



Assessment of the Capacity and Availability of Post Abortion Care Resources in Secondary Healthcare Facility-Based Hospital in Kano State

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Abstract

Post-abortion care (PAC) is a global approach towards solving the problem of maternal mortality and morbidity arising from abortion and its related complications. It is designed to manage the complications of abortion and to improve women's sexual and reproductive health. This study was therefore conducted to assess the capacity of secondary health care facilities within Kano metropolis towards the provision of PAC. An explorative research design was adopted for this study. Results show that; All the first four-components (71%) with an exception of community and service provider partnership were rendered as part of the PAC component and more than half (65%) of the required resources for the provision of PAC were available. It can be concluded that; The capacity toward post-abortion care provision was high and more than half of the required resources for delivering PAC were available. It is recommended that; more health personnel are recruited to enable the facility to incorporate the last component of the PAC, notably community and service provider partnership.

Keywords; *Abortion, Post-abortion care, Capacity, Health Care Facility*

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1.0 Introduction

Abortion remains among the leading causes of maternal death worldwide (Ansari et al, 2015). It was postulated that; Between 2015 and 2019, on average, 73.3 million induced (safe and unsafe) abortions occurred worldwide each year, 3 out of 4 of these abortions occurred in Africa and Latin America of which were unsafe and the risk of dying from an unsafe abortion was highest in Africa (WHO, 2020). Abortion-related complications are an important and preventable cause of maternal deaths, accounting for 8–9% of maternal deaths worldwide between the early 2000s and 2016 (Owolabi, Biddlecom, & Whitehead, 2018). “Maternal mortality in Nigeria is high, with estimates ranging from 500 to nearly 1000 deaths per 100 000 live births” (Bell, et al., 2021). For each death, there are hundreds of women who experience

severe and potentially life-threatening complications (Akinlusi *et al.*, 2018) and thus require post abortion care.

In places where there is little or restricted access to safe abortion care, abortion-related complications can also result in severe morbidity. A review of 70 studies from 28 countries estimated that at least 9% of women admitted to hospital for abortion-related reasons had a near-miss event, where a woman had complications, such as severe hemorrhage, that would have most likely resulted in death had she not made it to the hospital (Owolabi, et al 2018).

Most countries in Africa (e.g Côte d'Ivoire, Libya, Malawi, Mali , Nigeria, Somalia, South Sudan, Sudan, Tanzania, Uganda) have restrictive abortion laws, and according to a

recent study, the region suffers the greatest burden of complications from this preventable problem (Bankole, Kayembe, Chae, Owolabi, Philbin, & Mabika, 2019).

In Nigeria, abortion is legally restricted, permitted only to save the life of a woman and/or preserve the physical health of a pregnant woman, this is stated in both sections of the Criminal Code act (228, 229, 230, 297, and 328) of the Southern States of Nigeria and that for the Penal Code act (232, 233, 234, 235 and 236) of the Northern states of Nigeria (Okorie and Abayomi 2019). Therefore; the bulk of women in need of abortion in these contexts usually resort to unsafe methods and procedures resulting in mortalities, severe disabilities, or complications that require treatment, intensive care, and attendance by highly skilled health personnel (Juma, et al 2019).

Unsafe abortion is defined by World Health Organization (WHO) as “a procedure for terminating unwanted pregnancy either by a person lacking the necessary skills or in an environment lacking the minimum standard or both” (WHO 2014). In countries where the provision of abortion is restricted by law or where it is not accessible, women often resort to unsafe methods that result in complications, long-term health problems, or even death (Kitila and Yadassa, 2015) thereby requiring post-abortion care to treat this complication and to prevent mortality.

Post-abortion care, a term originated by **Ipas** in the early 1990s, is an approach for reducing deaths and injuries from incomplete and unsafe abortions and their related complications, which is an integral part of comprehensive abortion care (Curtis, Huber & Moss-Knight, 2010). Post-abortion care encompasses a set of interventions to respond to the needs of women with miscarriage or induce an abortion (Barot, 2014). This series of medical and related interventions were grouped as components/elements for PAC which are expected to be rendered to women presenting to health care facilities with any

form of abortion/ or its associated complication. Healthcare service ‘readiness’, or a facility’s capacity to provide all components of a service, is an essential aspect of quality of care (Kruk et al., 2018; Bell, et al., 2021.)

