



A Profile of Adolescents Admitted on an Inpatient Psychiatry Unit in Nigeria and Their Evaluation of the Service

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Authors' contributions

This work was carried out in collaboration among all authors. Author TBA designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors KL and HA managed the analyses of the study. Author TBA managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Aims: This study set out to describe the profile of adolescents admitted unto an inpatient unit in Nigeria and their evaluation of the service.

Study Design: This was a retrospective cohort study.

Place and duration of study: Department of Child and Adolescent Psychiatry, University College Hospital Ibadan, Nigeria between January 2016 and February 2020.

Methodology: Patient notes and discharge summaries were used to collect the demographic characteristics of adolescents and their families, diagnoses and treatments provided during the hospital stay. A feedback form was used to evaluate different aspects of the service. Data were analysed using descriptive statistics, and thematic analysis for open ended responses.

Results: There were slightly more females (56.4%) than males (43.6%) admitted during the period of study and their mean age was 18.2 years (SD =3.0). The most common psychiatry diagnosis was psychotic disorders (48.9%) followed by mood disorders (38.3%). Almost half (48.6%) had 2 or

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more psychiatric diagnosis. Second generation antipsychotics were the most frequently used medications by the participants (76.6%). Median length of stay on the unit was 2.5 weeks (IQR = 2.6). Themes which emerged from patients' experiences on the ward were reductions in feelings of isolation, changes in mental health perceptions and self – discovery. Strengths of the unit included staff responsiveness and team work. Weaknesses of the unit cited were the poor physical environment, and inflexible routines. Suggestions on how to improve the unit included increasing recreational and physical activities and staff re - training. Parents/guardians also wanted more support for themselves, and peer support for their children.

Conclusions: Majority of patients admitted onto this unit were older adolescents with psychotic and mood disorders. They and their parents/guardians were generally satisfied with the treatment milieu of the unit, and gave recommendations for further improvement of services on the unit.

Keywords: Inpatient; mental health; adolescents; service evaluation; Nigeria.

1. INTRODUCTION

Though there are few large -scale epidemiological studies on child and adolescent mental health disorders on the African continent, available evidence shows that prevalence rates are similar to most other parts of the world [1]. Despite the huge population of children and adolescents on the continent, specialized mental health services for them remain few and far between, and most young people in need of mental health services receive these services from non-mental health professionals and alternative practitioners [2,3]. Child and adolescent mental health thus remains a relatively young field in this region, and formal youth mental health services are only now being established across the region [4,5].

A subset of young people needing specialized mental health services, will experience severe emotional and behavioural problems necessitating inpatient care, which remains an important treatment option for these youth. Available studies worldwide have shown that child and adolescent inpatients are a heterogeneous group; many of whom have multiple diagnoses, mixed disorders, and often come from families with complex problems and a wide range of socio- economic backgrounds [6,7]. They often have multiple psychosocial risk factors, a history of traumatic life events, and complex health problems [8]. Although inpatient treatment can cause potentially negative effects by disrupting the life of the child or adolescent, studies suggest that the benefits outweigh the disadvantages for young people with complex mental health problems [9].

Nigeria is the most populous country south of the Sahara with a population of over 200 million people, majority of whom are young people [10,11]. The first dedicated child and adolescent psychiatry facility in Nigeria was established in

1999 as an outpatient clinic in Lagos, Nigeria. A second facility was opened in Ibadan, Nigeria the following year (2000). This facility has since been upgraded to a full-fledged clinical department, and other components such as an inpatient service were added. Regional training for Child and Adolescent Psychiatrists is by a 2-year clinical fellowship programme. Psychiatrists who work with children may also attend an 18 month Master of Science programme in Child and Adolescent Mental Health (CAMH) through the Centre for Child and Adolescent Mental Health, University of Ibadan, a centre of excellence in training and research located at the University of Ibadan, Nigeria.

