

Integrating Mental Health into Primary Health Care Settings in Ogun State: An Example of a Sustainable Mental Health Project in Nigeria

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Abstract

Introduction: In developing countries with shortage of mental health professionals, non-physician primary health care workers are trained and supported to provide mental health services. One of the major challenges with mental health integration into primary health care (PHC) is the long-term sustainability of such services. This paper reports on a primary care mental health service that has been continuously sustained over a decade.

Method

Aro Primary Care Mental Health Programme was developed and rolled out across 40 designated PHC centres in Ogun State in November 2011. Initially, 80PHC workers were trained using the adapted WHO mental health Gap Action Programme-Intervention Guide (mhGAP-IG) document covering 5 priority mental conditions: (Psychosis, Depression, Epilepsy, Anxiety Disorders & Other Significant Emotional Complaints and Substance Use Disorders). Over the years, above 400 PHC workers had been trained with commencement of mental health service delivery in the designated PHC centres. The field psychiatric nurse supervisors and consultant psychiatrists have provided a solid framework of support and supervision. Caseload of patients treated by the trained PHC workers was reviewed since commencement of the programme in November 2011 using descriptive statistics.

Results: In the 11 years 6 months period (November 2011 – April 2023), the caseload of patients was 2,910 with an average of 254 new cases per annum. About 90% of the cases were Psychosis and Epilepsy. Attrition of trained PHC workers remained a major challenge with only 18 trained PHC workers remaining on the programme. Follow up cases of patients showed an average of 279 follow-ups per month.

Conclusion: The Aro Primary Care Mental Health Programme has shown that it is feasible, practicable and cost effective with relevant stakeholders' participation to scale up mental health services at primary care setting in Nigeria using the adapted mhGAP-IG document. Also the factors responsible for sustaining the services for over a decade are dynamic and deserved to be better understood

Keywords

Integration, Mental Health, Primary Care, mhGAP-IG, Sustainability, Ogun state, Nigeria.

such that the number of available health workers has drastically reduced.

One of the major obstacles to the integration of mental health care is that most PHC workers have minimal mental education that is insufficient for effective mental health service delivery [24-26]. Our survey among the health workers showed that they are willing to provide mental health service if they have adequate knowledge and skills [27].

The primary health care system within Ogun State is fairly comparable to what obtains in most states of the federation of Nigeria. Hence, the model developed within this setting could be generalized to other parts of the country. Drive for Aro Primary Care Mental Health Programme. The Federal Neuropsychiatric Hospital (FNPH) Aro, Abeokuta had been the vanguard for community mental health services in Nigeria as demonstrated by the late doyen of psychiatry with innovative Aro Village System variant of community mental health service [28,29]. However, with the development of full complement of in-patients services, there was a gradual neglect of this model of care. The Neuropsychiatric Hospital, Aro, was stirred by the theme of the 2009 World Mental Day Theme - Mental Health in Primary Care: Enhancing Treatment and Promoting Mental Health. The hospital decided to embark on a primary care mental health service pilot project in collaboration with Abeokuta North Local Government on 10th October 2009. The project was a stepping stone for a state-wide primary care mental programme.

Integration of Mental Health into Primary Health Care – Pilot Phase.

The management of the FNPH Aro, Abeokuta being ably led by the then provost and medical director, Dr. Ogunlesi Adegboyega set up a Primary Care Mental Health Integration Committee, which was headed by the provost and medical director. Dr. Adebowale Timothy, the former director of Community Mental Health Services was appointed the project coordinator while Dr. Lucky Onofa (the lead author of this paper) was chosen as the field Pilot Consultant Psychiatrist.

There were various stakeholders meetings with the local government executives, PHC directors, apex nurses, community leaders and the key officers of the FNPH Aro, Abeokuta. A preliminary situational analysis and assessment of the structure and current functional status of primary health care services in the local government were carried out.

