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QUALITY OF CARE PROVIDED TO ADOLESCENTS AGED BETWEEN 10 AND 19 YEARS IN KENYATTA NATIONAL HOSPITAL, NAIROBI, KENYA
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QUALITY OF CARE PROVIDED TO ADOLESCENTS AGED BETWEEN 10 AND 19 YEARS IN KENYATTA NATIONAL HOSPITAL, NAIROBI, KENYA

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ABSTRACT

Background: **A health care system that seeks to improve the quality of care across all population groups must ensure that it provides health care that is; Effective, Accessible, Acceptable, Equitable and Safe.**
Objectives: **To describe and compare the quality of care provided to adolescents [aged 10 to 19 years] in Kenyatta National Hospital (KNH) against WHO Global Standards for Quality Healthcare Services for Adolescents (2015). To identify the existing gaps in healthcare services and challenges faced by adolescents seeking medical services at KNH.**
Design, Setting and Participants: **A mix research method was used for the study by combining quantitative and qualitative approaches. The study was conducted at KNH among participants aged between 10 -19 years.**
Methods: **Data was collected using structured interviewer-based questionnaires. The following eight standards of quality care were used: Adolescents' health literacy, Community support, Appropriate package of services, Healthcare providers' Competencies, Facility characteristics, Equity and non-discrimination, Data and quality improvement and Adolescent participation.**
Results: **The adolescents that were more likely to report acceptable quality of service were older ($p<0.0001$), revisits ($p=0.03$), saw the signboard ($p<0.0001$), those, whose guardians supported facility use ($p=0.026$). Older age (OR 1.5, $p<0.0001$) and accompaniment by parents/guardians (OR 0.5, $p=0.006$) were independently associated with acceptable quality care. There was limited training on adolescent care reported by healthcare providers (21.7%). According to WHO Criteria, 69% of the services offered do not meet the quality threshold.**
Conclusion: **The quality of care provided to adolescents at Kenyatta National Hospital requires significant improvement despite adolescents' overall good perception. Progress towards universal health coverage for adolescents will require renewed attention to health care provider training.**

INTRODUCTION

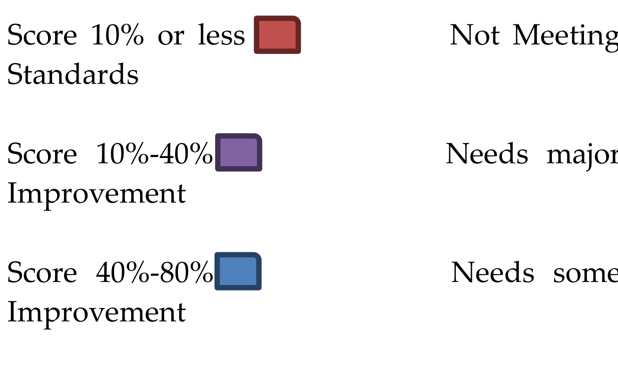
The Sustainable Development Goals (SDGs) provide the basis Kenya needs towards the realization of Adolescent and Youth Friendly Services (AYFS) over the next 15 years. The SDGs agenda places the adolescents and youth at the epicenter of development as envisaged in goals 3, 4, and 5. SDG 3.8 looks to achieve universal health coverage, including financial risk protection, and access to quality healthcare services that include; access to safe, effective, and affordable medication and vaccines for all. These goals focus on promoting good health and well-being - by advocating for quality health education and gender equality respectively.

The WHO has provided an implementation plan whose primary intention is to improve the quality of care for adolescents in government health care facilities, private and non-governmental organizations. Its primary objective is to assist policy makers and engage health care planners in improving the quality of healthcare services so that adolescents find it easier to access the health services that they need to improve their health and well-being. The WHO has outlined eight global standards which define the required level of quality in the delivery of health services and include the following: adolescents' health literacy, community support, appropriate package of services, providers' competencies, facility characteristics, equity and non-discrimination, data and quality improvement and adolescents' participation.

