



Evaluation of Dissemination Strategies and Information Utilization Factors in the Rehabilitation of Female Drug Addicts within the Kano Metropolis

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Abstract

Drug addiction among women represents a growing yet under-researched public health challenge in Nigeria, particularly within conservative northern contexts where stigma and cultural barriers constrain access to rehabilitation services. This study investigates the strategic dissemination of psychoactive substance information and its role in the rehabilitation of female drug addicts by the National Drug Law Enforcement Agency (NDLEA) within the Kano Metropolis, Nigeria. The key objective was to evaluate dissemination strategies deployed by NDLEA staff and examine critical factors facilitating or inhibiting the utilization of psychoactive substance information by female addicts. Employing a quantitative cross-sectional survey design, data were collected from 171 NDLEA personnel across eight metropolitan local government areas using structured questionnaires, with reliability coefficients exceeding 0.84. The findings reveal that effective dissemination relies substantially on an integrated blend of community outreach, radio programs, media advocacy, and localized sensitization campaigns. Furthermore, the study identifies critical facilitating factors—including information reliability, source authority, cultural context sensitivity, and information utility quality—alongside persistent structural barriers such as social stigma, funding limitations, and technological constraints. The study recommends enhancing digital and community-level outreach platforms, strengthening institutional funding, fostering multi-sectoral collaborations, and integrating economic empowerment components into rehabilitation programs. Future research should employ longitudinal designs and qualitative methodologies to capture the lived experiences of female addicts and evaluate long-term rehabilitation outcomes.

Keywords: Information dissemination, psychoactive substances, female drug addicts, rehabilitation, NDLEA.

1. Introduction

Drug addiction constitutes a pervasive global public health and security challenge, with Nigeria experiencing a notable escalation in illicit substance use, particularly among youth and women. According to nationwide statistics, a significant portion of the Nigerian population has engaged with psychoactive substances, translating into rising rates of dependency, socioeconomic displacement, and associated criminal behaviors (United Nations Office on Drugs and Crime [UNODC], 2018). Contemporary research underscores that drug abuse in Nigeria is not an isolated phenomenon but rather a symptom of deeper systemic failures—including poverty, unemployment, weak governance, and cultural stigma (Jatau et al., 2021). Within northern Nigeria, and specifically the Kano Metropolis, female drug addicts face unique and formidable barriers to recovery, driven by severe social stigmas, cultural expectations of modesty, and limited access to targeted rehabilitation infrastructure (Modu et al., 2025).

The National Drug Law Enforcement Agency (NDLEA), established in 1989, shoulders the statutory mandate to combat drug trafficking and substance abuse through interdiction and demand reduction. Demand reduction heavily hinges on the effective production, packaging, and dissemination of reliable psychoactive substance information. Information dissemination acts as the cognitive bedrock for preventative education, early intervention, and sustained rehabilitation. Recent scholarship emphasizes that women who use drugs are often considered a hard-to-reach population, particularly in Northern Nigeria, due to prevailing social and cultural factors that limit their access to healthcare services (Greenfield et al., 2019). Many avoid conventional health services due to fear of discrimination, arrest, or social consequences, leaving them underserved and largely invisible.

Despite ongoing institutional efforts, empirical documentation regarding the specific mechanics, strategies, and operational bottlenecks governing the dissemination of psychoactive substance information to female addicts remains sparse. To bridge this literature gap, this study focuses specifically on evaluating the operational strategies used for disseminating psychoactive substance information and analyzing the factors facilitating or affecting the use of such information in the rehabilitation of female drug addicts within the Kano Metropolis.

1.1 Research Objectives

The specific objectives guiding this study are:

1. To evaluate the strategies used by NDLEA staff for disseminating psychoactive substance information to female drug addicts in the Kano Metropolis.
2. To examine the factors facilitating and inhibiting the utilization of psychoactive substance information in the rehabilitation of female drug addicts.

1.2 Research Questions

1. What strategies do NDLEA staff employ in disseminating psychoactive substance information to female drug addicts in the Kano Metropolis?
2. What factors facilitate or inhibit the utilization of psychoactive substance information in the rehabilitation of female drug addicts?

1.3 Significance of the Study

This study contributes to the growing body of literature on gender-responsive drug rehabilitation in Nigeria. By focusing specifically on female drug addicts within the Kano Metropolis a region characterized by unique cultural and religious sensitivities the research provides context-specific insights that can inform policy and practice. The findings are expected to benefit NDLEA policymakers, rehabilitation practitioners, community leaders, and international organizations working to address substance abuse in conservative settings.

