



Self-Reported Health Effects of Cashless Economic Policy Among Undergraduate Students of the University of Calabar, Cross River State, Nigeria

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Abstract

Context: Economic policy transitions can produce unintended public-health consequences when implementation outpaces social, financial and technological readiness. Undergraduates, just like others citizens of the country had their share of “shock” and challenges. They adopted several coping mechanisms just not to allow the new cashless policy disrupt their learning processes.

Objective: This study assessed the self-reported health effects of cashless economic policy among undergraduate students of the University of Calabar, Cross River State, Nigeria.

Methods and materials: A descriptive cross-sectional study design was adopted. Multistage sampling was used to select 427 consenting participants for the study. Semi-structured self-administered pretested questionnaire were used for data collection.

Results: The respondents had a mean age of 22.46 ± 3.88 years; Most, (73.5%) of the respondents were aged 20–29 years, and 57.8% were males. Although knowledge of cashless economic policy was generally high, with 68.4% of the respondents reporting good knowledge, self-reported health effects were common. Psychological stress was the most frequently reported effect (69.7%), followed by headache (63.0%), anxiety (43.3%), sleeplessness (36.1%) and depression-related symptoms (35.3%). Among the 236 students who reported health effects, 46.1% described them as mild, 39.9% as moderate and 14.0% as severe. Most students did nothing to manage these effects (67.8%), while 22.4% used drugs obtained from pharmacists or chemists.

Conclusion: The findings show that cashless policy transitions may create measurable stress-related and somatic burdens among students when payment infrastructure, liquidity access and support services are inadequate. There should be health-sensitive implementation of financial digitization policies by the Federal Government of Nigeria.

Keywords: Cashless, Economic policy, Undergraduate students, Health effects, Calabar, Nigeria.

Introduction

Cashless economic policy reforms are commonly promoted as instruments of payment system modernization, financial inclusion and economic efficiency. In principle, reducing dependence on physical cash can lower the cost of cash handling, improve transaction traceability, expand digital

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financial services and strengthen the formal payments ecosystem. In Nigeria, this policy direction has been reinforced by the Central Bank of Nigeria's Payments System Vision 2025, which emphasizes electronic payment adoption, interoperability, open banking, agent banking, system safety, consumer protection, reliability and

resilience (Central Bank of Nigeria).¹ These objectives are economically important, particularly in a country seeking to deepen formal financial participation and reduce the operational burden of cash-based transactions. However, the health and wellbeing implications of abrupt cash-reduction policies remain less visible in policy debates, especially where digital payment infrastructure is uneven and many citizens still rely on cash for daily survival.

The Nigerian cash scarcity associated with the currency redesign and cash-withdrawal restrictions exposed the social vulnerability of implementing cashless reforms in a largely cash-dependent environment. Although the policy was framed within a monetary and payments-system agenda, its effects extended into everyday life.² Access to food, transport, academic services, printing, communication, healthcare and other routine needs became difficult for many people when cash was unavailable and electronic transactions failed.³ For students, these disruptions were particularly important because university life depends heavily on small-value, frequent and time-sensitive transactions. When payment delays, failed transfers, network instability or limited merchant acceptance interfere with these needs, an economic policy can become a source of psychosocial and physical strain.⁴

A research supports this concern that financial scarcity during the Nigerian naira redesign period was significantly associated with psychological wellbeing among Nigerian residents.⁵ This finding is consistent with broader evidence that financial stress does not affect only purchasing power but also mental health, sleep and emotional stability.⁶ Many studies found out that financial worries were associated with psychological distress, particularly among vulnerable group, that young adults exposed to high financial stress had increased odds of psychological distress, and also there is an established link between financial strain with sleep related problems and poorer mental health. These studies suggest that sudden financial restriction, uncertainty and difficulty meeting daily needs may operate as stressors with both psychological and somatic consequences.^{7,8,9}

The relevance of financial stress is even stronger in higher education settings. Students are often in a

transitional stage marked by academic demands, limited income, dependence on parents or guardians, reliance on scholarships or informal work, and low savings capacity.¹⁰ A similar study showed that subjective financial difficulties and financial concerns were more consistently associated with poor mental health among higher education students than objective debt levels.¹¹ This distinction is important because the stress generated by a cashless policy shock may not depend only on the amount of money available to students.¹² It may also arise from the inability to access money when needed, the uncertainty of failed digital transactions, the embarrassment of being unable to pay for basic needs, and the time lost in queues at banks, automated teller machines or point of sale outlets.¹³

