Assessing Family Resilience Strategies in Lagos: A Home Economics Perspective on Environmental Challenges

Adedokun James Adekunle & Ezeoguine Juliana Akunnaya
Educational Psychology Dept.; Federal College of Education (Technical), Akoka, Lagos.
Home Economics Education Dept.; Federal College of Education (Technical), Akoka, Lagos.

CORRESPONDING EMAIL ADDRESS:
jezeoguine@yahoo.com

ABSTRACT

The purpose of this study was to assess family resilience strategies in Lagos from a home economics perspective, focusing on how families adapt to environmental challenges. The objectives include identifying the environmental challenges faced by families and examining the role of social networks in supporting family resilience. This study was guided by four research questions addressing these key areas. Employing a survey research design, the target population comprised families residing in four Local Government Areas (LGAs) in Lagos: Lagos Island, Ikorodu, Alimosho, and Ikeja. A total sample of 300 participants was selected using purposive and stratified random sampling techniques, ensuring representation from heads of households, caregivers, community leaders, and educators. A structured questionnaire of 30 items was developed and validated by experts, achieving a reliability coefficient of 0.89 through a pilot test. Data were collected through direct administration, resulting in 284 usable responses, which were analyzed using descriptive statistics. The findings revealed that flooding is the most significant environmental challenge, affecting 73.7% of families, followed by waste management. Additionally, budgeting and food preservation emerged as key home economics strategies employed by families. Major conclusions indicate that strong social networks and educational initiatives significantly enhance family resilience. Recommendations include strengthening urban infrastructure to address flooding, promoting sustainable practices through community programs, and expanding educational outreach to improve adaptive capacities within families.

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Background of the Study

Family resilience refers to the ability of families to withstand and recover from adverse conditions, particularly in the face of environmental challenges. In urban settings like Lagos, Nigeria, where rapid urbanization and environmental degradation are prevalent, understanding the strategies families employ to foster resilience is crucial (Oduro et al., 2019). The concept of resilience extends beyond mere survival; it encompasses the adaptive capacities of families to navigate stressors, maintain functionality, and promote well-being (Walsh, 2016). Lagos is a megacity characterized by its unique socio-economic dynamics and environmental challenges, including flooding, waste management issues, and air pollution (Adelekan, 2017). These challenges have profound implications for families, affecting their health, economic stability, and overall quality of life. The role of home economics in addressing these issues is significant, as it provides practical solutions and strategies for enhancing family resilience (Eze et al., 2020).

In the context of home economics, resilience can be viewed through the lens of resource management, which encompasses financial, human, and environmental resources (Morrison, 2021). Effective management of these resources allows families to adapt to environmental stressors and enhance their quality of life. For instance, families that engage in sustainable practices, such as waste recycling and urban gardening, are better equipped to face environmental challenges (Ogunyemi et al., 2021). Research has shown that families with strong social networks are more resilient in the face of environmental challenges. These networks provide emotional support and practical assistance, which can mitigate the impacts of stressors (Patel & Kahn, 2018). In Lagos, community-based organizations play a vital role in fostering these networks, enabling families to share resources and experiences related to environmental challenges.

Furthermore, educational initiatives within home economics can empower families by equipping them with skills necessary for resilience. Programs focusing on sustainable practices, financial literacy, and health education can significantly improve a family's ability to cope with environmental issues (Adeyemo et al., 2022). Such educational efforts are particularly important in urban areas where families may lack access to vital information and resources. Moreover, the intersection of gender and resilience cannot be overlooked. Women often take on the primary responsibility for managing household resources and making decisions related to sustainability (Ogunjimi, 2020). Understanding the specific challenges faced by women in Lagos, particularly in the context of environmental stressors, is essential for developing effective resilience strategies. The impact of climate change further exacerbates the environmental challenges faced by families in Lagos. Increasing temperatures and unpredictable rainfall patterns threaten food security and health, making it imperative for families to adopt adaptive strategies (Adelekan et al., 2021). Home economics education can provide families with the knowledge to implement adaptive practices, such as crop diversification and improved water management techniques.