In order to maximize and improve existing resources, there is a need to determine the therapeutic impact of the different mental health service components available for young people on the continent. This need is usually met by on-going evaluation of the services. Service evaluation can also assist in identifying patient groups who are best served, as well as what specific treatment modalities or therapeutic elements are most closely related to treatment success [8]. Till date, there is a paucity of data on the impact of inpatient services for young people with severe mental health disorders on the continent. Only the outpatient service of the Ibadan facility has been described and evaluated [12]. This paper therefore aims to describe the sociodemographic and clinical profiles of adolescents admitted on this unit. Their evaluation of the unit, as well as that of their parents/guardians are also described.

2. MATERIALS AND METHODS

This was a retrospective cohort study of all patients admitted on to the unit between January 2016 and February 2020.

2.1 Description of the Unit

The seven-bed inpatient unit is situated in a 560-bed teaching hospital located in southwest Nigeria. The unit which is domiciled within the Department of Child & Adolescent Psychiatry, provides assessment and short-term acute treatment of adolescents between the ages of 12 and 24 who need inpatient psychiatric care. This department evolved from a unit within the Department of Psychiatry in 1999, to a full-fledged clinical department in 2009. Over time, the department has expanded its services to include the inpatient unit, a neurodevelopmental clinic, a joint clinic with Paediatric Neurology, as well as a number of community mental health outreach programmes to secondary schools, colleges, and the juvenile justice system. Referrals to the unit come from the emergency department and other units within the hospital. Patients are admitted voluntarily or involuntarily.

The inpatient unit is equipped with a multidisciplinary team consisting of five child and adolescent psychiatrists, three to four psychiatry residents, one psychiatry nurse with additional training in CAMH, general psychiatry and public health nurses, a clinical psychologist, a mental health counsellor, an occupational therapist, and a social worker. The clinical psychologist, occupational therapist and social worker are shared with other units/ departments in the hospital.

On admission, a standard child psychiatric assessment and physical examination is performed. Relevant investigations are also carried out. Psychiatric diagnoses are determined by consultation between the resident and a consultant using the ICD 10 diagnostic criteria. Treatment goals and planning are developed with the multidisciplinary team who meet twice weekly to discuss and review patients. Treatments provided include administration of indicated psychotropic medications, as well as individual, group and family-based psychological interventions. Educational support is provided by a member of the multidisciplinary team on a need-by-need basis.

2.2 Measures

2.2.1 Sociodemographic and clinical profile

Patient notes and discharge summaries were used to collect the following information; the demographic characteristics of patients and their

families, the ICD 10 diagnoses, and treatments provided during the hospital stay. The first diagnosis listed on the patient notes was considered the primary diagnosis and subsequent diagnoses were considered comorbid diagnoses. The intake diagnosis was compared with the discharge diagnosis, and where there was a difference, the discharge diagnosis was used.

2.2.2 Feedback form

This form was developed as a means of obtaining feedback from adolescents and their parents/guardians about their experiences on the unit. It was developed based on existing literature [13] and consisted of four open-ended questions detailing their experiences on the facility, the perceived strengths and weaknesses of the facility, and suggestions for improvement. Adolescents were also asked to rate on a 10-point Likert scale their interactions with staff, perceived usefulness of therapies, and the general environment of the unit. The higher the score, the better the rating. The feedback forms were filled anonymously at the point of discharge from the unit.

2.3 Data Analysis

Data entry and analysis was done using the statistical package for the social sciences version 23. Socio-demographic, and clinical variables were analysed using descriptive statistics. Open-ended responses were transcribed verbatim, and entered into an Excel spreadsheet. The responses were read and re-read to by two members of the research team to familiarize themselves with the data. Ten participants' texts were coded, and a framework for coding was developed for the remaining texts. The codes were then critically reviewed and assigned under broader meaningful themes. Themes were shared with the wider team and refined until consensus was reached. To depict the main themes, the most expressive quotes of the participants were chosen, and are presented in the results section.