METHODOLOGY

Study design, Site and Participant selection: The study was conducted between March and May 2018 at all pediatric, adult wards and general outpatient clinics at Kenyatta National Hospital, Nairobi. A mix research method was used in which quantitative and qualitative approaches were combined. A descriptive cross-sectional survey was conducted together with focus group discussions – the focus being on adolescents and their health care professionals. The term adolescent is defined by WHO as individuals that are aged between 10-19 years. Thus, adolescents that attended the KNH outpatient general and specialist clinics as well as those hospitalized were included in the study. To explore the barriers and challenges faced by adolescents and their healthcare providers in giving and receiving quality health care at Kenyatta National Hospital, focus group discussions (FGDs) were conducted for the adolescents. Key issues were audio recorded, transcribed and analyzed. Data was collected by use of questionnaires after obtaining a signed consent form from the HCPs, the parents of adolescents aged below 18 years, and the participating adolescents meeting the inclusion criteria by the principle investigator and research assistants.

Data Analysis: Data was analyzed using Stata v.13.0 from Stata cooperation, USA. Qualitative data was audio recorded during FGD sessions, transcribed and analyzed using vivo. The analysis report was prepared to answer the objectives of the study. To describe the quality of care, scores calculated from the quality of care tool derived from the WHO Global Standards for Quality Health Services for Adolescents, 2015 were categorized as follows:



Score 10% or less — Not Meeting Standards

Score 10%-40% — Needs major Improvement

Score 40%-80% — Needs some Improvement

Score 80% or more — Meets Standards

Bivariate analysis was carried out to correlated scores with socio-demographic characteristics, reproductive history, and other variables. During this process, comparisons between means were done using t-tests/ANOVA while chi-squared tests were used to compare propositions. During multivariate analysis, it was determined that independent factors

associated with receiving adolescent friendly services were adjusted for confounders and effect modifiers. This was achieved using binary stepwise backward logistic regression.

RESULTS

Study Population: Four hundred and thirty-two adolescents were enrolled into the study. Table 1 below outlines the characteristics of these respondents. The average age for these study participants was 16 years and 45% of them were male while 55% were female. 44% of the participants were coming for the first time and 67% reported noticing a signboard written in a language they understand which mentioned the working hours of the facility. 53% of the respondents came accompanied by their parents or guardians. Among those who came accompanied, 70% indicated they had some time alone with the healthcare provider. 88% of the respondents indicated that their parents and/or family had supported their use of this facility and only 2.4% reported not receiving the services they came for. 67% indicated that during their visit to this facility, they were informed of other facilities available here and 73% reported being aware of the services offered. 71% of them indicated that they knew where they would seek services not available at this facility. 67% saw adolescent informative materials and 72% of them benefitted from what they saw.

Table 1
Characteristics of adolescents enrolled into the study

Study Design, setting	Sample Size	Clinical Condition
Mixed-method research design (Qualitative and quantitative)	432	53% were accompanied by their parents/guardians. 70% had private time with the healthcare professional. 88% reported that their parents and/or family approved of KNH as their choice of healthcare facility. 2.4% were not satisfied with the services provided at KNH. 67% learnt about other facilities through their visit to KNH. 73% were well aware of the services offered at KNH. 71% were aware of alternative healthcare facilities that offered services that were not available at KNH. 67% recognized adolescent informative material. 72% benefitted from the informative resources.

Table 2 below outlines other services that the adolescents knew were being offered at this facility. The most commonly reported services were; HIV (70%), Nutrition (60%), Injuries (51%), Malaria (50%) and Diarrhea (50%). The least common services reported were those related to reproductive health.

