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Outcome of interventions to improve the quality of reproductive health services provided by private health facilities in selected states in Nigeria

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Summary

In Nigeria, as in many developing countries, the private health sector provides a significant proportion of reproductive health services. However, there are concerns about the quality of the reproductive health services provided by personnel operating in this sector. Few interventions exist to improve the quality of reproductive health services being provided by private practitioners. This three year intervention project, which was implemented in Oyo, Ogun and Gombe States, was designed to improve the capacity of personnel working in the private sector to deliver quality reproductive health services to their clients. One hundred and thirty nine privately owned health facilities participated in the project. Baseline data were collected from staff and clients using these facilities through self-completed questionnaires. A total of 458 nurses/auxiliaries were trained to improve their counseling and service delivery skills; 138 proprietors/proprietresses were trained on total quality management to enhance the quality of reproductive health services; and 84 physicians' knowledge were updated on reproductive health/family planning, and post-abortion care. Provision of contraceptives, drugs for treatment of sexually transmitted infections, supply of equipment and development of educational materials were the other components of the intervention. A follow-up survey was conducted three years after implementing the interventions to gauge outcomes. At baseline, only 35.2% managed postpartum sepsis compared to 97.8% at follow-up. Thirty-nine percent provided post-abortion care at baseline, the figure rose to 97.2% at follow-up. The proportion of respondents who reportedly provided family planning services increased from 39.5% at baseline to 43.0% at follow-up. Report of management of persons living with HIV/AIDS increased from 16.0% to 24.3% while counseling services increased from 36.1% to 37.6%. At baseline, only 55% of the health workers reported that they had male condoms in stock, the figure rose to 88.2% at follow-up. Sixty-one percent of clients reported that it took 1- 5 minutes before being attended at follow-up, compared to 95% who claimed they spent about an hour before receiving care at baseline. The interventions improved availability and quality of reproductive health services provided by private health facilities. Similar interventions should be replicated to scale up the proportion of private health facilities that provide quality reproductive health services in the country.

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Résumé

Au Nigéria comme dans d'autres pays sous-développés, le secteur privé de la santé apporte une proportion significative des services de santé reproductrice. Cependant il y a des issues concernant la qualité des soins par les personnels opérant ce secteur. Ce projet était initié et implémenté dans les états d'Oyo,d' Ogun et de Gombé pour améliorer la qualité du personnel du secteur privé deliver aux clients. 139 propriétaires des facilités des soins de santé participaient a ce project. Les données de base étaient prise du personnel et des clients a l'aide d'un questionnaire librement complété. 485 infirmières étaient formées pour améliorer leurs conseils aux clients et les distributions de service ; 138 propriétaires étaient formés sur le ménagement et la qualité des soins délivrés aux clients ; 84 médecins ont eu une formation améliorée sur la santé reproductive familiale planifiée et les soins après l'avortement. L'usage et les dons des préservatifs, des médicaments des matériels éducatifs et des équipements faisaient parti de l'intervention. Une suivie de 3 ans après l'implémentation était faite. 35.2% des cas de septicémie après l'accouchement comparé 97.2% durant la suivie.39% avaient des soins après l'avortement s'élevant à 97.2% pendant la suivie. La proportion des familles exerçant le planning augmentait de «39.5 à 43% pendant la suivie. Le ménagement des patients ayant le VIH/SIDA augmentait de 16% à 24.3% lorsque les services sociales de conseils augmentaient de 36.1% a 37.6%. A la base 55% du personnel de santé rapporte qu'ils ont les condons males augmentait de 88.2% pendant la suivie. 61% des clients estimaient que la durée avant la réception était de 1-5 minutes contre 95% estimant au moins d'une heure de temps avant l'intervention. Les interventions apportaient une amélioration de l'accessibilité, de la qualité des services de santé reproductive dans les facilités de santé prive et pourraient être répliqué pour accroître les soins de santé reproductive dans la nation.

Introduction

With an estimated population of 126 million, Nigeria is Africa's most populous country and one of its poorest [1].