3. RESULTS

3.1 Demographic Profile

A total of 164 patients were admitted on to the facility over the 5-year period. However, some patients' notes had to be excluded due to incomplete information, and 10 patients notes

were also excluded because they were older than 24 years. Hence only 133 (81.1%) were available for analysis. There were 75 (56.4%) females and 58 (43.6%) males, and their mean age was 18.2 years (SD =3.0). Early adolescents made up 12% of the sample, mid-adolescents 54.2%, and older adolescents 33.8%. Majority, 106 (79.7%) were Christians, from monogamous homes and currently living with their parents (Table 1). Three quarters of fathers (75.2%) and 101 (75.9%) of mothers were married. Majority of parents had a tertiary level of education: father, 57.9% (n = 77), mother, 61.7% (n = 82). All patients were currently enrolled in school as at the time of the admission.

3.2 Clinical Profile

The mean age at first episode of illness was 17.1 years (SD = 3.3). The median number of admissions was 1.0 (IQR = 0; minimum 1 and maximum 9 admissions). Psychiatry diagnoses were as follows: schizophrenia and other non-mood psychotic disorders (48.9%), mood disorders (38.3%), epilepsy and recurrent seizures (5.3%), anxiety, dissociative and stress-related disorders (4.5%), pervasive and specific developmental disorders (1.5%), and mental and behavioural disorders due to psychoactive substance use disorders (1.5%). Twenty patients (15%) reported a family history of mental illness. About half of the respondents (50.4%) had one psychiatric diagnosis, while 48.6% had two or more psychiatric diagnosis. Only two of the patients (1.5%) had a physical comorbidity while on the ward. Median length of stay (LOS) was 2.5 weeks (IQR = 2.6). See Table 1.

3.3 Medication Profile

Majority, 76.6% of the participants were treated with oral second generation antipsychotics, 30.8% with oral first generation antipsychotics, 58.6% with antidepressants, 52.6% with anticonvulsants/mood stabilizers, and 53.3% with anticholinergic medications. About 72.9% had oral benzodiazepines administered while on the unit and 33.1% had depot medications such as Fluphenazine Decanoate Table 1.

3.4 Evaluation of the Service

A total of 42 adolescents completed the feedback forms. There were equal numbers of males and females (21 each). Their mean age was 18 years (SD = 3.2) and mean duration of admission was 3.5 weeks (SD = 2.0). Interactions with staff had

a mean score of 7.2 (SD = 1.8), therapies 8.8 (SD = 1.6) and environment 6.4 (SD = 2.2).

A total of 31 parents/guardians completed the feedback forms. There were 65.5% females and 34.5% males. Their mean age was 46.7 years (SD = 11.3), and median length of stay of their child was 2.4 weeks (IQR= 2.0).

3.5 General Experiences on the Unit

A total of 5 themes emerged from adolescents' responses to their experiences on the unit. These included reductions in feelings of isolation through creation of new friendships, changes in perceptions about mental health, pleasant vs. unpleasant, highly responsive staff, and self-discovery. Parents/guardians on the other hand wrote about having a nice vs. stressful experience, staff professionalism, and a unit that was easy to access (Table 2).

3.6 Strengths of the Unit

Adolescents' responses to this question were grouped into 5 themes. These included stimulating activities, caring nursing staff, obvious team work of the multidisciplinary team (MDT), the psychotherapy sessions, and good ward organization. Parents/guardians had similar responses citing unit strengths as caring nursing staff and adequate privacy for patients and families Table 3.

3.7 Weaknesses of the Unit

Four themes emerged from youth responses. These included poor physical environment, insufficient recreational & physical activities, inflexible ward routines and poor food quality. Two themes emerged from parents/guardians' responses. These included poor environment, and high cost of hospital consumables. See Table 4.

3.8 Suggestions for improvement of the Unit

The themes which emerged from the adolescents as to ways the unit could be improved included providing more recreational & physical activities, and improving the physical environment (ventilation, laundry, space, and regular fumigation). They also wanted staff re-training, better quality meals, more flexible ward routines (longer visiting hours, later wake up times and morning devotions). Parents/

guardians mentioned similar issues of improving the existing environment as well as increasing the psychological support given to patients and their parents/guardians. Parents/ guardians in particular wanted counselling for their own issues, as well as peer support for their children from youth who had been successfully re-integrated back into their communities. See Table 5.