The stress process perspective provides a useful lens for understanding these relationships. The perspective assumes that external stressors can produce psychological and physical strain when individuals lack sufficient coping resources.¹⁴ In the context of cashless policy implementation, cash scarcity, poor network reliability, failed online transfers, power instability, transaction charges, fraud concerns and limited digital-payment acceptance may function as stressors. The resulting health outcomes may include psychological stress, anxiety, headache, sleeplessness and depressive symptoms, even where they do not amount to clinically diagnosed mental disorders.^{12,15} This approach is useful because it broadens the analysis beyond economic adoption and treats payment-system disruption as a possible determinant of everyday wellbeing.¹⁶

Existing Nigerian studies on cashless policy^{17,18,19} have largely concentrated on financial inclusion, electronic payment adoption, banking performance, consumer behavior and macroeconomic implications. These studies are valuable, but they do not sufficiently explain how abrupt cash-reduction policies affect students' health and coping behavior during periods of payment-system disruption. The gap is important because students represent a policy-sensitive population. They are digitally exposed, yet they remain vulnerable to infrastructure failure, limited disposable income and dependence on daily micro-transactions. A policy that appears efficient at the level of banking

systems may therefore generate hidden burdens at the level of student wellbeing.

Our study addresses that gap by examining self-reported health effects of cashless policy implementation among students in a Nigerian university. It focuses on students of the University of Calabar and investigates the forms of health effects experienced, the reported severity of those effects and the ways students managed the health challenges associated with the cashless policy period. The study specifically asks what health effects students reported during cashless policy implementation, how severe those effects were, and how students managed the symptoms they experienced. By addressing these questions, the study contributes to the literature by reframing cashless transition as both an economic and public-health issue. Its novelty lies in documenting the student health burden of cashless policy shock in a Nigerian university context and showing why implementation design, infrastructure readiness and consumer protection should be considered central to the wellbeing implications of payment system reform.

Materials and Methods

Study area/setting: This study adopted a descriptive cross-sectional survey design and was conducted among undergraduate students of the University of Calabar, Calabar, Cross River State, Nigeria. The University of Calabar is a large public tertiary institution located within Calabar metropolis and offers academic programmes across several faculties and departments.

Study design/sample size calculation: This was a cross-sectional descriptive study and the study population comprised undergraduate students who were available during the period of data collection and who agreed to participate. Students who were absent at the time of data collection were not included. A sample size of 427 students was determined using Cochran's formula, based on an assumed prevalence of 50%, a 95% confidence level, a 5% margin of error and a 10% allowance for non-response.

Sampling method: Participants were selected through a multistage sampling process involving four stages. Simple random sampling by balloting was used to select 7 faculties from a total of 20

faculties in the first stage. In the second stage, simple random sampling by balloting was also used to select one department from the 7 faculties. The third stage involved the selection of the students year of study in each of the seven departments by simple random sampling by balloting. In the fourth stage, systematic random sampling method was used to select 427 students from 7 departments, giving 61 respondents in each class and this was based on the class list (sampling frame) gotten from the class representatives of each class.

Data collection instrument: Data were collected (between April and June, 2023) using a pretested, semi-structured, self-administered questionnaire. The questionnaire obtained information on socio-demographic characteristics, knowledge of cashless economy, self-reported health effects of the cashless policy (a policy that does not permit transactions to be done by physical cash such as paper notes and coins, but encourages the use of electronic payment), perceived severity of health effects and the measures used by students to manage these effects. The instrument was pretested among students in another tertiary institution in Calabar to improve clarity, wording and ease of administration before the main survey.

Data analysis: Data were analyzed using IBM SPSS version 25. Categorical variables were presented as frequencies and percentages, while numerical variables were summarized using mean and standard deviation. Because the available results were reported in aggregate descriptive form, the findings presented in this paper were limited to descriptive analysis. Composite scoring system: This was used to determine good, fair and poor knowledge. Five questions were asked with twelve options to assess knowledge level of the participants. A right answer scored 1 mark, while a wrong answer scored no mark (0). Students who scored between 0-4, 5-8, 9-12 marks were adjudged to have poor, fair and good knowledge respectively.

