazard. Thus, people's attitudes and behavioural responses to a particular risk are shaped substantially by their perception and interpretation of that risk.

The theory is relevant to this study because residents' responses to youth restiveness and soil pollution may depend on how they perceive the seriousness of these risks. Residents who perceive youth restiveness as a serious threat may avoid travelling to healthcare facilities during periods of unrest. Similarly, residents who perceive contaminated soil as a serious health threat may be more likely to seek medical attention when they experience symptoms

associated with environmental exposure. Risk Perception Theory therefore provides a useful basis for explaining how perceptions of socio-ecological risks may influence health-seeking behaviour.

## **6.2 Health Belief Model**

The Health Belief Model (HBM) was developed in the 1950s by social psychologists working with the United States Public Health Service, particularly Irwin M. Rosenstock, Godfrey Hochbaum, Stephen Kegels and Howard Leventhal. Rosenstock (1974) subsequently provided a detailed account of the historical development of the model. The model explains health-related behaviour in terms of individuals' beliefs and perceptions about health conditions and the actions available to prevent or manage them. Its major constructs are perceived susceptibility, perceived severity, perceived benefits, perceived barriers and cues to action, with self-efficacy subsequently incorporated into the model. Perceived susceptibility refers to an individual's belief about the likelihood of experiencing a health condition, while perceived severity concerns the seriousness attached to the condition and its consequences. Perceived benefits refer to the expected advantages of taking a particular health action, whereas perceived barriers are the factors that may discourage such action. Cues to action are internal or external stimuli that prompt health-related behaviour, while self-efficacy refers to an individual's confidence in performing the recommended behaviour. Applied to the present study, residents who believe that soil pollution exposes them to serious health problems may be more likely to seek healthcare. Conversely, residents who perceive youth restiveness as a manageable community condition may continue their normal healthcare-seeking practices. The theory also helps explain why environmental exposure may not automatically result in healthcare utilisation. Even when individuals perceive a health threat, factors such as treatment costs, distance, availability of facilities and social conditions may influence whether they eventually seek care.

## **7. METHODOLOGY**

The study adopted a descriptive survey research design. The study was conducted in Akwa Ibom South Senatorial District, also known as Eket Senatorial District, in Akwa Ibom State, Nigeria. The National Population was 625,240. A sample size of 400 adult residents was determined using Taro Yamane's formula. A multistage sampling procedure was employed, whereby five oil-producing Local Government Areas were purposively selected based on the intensity of oil exploration. Two communities were subsequently selected from each sampled Local Government Area using simple random sampling, resulting in ten communities.

Households were then selected systematically, after which 2–3 adult respondents were proportionately selected from households based on the number of adults. Data were collected using a structured questionnaire titled Socio-Ecological Risk Factors and Health-Seeking Behaviour Questionnaire (SERFHSB), which was developed by the researcher. For this study, the relevant sections of the questionnaire comprised items measuring youth restiveness, soil pollution and health-seeking behaviour. The questionnaire employed a four-point response scale of Strongly Agree, Agree, Disagree and Strongly Disagree. The instrument was subjected to expert validation to ascertain its clarity, relevance and appropriateness before administration. Its reliability was established through a pilot study involving 30 respondents, which yielded reliability coefficients of 0.82 for youth restiveness, 0.86 for soil pollution, and 0.86 for health-seeking behaviour, with an overall reliability coefficient of 0.84. The researcher, assisted by trained research assistants, administered the questionnaire directly to the respondents. The respondents were informed of the purpose of the study and assured that the information provided would be treated confidentially. The data collected were analysed using mean and standard deviation to answer the research questions. A criterion mean of 2.50 was adopted for decision-making, such that mean scores of 2.50 and above indicated influence, whereas mean scores below 2.50 indicated no influence. Simple linear regression was employed to test the hypotheses at the 0.05 level of significance.

## 8. RESULTS

### Research Question One

What is the influence of youth restiveness on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District?