Table 2
Awareness of other services offered by the facility

Type of services provided to adolescents at the facility	n	%
HIV	228	69.5
Nutrition	197	60.1
Injuries	168	51.2
Malaria	167	50.9
Diarrhea	164	50.0
Fever	152	46.3
Tuberculosis	151	46.0
Violence	149	45.4
STIs	142	43.3
Condoms	139	42.4
Substance use	120	36.6
Safe delivery	108	32.9
Immunization	106	32.3
Anemia	104	31.7
Physical and pubertal development	99	30.2
Mental health	96	29.3
Antenatal acre	91	27.7
Dermatological	91	27.7
Menstrual hygiene/ problems	90	27.4
Injectables	90	27.4
Post-partum care	85	25.9
Oral contraceptive pills	78	23.8
Emergency contraceptive pills	78	23.8
Safe abortion	78	23.8
Implants	77	23.5
IUD	72	22.0
Post-abortion care	70	21.3
Other	31	9.5

What impressed the adolescents most were the healthcare working environment. 93% reported that they were impressed by the working hours, 85% appreciated the comfortable seating area, and 84% appreciated the use of curtains during examination as a means to promote patient privacy. In terms of cleanliness, adolescents reported the following; 96% confirmed that the surroundings were well maintained, 99% affirmed that the consultation areas were sanitized and 81% felt that toilets were functional. 35% of the adolescents reported seeing the display of their rights and 64% indicated that they already knew what their rights were. The most commonly mentioned rights were respect for privacy 85%, respect 80%, protection from assault 71%, confidentiality 66% and non-discrimination 63%.

Table 3
What the adolescents liked

	n	%
Convenient working hours	395	93.4
Comfortable seating in the waiting area	361	84.7
Curtains in doors ring the examination	360	83.9
A reasonably short waiting time	285	66.6
Drinking water available	232	54.7

We enrolled 23 healthcare providers with a mean age of 31 years and had been working for an average of 2 years most of whom (74%) were medical residents. Only 26% of the healthcare providers reported having discussed their roles with the facility managers.

Table 4
Characteristics of Healthcare Providers

	Mean	Standard Deviation	Median	Minimum	Maximum
Age (years)	31	2	31	26	35
Duration working at facility (years)	2	1	2	1	5