Ethical consideration: Ethical approval for the study was obtained from the University of Calabar Teaching Hospital Ethics Committee before data collection. Administrative permission was also obtained from the appropriate authorities of the University of Calabar. Participation was voluntary, and only students who gave informed consent were included in the study. Respondents were informed

about the purpose of the study, their right to decline participation and their right to withdraw at any stage without penalty.

Results

A total of 427 students participated in this study. The mean age of the respondents was 22.5 ± 3.9 years, with an age range of 16–41 years. Most respondents were aged 20–29 years (73.5%). Male respondents constituted 57.8%, while female respondents constituted 42.2%. Most respondents were Christians (95.6%). The largest academic-level group was 300 level (30.0%), as shown in table 1.

Table 1: Socio-demographic characteristics of respondents

Variable	Category	Frequency	Percentage
Age group	<20 years	91	21.3
	20–29 years	314	73.5
	30–39 years	20	4.7
	≥40 years	2	0.5
Mean age	=	22.5 ± 3.9	
Sex	Male	247	57.8
	Female	180	42.2
Religion	Christianity	408	95.6
	Islam	16	3.7
	Others	3	0.7
Educational level	100 level	86	20.1
	200 level	86	20.1
	300 level	128	30.0
	400 level	61	14.3
	500 level	31	7.3
	600 level	35	8.2

Most students had good knowledge of cashless economy. Overall, 68.4% had good knowledge, 24.4% had fair knowledge and 7.2% had poor knowledge, as shown in figure I.

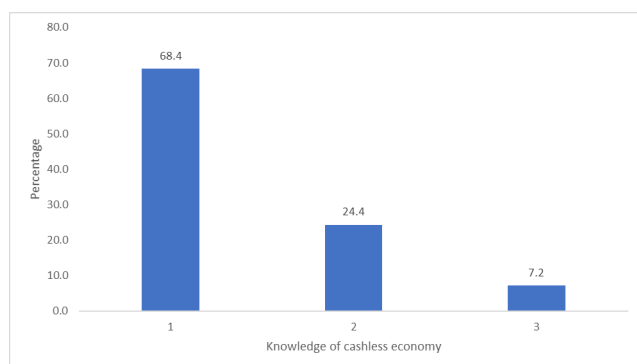


Figure I: Knowledge of cashless economy among students in University of Calabar.

Considering the health effects of cashless economic policy as reported by students at University of Calabar. Majority, (69.7%) of the students had experienced psychological stress, 63.0% had headache, 43.3% had experienced anxiety and sleeplessness 36.1%, while 35.3% had experienced depression, as shown in figure II.

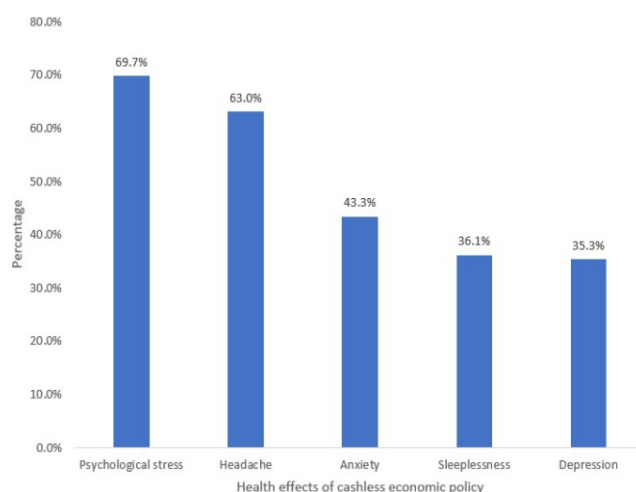


Figure II: Health effects of cashless economic policy.

Among the 236 students who reported health effects (which were not experienced when the students were doing their financial transactions with physical cash), 46.1% described the effects as mild, 39.9% as moderate and 14.0% as severe. Thus, more than half of those affected described the impact as moderate or severe, as shown table 2.

Table 2: Severity of reported health effects

Severity	Frequency	Percentage
Mild	109	46.1
Moderate	94	39.9
Severe	33	14.0
Total	236	100.0

Table 3: Management responses to health effects (multiple options)

Management response	Percentage
Did nothing	67.8
Took drugs from pharmacist or chemist	22.4
Fasting and prayers	10.9
Hospitalization (admitted in hospital)	8.3

The most common response was “did nothing” (67.8%). Some students “took drugs from a pharmacist or chemist” (22.4%), while others used “fasting and prayers” (10.9%) and “hospitalization” (admitted in hospital) was reported by 8.3% of the respondents, as shown in table 3.