The country has one of the worst reproductive health indicators in the world. The total fertility rate is high at 5.7 [2] while the contraceptive prevalence rate remains low and even lower among adolescents. According to the Demographic Health Survey (DHS) of 2002 [2] only 13% of women of reproductive age used any form of contraceptives with 8% using modern contraceptives. Seventeen percent of currently married women have unmet need for family planning methods [2]. Maternal mortality ratios (MMR) have worsened during the last two decades from 800–1,500 per 100,000 live births in the 1980s [3] to 1,500-3,000 in the 1990s and the most recent DHS data show that the rate is 1,000-2000 per 100,000 live births [2]. Of the nearly 529, 000 maternal deaths that occur worldwide annually, 50,000 representing approximately 10% is attributed to complications of pregnancy and child birth [3]. The major causes of maternal deaths are obstetric hemorrhage, sepsis, pregnancy-induced hypertension, obstructed labour, anaemia, and malaria, which are preventable. The poor maternal health in Nigeria is an indication of the deepening crisis in the health sector.

In Nigeria, as elsewhere in the developing countries, the private health sector provides a significant proportion (63%) of reproductive health services [4]. However, several concerns have been raised about the nature and the quality of reproductive health services being provided by the private sector. First, there is concern that many of the personnel operating in the private sector lack adequate knowledge and skills to deliver effective and high quality reproductive health services [4, 5]. Secondly, ethical concerns have been raised that private facilities capitalize on the stigma associated with marital infertility by promoting treatment of infertility and in-vitro-fertilization at exorbitant cost [6]. Finally, there is concern that the bulk of privately owned health facilities are concentrated in urban areas, leaving many of rural communities underserved. Yet, the majority of citizens reside in rural communities. Compared to those situated in urban areas, the facilities located in rural communities are generally poorly staffed, inadequately equipped, thus compromising the quality of care provided to people living in these areas. In response to the poor reproductive health situation in Nigeria and in recognition of the potential positive roles that private health facilities could play in mitigating the impact of high maternal mortality, low contraceptive use and low quality of reproductive health care, the Association for Reproductive and Family Health (ARFH) implemented a 3-year project that developed the capacity of personnel operating in the private health sector in three states, Oyo and Ogun and Gombe. The processes and outcomes of the project are described in this article.

Materials and methods

The setting

Established in 1989, ARFH is a national not-for-profit non-governmental organization (NGO) located in Ibadan, Oyo state, Nigeria with a track record of implementing good quality programmes addressing the reproductive health needs of young persons, health workers and women throughout Nigeria and elsewhere in Africa. ARFH implemented the project over a three year period (1999-2002) in collaboration with three health professional bodies; namely Association of General and Private Medical Practitioners of Nigeria Oyo and Ogun States chapters, Nigeria Private Nurse/Midwife Association Oyo, Ogun and Gombe States chapters and Guild of Medical Directors in Gombe. The goal of the project was to develop the capacity of personnel operating in the private health sector to provide high quality reproductive health services that would directly contribute to reduction in maternal morbidity and mortality resulting from pregnancy related complications.

Oyo and Ogun states are situated in the South-western Nigeria and are inhabited mainly by the Yoruba, the dominant ethnic group in the region. Gombe is one of the six states in north eastern Nigeria. Oyo and Ogun states were selected for this project because these areas have a large concentration of private health facilities, while Gombe State was chosen because it is one of the most underserved states in the northeast with respect to reproductive health services.

Procedures for selection

One hundred and thirty-nine privately owned facilities were selected for this study including 69 from Oyo, 50 from Ogun and 20 from Gombe states. The facilities were selected based on the availability of registered members of the professional associations (i.e. the collaborating partners) and their willingness to participate in the project. The categories of health facilities selected were hospitals owned by physicians and maternity clinics owned by nurses/midwives (see Table 1). These facilities are located in 18 communities, including 5 in Oyo, 7 in Ogun, and 6 in Gombe. Seven of these communities are located in the urban settings while eleven are in the semi-urban areas. Project community areas were purposively selected as they were determined by the location of the participating facilities.

Baseline data collection

A pre-post test evaluation design was adopted to assess the outcome of the interventions. Baseline data were collected through administration of three types of questionnaire. The proprietors of each of the facilities completed the first questionnaire, which solicited information on social demographic characteristics, knowledge of reproductive health and training needs. The second questionnaire documented the capability of the facilities to provide quality reproductive health services with respect to accommodation, staffing and equipment, while the third was completed by clients using these facilities to gauge their satisfaction with the quality of services received. The three questionnaires were self-completed by the respondents.