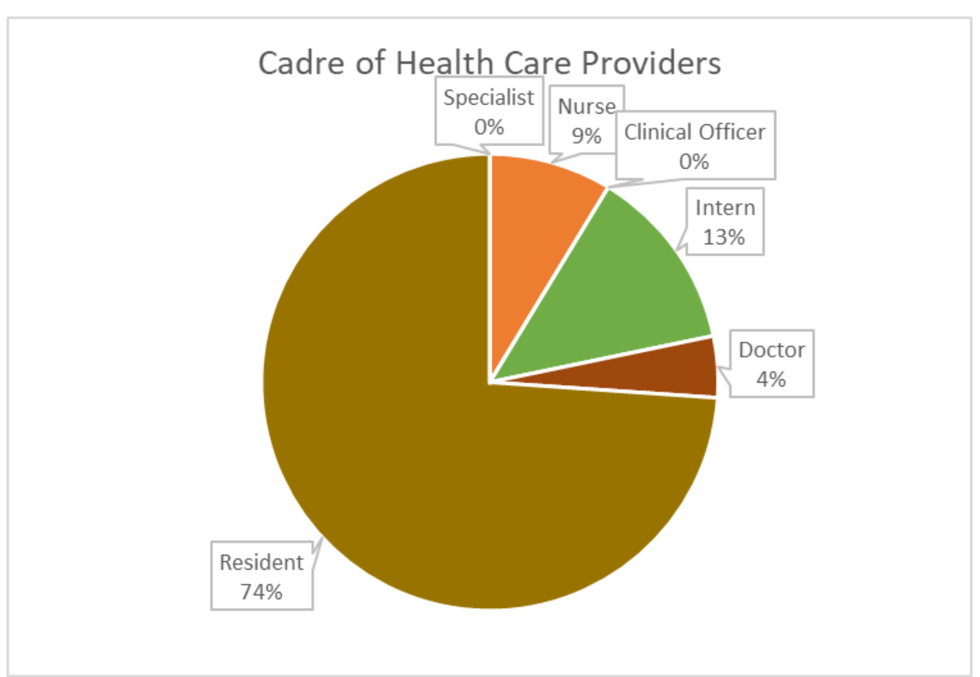


Figure 1: Pie chart displaying the cadre of HCPs included in the study

Quality of adolescent care: Healthcare providers reported providing a variety of services to adolescents with the most common services reported being nutrition (95.7%), HIV (95.7%) and other chronic conditions (91.3%). The least common services were adolescent specific immunization (34.8%) and abortion care (45.5%).

Table 5
Services offered by Healthcare Providers

Services provided to adolescents	Percentage%			
	Information	Counseling	Clinical Management	None of the above
Normal growth and pubertal development	30.4	39.1	34.8	47.8
Pubertal delay	34.8	34.8	47.8	47.8
Precocious puberty	36.4	36.4	45.5	45.5
Mental health and mental health problems	56.5	43.5	47.8	21.7
Nutrition, including anemia	69.6	56.5	78.3	4.3
Physical activity	60.9	47.8	39.1	13
Adolescent-specific immunization	26.1	13	17.4	65.2
Menstrual hygiene and health	52.2	43.5	43.5	34.8
Family planning and contraception	56.5	34.8	34.8	39.1
Safe abortion and post-abortion care	36.4	31.8	27.3	54.5
Antenatal care and emergency preparedness, delivery and postnatal care	47.8	43.5	43.5	43.5
Reproductive tract infections/ sexually transmitted infections	69.6	60.9	65.2	21.7
HIV	82.6	78.3	73.9	4.3
Sexual violence	47.8	56.5	56.5	30.4
Family violence	26.1	39.1	39.1	47.8
Bullying and school violence	39.1	34.8	26.1	47.8
Substance use and substance use disorders	59.1	59.1	40.9	27.3
Injuries	56.5	60.9	69.6	17.4
Skin problems	69.6	52.2	78.3	13
Chronic conditions and disabilities	65.2	69.6	82.6	8.7
Endemic diseases	65.2	56.5	69.6	17.4
Common conditions during adolescence (fatigue, abdominal pain, diarrhoea, headache)	57.1	66.7	76.2	14.3

Table 6

Training offered to Health Care Providers on Adolescent Care

Training in adolescent health care	%
Communication skills to talk to adolescents	8.7
Communication skills to talk to adult visitors/community members	8.7
The policy on privacy and confidentiality	17.4
Clinical case management of adolescent patients	8.7
Orientation on the importance of respecting the rights of adolescents to information and health care that is provided in a respectful, non-judgmental and non-discriminatory manner	13.0
Policies and procedures to ensure free or affordable service provision	8.7
Data collection, analysis and use for quality improvement	17.4
None of the above	78.3

Assessing the quality of adolescent care based on WHO Criterion 1, 2, 6, 8 and 9, the rating was highest on Criterion 8 (70.4%) and lowest in Criterion 9 (59.1%). Overall, the score was 65.1% and only 30.8% of the respondents indicated that the services meet the required standard.

Table 7

Scoring as per WHO Criterion

		Mean score	Not meeting standards	Needs major improvement	Needs some improvement	Meets standards
Criterion 1	n	66.4%	145	0	0	287
	%		33.6	.0	.0	66.4
Criterion 2	n	63.5%	131	0	53	248
	%		30.3	.0	12.3	57.4
Criterion 6	n	66.0%	74	78	62	218
	%		17.1	18.1	14.4	50.5
Criterion 8	n	70.4%	13	94	95	230
	%		3.0	21.8	22.0	53.2
Criterion 9	n	59.1%	30	107	132	163
	%		6.9	24.8	30.6	37.7
Overall categorization	n	65.1%	13	75	209	132
	%		3.0	17.5	48.7	30.8

Criterion 1: The health facility has a signboard that mentions operating hours
Criterion 2: The health facility has in the waiting area up-to-date information, education and communication materials specifically developed for adolescents.
Criterion 6: Healthcare providers provide age and developmentally appropriate health education and counseling to adolescent clients and inform them about the availability of health, social services and other services.
Criterion 8: Adolescents are knowledgeable about health.
Criterion 9: Adolescents are aware of what health services are being provided, where and when they are provided and how to obtain them.