In collaboration with the local government service commission and primary care development board, two (2) PHC centres (Iberekodo, an urban centre and Imala, a rural centre) in Abeokuta North LGA were selected for the pilot phase. Four (4) psychiatric nurses were trained on five priority mental disorders – namely: (1) Depression (2) Psychosis (3) Epilepsy, (4) Anxiety disorders & Other Significant Emotional Complaints (OSEC) and (5) Substance

Use Disorders Two (2) psychiatric nurses each were deployed to Iberekodo and Imala PHC centres to assess and treat the 5 priority conditions as well as provide community mental health education. The field consultant psychiatrist visited the 2 health facilities biweekly to carry out a review of the cases. The Pilot phase took off in February 2010 and lasted for 18 months before the statewide extension of the programme.

The caseload of patients seen during the pilot phase was 473 with the following breakdown:

1. Psychosis 217 (45.9%)
2. Depression 48 (10.1%)
3. Epilepsy 181 (38.3%)
4. Anxiety disorders & Other Significant Emotional Complaints 15 (3.2%)
5. Substance Use Disorder 12 (2.5%)

The Pilot phase showed that the programme was well embraced and health professionals involved in the programme were highly enthusiastic. This good report was the motivation for a state – wide extension of the programme.

Processes Involved in Statewide Extension of Aro Primary Care Mental Health Programme

1. Collaboration with International partners:

The Federal Neuropsychiatric Hospital Aro, Abeokuta sought and obtained partnership with the University of Manchester and Lancashire Care NHS Foundation Trust, UK under the British Council's Health – Links scheme. This involved extensive consultations with experts in primary care psychiatry at the University of Manchester. These experts comprised Dr. Richard Gater, Dr. Graham Wood (both are psychiatrists) and a Psychiatric Nurse – Cleone Helme.



Figure 1: (From Right: Dr T.O Adebowale -Pioneer Project Coordinator, Trained PHC worker & Dr Richard Gater –Manchester University, UK).

2. Adaptation of mental health Gap Action Programme- Intervention Guide (mhGAP-IG) document:

The UK experts (Drs Gater, Graham & Cleone) worked with the Aro Hospital group (Drs Adebowale & Onofa) in the adaptation of the mhGAP-IG document.

The World Health Organization (WHO) launched the mental health Gap Action Programme – Intervention Guide (mhGAP-IG) in 2008 [30] for mental health training of non-physician health workers in developing countries with mental health manpower constraints. The mhGAP-IG modules on 5 priority conditions: Psychosis, Depression, Epilepsy, Anxiety Disorders & Other Significant Emotional Complaints (OSEC) and Substance Use Disorders were reviewed and adapted to suite local circumstances. At the initial phase of the adaptaion, each of the groups worked on the documents with harmonization through emails.

Dr. Adebowale, the pioneer project coordinator traveled to meet the group in the UK for further work on the document. Also, Dr. Richard Gater and his team members traveled down to Aro Hospital Abeokuta for finalization of the documents. Consequently, Aro Primary Health Care Mental Health Service Manual was produced. Additionally, assessment flow charts, case records, follow-up and referral sheets were developed for the programme.

3. Collaboration with Ogun State Local Government Service Commission:

The Federal Neuropsychiatric Hospital secured collaboration with Ogun State Local Government Service Commission to train PHC workers to treat and refer priority mental disorders as well as to conduct mental health research at the primary health care level in Ogun State. At the inception of the programme, Dr. Aromiwura was the director of training and manpower development of the commission. He was very passionate about the programme and gave high support to the programme. In furtherance of the above, forty (40) PHC centres which were (20) urban and (20) rural were selected from the 4 socio-political zones of Ogun State. In effect, 2 PHC centres were chosen from each of the 20 LGAs in Ogun State and were designated for mental health services. Four (4) PHC workers were selected from each of the 20LGAs. Consequently, 80 PHC workers were selected for the programme. Within each of the 4 socio-political zones, a central PHC centre was selected for referral of cases for consultation with consultant psychiatrists.