4. DISCUSSION

This retrospective study aimed to describe the sociodemographic and clinical profile of youth, as well as youth and parents/guardians experiences of an inpatient adolescent unit in Nigeria. Our study found a slight majority of females, and middle to older adolescents (mean age 18.2 years) admitted over the 5 year period. Serim Demirgoren et al. [14] in Turkey also found more girls (65.9%) but younger adolescents with a mean age of 14 years. Majority of our patients were from monogamous homes, living with both parents, and parents were currently married. In comparison, a study in Finland found that only 40 – 44% of youth lived with both biological parents [6]. Pieterse et al. [15] in a study of 2 psychiatric inpatient facilities in South Africa found that majority (78.4%) of the patients were older adolescents, male (61.9%) and only 26% were living with both parents. About two-thirds of the parents/guardians in this study had a tertiary level of education. This may be explained by the fact that health care for most Nigerians is paid out of pocket, and a tertiary level of care such as this one would be more accessible to people who were better educated with better paying jobs. This may also explain why all our sample were currently enrolled in school, which is in contrast to the South African study where over 50% had dropped out of school [15].

The clinical profile of our sample indicated that majority (over 80%), of our patients were treated for psychotic and mood disorders. This is not surprising as these are the mental disorders which are more likely to be associated with risks of harm to self or others, or need close monitoring for clinical, family or social issues, and therefore more likely to need inpatient care. Studies in South Africa and Turkey have also reported that about 70% of their patients were admitted either for a schizophrenia spectrum, or a bipolar disorder [14,15]. A longitudinal study in Massachusetts, USA looked at trends of inpatient diagnosis from 2001 to 2008 and found an increase in mood disorders especially bipolar

disorder and decrease in trauma-related and anxiety disorders [16]. Another longitudinal study in Finland compared inpatient trends between 2000 and 2011 and found an increase in depressive, anxiety and eating disorders which was attributed to an increase in the proportion of girls being admitted [6]. We had patients with epilepsy and recurrent seizures admitted onto the unit because in low-and-middle-income countries like Nigeria, these patients often present to psychiatric services, particularly when there are associated behavioural symptoms [17,18]. There were very low rates of psychoactive substance use disorders in the current study unlike in the Pieterse study. This may however be related not to a lack of high substance use in the community, but to the open ward policy of the unit making it more difficult to manage patients with substance use disorders. There were also very low rates of patients admitted with pervasive and developmental disorders unlike some parts of the world [6]. Usually, developmental concerns are best managed within the community, and inpatient services may only be needed for acute exacerbations of symptoms, and respite care.

In line with extant literature [19], comorbidity was high which was apparent in almost half of our sample. The median length of stay in this study (LOS) was 2.5 weeks (18 days) which is slightly shorter than the 28 days mean LOS of a private adolescent inpatient unit in Australia [19]. LOS has been reported to be dropping in most parts of the developed world particularly in public facilities [5,16], but global LOS estimates still range between 4 to 355 days [20]. Use of oral second generation antipsychotics was high, and this is similar to the South African Pieterse study where over 70% of patients were on second generation antipsychotics [15]. Use of benzodiazepines was also high in this study and this may be attributed to the co-morbid sleep problems many of the patients presented with. There is limited availability of non-benzodiazepine alternatives for sleep in our context. However, we considered the risk of benzodiazepine dependence to be low because it was used for short periods, and stopped before discharge. Subsequently, patients could only purchase it with a prescription if needed. There was a moderate use of anticholinergics among our study population (53.3%). Young people are reported to be more likely to develop extrapyramidal side effects (EPSE) from second generation antipsychotics when compared with adults and hence more likely to need

anticholinergic medications [21]. Among the second generation antipsychotics, Risperidone has been implicated as most likely to cause EPSE [21]. Majority of our patients were on Risperidone because it is the cheapest, and most readily available of the second generation antipsychotics in our context.