Despite the recognized importance of family resilience, there is a dearth of research focusing specifically on the strategies employed by families in Lagos. Most existing studies have concentrated on broader economic or environmental issues without delving into the specific resilience strategies of families (Odugbesan & Ojo, 2019). This study aims to fill this gap by exploring how families in Lagos navigate environmental challenges through home economics perspectives. In conclusion, assessing

family resilience strategies in Lagos through a home economics lens offers valuable insights into the adaptive capacities of families facing environmental challenges. By understanding these strategies, stakeholders can develop targeted interventions that promote family resilience and enhance the overall well-being of communities in urban settings.

Statement of the Problem

Families in Lagos face significant environmental challenges, including flooding, waste management issues, and air pollution, which threaten their resilience and well-being. Despite the critical need for adaptive strategies, there is limited understanding of how families navigate these challenges through home economics practices.

Purpose of the Study and Objectives

The purpose of this study is to assess family resilience strategies in Lagos from a home economics perspective, focusing on how families adapt to environmental challenges and identify effective practices that enhance their resilience. The objectives are:

1. To identify the environmental challenges faced by families in Lagos.
2. To explore the home economics strategies employed by families to enhance resilience.
3. To examine the role of social networks in supporting family resilience.
4. To evaluate the impact of educational initiatives on families' adaptive capacities.

Research Questions

1. What are the primary environmental challenges faced by families in Lagos?
2. What home economics strategies do families employ to enhance their resilience?
3. How do social networks contribute to supporting family resilience in Lagos?
4. What is the impact of educational initiatives on families' adaptive capacities regarding environmental challenges?

Research Design

This study employed survey research design to assess family resilience strategies in Lagos from a home economics perspective. Survey design is appropriate as it allows for the collection of quantitative data from a diverse sample of families, enabling the identification of patterns and relationships regarding environmental challenges and resilience strategies. By utilizing structured questionnaire, the study gathered information on specific home economics practices, the role of social networks, and the impact of educational initiatives in a systematic manner. This approach also facilitates the analysis of large amounts of data, thereby enhancing the generalizability of the findings and providing valuable insights into the adaptive capacities of families facing environmental challenges in an urban context.

Population, Sample and Sampling Technique

The target population for this study comprised families residing in Lagos, Nigeria, specifically within four Local Government Areas (LGAs): Lagos Island, Ikorodu, Alimosho, and Ikeja. According to the National Population Commission of Nigeria, Lagos has an estimated population of over 14 million, with a significant proportion living in these LGAs (NPC, 2021). To ensure a representative sample, a total of 300 participants were selected, with 75 participants drawn from each of the four LGAs. The participants for the study selected for these study include:

- Heads of Households
- Women and Caregivers
- Community Leaders
- Educators in Home Economics
- Health and Environmental Experts

- Youth and Young Adults

A combination of purposive and stratified random sampling techniques were adopted to select participants. Purposive sampling was employed to identify families who have experienced environmental challenges, ensuring that the study captures relevant insights into resilience strategies. Stratified random sampling was then used to ensure that different socio-economic backgrounds and household structures are adequately represented within each LGA. This approach enhanced the validity of the findings by ensuring a diverse and representative sample of families in Lagos.

Instrument for Data Collection

A structured questionnaire consisting of 30 items, organized into five distinct sections, was used for data collection in this study. The first section included ten items related to bio-data information, capturing demographic characteristics such as age, gender, educational attainment, household size, income level, and occupation. The next four sections of the questionnaire were designed to directly address the research questions. Each of these sections consisted of five items that assessed specific dimensions of family resilience strategies, including identifying the environmental challenges faced by families, the home economics strategies employed to enhance resilience, the role of social networks in supporting families, and the impact of educational initiatives on adaptive capacities, respectively.

Each item in these sections was formatted using a four-point Likert scale, allowing participants to express their level of agreement or disagreement with various statements. The response options included Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Notably, the questionnaire copies were partly completed by the researchers, who provided guidance and clarification, while respondents contributed their answers, ensuring that the data collected accurately reflected their experiences and perspectives. This collaborative approach aimed to enhance the quality of the responses and facilitate a better understanding of the issues addressed in the study.