4. Mental Health Training of PHC Workers:

Training materials were based on the WHO mental health Gap Action Programme- Intervention Guide (mhGAP-IG) (2008) which was adapted to suite local circumstances. The scope of the training was to assess and treat priority psychiatric disorders including Psychosis, Depression, Epilepsy, Anxiety Disorders & OSEC and Substance Use Disorders. Written support materials, including assessment flow charts, case record and follow-up sheets were developed for the primary care workers to guide their practice and keep records of their practice.

A 3-day training course was developed to equip the 80 nominated PHC workers with knowledge and skills to diagnose, treat and/or refer people with the 5 priority disorders. The training was delivered by faculty members from Aro hospital and Lancashire NHS Trust who were physically present in Abeokuta, Nigeria. The training involved using didactic and participatory methods including lectures, video demonstrations, role plays, exercises and discussions. The first day of training was on introductory lecture in mental health, classification, causes and treatment approaches in mental disorders while the remaining 2 days covered the five modules on priority mental disorders. The training was held in the 4 socio-political zones with each zone comprising 20PHC workers. The first phase of training was conducted between September and October, 2011.

5. Provision of Mental Health Services in the 40 designated PHC Centers:

Following the training of the 80PHC workers, the mental health service was launched on 10th October, 2011 which was World Mental Health Day Celebration at Okelewo comprehensive PHC centre in Abeokuta. The trained PHC workers were deployed to all the 40PHC centres by Ogun State Local Government Service Commission. Seed drugs were donated by the hospital to all the 40PHC centres. Medication supply was sustained through a drug support fund managed by a sub-committee of the implementation committee with involvement of pharmacy department of the hospital.

Firstly, an essential drug list was derived from the mhGAP-IG. This comprised mainly relatively inexpensive drugs, which were nonetheless known to be effective. Secondly, drugs were directly sourced from reputable suppliers thereby reducing the economic impact of middle-men. Thirdly, field medication requests were made through field nurse supervisors. This effectively disallowed medication purchases from diffuse sources, which would have hampered cost containment measures and prevent adequate monitoring of drug quality.

6. Logistics and personnel provided by the Hospital for the Project:

Two (2) hilux vans were released by the hospital and the hospital was responsible for fueling the hilux vans for daily travels of the field supervisor psychiatric nurses to the PHC centres.

Eight (8) zonal field psychiatric nurse supervisors were posted to the programme. Four (4) zonal consultant psychiatrists had consultations in the various zones for cases that were referred for expert management. Monthly recharge cards were provided to the field nurse supervisors for phone calls and follow up of patients. Handbills, posters and educational materials on mental health were made available as well as T-shirts were developed for the programme.

The personnel for the programme implementation comprised the project coordinator- Dr. Adebowale was the pioneer project

coordinator and when he retired from service, Dr. Lucky Onofa took over as the project coordinator. Mr. Babatunde Agoyun is the secretary/administrator to the programme. Mrs. Olaitan, an assistant director of nursing is the head of the field nurse supervisors. Dr. Ighoroje Maroh is the assistant project coordinator. There are other consultant psychiatrists, senior registrars in psychiatry, field psychiatric nurses, pharmacists, occupational therapist, social worker, psychologist, the hospital' Public Relation Officer who supervises the faculty's radio programmes and media activities, administration officers, confidential secretary (Mrs Orisajo) to the project coordinator who handles computation of monthly caseloads and drivers of the hilux vans.



Figure 2: (From Right: Dr. Lucky Onofa (the Project Coordinator), Mrs Olopade (Psychiatric Nurse Supervisor) & Driver during a visit to Iwoye Ketu Health Centre – Border between Ogun State and Benin Republic).

7. Support and Supervision of the trained PHC Workers:

The support and supervision framework developed for the programme was multidimensional. The trained PHC workers were directly supervised and supported by the 8 zonal field psychiatric nurses. They conducted fortnight field visits to each PHC centres during which they completed supervisors' records and documenting their evaluation of the trained PHC workers' activities.