Therefore the study attempts to assess the health care facilities in their capacity and resource to deliver each component or element of PAC, which are meant to be five. Those components include:

1. Treatment; This involves prompt treatment of women with complications from abortion, This entails the use of high-quality methods such as manual vacuum aspiration (MVA) techniques or drugs such as misoprostol to complete incomplete abortions and halt bleeding (Barot, 2014). Complications from unsafe abortions require post-abortion care (PAC) services to treat clinical symptoms and prevent subsequent unintended pregnancies, thereby reducing maternal morbidity and mortality (Riley, et al 2017).
2. Contraceptive counseling with the provision of contraceptive services; which prevent unwanted pregnancy through the use of the appropriate contraceptive device. This contributed to a decrease in the abortion rate
3. Reproductive health services are offered onsite, or through referral; as this will improve women's sexual and reproductive wellbeing
4. General counseling to respond to the full range of women’s emotional and physical needs;
5. And lastly, community and service provider partnerships to help mobilize resources for PAC and prevention of unsafe abortion (Kalu, Umeora & Adeoye 2012).

In this study, “capacity” was used to refer to the measure of the ability of health facilities to deliver specific services. This was used about a similar study done by Juma, et al, (2019) on

Health systems' capacity to provide post-abortion care (PAC) in Health Facilities of Kenya, Nigeria and Burkina Faso using signal functions and a study by Owolabi, et al.,(2018), on Health systems' capacity to provide post-abortion care, which is a multicounty analysis using signal functions.

Several barriers impede timely access to PAC services including legal restrictions on abortion, abortion-related stigma, behavior and negative attitudes of healthcare providers, low levels of awareness and knowledge among women, and low capacity of healthcare systems to provide quality PAC services (Juma, et al 2019).

And therefore the study examines the state of preparedness of secondary health facilities to deliver PAC through three selected health care facilities using the five components of PAC as indicators for health service delivery.

Abortion-related mortality rates differ significantly, these disparities in abortion-related mortality were seen as a result of inequitable access to safe abortion procedures and quality PAC services. This relates largely to the legal context, and insufficient resources and poor quality of obstetric care in general and PAC services in particular. Therefore, to reduce the negative outcomes associated with unsafe abortion, regardless of legality, PAC services are necessary. As far back as 1994, the International Conference on Population and Development called for increased availability of PAC services, stating that 'in all cases, women should have access to quality services for the management of complications arising from abortion' (Bell, et al 2021.)

However; In Nigeria and Kano metropolitan, limited data exist on the capacity of health care facilities towards the provision of PAC, including analysis on the availability of essential resources for delivering such service. To the knowledge of the researcher, a multi-country analysis to assess health system capacity was done among three countries; Kenya, Burkina Faso and Nigeria in 2018. It

becomes necessary to determine how Nigeria alone as a country through the existing health facility is capable of providing PAC.

2.0 Research design; A retrospective research design was adopted in this study

2.1 Sampling technique; Three secondary health care facilities were selected through a multi-stage sampling technique. The first stage involves purposive sampling technique used to select only the local government with secondary health care facilities rendering post-abortion care, followed by selecting the secondary health facilities that are known to render 24 hour PAC service; namely Muhammed Abdullahi Wasse specialist hospital, Murtala Muhammed Specialist Hospital, and Sheikh Jidda Muhammed General Hospital. Obstetrics and gynecological unit of each respective health care facility was used; where PAC service is offered.

2.2. Instrument of study; A facility checklist was adapted from a study done by Hassan, (2014) on Assessment of Post Abortion Care Service in Public Health Facilities in Bauchi State. A checklist of all component of PAC was serialized, and a mark of (√) was used under YES/NO option to indicate what component is/not available as shown in the table for the result. Resources were classified as; reusable and non-reusable. The scoring system for the available resources (reusable) was on a scale of 2 to 0 also, (2 for adequate, available and functioning, 1 for available, not adequate or not functioning, while 0 for not available at all). Non-reusable items were also on a scale of 2 to 0; (2; for always available, 1; for available sometimes, and 0 for not available at all). The scoring system was developed by the researcher

2.3 Data analysis; Scoring system for both was interpreted based on percentage. A score of less than 49% represents resources poorly available, between 50%-69%, represents moderately available, and greater than 70% represents resources widely available. And for

services, more than 50% indicated services are available, and less than 50% indicated services not available.