Table 1: Types of private health facilities that participated in capacity development project by state

Type of facility	Location by state			Total
	Gombe	Ogun	Oyo	
Maternity clinics	13	16	26	55
Hospitals	10	31	43	84
Total	23	47	69	139

The interventions

Four types of intervention activities were implemented. The first was capacity building workshops for all categories of personnel operating in this sector including physicians, nurses, midwives and nurse-auxiliaries. ARFH staff conducted training for a total of 458 nurse/auxiliaries to develop their capacity to provide good quality reproductive health counselling and services. In addition, 138 proprietors/proprietresses were provided with total quality management training to enhance the quality of services; and 84 physicians' knowledge was updated on reproductive health, family planning and post-abortion care with particular attention to the use of the manual vacuum aspiration (MVA) kit. Furthermore, 277 persons selected from the communities proximal to the facilities were trained as reproductive health promoters to improve the communities' knowledge of reproductive health issues including family planning (see Table 2).

Table 2 : Contents of training intervention by target groups

S/N	Type of training	Target audience
1.	Total quality management / continuous quality improvement	Proprietors/ Proprietresses
2.	Reproductive health update/ family planning	Physicians
3.	Reproductive health and family planning	Nurses/Midwives
4.	Reproductive health and interpersonal communication	Auxiliary nurses
5.	Sexual and reproductive health promotion	Volunteer community members males /females

The second component of the intervention was a one-time supply of essential drugs for the management of sexually transmitted infections (STI), and a modest amount of family planning contraceptives including male condoms, intra-uterine devices (IUD), injectables and pills, which was done to improve client's access to reproductive health services. The third component of the intervention was the provision of the MVA kit and consumables such as gloves and syringes to each facility. This was done to enable trained personnel put into practice the skills they had acquired and to form the nucleus of a revolving scheme for re-supply. Finally, relevant information, education and communication materials were developed including posters, leaflets, pamphlets, referral cards, and flip charts each of which conveyed appropriate messages. For example, the poster for health care providers was aimed at reinforcing inter-personal communication skills that these staff needed to create friendly environment that would stimulate clients' patronage. The educational materials developed for nurses were aimed at improving their knowledge about reproductive health-related problems and how to control them.

Evaluation

ARFH staff provided periodic monitoring and supportive supervision of the intervention activities in each participating facilities. At the end of the third year a post evaluation was conducted to measure the outcome of the intervention. The same questionnaires administered at baseline were repeated at follow-up in each of the participating facilities. As with baseline, the questionnaires were self-completed at follow-up. The questionnaires were verified in the field for completeness; they were collated and the data were entered into the computer. The data were analyzed with the Statistical Package for the Social Sciences (SPSS) computer software and the results are presented in simple percentages. Comparisons are made with respect to changes detected over time with respect to knowledge about reproductive health, clients' perception of quality of care, and the availability of services and commodities.

Results

Demographic profile of clients and their perception of quality of care

At baseline a total of 910 clients were interviewed while 322 clients were interviewed at follow-up. More female than male clients were interviewed during baseline and follow-up (69.4 % and 70.2 % respectively). The proportion of Christians interviewed at both baseline and follow-up were 56.8% and 63.7% respectively.

At baseline 91.3% of clients were highly impressed with the way health providers attended to them, the figure rose to 99% at follow-up. With respect to waiting time, at follow-up 61% reported that it took an average of five minutes before health providers attended to them, compared to 95% who spent about one hour before being attended to at baseline.

At baseline, nearly all (99.1%) clients perceived that providers had the capacity to address their health problems. The clients based their perception on reputation of facility (43.2%), recommendation from other users of the facility (23.5%) and quality of staff (68.7%) among other considerations. At baseline, five percent of the clients claimed they had problems that could not be resolved

in the health facilities. The same proportion (5%) of clients made this assertion at follow-up.

Cost of care and perceived attitude of staff

Cost of services is a major determinant of access and use of reproductive health services. In this study, 75.9% of clients reported at baseline that the cost of treatment was "moderate", 15.7% considered the cost "high" while the remaining 8.4% maintained that it was "low". When the same question was asked at follow-up, 83.2% of the clients considered cost of treatment "moderate", 9.3% considered it "high" while 2% felt it was "low". At follow-up, 50% of the clients perceived that they had noticed improvement in the attitude of the health workers.