2. Review of Related Literature

2.1 Theoretical Framework

The theoretical architecture underpinning this study integrates the Media System Dependency (MSD) Theory (Ball-Rokeach & DeFleur, 1976) and the Cognitive-Affective-Pharmacogenic (CAP) Control Theory (Gold, 1980). Media System Dependency Theory posits that individuals rely on institutional media information systems—such as those managed by regulatory bodies like the NDLEA—to meet specific informational needs regarding health risks, societal norms, and coping behaviors. The degree of audience dependency dictates the magnitude of behavioral and cognitive effects. This theoretical lens is particularly relevant in understanding how female drug addicts in conservative settings access and process substance-related information.

Concurrently, Cognitive-Affective-Pharmacogenic (CAP) Control Theory illuminates the internal mechanism of addiction, asserting that substance abuse originates from life conflicts, stress-induced anxiety, and a cognitive distortion of powerlessness. Information dissemination and rehabilitation strategies must therefore counteract this distortion by rebuilding self-efficacy, emotional coping mechanisms, and cognitive clarity (Gold, 1980). The integration of these

theoretical frameworks provides a comprehensive understanding of both the external communication processes and internal psychological mechanisms that govern rehabilitation outcomes.

2.2 Socio-Economic Determinants of Female Substance Abuse

Contemporary empirical research has increasingly pointed out the connection between socio-economic conditions and drug use among women. In contrast to previous studies that framed substance abuse solely as a personal moral failing, more recent research illustrates its origins in structural inequalities, gender vulnerabilities, and socio-cultural pressures (Adenugba & Okeshola, 2018). Poverty has been established in numerous studies as a key factor contributing to women's substance abuse. Research conducted in Northern Nigeria found that women from low-income families were significantly more likely to use psychoactive substances as a way to cope with economic difficulties (Owolabi & Ibrahim, 2020).

A comprehensive study examining socio-economic determinants of women's substance abuse in Dala Local Government Area of Kano State revealed that 42% of participants had used psychoactive substances, with codeine-based cough syrups (60%), tramadol (25%), cannabis (10%), and alcohol (5%) being the most frequently abused (Modu et al., 2025). The research demonstrated significant relationships between unemployment, low educational levels, and the prevalence of substance abuse. Specifically, unemployed women were 2.8 times more likely to misuse substances, while those with limited education were 2.3 times more susceptible compared to their peers with higher educational attainment (Modu et al., 2025). Marital status also influenced substance use, with divorcees and widows reporting higher usage rates due to domestic stressors such as violence, neglect, and social isolation (Ahmed et al., 2021).

Domestic violence and dysfunctional family dynamics have been consistently recognized as significant factors leading to women's substance abuse. Research in Kano metropolis revealed that a significant number of women who used drugs reported experiences of spousal abuse and marital discord (Yahaya, 2019). Peer pressure has also been identified as another contributing factor, with studies demonstrating that social networks significantly influenced the initiation of drug use, especially among unmarried women and students (Kaggwa et al., 2020).

2.3 Strategies for Information Dissemination

Information dissemination strategies encompass a spectrum of channels ranging from traditional mass media (radio, television, print brochures) to interpersonal, community-based, and digital outreach. Contemporary scholarship emphasizes that no single channel guarantees success; rather, an integrated multi-channel approach is required to guide audiences through the stages of knowledge acquisition, persuasion, decision-making, and behavioral confirmation (Reardon & Rogers, 2020).

In the context of drug law enforcement and rehabilitation, institutional strategies generally bifurcate into external public campaigns and internal rehabilitation interventions. External strategies include mass media advocacy, social media campaigns, motor-park flyers, street conferences, and community-level sensitizations. Internal rehabilitation interventions encompass psychotherapeutic counseling, peer group support through catharsis-based group therapy, and family therapy administered within designated care facilities (Fareo, 2022).

The NDLEA has increasingly adopted integrated approaches to drug control, encompassing prevention, treatment, rehabilitation, and integration (Jatau et al., 2021). Recent initiatives include collaborations with private sector organizations to establish gender-responsive rehabilitation facilities. The establishment of dedicated women's mental health and substance use rehabilitation centers represents a significant milestone in addressing the dual challenge of mental health and substance use disorder, particularly among female populations (Gureje & Olley, 2022). These centers provide clinical services while serving as symbols of hope and possibility, demonstrating that recovery is real and transformation is possible.