**Table 1: Mean and Standard Deviation of Influence of Youth Restiveness on Health-Seeking Behaviour. (N = 392)**

| S/N | Items                                                           | Mean | Std. Deviation | Decision |
|-----|-----------------------------------------------------------------|------|----------------|----------|
| 1   | Youth restiveness affects access to healthcare in my community. | 2.72 | 0.83           | I        |
| 2   | Violence delays my decision to seek medical care.               | 2.16 | 0.86           | NI       |
| 3   | Youth restiveness disrupts healthcare services.                 | 2.27 | 1.01           | NI       |
| 4   | I use alternative healthcare when I am sick due to insecurity.  | 2.05 | 0.90           | NI       |
| 5   | Insecurity discourages me from visiting health facilities.      | 2.61 | 0.98           | I        |
|     | Grand Mean                                                      | 2.36 | 0.92           | NI       |

**Note:** I = Influence; NI = No Influence.

**Source:** Field data (2026).

Table 1 shows that items 1 and 5 had mean scores above the criterion mean of 2.50, while items 2, 3 and 4 had mean scores below 2.50. However, the grand mean of 2.36 was below the criterion mean. This indicates that respondents generally disagreed that youth restiveness influences their health-seeking behaviour.

### Research Question Two

What is the influence of soil pollution on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District?

**Table 2: Mean and Standard Deviation of Influence of Soil Pollution on Health-Seeking Behaviour. (N = 392)**

| S/N | Items                                                                     | Mean | Std. Deviation | Decision |
|-----|---------------------------------------------------------------------------|------|----------------|----------|
| 1   | I get sick due to unpleasant odour from the contaminated soil in my area. | 3.18 | 0.93           | I        |
| 2   | Soil pollution increases my hospital visits.                              | 3.09 | 0.84           | I        |
| 3   | I ignore minor illnesses such as cholera caused by soil pollution.        | 2.32 | 0.92           | NI       |
| 4   | I practise self-medication for soil-related illnesses like typhoid fever. | 3.25 | 0.81           | I        |
| 5   | I visit hospitals when seriously affected by soil pollution.              | 3.28 | 0.80           | I        |
|     | Grand Mean                                                                | 3.02 | 0.86           | I        |

**Note:** I = Influence; NI = No Influence.

**Source:** Field data (2026).

Table 2 indicates that items 1, 2, 4 and 5 recorded mean scores above the criterion mean, while item 3 recorded a mean below 2.50. The grand mean of 3.02 was above the criterion mean of 2.50, indicating that respondents generally agreed that soil pollution influences their health-seeking behaviour.

## 9. TEST OF HYPOTHESES

### Hypothesis One

H<sub>01</sub>: There is no significant influence of youth restiveness on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.

**Table 3: Regression Analysis of the Influence of Youth Restiveness on Health-Seeking Behaviour.**

| Model             | Sum of Squares | df  | Mean Square | F-cal | Sig.  | Decision                |
|-------------------|----------------|-----|-------------|-------|-------|-------------------------|
| <b>Regression</b> | 1.939          | 1   | 1.939       | 2.401 | 0.122 | H <sub>0</sub> Retained |
| <b>Residual</b>   | 315.058        | 390 | 0.808       |       |       |                         |
| <b>Total</b>      | 316.997        | 391 |             |       |       |                         |

**Source:** Field data (2026).

The result shows an F-calculated value of 2.401 and a significance value of 0.122. Since 0.122 is greater than 0.05, the null hypothesis was retained. Therefore, youth restiveness has no significant influence on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District. The model summary reported  $R = 0.078$  and  $R^2 = 0.006$ , indicating that youth restiveness explained approximately 0.6% of the variation in health-seeking behaviour.

### Hypothesis Two

H<sub>02</sub>: There is no significant influence of soil pollution on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.

**Table 4: Regression Analysis of the Influence of Soil Pollution on Health-Seeking Behaviour.**

| Model      | Sum of Squares | df  | Mean Square | F-cal  | Sig.  | Decision                |
|------------|----------------|-----|-------------|--------|-------|-------------------------|
| Regression | 48.962         | 1   | 48.962      | 68.052 | 0.000 | H <sub>0</sub> Rejected |
| Residual   | 39.038         | 390 | 0.237       |        |       |                         |
| Total      | 88.000         | 391 |             |        |       |                         |

Source: Field data (2026).

The result shows an F-calculated value of 68.052 and a significance value of 0.000. Since 0.000 is less than 0.05, the null hypothesis was rejected. Therefore, soil pollution has a significant influence on health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District. The model summary reported  $R = 0.742$  and  $R^2 = 0.551$ , indicating that soil pollution accounted for approximately 55.1% of the variance in health-seeking behaviour in the reported model.

## 10. FINDINGS OF THE STUDY

The study yielded the following findings:

1. Youth restiveness does not significantly influence health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.
2. Soil pollution significantly influences health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District.