8. Evaluation and Treatment Outcome Measures:

The faculty members hold monthly evaluation meetings. The records of patient seen and activities of the PHC workers were systematically stored in the Aro primary care database. The monthly evaluation measures include caseload analysis, trained health workers attrition and treatment outcomes such as follow-up visits, level of symptoms remission, and subjective global ratings of improvement, treatment continuation and number of referrals using descriptive statistics.

9. Training, Re-Training and Extension to other Health Institutions:

Since the first phase of training of 80 PHC workers in September 2011, there have been over fifteen (15) trainings and re-trainings of new and old PHC workers in the past eleven (11) years. These

trainings are essential to correct for attrition of trained PHC workers and to also correct for knowledge and skills decay.

The training was extended to medical department of Federal University of Agriculture, Abeokuta (FUNAAB) where thirty (30) members of their health staff including the medical director, doctors and nurses were trained. Also, the health staff of medical department of Federal College of Education was trained at the Federal Neuropsychiatric Hospital, Aro, Abeokuta. In the past 11 years, over 400PHC workers had been trained.

10. Collaboration with Ogun State Ministry of Health:

In view of the severe attrition of trained PHC workers experienced on the programme, we secured collaboration with Ogun State Ministry of Health. After consultations, a meeting of Aro Group (Dr. Lucky Onofa, the programme coordinator, Mrs.Yinusa and Mr. Akindele) was held with Dr. Tomi Coker, the Honorable Commissioner for Health of Ogun State with her team members. Following this collaboration, the Ogun State Ministry of Health sponsored 100 PHC workers for training. Working with Dr Elijah Ogunsola, the executive director of the state primary care development board and Mr. Aina, Ogun state coordinator of mental health services, the training of PHC workers was conducted in Abeokuta and Sagamu in September and October, 2021 respectively. The Ogun state ministry of health has continued to support the Aro community mental health programme.

11. Collaboration with Global Mental Health Department of Columbia University, New York, US:

The Director of Global Mental Health Department, Prof. Kathleen Pike secured collaboration with the Community Mental Health Department of Federal Neuropsychiatric Hospital, Aro, Abeokuta. Dr. Lucky Onofa, was appointed WHO Global Mental Health Scholar with the responsibilities of conducting research in community mental health and supervision of students on practicum programme in Aro community mental health programme. Two master' degree students of public health from Columbia University came to Aro Hospital for student practicum programme in Aro community mental health programme for three (3) months in 2017 while Mrs Olopade Modupe, one of the field psychiatric nurses had Internship programme with the Global Mental Health programme in Columbia University, US.

12. Continuous Community Sensitization and Awareness Creation:

There is continuous mental health sensitization activities and education of the citizens via Ogun state broadcasting corporation (OGBC) who has given fortnights radio free slots on mental health, mental health talk to target populations in the schools , churches, mosques , market place, village squares and mechanic villages.



Figure 3: Mrs Olaitan & Mrs Olopade (Field Psychiatric Nurse Supervisors) during mental health talk at Iberekodo market, Abeokuta.

Results

The expansion phase of the programme commenced in all forty (40) PHC centres across the four (4) socio-political zones of the state in November, 2011.

(a) Caseload Analysis

In the 11 years 6months period (November 2011 – April 2023) under review, 2910 cases were identified and treated by the trained PHC workers.