2.4. Ethical consideration. The Ethical clearance was obtained from the Ethical Clearance Committee with Reference No. MOH/OFF/797/T4/1045 and presented to the

authorities of the study hospitals. Informed consent was sought and granted.

3.0 Results

Table I below is the result of the health facilities distribution on the capacity of PAC. All the selected facilities provide 24hours PAC service.

Table I: *Distribution of the facilities in response to the availability of PAC component (PAC Capacity)*

VARIABLES	MAWSH		MMSH		SJMSH		ALL FACILITIES	
	YES	NO	YES	NO	YES	NO	YES	NO
24 hours post-abortion care service	√		√		√		3(100%)	0 (0%)
Free service		√	√		√		2(66.7%)	1(33.3%)
Staff adequacy		√		√		√	0 (0%)	3 (100%)
Emergency Treatment	√		√		√		3(100%)	0 (0%)
Immediate post-abortion care family planning provision		√	√		√		2(66.7%)	1(33.3%)
Are contraceptive services available?	√		√		√		3 (100%)	0 (0%)
Provision of contraceptive counseling and commodities	√		√		√		3 (100%)	0 (0%)
An agreed contraceptive referral arrangement within the site	√		√		√		3 (100%)	0 (0%)
Reproductive health service	√		√		√		3 (100%)	0 (0%)
An agreed arrangement of the partnership between the community and service providers for community-based education and counseling on abortion, post-abortion care, and other health reproductive services to community members		√		√		√	0 (0%)	3 (100%)
Aggregate mean percentage	56%	44%	78%	22%	78%	22%	71%	29%
Aggregate Mean Score	0.56		0.76		0.76		0.71	

MAWSH; Muhammed Abdullahi Wase Specialist Hospital

MMSH; Murtala Muhammed Specialist Hospital

SJMGH; Sheikh Jidda Muhammed General Hospital

The above table shows that all facilities reported not having enough staff to provide

such service. None of these facilities (100%) had an arranged partnership with a particular community to offer community education.

The total mean percentage of available service from all the three facilities is 71%, while the mean score becomes 0.71. This shows the high capacity for PAC service provision.

Table II: Facilities availability of non-reusable PAC resources

RESOURCES/FACILITIES	ALL FACILITIES		
	2	1	0
Disposable 10cc syringes with needles	33.3%	66.7%	0
Cotton swabs	100%	0	0
Gauze	100%	0	0
Alcohol/spirit	100%	0	0
Disinfectant (Jik, etc.)	66.7%	33.3%	0
Antiseptic (for cleaning vagina & cervix)	100%	0	0
Soap	66.7%	33.3%	0
Sanitary pads	100%	0	0
Exam gloves	100%	0	0
Surgical gloves	100%	0	0
Face masks	33.3%	66.7%	0
Local anaesthesia	100%	0	0
Antibiotics	66.7%	33.3%	0
Misoprostol	100%	0	0
Mifepristone	0	66.7%	33.3%
Tetanus toxoid Injection	33.3%	0	66.7%
Rhogam (Anti D) Injection	33.3%	0	66.7%
I V fluids	66.7%	33.3%	0
Male condom	33.3%	0	66.7%
Female condom	0	33.1%	66.7%
Diaphragm	0	0	100%
Combined oral contraceptive	33.3%	66.7%	0
Progestin only pill	33.3%	66.7%	0
Injectable	100%	0	0
Implant	100%	0	0
IUCD	100%	0	0
Female sterilization	33.3%	0	66.7%
Male sterilization	0	0	100%
Total Mean percentage	60%	19%	22%
Total Mean Score	1.25		

Score interpretation; 2=Always, 1=Sometimes, 0-Never

Table II above shows data on facilities' non-reusable items; Disposable syringes and facemasks were significantly available (66.7%) in all facilities. Other commodities like Cotton wool swabs, gauze, and antiseptic for cleansing vagina, alcohol spirit, sanitary pads, examination gloves, and surgical gloves were always available in all 3 facilities (100%).