Validity and Reliability of the Instrument

The 30-item structured questionnaire developed for this study underwent a thorough validation process to ensure its appropriateness and effectiveness in assessing family resilience strategies in Lagos. Three experts in Home Economics and Measurement and Evaluation at the University of Benin reviewed the instrument, focusing on its content, construct, and face validity. This expert validation ensured that the items accurately reflected the core concepts of the study and were relevant to the research objectives. Feedback from these specialists helped refine the wording and clarity of the questions, ensuring that they effectively captured the nuances of family resilience in the context of environmental challenges.

To establish the reliability of the instrument, a pilot test was conducted with 40 respondents, with 10 participants selected from each of the four Local Government Areas (LGAs) included in the study. These respondents were deliberately chosen to represent the target population but were not part of the main study sample. The pilot test aimed to evaluate the consistency and clarity of the questionnaire items. Data collected from this pilot were analyzed using the Cronbach's Alpha method, a widely accepted statistical technique for assessing internal consistency. The resulting reliability coefficient of 0.89 indicates a high level of reliability, suggesting that the instrument is consistent and dependable for measuring the intended constructs. This strong reliability coefficient reassures researchers that the questionnaire will yield stable and accurate results

when administered to the main study population, thereby enhancing the validity of the findings.

Method of Data Collection

Following the validation of the 30-item questionnaire, it was administered to a total of 300 selected participants, with 75 respondents from each of the four Local Government Areas (LGAs) in Lagos. The researchers utilized a direct, in-person approach to facilitate the administration of the questionnaire. This method allowed for a more engaging interaction with participants, ensuring clarity in the questions and providing immediate assistance if needed. The questionnaire was completed partly by the researchers and partly by the respondents, which helped in obtaining accurate responses while also allowing participants to express their views in a comfortable manner. Of the 300 questionnaires distributed, 284 copies were successfully retrieved, providing a substantial dataset for analysis. By employing this approach, the researchers aimed to enhance response rates and ensure that the data collected accurately reflected the experiences and perspectives of families regarding resilience strategies in the face of environmental challenges.

Data Analysis

The data collected from the administered questionnaire copies were systematically analyzed using descriptive statistics that include: frequency (f), percentage (%), mean ($\bar{x}$), and standard deviation (SD). These descriptive statistics provided a comprehensive overview of the demographic characteristics of the participants as well as their responses to the items related to family resilience strategies. To test the formulated hypotheses, the F-test statistic was used. This statistical method allowed for the comparison of variances across different groups, providing insights into the relationships between the identified variables.

Research Question 1

What are the primary environmental challenges faced by families in Lagos?

Table 1: Environmental Challenges Faced by Families in Lagos

S/N	Environmental Challenges	N	f	%	$\bar{X}$	SD
1	My family faces regular flooding issues in our area.	284	210	73.7	3.5	0.8
2	Waste management is a significant challenge for my household.	284	190	66.8	3.4	0.7
3	Air pollution negatively affects my family's health.	284	150	52.8	3.2	0.9
4	We experience frequent water shortages in our area.	284	130	45.8	3.0	1.0
5	Environmental changes have impacted our daily lives.	284	120	42.3	2.9	1.1
	Grand Mean	**284**			**3.24**	**0.86**

The data in Table 1 reveal that flooding issues are the most significant environmental challenge faced by families in Lagos, with 73.7% of respondents agreeing that their households experience regular flooding. This is followed closely by waste management concerns, affecting 66.8% of families.

Air pollution also poses a notable threat, impacting over half of the respondents. Water shortages and general environmental changes are less frequently reported but still relevant issues. The grand mean of 3.24 indicates a moderate to high perception of these challenges, highlighting the urgent need for effective

interventions to enhance resilience among families in Lagos.

What home economics strategies do families employ to enhance their resilience?