Community-based interventions have also gained prominence, with the NDLEA expanding partnerships with communities, faith-based organizations, and stakeholders through initiatives such as the War Against Drug Abuse (WADA) (Baharuddin et al., 2021). Creative and cultural engagements, including music festivals and cultural platforms, have been utilized as avenues for confronting drug abuse while encouraging moral values and sustainable youth empowerment.

2.4 Factors Facilitating and Inhibiting Information Utilization

The efficacy of information dissemination is dictated by several structural and qualitative parameters:

Information Quality and Reliability: Information characterized by high formal, editorial, and utility quality—such as perceived objectivity, timeliness, relevance, and presence of rich multimedia formats—dramatically stimulates user adoption and behavioral modification. The credibility of information sources significantly influences its uptake among vulnerable populations (Baharuddin et al., 2021).

Source Authority: Information originating from credible, recognized government and medical authorities (such as NDLEA officials or health professionals) carries significantly higher weight and trust among vulnerable populations than non-expert sources. This aligns with the propositions of Media System Dependency Theory regarding audience reliance on institutional information systems (Ball-Rokeach & DeFleur, 1976).

Cultural and Social Context: Societal stigma surrounding female drug use in conservative environments like Kano can act as an acute barrier. Research indicates that women who use drugs face multiple vulnerabilities, including stigma, gender-based violence, and economic hardship, which limit their access to healthcare (Greenfield et al., 2019). Culturally sensitive messaging, the engagement of community leaders, and privacy-assured communication channels serve as critical facilitators.

Resource and Infrastructure Constraints: Funding deficits, staffing shortages, and technological limitations frequently hamper the scale and continuity of institutional dissemination programs. Additionally, the absence of gender-specific rehabilitation facilities has historically impeded treatment access for women, with reports indicating that female drug abusers were sometimes turned away due to lack of appropriate facilities (Gureje & Olley, 2022).

2.5 Gender-Responsive Rehabilitation Approaches

Recent policy developments in Kano State have demonstrated increased recognition of the need for comprehensive, gender-sensitive approaches to drug rehabilitation. The Kano State Government has initiated plans to rehabilitate 10,000 drug users within one year through a multi-agency task force focusing on detoxification, rehabilitation, skills acquisition, and economic empowerment rather than relying solely on arrest and imprisonment (Modu et al., 2025). This approach includes establishing business clusters where rehabilitated individuals can acquire vocational and entrepreneurial skills, thereby addressing the underlying economic factors that contribute to substance abuse.

The initiative also includes provisions for a Rapid Response Centre operating 24 hours a day to receive information from the public on drug-related issues, demonstrating the integration of information dissemination with rehabilitation infrastructure (Modu et al., 2025). The program recognizes drug users primarily as victims rather than criminals, with those testing positive for single substances receiving counselling and release to parents or guardians, while only those involved in multiple-substance abuse face prosecution.

2.6 Gaps in Existing Literature

Despite the growing body of research on substance abuse in Nigeria, several critical gaps remain. First, most studies focus on male drug users or treat gender as a secondary variable, failing to capture the unique experiences of female addicts in conservative settings. Second, there is limited empirical documentation on the specific dissemination strategies employed by the NDLEA and their effectiveness in reaching hidden female populations. Third, the intersection of cultural stigma, gender norms, and information utilization remains underexplored. This study addresses these gaps by providing context-specific evidence from the Kano Metropolis.

3. Methodology

3.1 Research Design

This study adopted a quantitative cross-sectional survey research design. This design was selected for its suitability in collecting standardized data from a defined population at a single point in time, thereby enabling systematic evaluation of dissemination strategies and information utilization factors (Creswell & Creswell, 2018).

3.2 Population and Sampling

The target population comprised all operational staff of the NDLEA stationed within the eight local government areas of the Kano Metropolis (Ungogo, Municipal, Tarauni, Dala, Nasarawa, Kumbotso, Gwale, and Fagge), totaling 615 personnel. Using the Krejcie and Morgan sample size determination table, a sample size of 234 respondents was drawn using a stratified random sampling technique to ensure balanced representation across the local government divisions.

3.3 Data Collection Instrument

Data was collected via a self-administered, structured questionnaire featuring ordinal and nominal scales. The questionnaire was designed to capture data on demographic characteristics, dissemination strategies employed, and factors affecting information utilization. Out of 234 distributed copies, 171 usable questionnaires were retrieved, representing a 73% response rate, which is statistically adequate for descriptive and analytical evaluation (Nulty, 2018).