Table 3: Demographic characteristics of health providers

Variable	Baseline (N=263) %	Follow-up (N=420) %
Sex		
Male	45	44
Female	55	56
Age (in years)		
<30years	28.6	30.7
>30	71.4	69.3
Position in facility		
Proprietor/employer	49.8	39.6
Employee	50.2	60.4
Religion		
Christianity	79.5	76.1
Islam	20.2	21.5
Others	0.3	1.4
Marital status		
Single never married	24.6	24.2
Married	73.8	74.5
Separated/Divorced	0.8	0.7
Widowed	.8	0.6
Professional status		
Physicians	28.1	24.3
Nurses	19.0	16.2
Midwives	1.5	2.7
Nurse/Midwives	11.4	12.2
Community health extension workers	4.2	11.5
Auxiliary nurses	35.8	33.1

Demographic characteristics of providers

Table 3 presents the demographic profile of health care providers at baseline and follow-up. At baseline, 44% were male and 56% were female. At follow-up, 45% and 55% were males and females respectively. A greater percentage of the respondents were more than 30 years old at both baseline (69.3%) and post intervention (71.1%). Employees constituted more than half of the respondents at both baseline (60.4%) and post intervention (50.2%). Majority are Christians (76.1% baseline, and 79.5% post intervention respectively). 74.5% and 73.8% of the respondents were married at both baseline and follow-up respectively.

Auxiliary nurses accounted for the largest single group respondents: 35.8% and 33.1% at baseline and follow-up respectively. This is followed by Medical doctors who constituted 24.3% and 28.1% of the sample at baseline and follow-up respectively. Registered nurses accounted for only 16.2% and 19.0% respectively at baseline and post intervention.

Types of emergency obstetric care services provided

Table 4 shows the types of emergency obstetric care services provided at baseline and follow-up. Before the intervention, only 36.6% of the respondents reported that their facilities were providing blood transfusion services, the figure rose to 89.9% at follow-up. A similar trend was noted for other emergency obstetrics care including management of post-partum sepsis which rose from 35.2% at baseline to 97.8% at follow-up. The proportion of those who reported that their facilities had provided post abortion care, managed eclampsia, managed obstructed labor and ectopic pregnancy were 39.0%, 21.1%, 23.9% and 31.6% respectively at baseline. At follow-up, the figures were 97.2%, 95.8%, 96.7% and 96.8% respectively. The number of respondents who reported providing caesarian sections rose from 35.1% at baseline to 96.6% at follow-up.

Table 4: Reported types of emergency obstetrics care services private facilities

Type of service	Percentage at baseline	Percentage at post- evaluation
Blood transfusion	36.6	98.9
Management of postpartum sepsis	35.2	97.8
Post abortion care	39.0	97.2
Management of eclampsia	21.1	95.8
Management of obstructed labour	23.9	96.7
Management of ectopic pregnancy	31.6	96.8
Caesarian section	35.1	96.6

Reproductive health services

The types of reproductive health services reportedly provided by respondents at baseline and follow-up are shown in Table 5. Respondents reported a marginal increase overtime in the types of reproductive health services. Postnatal care services increased from 43.7% to 44.9% while infant welfare services rose from 41.8% to 43.0%. Family

planning services increased from 39.5% to 43.0%. Report of management of persons living with HIV/AIDS increased from 16% at baseline to 24.3% at follow-up. Report of the provision of reproductive health counselling services improved from 36.1% at baseline to 37.6% at follow-up. However, marginal decrease was reported in other reproductive health services including antenatal care; normal delivery, management of STIs, anaemia, infertility and delivery by vacuum.

Table 5: Types of reproductive health services provided by private health facilities before and after intervention

Types of service	Baseline (N=263)	Follow-up (N=420)
Antenatal care	43.7	44.5
Normal delivery	46.0	43.3
Postnatal care	43.7	44.9
Management of STIs	43.7	40.7
Management of anaemia	43.30	0.7
Infant welfare	41.8	43.0
Family planning	39.5	43.0
Management of infertility	36.1	34.5
Counselling	34.2	37.6
Management of HIV/AIDS	16.0	24.3
Delivery by vacuum	13.7	11.8
Delivery by forceps	9.9	9.9

Table 6: Types of family planning methods available in facilities

Methods	Baseline (%)	Follow-up (%)
Male condoms	55	88.2
Female condoms	NA	6.8
Oral contraceptives	61	85.2
Spermicides	31	9.5
IUCD	59	82
Injectables	53	78.3
ECP	29	37.6
Diaphragm	22	8.4
Norplant	6	8.7

Types of family planning methods

Table 6 shows the types of contraceptives reported to be available in each facility at baseline and follow-up. At baseline, only 55% of the respondents reported that they had male condoms in stock, a figure that rose to 88.2% at follow-up. Sixty-one percent reported having oral contraceptives at baseline, compared to 85.2 at follow-up. The proportion that had IUCD at baseline and follow-up were 59% and 82% respectively. Similarly, at baseline 53% had injectable contraceptives, but at post-evaluation, 78.3 reported having it in stock. However, the proportion that reportedly had spermicides in stock decreased from 31% at baseline to 9.5% at follow-up.