The annual average of new cases was 254. The diagnostic breakdown in table1 showed that Psychosis (45.2%) was the most prevalent condition followed by Epilepsy (43.9%). Others were Depression (7.7%), Anxiety Disorder& OSEC (1.4%) and Substance Use Disorder (1.8%)

Table 1: Diagnostic breakdown of cases. N=2910

Diagnosis	Number (%)	Percentage (%)
Psychosis	1,316	45.2%
Depression	223	7.7%
Epilepsy	1,278	43.9%
Anxiety Disorder & OSEC	41	1.4%
Substance Use Disorder	52	1.8%
Total	2,910	100%

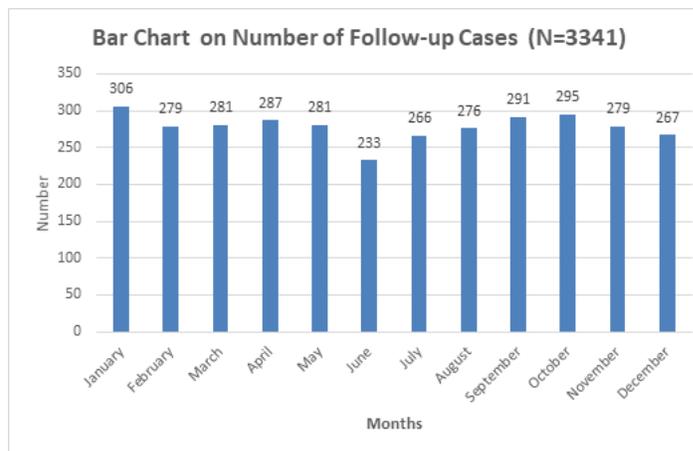
Table 2: Caseload Distribution by Socio-Political zones.

Zone	Psychosis	Depression	Epilepsy	Anxiety Disorder & OSEC	Substance Use Disorders	Total Caseload (%)
Egba	301	43	345	8	4	701 (24.1)
Remo	312	47	256	8	7	630 (21.6)
Yewa	352	46	336	13	13	760 (26.1%)
Ijebu	351	87	341	12	28	819 (28.1)
Total	1,316	223	1,278	41	52	2,910 (100%)

The zonal distribution of the caseloads showed that Ijebu zone had the highest (28.1%) while the least number of cases were recorded at Remo zone.

(b) Follow-up cases in 2022

The number of patients that came for follow-up care across the four (4) socio political zones in 2022 is shown in the bar chart below. The monthly average attendance was 279. The follow-up cases showed that there were active mental health activities across the PHC centres.



Months by Number

(c) Attrition of Trained PHC Workers:

At the commencement of the programme, 80PHC workers were trained. At the end of first year, 61PHC workers (75%) remained. There have been training and re-training of over 400PHC workers in the past 11 years. Currently, there are only 18PHC Workers and the field psychiatric nurse supervisors additionally carry out most of the job.

(d) Dissemination of Aro Primary Care Mental Health Programme:

The pioneer project coordinator, Dr. Adebowale had presented the findings of the project to the Local Government Authorities in Ogun State, the annual conferences of Association of Psychiatrists in Nigeria. Also the current project coordinator, Dr. Lucky Onofa received travel grant from the Royal College of Psychiatrists and presented orally at the Senior Researchers' session in Liverpool, 2012 and also had posters presentations in 2013, 2014 and 2015. He has also presented at the Annual Conference of the Association of Psychiatrists in Nigeria in Lagos, Calabar and at the scientific conference of the West African College of Physicians in Lagos. Also, our work has been published in Local and International peer-reviewed Journals of Psychiatry.

Discussion

a) Feasibility of scaling up mental health services:

The Aro mental health project has demonstrated the feasibility of using a specially designed mhGAP-IG training to build the skills of primary health care workers in scaling up mental health services across Ogun State of Nigeria. The mhGAP-IG is an effective tool developed by the WHO to facilitate the delivery of evidence-based intervention for a set of Mental, Neurological and Substance use (MNS) conditions by non-specialists especially those working in resource-constraint countries like Nigeria.

The Aro mental health programme has succeeded in providing access to avoidable mental healthcare for close to three thousand patients within the community who might otherwise not have sought effective orthodox treatment for their mental disorders.