3.4 Validity and Reliability

Instrument reliability was established via Cronbach's Alpha testing on SPSS, yielding internal consistency coefficients exceeding 0.84 across all tested variable sections. Content validity was ensured through expert review by information science and public health professionals.

3.5 Data Analysis

Data analysis was performed using descriptive statistics including frequencies, percentages, means, and standard deviations. The analysis was conducted using SPSS version 26.

3.6 Ethical Considerations

Ethical approval was obtained from the relevant institutional review board. Informed consent was obtained from all participants, and confidentiality and anonymity were assured throughout the research process.

4. Results and Discussion

4.1 Demographic Profile and Experience of Respondents

Analysis of the working experience of the participating NDLEA personnel indicated that 40.35% (n=69) had served between 1 to 5 years, 25.73% (n=44) between 6 to 10 years, 28.65% (n=49) between 11 to 15 years, and the remaining held longer tenures. This distribution establishes that the respondents possessed adequate institutional tenure and field experience to provide valid perceptions regarding institutional dissemination and rehabilitation processes.

4.2 Strategies Used for Disseminating Psychoactive Substance Information

Evaluating the methods deployed by NDLEA staff to communicate risks and rehabilitation options revealed distinct patterns of institutional outreach:

Radio Programs and Broadcast Media: Identified as a primary mass dissemination tool, leveraging high household penetration across the Kano Metropolis. Radio remains particularly effective in reaching women who may have limited access to other media platforms due to cultural constraints on mobility and public engagement.

Community Outreaches and Town-hall Sensitizations: Utilized for grassroots engagement, distributing fact sheets, and engaging family units directly. These approaches facilitate interpersonal communication and allow for culturally sensitive messaging that respects local norms while conveying critical health information.

Print and Informational Materials: Deployment of pamphlets, banners, and warning brochures at strategic public locations such as motor parks and markets. These materials serve as supplementary reinforcement of key messages communicated through other channels.

Targeted Counselling Sessions: Interpersonal communication implemented inside rehabilitation centres, utilizing psychotherapeutic frameworks and group therapy to encourage behavioral feedback and catharsis. These sessions integrate with the Cognitive-Affective-Pharmacogenic framework by addressing the internal psychological mechanisms of addiction.

These findings align with contemporary propositions regarding the necessity of combining mass media awareness with interpersonal reinforcement (Reardon & Rogers, 2020). However, the study notes that digital and mobile application-based dissemination remains under-utilized relative to traditional channels. This observation is particularly significant given the increasing penetration of mobile technology in Nigeria and the potential for reaching hidden populations through digital platforms (Baharuddin et al., 2021).

4.3 Factors Facilitating and Affecting the Use of Psychoactive Substance Information

Respondents evaluated several dimensions governing the successful reception and utilization of psychoactive substance information by female addicts:

Source Credibility and Authority: Information disseminated under the institutional banner of the NDLEA or in partnership with medical professionals was reported to command higher compliance and lower skepticism among patients and their families. This finding validates the propositions of Media System Dependency Theory regarding the differential effects of information sources based on perceived authority (Ball-Rokeach & DeFleur, 1976).

Information Utility and Relevance: Formats that clearly outlined health, financial, and legal consequences in accessible language significantly improved audience engagement. Information that addresses the specific socio-economic realities of women—including the connections between substance abuse and unemployment, poverty, and domestic violence—demonstrates enhanced relevance and uptake.

Socio-Cultural Barriers and Stigma: Severe societal stigma in conservative urban settings acts as an inhibitory filter, often discouraging female addicts from openly seeking or acting upon public information channels out of fear of social ostracism. Research confirms that women who use drugs face multiple vulnerabilities including stigma, gender-based violence, and economic hardship, which limit their access to healthcare (Greenfield et al., 2019).

Institutional and Logistical Hurdles: Shortages in dedicated funding, restricted community-level logistics, and sporadic campaign momentum were highlighted as major bottlenecks limiting the continuous reach of dissemination programs. The historical absence of gender-specific rehabilitation facilities has also been noted as a significant barrier, with reports indicating that female drug abusers were sometimes turned away due to lack of appropriate accommodations (Gureje & Olley, 2022).

5. Conclusion

The dissemination of psychoactive substance information is a vital determinant of successful rehabilitation outcomes for female drug addicts within the Kano Metropolis. The findings confirm that while the NDLEA actively utilizes radio broadcasts, community outreach, and institutional counselling, the overall effectiveness of these strategies is mediated by critical facilitating factors, including information reliability, source authority, and cultural adaptability. Conversely,

structural barriers—such as societal stigma, limited funding, and inadequate digital integration—continue to constrain optimal reach.