According to the WHO Criteria, 69% of the services offered do not meet the quality threshold.

Figure 2: *Bar Chart on performance per standard as per the WHO Standards of Quality Care to Adolescents, 2015*

Assessing the quality of services as per the 8 WHO standards, the services offered need some improvement with respect to Standard 5 and 6, needs major improvement for the rest of the standards except Standard 8 which does not meet the Standards.

Table 8
Bivariate analysis

	N	**Mean age**	**Std. Deviation**	**p-value**

Characteristics	Meets quality threshold n(%)	Does not meet quality threshold n(%)	p-value
Male Female	142 (47.7) 156 (52.3)	52 (38.9) 80 (61.1)	0.095
First facility visit Repeat facility visit	142 (47.7) 156 (52.3)	48 (36.4) 84 (63.6)	0.030
Noticed signboard Did not notice signboard	155 (52.4) 141 (47.6)	132 (100) 0 (0)	<0.00 0.1

Received permission from relatives No permit from relatives Did not consult relatives	254 (84.9) 12 (4.0) 33 (11.0)	124 (93.9) 1 (8) 7 (5.3)	0.026
Satisfied with the services Unsatisfied with the services	284 (96.6) 10 (3.4)	131 (100) 0 (0)	0.033

Inferential analysis: Adolescents who were more likely to report acceptable quality of service were; older (p<0.0001), coming for a repeat visit (p=0.03), those who saw the signboard (p<0.0001), those whose parents/guardians supported their decision to use this health facility (p=0.026) and those who got the services they came for (p=0.033)

Table 10

Multivariate analysis

	Coefficient	S.E. of coefficient	p-value	OR	95% C.I. for OR	
					Lower	Upper
Age	.378	.051	.000	1.459	1.320	1.613
Accompanied by parent/guardian	-.623	.228	.006	.536	.343	.839

Older age (OR 1.5, p<0.0001) and accompaniment by parents/guardians (OR 0.5, p=0.006) were independently associated with acceptable quality of care.

Qualitative Analysis Results:

Focus Group Discussion with Adolescents:

We ran a 52-minutes single FGD at the KNH Adolescent Youth Clinic with a group of 5 adolescents, 3 of whom were males. The average age was 16 years. Majority of the youths (3) were re-visits (2nd to 4th visits). Data was audio-recorded, transcribed and analyzed based on emerging themes and presented as a descriptive narrative for the identified themes. Permission was received officially from both the head of youth clinic as well as the head of co-operate affairs in Kenyatta Hospital.

We used two main themes:

Theme 1: Perception of health needs being met at KNH Adolescent Clinic

Theme 2: Barriers that are likely to hinder access to adolescent health services.

There were two main health needs identified as important to the adolescents: [1] curative health needs and [2] psychological health needs. The Adolescents we interviewed highlighted 4 main priority characteristics for an adolescent health service delivery point:

i. Environmentally clean place
ii. A site which allows one to receive health services in a private setting, without anyone seeing or hearing the conversation
iii. A place where all services being offered are under one roof. One adolescent mentioned, “like here, you don’t expect a doctor to tell you to go and buy medicine from outside…”
iv. Should have competent staff members who understand the needs of adolescents