Medication such as local anesthesia and misoprostol were always available in all 3 facilities (100%), while antibiotics and I.V fluids were significantly available in all facilities (66.7%)

For contraceptive devices, male and female condoms, female and male types of sterilization were rarely available in all 3 facilities (33.3%), No diaphragm in all 3 facilities (0%), but oral contraceptive pills were significantly available in all facilities (66.7%). Injectable, implants, and IUCD were always available in all 3 facilities (100%), The overall total mean percentage for all the three facilities becomes 60% for always available, 19% for available sometimes, and 22% for non-availability of resources. While the overall total mean score is 1.25

Table III: The facilities availability of reusable resources

RESOURCES	ALL FACILITIES		
	2	1	0
Patient changing area	33.3%	0	66.7%
Exam table (with stirrups)	100%	0	0
Sink	66.7%	0	33.3%
Toilet	100%	0	0
Running water	66.7%	0	33.3%
Special dedicated room for MVA	66.7%	0	33.3%
Adequate ventilation	100%	0	0
Locked storage area (for medical supplies/equipment)	100%	0	0
Adjustable lighting	33.3%	33.3%	33.3%
Clean linens (gowns, sheets, towel)	0	66.7%	33.3%
Eye protection (glasses, goggles)	0	66.7%	33.3%
Surgical gowns or aprons	33.3%	0	33.3%
Boots	33.3%	0	66.7%
Stool	66.7%	0	33.3%
Instrument table, tray or shelf	66.7%	0	33.3%
Sterilizer (autoclave)	0	0	100%
Stethoscope	100%	0	0
Blood pressure gauge	100%	0	0
Thermometer	100%	0	0
Vaginal speculum	100%	0	0
Sponge forceps	100%	0	0
Tenaculum/Vulselum	33.3%	66.7%	0
Vacuum syringes for MVA	66.7%	33.3%	0
Silicone lubricant	66.7%	33.3%	0
Adapters	33.3%	66.7%	0
Flexible cannulae	100%	0	0
IEC materials (for patients to keep)	0	0	100%
basins/kidney dishes	100%	0	0
PAC pamphlets on waiting rooms	0	0	100%
Waste bin	100%	0	0
Total Mean Percentage	62%	12%	26%
Total mean score	1.4		

Score interpretation

2; Available, adequate and functioning

1; Available, not adequate and non-functioning, and 0; not available

Table III above shows the distribution of reusable post-abortion care resources across facilities. The patient changing area was rarely available in all the facilities (33.3%).

All facilities (100%) had a functioning examination table in good condition with stirrups and a toilet. A well-functioning sink

with running water was significantly available in all the facilities (66.7%).

A specially dedicated MVA room was significantly available in all facilities (66.7%) with adequate ventilation. A similar proportion occurs for clean linen such as gowns, sheets, and towels and also in some personal protective devices such as glass and goggles. Adjustable lightening, surgical gowns or aprons and boots were rarely available in all facilities (33.3%). None of the facilities (0%) had an autoclave/sterilizer, but all (100%) had a stethoscope, blood pressure

gauge, thermometer, vaginal speculum, and sponge forceps.

Vacuum aspirators for MVA and silicone lubricant were significantly available and adequate in all facilities (66.7%), all facilities had flexible cannulae, basins/kidney dish, and waste bin, but none of the facilities had IEC materials for a patient to keep and PAC pamphlets in the waiting room. The total mean percentage for available, adequate, and functioning resources is 62%, and 12% for materials available, not adequate, and none functioning with about 26% for materials not available at all. The overall total mean score in all facilities becomes 1.4

Table IV: Summary of All material Resources available

Resources	Mean Percentage	Mean Score
Re-usable (Available, Adequate and Functioning)	62%	1.40
Non-reusable (Always Available)	60%	1.25
Average mean percentage/score	61%	1.32

Table IV above shows the average mean percentage for the available resources which is 61%, meaning resources were available

4.0 Discussions

Health-care providers are obliged to provide life-saving medical care to any woman who suffers abortion-related complications, including treatment of complications from unsafe abortion, regardless of the legal grounds for abortion. These can only be ensured with the availability of a well-equipped health facility that can provide the recommended five components of PAC. However, the medical treatment being one and foremost intervention to be offered to women with abortion is paramount in saving their lives. As such it is the first component of post-abortion care. Other interventions should be followed after saving the woman's life, which contributes significantly to improving her reproductive wellbeing. These other four interventions are; counseling, provision of contraceptive services, provision of other reproductive health services and lastly community and health care service partnership. Since these components is relevant in women's reproductive life, the study determine how prepared the health facilities were in providing such service; in

terms of the availability of each PAC component as well as the availability of resources used in offering these services. The study is unique in trying to identify the availability of each individual element and resources which was not established in previous similar studies, especially in the selected settings

Capacity to provide post-abortion care; Refers to the ability of the health care facilities to be able to provide the composite five elements/component of post-abortion care services.