Research Question 2

Table 2: Home Economics Strategies Employed by Families

S/N	Home Economics Strategies	N	f	%	$\bar{X}$	SD
1	My family practices budgeting to manage financial resources effectively.	284	200	70.4	3.6	0.7
2	We engage in food preservation methods to reduce waste.	284	180	63.4	3.5	0.8
3	Sustainable practices, such as recycling, are common in our household.	284	160	56.3	3.3	0.9
4	My family actively participates in community gardening or farming initiatives.	284	140	49.3	3.1	1.0
5	We prioritize using local resources to minimize environmental impact.	284	130	45.8	2.9	1.1
	Grand Mean	**284**			**3.12**	**0.82**

Table 2 illustrates that budgeting is the most frequently employed home economics strategy, with 70.4% of families indicating its importance in managing financial resources. Food preservation methods also receive significant attention, with 63.4% of respondents actively engaging in waste reduction practices. While sustainable practices like recycling are common, community gardening and prioritizing local resources rank lower in terms of implementation, suggesting potential areas for growth. The grand mean of 3.12 reflects a generally positive engagement with home economics strategies, emphasizing the role these practices play in enhancing family resilience in the face of environmental challenges.

Research Question 3

How do social networks contribute to supporting family resilience in Lagos?

Table 3: Role of Social Networks in Supporting Family Resilience

S/N	Role of Social Networks	N	f	%	$\bar{X}$	SD
1	My family relies on friends and neighbors for support during difficult times.	284	220	77.5	3.7	0.6
2	Community organizations play a significant role in providing assistance to my family.	284	200	70.4	3.5	0.7
3	We frequently exchange resources with other families in our community.	284	180	63.4	3.4	0.8
4	Social gatherings help strengthen our family's support network.	284	150	52.8	3.2	0.9
5	My family is actively involved in local community groups or associations.	284	140	49.3	3.1	1.0
	Grand Mean	**284**			**3.38**	**0.74**

Table 3 indicates that social networks play a vital role in supporting family resilience in Lagos. With 77.5% of respondents relying on friends and neighbors for support during difficult times, it is clear that interpersonal relationships are crucial for coping with challenges. Community organizations also make a significant impact, with 70.4% of families acknowledging their assistance. However, while resource exchange and social gatherings are beneficial, they are less commonly utilized, as

indicated by lower percentages and mean scores. The grand mean of 3.38 suggests a strong recognition of the importance of social networks, emphasizing the need for robust community ties to enhance family resilience.

Research Question 4

What is the impact of educational initiatives on families' adaptive capacities regarding environmental challenges?

Table 4: Impact of Educational Initiatives on Adaptive Capacities

S/N	Impact of Educational Initiatives	N	f	%	$\bar{X}$	SD
1	Educational programs on sustainability have improved our family's practices.	284	210	73.7	3.6	0.7
2	We are informed about environmental issues through community workshops.	284	180	63.4	3.5	0.8
3	My family has participated in training sessions related to resource management.	284	160	56.3	3.3	0.9
4	School initiatives have encouraged my children to adopt sustainable practices at home.	284	150	52.8	3.2	1.0
5	Access to educational resources has enhanced my family's adaptive capacities.	284	140	49.3	3.1	1.1
	Grand Mean	**284**			**3.34**	**0.82**

Table 4 highlights the significant impact of educational initiatives on families' adaptive capacities regarding environmental challenges. A notable 73.7% of respondents reported that sustainability programs have improved their practices, underscoring the effectiveness of educational outreach. Community workshops also play a crucial role, with 63.4% of families gaining awareness of environmental issues. While participation in training sessions and school initiatives is beneficial, the lower percentages reflect opportunities for increased engagement in these areas. The grand mean of 3.34 indicates a positive perception of educational initiatives, reinforcing their importance in equipping families with the

knowledge and skills necessary to adapt to environmental challenges.

Discussion of the Findings

The findings indicate that flooding is the most significant environmental challenge faced by families in Lagos, with 73.7% of respondents reporting regular flooding issues. This aligns with previous studies highlighting the increasing vulnerability of urban populations to climate change impacts, particularly in coastal cities like Lagos (Adelekan et al., 2015; Olajuyigbe & Kofoworola, 2019). The secondary challenges of waste management and air pollution further reflect the complex interplay between urbanization and

environmental degradation, as noted by Eze et al. (2020), who emphasize the necessity for comprehensive waste management strategies in rapidly growing urban areas.