Discussion

Access to, and delivery of, high quality services for family planning are core components of reproductive health services [4]. Poor quality of care inhibits potential clients from using existing services, or returning to them when the need arises. This also has negative consequences on the reproductive health status of the users. In order for people to reach the highest attainable standard of sexual and reproductive health and well being, improvements in quality of care are inevitable. This project was designed to improve the quality of reproductive health services provided by health workers operating in private health facilities in three states in Nigeria.

The findings of this study showed that there were improvements over time on clients perception of quality of care received from the health facilities that participated in the project. There were marked improvements in the five out of the six indicators of quality of care assessed in the study including reception of clients and waiting time, perceived confidence in health providers' competence, availability of drugs, cost of care and attitude of staff. For example, at follow-up 90.6% of clients reported an improvement in clinic patronage and reasons adduced for this included provision of good services, adequate and satisfactory services, quality care and treatment, friendliness of providers, improved facility/services, affordable services, in these order. A similar intervention implemented in Uganda showed that clients were more likely to mention quality-related factors as their reason for visiting the clinic at post-intervention than at baseline [7, 8]. The positive outcomes found in this study may be attributed to the training workshops on interpersonal and counseling skills that staff received during the intervention phase of the project.

Another important finding was the improvement in health providers' skills in rendering reproductive health services. There were reported improvement at follow-up in the management of reproductive health morbidity such as postpartum sepsis and post abortion care. This finding underscores the value of continuing education for health providers. The fact that each facility was provided with MVA may have also contributed to the improvement in post-abortion care services at follow-up. These findings are encouraging because availability of drugs and other materials are important factors that enhance the credibility of any health institution as well as its patronage by clients.

There are two limitations of this project that must be pointed out. First, the study was limited to few private health facilities in three states, therefore these data must be interpreted with caution. Secondly, there was no comparison group which could have provided a more convincing evidence of the value of the interventions imple-

mented in this project. Nevertheless, the study has made important contributions to what is currently known about the potential roles that private health facilities could play in providing quality reproductive health services in Nigeria.

Lessons learnt

Three important lessons were learnt from this project. First, the project demonstrates that it is feasible to mobilize, train and empower health workers operating in the private sector to provide high quality reproductive health services to their clients. Although the desire to increase in profit is typically considered the main motive for setting up private health facilities, the proprietors and staff who participated in the project realized that providing good quality reproductive health services will directly lead to increased patronage. Hence they provided their full support and cooperation throughout the project. Secondly, the provision of comprehensive intervention package contributed to the overall improvements in clients' perception of quality of care, availability of services, and commodities in the facilities. Provision of equipment and contraceptives expanded the range and the integration of reproductive health services in these facilities. Finally, it is often assumed that private health facilities are typically better equipped and are better stocked with reproductive health commodities than the public facilities. However our experience on this project indicates that private health facilities also suffer from the chronic shortages of essential medical materials.

Conclusion

Integrated interventions received by health workers operating in the private sector improved the quality of reproductive health services rendered in these facilities. Capacity building and provision of medical supplies are important interventions that can improve the quality of reproductive health services being provided by health workers operating in private health facilities in Nigeria.

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References

1. Agha S, Escudero G, Keating J and Meekers D. Nigeria (Bauchi, Enugu, Oyo) Family Planning and Reproductive Health Survey 2002. Technical Report of Measure Evaluation, Tulane School of Public Health, USA
2. National Population Commission. Demographic Health Survey in Nigeria, Abuja, 2003.
3. National Population Commission. Demographic Health Survey in Nigeria, Abuja, 1999.
4. World Heath Organization. Strategies to accelerate progress towards the attainment of international development goals and targets related to reproductive health. Reproductive Health Matters 2005; 13 (25): 11-18.
5. Agha S, Balal A and Ogojo-Okello F. The impact of a microfinance program on client perceptions of quality of care provided by private sector midwives in Uganda. Report submitted to Commercial Market Strategies Project, 2002.
6. Baru RV. Reproductive health technologies and the private sector: implications for women's health. Health Millions, 1993; 1 (1): 6-8.
7. Peter DH, Mirchnadi GG and Hansen PM. Strategies for engaging the private sector in sexual and reproductive health: how effective are they? Health Policy and Planning, 2004; 19: 1-15.
8. Sullivan TM, Maung C and Sophia N. Using evidence to improve reproductive health quality along the Thailand-Burma border. International Family Planning Perspectives 2004; 28:255-257.

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