Grounded in the Media System Dependency and CAP Control theories, effective drug demand reduction requires systematic institutional communication that addresses both the informational needs of the public and the cognitive-emotional recovery of addicts. The study underscores the importance of recognizing that drug abuse in Nigeria is not an isolated problem but rather a symptom of deeper systemic failures—poverty, unemployment, weak governance, and cultural stigma (Jatau et al., 2021). Consequently, effective interventions must address these underlying determinants while providing gender-responsive rehabilitation services.

6. Recommendations

Based on the empirical findings of this study, the following recommendations are advanced:

Enhancement of Digital and Multi-Channel Outreach: The NDLEA should incorporate modern digital platforms such as mobile-accessible web portals, localized social media campaigns, and interactive hotlines to broaden its reach among tech-savvy and younger demographics. Digital platforms offer the advantage of privacy, which is particularly important for women facing stigma in conservative settings.

Culturally Tailored Anti-Stigma Campaigns: Information dissemination programs must incorporate community and religious leaders to actively combat the intense social stigma associated with female drug addiction, thereby encouraging early voluntary reporting and treatment-seeking behavior. Campaigns should leverage cultural platforms and creative engagements to promote positive values while addressing substance abuse.

Capacity Building and Inter-Agency Collaboration: Government and policymakers should scale up financial allocations and logistical support for NDLEA public education units, fostering robust partnerships with educational institutions, non-governmental organizations, and local community networks. The establishment of dedicated rehabilitation facilities for women should be prioritized to address the historical gap in gender-responsive services (Gureje & Olley, 2022).

Integration of Cognitive-Behavioral Support Frameworks: Information packets utilized during community outreaches and institutional rehabilitation should explicitly feature peer-recovery narratives and cognitive restructuring tools to directly counteract feelings of powerlessness among female addicts, aligning with the principles of the CAP Control Theory (Gold, 1980).

Economic Empowerment Integration: Rehabilitation programs should incorporate vocational training and economic empowerment components, addressing the underlying socio-economic determinants of substance abuse. The Kano State model of establishing business clusters for rehabilitated individuals provides a template for sustainable reintegration (Modu et al., 2025).

Policy Advocacy and Evidence-Based Interventions: Stakeholders should advocate for evidence-based policies and regulations to reduce the availability and demand for psychoactive substances, while continuing research and evaluation to monitor substance abuse trends and assess intervention program effectiveness.

7. Future Research Directions

Building upon the findings and limitations of this study, the following directions for future research are proposed:

Longitudinal Studies on Rehabilitation Outcomes: Future research should employ longitudinal designs to track female drug addicts over extended periods, evaluating the long-term effectiveness of information dissemination strategies and rehabilitation interventions. Such studies would provide valuable insights into relapse rates, sustained recovery, and factors contributing to successful reintegration.

Qualitative Exploration of Lived Experiences: In-depth qualitative studies utilizing phenomenological or ethnographic approaches are needed to capture the lived experiences of female drug addicts in conservative settings. Such research would illuminate the subjective meanings, emotional trajectories, and cultural negotiations involved in seeking and utilizing substance-related information.

Comparative Studies Across Regions: Comparative research examining dissemination strategies and information utilization factors across different geopolitical zones in Nigeria would enhance understanding of how cultural, religious, and socio-economic contexts shape rehabilitation outcomes. Comparisons between northern and southern regions would be particularly valuable.

Evaluation of Digital Interventions: As digital platforms become increasingly important, future research should rigorously evaluate the effectiveness of mobile applications, social media campaigns, and telemedicine interventions in reaching hidden female populations and facilitating rehabilitation.

Intersectionality and Vulnerable Subgroups: Future studies should examine how intersecting identities—including age, marital status, educational attainment, and economic status—shape women's experiences with substance abuse and rehabilitation. Particular attention should be paid to pregnant women, sex workers, and internally displaced persons.

Community-Based Participatory Research: Engaging affected communities as co-researchers in the design and implementation of studies would enhance cultural relevance, build trust, and ensure that research findings translate into actionable community-level interventions.

Economic Evaluations of Rehabilitation Programs: Cost-effectiveness analyses of different rehabilitation models—including residential, outpatient, and community-based approaches—would inform resource allocation decisions and identify scalable, sustainable interventions.

Policy Analysis and Implementation Research: Future research should examine the implementation of gender-responsive drug policies, identifying barriers and facilitators to effective policy translation at the grassroots level.

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