About a third of our patients completed our feedback evaluation forms and rated their interactions with staff and therapies highly. This is very encouraging as it suggests a good therapeutic alliance, which is key to the treatment process. When asked about their experiences on the wards, youth gave positive feedback of self-

discovery, changes in mental health perceptions, and reduced feelings of isolation. A few however considered their experience unpleasant. A similar study in Iceland found similar reports of reduced isolation, self-expression and personal development among adolescent inpatients [22]. Parents/guardians in this study also appeared to have had positive experiences and made mention of the easy accessibility of the unit, and staff professionalism. A few parents mentioned that it was a stressful experience and this may have been linked to disruptions to their jobs and routines through daily visits to the hospital, as well as navigating the bureaucracy of the various hospital service points.

Table 1. Sociodemographic and Clinical Profile of Adolescents admitted to the Unit

Sociodemographic/Clinical characteristics	n (%)
Gender	
Male	75 (56.4)
Female	58 (43.6)
Age (Mean, SD)	18.2 (3.0)
Religion	
Christianity	106 (79.7)
Islam	24 (18.0)
Others	1 (0.8)
None	2 (1.5)
Family type	
Monogamous	108 (81.2)
Polygamous	25 (9.8)
Currently living with	
Parents	85 (63.9)
Others	48 (36.1)
Family history of mental illness	
Yes	20 (15.0)
No	113 (75.0)
Primary Clinical diagnosis	
Schizophrenia and other psychotic non-mood disorders	65 (48.9)
Mood disorders	51(38.3)
Epilepsy and recurrent seizures	7 (5.3)
Anxiety, dissociative & stress-related disorders	6 (4.5)
Pervasive and specific developmental disorders	2 (1.5)
Mental and behavioural disorders due to Psychoactive substance use	2 (1.5)
Number of Psychiatry Diagnoses	
1	67(50.4)
2 or more	66 (48.6)
Medications used during admission	
Second generation antipsychotics	102 (76.6)
First generation antipsychotics	41 (30.8)
Antidepressants	78 (58.6)
Anticonvulsants	70 (52.6)
Anticholinergics	71 (53.3)
Oral Benzodiazepines	97 (72.9)
Depot Antipsychotics	44 (33.1)
Age at first episode (Mean, SD)	17.1 (3.3)
Number of Admissions (Median, IQR)	1.0 (0.0)
LOS in weeks (Median, IQR)	2.5 (2.6)

Table 2. Adolescents and parents/guardians' experiences of the inpatient unit

S/N	Adolescents	Themes	Examples
1		Reduction in feelings of isolation	I had a wonderful experience at the ward. It was nice meeting a lot of people I never knew and others that I knew... I now know them better Nice!!!It felt good to meet other people like you going through one thing or the other and still strong
2		Changes in mental health perceptions	My experience was enlightening. I learnt a lot and changed my orientation about mental health and mental illness
3		Pleasant vs. unpleasant	Calm, stress free environment. The ward is a very nice place to get well
4		Highly responsive staff	It was torture Overall, my experience was pleasant. The nurses are nice and caring and take proper care of the patients
5		Self-discovery	It was splendid. I learnt a lot, got to learn somethings I didn't know about myself While I was admitted at the ward, I was trained in order to put away my bad manners such as not sleeping at night
	Parents/guardians		
6		Nice vs. stressful	Overall, it was a positive experience. I was very stressed trying to get the necessary provisions
7		Easy to access	I appreciate the fact that family and relatives were given adequate access to the wards as need be
8		Professional staff	Thank God for the professionalism exhibited by the doctors and nurses. The compassion shown by the nurses is not what you easily get in public facilities My initial reservations were allayed by a very welcoming and professional team of nurses