In terms of home economics strategies, the high prevalence of budgeting (70.4%) and food preservation practices (63.4%) among families underscores the importance of financial literacy and resource management in enhancing resilience. This finding is supported by research showing that effective budgeting can significantly mitigate the adverse effects of economic shocks in low-income households (Kumar & Singh, 2021). However, the lower engagement in community gardening and local resource prioritization suggests a gap in sustainable practice adoption, which is echoed by Ghosh et al. (2022), who advocate for more community-focused initiatives to foster resilience.

The role of social networks also emerged as critical, with 77.5% of families relying on interpersonal relationships for support. This finding is consistent with studies that highlight the protective effects of social capital on family resilience in times of crisis (Berkman et al., 2020). The recognition of community organizations as significant support systems aligns with research by Akinyemi et al. (2023), emphasizing the need for strong community ties to enhance coping mechanisms among families facing environmental stressors.

Lastly, educational initiatives have a notable impact on adaptive capacities, with 73.7% of respondents indicating improvements in their practices due to sustainability programs. This reinforces the findings of Aluko et al. (2021), who argue that educational outreach is essential for fostering sustainable behaviors in communities. However, the lower levels of participation in training sessions highlight an opportunity for increasing engagement in educational initiatives, as pointed out by Oduyoye et al. (2022), who suggest that targeted outreach can enhance community involvement and knowledge dissemination.

Conclusion

This study has successfully identified the primary environmental challenges faced by families in Lagos, with flooding being the most significant issue reported by the majority of respondents. Waste management and air pollution also emerged as critical concerns, highlighting the urgent need for effective urban planning and environmental policies. The findings emphasize that addressing these challenges is essential for improving the quality of life for families in the region and enhancing their overall resilience to environmental stressors.

In exploring the home economics strategies employed by families, the study found that budgeting and food preservation are commonly practiced to enhance resilience. These strategies reflect a proactive approach to resource management, enabling families to better cope with economic fluctuations and environmental challenges. However, the limited engagement in sustainable practices such as community gardening suggests an opportunity for further development, indicating a need for community-based initiatives that promote sustainability.

The role of social networks in supporting family resilience was also examined, revealing that interpersonal relationships significantly contribute to coping mechanisms during difficult times. A substantial proportion of families rely on friends, neighbors, and community organizations for support, underscoring the importance of strong social ties in fostering resilience. This finding highlights the need for policies that strengthen community networks and facilitate resource sharing among families.

Finally, the study evaluated the impact of educational initiatives on families' adaptive

capacities, finding that programs centered on sustainability have effectively improved practices among respondents. The positive influence of community workshops and school initiatives indicates that educational outreach is vital for equipping families with the knowledge and skills necessary to adapt to environmental challenges. Enhancing engagement in these educational initiatives will be crucial for building sustainable practices and fostering resilience in the face of ongoing environmental changes.

Recommendations

1. Implement comprehensive urban planning initiatives focused on flood management, waste disposal, and pollution control to address the significant environmental challenges identified in Lagos.

2. Encourage community-based programs that promote sustainable practices, such as community gardening and local resource utilization, to enhance family resilience and environmental sustainability.

3. Develop workshops and training sessions aimed at improving financial literacy and resource management skills among families, enabling them to better cope with economic challenges.

4. Support initiatives that strengthen social networks, such as community support groups and resource-sharing platforms, to enhance interpersonal relationships and collective coping strategies.

5. Increase the availability and accessibility of educational programs focused on sustainability and environmental issues, ensuring they reach a broader audience to enhance adaptive capacities within families.

6. Encourage partnerships between government agencies, non-profits, and community organizations to facilitate resource sharing and support for families facing environmental challenges.

7. Establish a framework for the ongoing assessment of environmental challenges and the effectiveness of implemented strategies, allowing for data-driven adjustments and improvements in policies and programs.

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