Discussion

Our study found that undergraduate students reported substantial health effects during cashless economic policy implementation. The dominant effects were psychological stress and headache, followed by anxiety, sleeplessness and depression-related symptoms. These findings should be interpreted carefully. The questionnaire captured self-reported experiences rather than clinical diagnoses. Therefore, the study does not establish the prevalence of diagnosed anxiety disorder, depressive disorder or stress-related illness. It does, however, show that students perceived the policy period as having clear psychological and somatic consequences.

The high level of psychological stress was consistent with the broader literature on financial scarcity and mental health; one of these studies found out that the Nigerian naira redesign period was associated with financial scarcity and reduced psychological wellbeing.⁵ The current study extends that evidence to a University population in Southern Nigeria. Its contribution is specific as students reported stress related symptoms in the context of daily payment disruption. For students, cashless policy was not an abstract monetary reform. It affected many routine daily chores of students’ life on campus such as food purchases, transport payments, access to petty traders, payment of academic expenses and contacts with family members for financial support.¹⁵

The prominence of headache may reflect the bodily expression of financial strain. Stress related somatic symptoms are common when individuals face prolonged uncertainty, crowding at payment points, failed transfers, hunger, poor sleep or repeated failed attempts to access money.²⁰ Another study showed that financial strain was associated with poor mental health and that sleep problems can both mediate and amplify the relationship.⁹ The present study’s finding that 36.1% of respondents reported sleeplessness fits this pattern, although the cross-

sectional design does not allow causal inference.

The finding that 43.3% reported anxiety and 35.3% reported depression-related symptoms also aligns with wider evidence that financial worries are associated with psychological distress.⁷ Another study showed that financial stress among young adults is strongly associated with psychological distress. This supports the argument that young adults should not be treated as merely adaptable digital natives.⁸ Even when students are familiar with mobile phones and online transfers, they remain vulnerable when payment systems fail or when cash scarcity constrains survival needs.²¹

A key concern is the low level of formal health response. Most students who reported health effects did nothing. Some used drugs obtained from pharmacists or chemists, while a smaller proportion used fasting and prayers or experienced hospitalization. This pattern suggests a possible gap between stress exposure and support-seeking. It may also reflect limited student health insurance, weak counselling access, normalization of stress or the perception that policy-related hardship is not a health matter.²² The 8.3% respondents reporting hospitalization is notable and should be investigated further in future studies using clinical records or more detailed symptom measures.

The study has policy implications. First, cashless policy implementation should include a health-risk assessment for groups that depend on daily micro-payments. Second, universities should prepare emergency payment-support systems during national financial disruptions. Third, student clinics and counselling units should screen for stress-related symptoms during periods of acute economic policy shock. Fourth, financial digitization should be matched with reliable internet access, power supply, merchant readiness, functional dispute resolution and cash-access safeguards for vulnerable groups.¹⁹

Conclusion

Cashless economic policy implementation among students of the University of Calabar revealed substantial self-reported health effects, especially psychological stress and headache in our study. Although most students had good knowledge of cashless economy, awareness did not prevent distress during policy disruption. The novel

contribution of this paper is its re-framing of cashless policy as a student-health issue, not only a financial-sector reform. Future research should use validated mental-health instruments, longitudinal designs and multi-university samples to examine the causal pathways between financial scarcity, digital-payment disruption and students well-being.

Limitation of this study: This study was carried out in 2023 during the cash crunch, (which had since ended in Nigeria), but it was worth letting out this information so that, the Scientific Community will know what Nigerian students passed through during that period. No test of relationship was carried out to know if the dependent and independent variables had any significant association. The study design was cross-sectional, so causality cannot be inferred. The symptoms were self-reported and not assessed with validated clinical scales. The data were descriptive, and no individual-level modelling was available to examine predictors of health effects. The study was conducted in one University, limiting generalizability. Recall bias and social desirability bias may also have affected responses. Nevertheless, the study provides useful early evidence on an under-researched public-health dimension of cashless economic policy implementation in Nigeria.

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