Table 3. Adolescents and parents/guardians' perceived strengths of the unit

S/N	Adolescents	Themes	Examples
1		Stimulating activities	Visual and Audio materials were provided- books, movies, music, games etc
2		Nursing staff responsiveness	A couple nurses did know the right thing to say at an awkward movement, correcting with love The nurses were quite hospitable, had good human relations and our needs were met fast.
3		Team work	The services rendered was good as both doctors and nurses were able to work as a team in the discharge of their duties.
4		Therapy sessions	The psychotherapy sessions were awesome
5		Good ward organization	They have a well-organized area. Some places for reading, another for meals. We have facilities like drawers where we can put our personal belongings. The routine. I learnt a lot. The bath time, breakfast, exercise, drugs lunch, visiting hours, doctors' interaction, nurses, the matrons, the housekeeping staff. IT WAS FUN
Parents/guardians			
5		Privacy	Privacy especially for this particular age group
7		Caring Staff	The warmth, the respect and the care with which all the patients were treated

Table 4. Adolescents and parents/guardians' perceived weaknesses of the unit

S/N	Adolescents	Themes	Examples
1		Poor state of the physical environment	The bad thing about the facility I think is the position where the ward is situated. The sewage system is in poor condition
2		Insufficient Recreational activities	Extracurricular activities are a bit low Being confined to a particular environment for so long was not okay
3		Inflexible ward routines	Having to go with the rules all the time (we are teenagers for heaven's sake) The visiting time should be reconsidered Parents should be allowed always into the ward.
4		Poor food quality	Sometimes the food is not so tasty
Parents/guardians			
5		High cost of consumables	Consumables were too expensive e.g. thermometer, bedcovers etc.
6		Poor state of the physical environment	Well I feel the environment needs to be fumigated often Most facilities are outdated i.e. they need replacement

Table 5. Adolescents and parents/guardians' suggestions for improving the unit

S/N	Adolescents	Themes	Examples
1.		Improve the physical environment	There should be flowers around the ward for patients to appreciate nature. Fumigation to prevent insects and mosquitoes Provide Air-conditioning
2.		Provide more recreational/physical activities	Movies on the T.V should be changed regularly so patients can have something new to watch rather than repeating the same ones over and over again Patient can be taken for walks more frequently
3.		Staff training	Some of the staff (nurses) need training I mean retraining In-service / refresher training should be encouraged among staff
4.		Improve food quality	Food needs to be really improved. I had nausea and diarrhoea once because of the food
5.		Flexible ward routines	I suggest that the visiting time should be increased The wake-up time should be increased to at least 06:30 AM Early morning devotions should be included as a part of the morning activities
Parents and guardians			
6.		Improve the unit environment	Employ more house keepers, provision of necessary materials for the cleaning and regular fumigation of this beautiful facility We need a bigger facility
7.		Increase parents/guardians and adolescent psychological support	Counseling and psychotherapy for parents and guardians Bring in youth that have experienced similar issues to share their experiences on how they overcame them
9.		Ensure drug availability	Most facilities should be made available e.g. recommended drugs at times are not available at the hospital pharmacy

Strengths of the unit mentioned by youth were staff responsiveness, obvious team work and cooperation among staff members and good ward organization. These all make up the ward 'milieu' which has been recognized as an integral component of the treatment provided for patients. Parents/guardians were also happy about the warm attitudes of staff and the privacy afforded to their children particularly in being separated from adult patients. Weaknesses of the service as reported by youth were the poor physical environment, restricted space, insufficient recreational activities and inflexible rules. The hospital was built several decades ago, and while some new blocks have been built since then, this unit is located in one of the oldest blocks which has been poorly maintained over the years. Renovations to this block are however on-going and once completed we hope that future patients will have a better structures to work with. Adolescents complained of too many rules and they wanted their parents to be able to visit them at any time of the day. This contravenes the strict visiting hours policy of the hospital. However, this is something to look into going forward, given that adolescent mental health facilities worldwide are moving from traditional hospital models to more child and family centred care models which allow open hours for parents/guardians, with reported benefits [23].