These mental disorders were mainly Psychosis and Epilepsy and smaller proportion of cases were attributable to Depression, Anxiety Disorders & OSEC, and Substance Use Disorders. This observed pattern is in variance with the findings of Gureje et al. in a Nigeria pilot-project in which Depression was the most prevalent disorder (46.9%) diagnosed by the health workers [30]. One of the reasons to account for this is that most patients in the Nigerian setting somatize their depressive symptoms; hence, depression remains a hidden morbidity [27].

b) Manpower Management

The administration of manpower within the programme was achieved through an active collaboration between Aro Hospital and the Local Government Service Commission. While Aro Hospital has direct control over the programme field psychiatric nurses, the Local Government Service Commission maintains an administrative oversight over the trained health workers with necessary input and suggestions from Aro Hospital to ensure sustainability of the programme manpower.

c) Challenges and Threats to the Programme:

Some identified challenges and threats to the programme are:

1. High rate of attrition of trained PHC Workers due to personal, administrative and political reasons.
2. Maintenance of skills for recognition and intervention for cases over time.
3. Securing continued commitment of the trained PHC Workers.
4. Continued presence of socio-cultural barriers to service utilization.
5. Frequent industrial actions of health workers.
6. Conflicts between the Local Government Service Commission and Primary Care Development Board on the "ownership" of the programme.
7. Maintenance of Project Vehicles and equipment that are becoming old.
8. Brain drain of health workers affecting both institutions.
9. Increasing cost of fueling the hilux vans due to the rise in cost of fuel in Nigeria.
10. Frequent changes in the leadership of the Local Government Authorities.

d) Factors necessary for sustaining Mental Health Service Provision at the Primary Health Care level.

The Aro Primary Care Mental Health Programme for Ogun State commenced in November 2011 and the following factors are necessary for its sustainability:

1. Strong and continuous institutional commitment to the programme. Dr. Ogunlesi, A.O. the pioneer chairman of the programme and the then Medical Director of the hospital had strong commitment which was passed on to other Medical

Directors of the Hospital.

2. Obtaining political and goodwill from the Local and State Government is vital to the success of the programme.
3. A passionate and dedicated project coordinator – Dr. Adebowale Timothy, the pioneer project coordinator was highly passionate and dedicated to the programme. He has passed these skills to Dr. Lucky Onofa, who is the current coordinator of Aro Primary Care Mental Health Programme.
4. Continuous supply of subsidized and affordable medication.
5. An intensive and well-established framework for support and supervision is necessary to drive and sustain mental health service. The psychiatric nurse field supervisors on the programme has shown selfless support and commitment to the programme. Similarly, the consultant psychiatrists, programme secretary/administrator and pharmacist have shown unprecedented supports.
6. Regular engagement of the stakeholders, apex nurses, community leaders, religious and traditional leaders, to provide them with update of the programme. Also, engagement of Commissioner for Health, Ogun state and her team members is major boost to the programme.
7. Effective negotiation to constructively remove institutional barriers that arose between Federal/State/Local Government and other overlapping jurisdictions.
8. Continued funding for logistics support by Aro Hospital for support/supervision, transportation, medication supply, telecommunication and training of PHC workers. All the Medical Directors including the current one – Dr. Agboola A.A. have continued to support the programme.
9. Creating professional commitment and motivating mental health professionals, primary health workers, apex nurses and PHC Directors.
10. Regular monthly evaluation meeting among the faculty members and effective monitoring of all activities of the programme.
11. Training and re-training of PHC workers to correct for attrition and knowledge decay.

Conclusion

The Aro Primary Care Mental Health Project has demonstrated that it is feasible, practicable, cost effective with community acceptance and participation to scale up mental health services at primary care setting in Nigeria using adapted mhGAP-IG document.

The programme sustainability depends on continuous commitment and support by the host Hospital, Local and State Government authorities and relevant stakeholders. Training and re-training of PHC workers is crucial to programme success. Feedback from service users as to their concerns and level of satisfaction with the services received is useful for quality assurance. Also, the factors responsible for sustaining the services for over a decade are dynamic and deserved to be better understood.

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