All three facilities offer 24hours PAC service. That is; women needing PAC who might have sought this service at any time will get it. The first component (treatment) was offered by all the three facilities as an emergency, which is the most priority of the five-elements where treatment of complications and evacuation of the uterus is done either using manual vacuum aspiration or the use of misoprostol. This is in line with the recommendation by WHO, (2015) as the

standard approach in the management of abortion. Concerning the remaining components of PAC, all facilities provided almost all components with the exception of the last component of PAC; mainly community and health provider partnership which was never implemented, where these same facilities reported having a shortage of staff to meet such services, resulting to less community engagement. These correspond to the findings of Hassan, (2014), which shows Community engagement was lacking in all facilities. Community engagement involves educating members of the community on the availability and main purposes of PAC and other obstetric emergencies. The total mean percentage of available service from all the three facilities is 71%, while the mean score becomes 0.71. This shows the high capacity for PAC service provision.

Appropriate equipment and supplies needed for providing PAC including MVA equipment were available in all the health facilities. Although the shortage of contraceptive device was limited to those not frequently requested by the client. This was considerably better than a facility-based assessment on the quality of post-abortion care done in Ethiopia where less than half of the health facilities had available MVA equipment (Tsfaye, and Oljira, 2013).

MVA rooms, functional sink with running water, and adjustable lightening were available in almost all facilities in addition to blood pressure apparatus, thermometer, tenaculum, sponge forceps, instrument tray/shelf, basins/kidney dishes, and examination table. This corresponds to findings of Demtsu, Gessesew, and Alemu, (2014) on assessment of Quality and Determinant Factors of Post-Abortion Care in Governmental Hospitals of Tigray, Ethiopia having similar proportions of these commodities. MVA rooms become necessary as patient needing evacuation of the uterus require privacy, other requirements such as a functional sink with running water and adjustable lightening are basic necessities to offer post-abortion treatment, as this ensures

good hygiene has been practiced. However; None of the facilities had IEC materials for the patient to keep and PAC pamphlets in the waiting room, this is in contrast to the above same study by Demtsu et al (2014) which was available among two hospitals used for the research. These materials serve as media for easy communication among affected members, who can easily reach the desired Centre for effective management. This material can also be pasted on the wall of the unit signifying the services are rendered and a conceptual framework on the PAC component to be drawn showing what the patient is to expect and what is expected of the health care professionals. Kumbi, et al (2008); states that to be effective in providing knowledge on proper care and prevention, there is a need to develop and distribute appropriate materials. This includes posters to be pasted at important places and leaflets that patients can take home and read. It was clearly shown that provision of important lifesaving information was overlooked universally. These informational materials are as equally important as other components of care. Posting the information on the walls for the providers could also be reminding.

Medications such as local anesthesia, uterotonics, misoprostol, antibiotics, and I.V fluid were always available in almost all facilities. These are essential drugs required in the management of abortion and its complications (WHO, 2015),

Overall, out of all commodities, data shows a shortage in the contraceptive devices that should be always available to women for post-abortion family planning as this is the key service needed to space pregnancy. The pattern of lower availability of a broad range of contraceptive methods is similar to results from a study in Zambia and in a study on multicounty analysis of the Health system's capacity to provide post-abortion care using signal functions (Owolabi, et al, 2018). Most of the contraceptives available were the short-acting that is easily reversible. This is also attributed to the nature of the research settings

where women requesting these contraceptive devices do space birth for a short duration. There is compelling evidence that effective PAC contraception reduces the risk of repeat abortion (Kabiru, Ushie, Mutua, & Izugbara, 2016). From the above finding on this study, an average summary shows more than half of the required resources are available. This corresponds to the study on assessing post-abortion care in health facilities in Afghanistan by Ansari et al (2015) having similar findings too.

5.0. Conclusion; It is concluded that there is a high capacity for the provision of PAC, and most of the required resources were widely available with the shortage of some contraception and IEC materials. Although the contraception found to be unavailable are those that belong to long-acting and more of the permanent method. Therefore, it is recommended that more health personnel are recruited, and frequent training to ensure appropriate delivery of all PAC components. More so, important IEC materials and all contraceptives should be made available so that women can make the proper choices of the ones they want.

The Study Declares No Conflict of Interest.

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