Suggestions to improve the unit were directed at the weaknesses identified, such as improving the physical environment and maintenance of the facility, providing more recreational activities, and more flexibility in ward routines. The unit operates a child and family centred care model which encourages problem solving among health workers, patients and parents/guardians instead of enforcing rules [22]. We therefore intend to explore these issues with youth and their parents/guardians in a collaborative problem solving approach. Youth particularly mentioned later wake up times, longer visiting hours for family members, and introduction of morning devotions as changes they would like to see on the unit. Morning devotions are a tradition in many Nigerian homes where families gather to pray together in the morning, and these would probably help our patients feel less home-sick while in hospital.

Parents/guardians on their part recommended parents and guardians counseling/ support as ways to improve the services on the unit. Other studies have reported

similar findings that in addition to the care of their child, parents also want to feel cared for, and for health professionals to acknowledge that a child's hospitalization can be a very stressful life event for them and the entire family [23]. This finding was an eye opener for us given that we believed we were providing adequate family support through our pre-discharge family therapy/psychoeducation sessions. It however appears that we focused on adolescents' needs and neglected the needs of the parents/guardians. Going forward, we intend to have separate counseling sessions for parents so they can feel better supported. Some parents/guardians also asked for their wards to be supported by peers who had been successfully integrated back into society and were doing well despite their diagnosis. This is another area to explore going forward.

The strengths of this study are that it is one of the first to describe the patient profile and patient/ parents/guardians experiences on an inpatient adolescent psychiatry facility in a resource-poor region of the world. Its use of quantitative and qualitative data also enriches the findings. It was however limited by its cross sectional, retrospective nature. Therapeutic outcomes were not directly measured. These, as well as in-depth exploration of possible therapeutic elements will need to be the focus of future studies.

5. CONCLUSIONS

This study found that majority of patients admitted onto an inpatient adolescent unit in Nigeria were older adolescents with psychotic and mood disorders. They and their parents/guardians were generally satisfied with the therapeutic milieu of the unit, and gave recommendations on how services on the unit could be improved.

CONSENT

Written informed consent to use information from the feedback forms for research purposes was obtained.

All authors declare that written informed consent was obtained from the study participants. A copy of the written consent is available for review by the Editor in Chief/ Editorial board members of this journal.

ETHICAL APPROVAL

This study was approved by the University of Ibadan/University College Hospital Ethics committee, ethics number: UI/EC/19/0483