Adolescents thought that, whilst Kenyatta National Hospital has a highly rated adolescent clinic, they spotted the following as barriers to their accessing quality adolescent health care:

i. Perceived negative attitude of non-clinical staff
ii. Perceived demand from clinical staff for adolescents to conform to certain behavior

iii. Perceived rules that require presence of parents to constantly accompany adolescents to the clinic
iv. Varying the clinical staff member who sees the adolescents on different visits
v. Poor management of appointments

DISCUSSION & CONCLUSION

According to the results, there is room for improvement within all standards. Adolescents' involvement in the planning, monitoring and evaluation of health services and in decisions regarding their own care, as well as in certain aspects of service provision is where the hospital failed to meet the WHO standards of Quality Health Care to Adolescents. According to the WHO Criteria, 69% of the services offered to adolescents in Kenyatta National Hospital do not meet the quality threshold. This is in accordance with WHO 2015 findings globally in 25 countries which formed the basis of the standards.

Health Care Providers reported very limited training on adolescent care (21.7%) with the most common training reported being on policies and procedures for affordable service provision (17.4%), and on privacy and confidentiality (17.4%). Over 70% of the healthcare providers were not aware of Adolescent Care SOPs and Guidelines. These results were in line with WHO 2014 guidelines on Health for the world's adolescents: A second chance in the second decade, as well as with findings from a study conducted by Mngagi (2007), in Swaziland, where 45 out of 56 HCPs reported lacking guidelines for YFS at their respective health facilities, while 9 HCPs reported having guidelines but not referring to them. HCP training has been identified by WHO as one of the priority interventions for improving access to SRH services by young people.

In terms of patient characteristics three quarters of the respondents came accompanied mostly by parents/guardians 53%. Adolescents who were more likely to report acceptable quality of service were; older ($p<0.0001$), coming for a repeat visit ($p=0.03$), those who saw the signboard ($p<0.0001$), those who were accompanied by parents/guardians ($p=0.026$) and those who got the services they came for ($p=0.033$). This would suggest that being a younger adolescent or being unaccompanied would hinder one to obtain the quality health services they sought. Older age (OR 1.5, $p<0.0001$) and accompaniment by parents/guardians (OR 0.5, $p=0.006$) were independently associated with acceptable quality of care. The study found majority of respondents were not aware of health care services provided within the facility including outreach and referral services. These findings confirm the assertion that majority of adolescent health care services are not comprehensively packaged (WHO, 2014; WHO, 2015).

Qualitative data was obtained using FGDs. Adolescents' perceptions of health care quality were found to be satisfactory in our health facility and majority of respondents perceived health providers and services as friendly, respectful, confidential, non-judgmental and non-discriminatory. This was in keeping with a study by Anaba and Asibi (2018), who aimed at assessing adolescents' perceptions of health care quality in Ghana's health care facilities. Adolescents' perceptions were influenced significantly by the following factors: age, accompaniment by parent and facility characteristics. That notwithstanding, some adolescents encountered challenges (i.e. poor appointment setup and always demands to be accompanied) when accessing health care in the outpatient clinics. This is in keeping with a study done by Judith et al. (2003), comparative study of four countries found inconvenient operating hours, inconvenient location of the adolescent clinic and fear on the parts of adolescents as challenges to accessing care (Sogarwal et al., 2013; Samargia et al., 2006). In Zimbabwe, Erulkar et al. (2005), found the lack of parental support, long waiting time and financial barriers as challenges hindering adolescents from accessing care.

It can be concluded that the quality of care provided to adolescents at Kenyatta National Hospital requires significant improvement

despite their overall good perception. As a tertiary health care facility, KNH needs to look at different strategies to improve majority of the standards and service provision to its adolescent clients both inpatient and outpatient. Progress towards universal health coverage for adolescents will require renewed attention to healthcare provider training. As countries like Ghana and Bangladesh adapt these WHO Global standards, it is expected that these 8 WHO standards of quality health care to adolescents will be adapted by Kenya at a national and county level through the MOH, Kenya.

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