## 11. DISCUSSION OF FINDINGS

### Youth Restiveness and Health-Seeking Behaviour

The finding revealed that youth restiveness did not significantly influence health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial

District. The descriptive result produced a grand mean of 2.36, which was below the criterion mean of 2.50. The regression analysis also produced an F-value of 2.401 and a p-value of 0.122. Since the p-value was greater than 0.05, the null hypothesis was retained. The finding suggests that although youth restiveness may create insecurity and disrupt social activities, residents may continue to seek medical care when health needs arise. The non-significant finding may also suggest that healthcare facilities remained sufficiently accessible despite occasional youth-related disturbances. Residents may have developed coping mechanisms that enable them to continue utilising healthcare services during periods of social tension.

The finding is consistent with Chado and Saba (2023), who found that although youth restiveness contributed to insecurity, disruption of economic activities and community tensions, its direct effect on individual health-related decisions was limited. However, the finding is contrary to Ezecheta (2023), who reported that insecurity arising from youth restiveness and communal conflicts could discourage access to public services, including healthcare facilities. The difference may be associated with variations in the intensity of youth restiveness, geographical context and community characteristics. Communities experiencing severe and prolonged unrest may experience stronger effects on healthcare utilisation than communities where youth-related disturbances are occasional.

### **Soil Pollution and Health-Seeking Behaviour**

The finding revealed that soil pollution significantly influenced health-seeking behaviour among residents in oil-producing communities in Akwa Ibom South Senatorial District. The descriptive analysis produced a grand mean of 3.02, which was above the criterion mean of 2.50. The regression analysis produced an F-value of 68.052 and a p-value of 0.000, resulting in rejection of the null hypothesis. The finding indicates that soil pollution associated with oil exploration and production activities affects residents' health conditions and consequently influences their decisions to seek healthcare. Soil contamination may occur through crude oil spills, pipeline leakage, improper disposal of petroleum waste and other industrial activities. These pollutants can contaminate farmland and food crops, exposing residents to health risks. The significant influence may also be associated with the different routes through which residents can be exposed to contaminated soil. These include direct skin contact, inhalation of contaminated dust and consumption of crops cultivated on polluted land. Such exposure may contribute to skin diseases, gastrointestinal disorders, respiratory problems and reproductive health problems, thereby increasing the need for healthcare. The finding agrees with the study by Ikeh and Chibuzor (2025), which reported extensive soil contamination and environmental

degradation associated with petroleum exploration and production in the Niger Delta. It also agrees with Nriagu et al. (2024), who reported an association between soil pollution and increased incidences of skin irritation, respiratory illnesses, gastrointestinal disorders and other health complications.

## 12. CONCLUSION

The study examined socio-ecological risk factors and health-seeking behaviour among residents of oil-producing communities in Akwa Ibom South Senatorial District, Akwa Ibom State, with specific focus on youth restiveness and soil pollution. The findings demonstrated that youth restiveness did not significantly influence health-seeking behaviour among residents. Although youth restiveness may create insecurity and disrupt normal community activities, it did not emerge as a significant determinant of residents' healthcare-seeking decisions in the study area.

In contrast, soil pollution significantly influenced health-seeking behaviour. The result indicates that environmental contamination of soil associated with petroleum-related activities constitutes an important socio-ecological risk capable of affecting residents' health and healthcare utilisation. The study therefore concludes that attention should be given particularly to the prevention, monitoring and remediation of soil pollution in oil-producing communities, while maintaining accessible healthcare services and addressing the social conditions associated with youth restiveness.

## 13. RECOMMENDATIONS

Based on the findings, the following recommendations are made:

1. Government environmental agencies and oil-producing companies should intensify regular monitoring of soil quality in oil-producing communities.
2. Oil-producing companies should ensure the prompt detection, containment and remediation of oil spills and pipeline leakages to prevent prolonged soil contamination.
3. Environmental health education should be provided to residents to improve awareness of the health risks associated with exposure to contaminated soil.
4. Residents should be encouraged to seek appropriate medical attention when they experience symptoms potentially associated with environmental exposure rather than relying exclusively on self-medication.
5. Primary healthcare facilities in oil-producing communities should be adequately equipped to diagnose and manage illnesses associated with environmental exposure.

6. Government and community stakeholders should strengthen youth engagement, employment and community-development programmes to address conditions that may contribute to youth restiveness.
7. Healthcare authorities should ensure that healthcare facilities remain accessible and functional during periods of community tension or youth-related disturbances.
8. Regular environmental and health surveillance should be undertaken in oil-producing communities to identify emerging health risks associated with contaminated environments.

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