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Patel V, Flisher A, Hetrick S, Mc Gorry P. Mental health of young people: A global public-health challenge. *The Lancet*. 2007; 369:1302-1313.
2. Owen JP, Baig B, Abbo C, Baheretibeb Y. Child and adolescent mental health in sub-Saharan Africa: A perspective from clinicians and researchers. *BJPsych Int*. 2016;13(2):45-47. DOI: 10.1192/s2056474000001136
3. Bella Awusah T, Adebayo A, Lagunju I, Omigbodun O. Pathways to care for children with mental disorders and epilepsy attending specialist clinics in Nigeria. *International Neuropsychiatric Disease Journal*. 2020;14(3):31-40. Available: <https://doi.org/10.9734/indj/2020/v14i330131>
4. Belfer ML, Saxena S. WHO child atlas project. *Lancet* 2006;367:551–552.
5. Robertson B, Omigbodun O, Gaddour N. Child and adolescent psychiatry in Africa: luxury or necessity? *Afr J Psychiatry (Johannesburg)*. 2010;13(5):329-31. PMID: 21390404.
6. Bradley EJ, Clark BS. Patients' characteristics and consumer satisfaction on an inpatient child psychiatric unit. *The Canadian Journal of Psychiatry*. 1993; 38(3):175-180. DOI:10.1177/070674379303800304
7. Kronström K, Ellilä H, Kuosmanen L, Kaljonen A, Sourander A. Changes in the clinical features of child and adolescent psychiatric inpatients: a nationwide time-trend study from Finland. *Nordic Journal of Psychiatry*; 2016. DOI: 10.3109/08039488.2016.1149617
8. Bardach NS, Coker TR, Zima BT, Murphy JM, Knapp P, Richardson LP, et al. Common and costly hospitalizations for pediatric mental health disorders. *Pediatrics*. 2014;133(4):602-609.
9. Reavey P, Poole J, Corrigan R, Zundel T, Byford S, Sarhane M, et al. The ward as emotional ecology: Adolescent experiences of managing mental health and distress in psychiatric inpatient settings. *Health & Place*. 2017;46:210-218.
10. UNFPA. United nations population fund adolescent and Youth dashboard-Nigeria; 2020. Available: <https://www.unfpa.org/data/adolescent-youth/NG>. Accessed: 14th October 2020
11. Demographic Health Survey Nigeria. Final report National Population Commission, Federal Republic of Nigeria, Abuja, Nigeria and ICF Macro, Calverton, Maryland, USA; 2013. Available: <http://dhsprogram.com/publications/publicationfr222-dhs-final-reports.cfm>. Accessed: 12th October 2020
12. Omigbodun OO. Psychosocial issues in a child and adolescent psychiatric clinic population in Nigeria. *Soc Psychiatry Psychiatr Epidemiol*. 2004;39(8):667-72. DOI: 10.1007/s00127-004-0793-x.
13. Hayes C, Simmons M, Palmer VJ, Hamilton B, Simons C, Hopwood M. Experiences of an adolescent inpatient model of care: Adolescent and caregiver perspectives. *J Child Adolesc Psychiatr Nurs*. 2020;33:109–124. Available: <https://doi.org/10.1111/jcap.12266>
14. Serim Demirgoren B, Ozbek A, Gencer O. Factors affecting improvement of children and adolescents who were treated in the child and adolescent psychiatry inpatient unit. *Journal of International Medical Research* 2017;1318–1323. DOI: 10.1177/0300060517713833.
15. Pieterse D, Temmingh H, Vogel W. Factors associated with readmission in South African adolescents discharged from two inpatient psychosocial rehabilitation units, *Journal of Child & Adolescent Mental Health* 2016;28:3;:199-212, DOI: 10.2989/17280583.2016.1259165
16. Meagher SM, Rajan A, Wyshak G, Goldstein J. *Psychiatric Quarterly, Changing Trends in Inpatient Care for Psychiatrically Hospitalized Youth: 1991–*

2008. Youth studies Australia 2013,84: 159–168.
Available:<https://doi.org/10.1007/s11126-012-9235-1>
17. Esegbe EE, Sheikh TL, Nuhu FT. Childhood epilepsy in a tropical child psychiatric unit. Challenges of providing care in a resource -constrained environment. *Ann Afr Med.* 2013;12:236-42.
 18. Abdulmalik JO, Sale S. Pathways to psychiatric care for children and adolescents at a tertiary facility in northern Nigeria. *Journal of public health in Africa.* 2012;3:4.
 19. Hayes C, Simmons M, Palmer VJ, Hamilton B, Simons C, Hopwood M. A profile of adolescents admitted to a private inpatient unit and mental health outcomes. *Australasian Psychiatry.* 2020; 28(5):563-567.
 20. Einfeld SL, Ellis LA, Emerson E. Comorbidity of intellectual disability and mental disorder in children and adolescents: A systematic review. *Journal of Intellectual and Developmental Disability* 2011;36(2):137-143.
 21. Hong IS, Bishop JR. Anticholinergic use in children and adolescents after initiation of antipsychotic therapy. *Ann Pharmacother.* 2010;44(7-8):1171-1180.
DOI:10.1345/aph.1M643
 22. Biering P, Jensen VH. The Concept of Patient Satisfaction in Adolescent Psychiatric Care: A Qualitative Study. *Journal of Child Adolesc Psychiatr Nurs.* 2017;30:162–169.
Available:<https://doi.org/10.1111/jcap.12189>
 23. Regan KM, Curtin C, Vorderer L. Paradigm shifts in inpatient psychiatric care of children: Approaching child- and family-centered care. *J Child Adolesc Psychiatr Nurs.* 2017;30:186–194.
Available:<https://doi.org/10.1111/jcap.12193>

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