Factors associated with use and non-use of postabortion care services in Dar es Salaam Tanzania

Mcharo, E. G^1 , Agwanda, A. A^2 and Ikamari, L.D. E^3

*For correspondence- mail: mcharoevaline@gmail.com; ataotieno@uonbi.ac.ke;

likamari@uonbi.ac.ke

Background: Postabortion care (PAC), is a package of services provided to women who have had an incomplete spontaneous or induced abortion. Knowing the users and non-users of PAC and reasons for use and none-use is important.

Objective: The study aimed at identifying PAC service users and non-users and reasons for using or not using the PAC services.

Methods: A total of 103 users and six non-users of PAC services were interviewed.

Results: Most of the PAC users were young, not formally employed, single and educated to secondary or primary education. Information sharing about one's health status; support from partner, relative or parents; privacy and absence of queues availability of PAC services and availability of transport enhanced utilization. Inability to pay for PAC services, fear of healthcare providers, fear of being arrested and avoiding stigma hampered utilization.

Conclusion. Reducing abortion stigma and making PAC services affordable may increase its use.

Key words: *Postabortion care, utilization, abortion complications, non-user, Tanzania.*

¹University of Dar es Salaam-Dar es Salaam University College of Education- Tanzania;

^{2,3}Population Studies and Research Institute, University of Nairobi-Kenya.

(This paper is still a work in progress)

Introduction

Postabortion care (PAC), is a package of services provided to women who have had an incomplete abortion after a spontaneous or an induced abortion [1]. Millions or women around the world lose their lives each year due to complications from abortion particularly unsafe abortion [2]. In East Africa it is estimated that 18% of maternal mortality is due to abortion complication[3]. Spontaneous abortion rarely causes death [4], therefore it is evident that the observed high maternal mortality rate in East Africa due to abortion related complications is to a greater extent a result of unsafe induced abortion.

Induced abortion in Tanzania, as in many sub Saharan countries, is not permitted unless to it is deemed necessary because the life of the mother is at risk [5]. The general rule is that pregnancy should be terminated by a registered medical practitioner if it is evident that the continuance of the pregnancy will put the woman's life at risk, is likely to significantly affect her physical or mental wellbeing, or pose a danger to her existing children or her family [6].

Postabortion care has five major elements including: (i) treatment of incomplete abortion and complications that are potentially life-threatening; (ii) counseling, to identify and respond to women's emotional and physical health needs and other concerns; (iii) contraceptive and family planning services to help women prevent unwanted pregnancy or practice birth spacing; (iv) reproductive and other health services that are preferably provided on-site or via referrals to other accessible facilities in providers' networks; and (iv) community and service provider partnerships for prevention, mobilization of resources, and to ensure that health services reflect and meet community expectations and needs (PCCTF, 2002).

Postabortion care services may reduce morbidity, mortality [7-9], if women experiencing abortion-related complications are provided with the right care in a timely manner [2]. Benefits of PAC transcend reducing the risks of maternal mortality[3]. PAC family planning and counseling, can lead to increased contraceptive uptake and therefore break the cycle of repeating pregnancies and induced abortion [10-12]. Furthermore, PAC family planning may lead to decreased abortion through prevention of unintended pregnancy as well as prevention of mother-to-child HIV transmission [13]. Despite these potentials of PAC, its utilization has remained substantially low in many places [14].

Estimates show that 15-25 percent of women who experience abortion-related complications do not seek care [2] and little is known about why they do not utilize PAC services from formal health facilities. Studies on abortion and postabortion care tend to focus on women who have managed to seek care from a formal health facility [15], hence these clients represent only the tip of the iceberg (Rasch et al., 2000b). Therefore information about factors associated with non-use of PAC services is limited.

Tanzania has provided PAC since the 1994 International Conference on Population and Development (ICPD). Since then, government have made efforts to strengthen PAC as means to combat maternal mortality associated with abortion-related complications. The efforts include the removal of all barriers to accessing family planning services [16], scaling up comprehensive PAC by developing a postabortion care clinical skills curriculum aimed at training middle level health services providers (i.e. clinical officers and nurse-midwives) to ensure PAC is available at lower level health facilities [17], working in partnership with various organizations such EngenderHealth and Jhpiego in providing PAC services [18] and incorporating the use of misoprostol in postabortion care services, [19]. Despite all these efforts, little is known on the factors associated with the use and non-use of PAC services in Tanzania. The objective of the study was to identify the PAC service users and non-users and reasons for use and non-use

Materials and methods

The study was cross-sectional conducted among women who utilized PAC services in three health facilities in Dar es Salaam from July –December 2014. A total of six non-users of PAC were recruited from the community by the means of snowball sampling. The three facilities was selected for a study because they provided postabortion care services i.e. treatment, counseling and family planning. Facilities which provided only one component of PAC was not included in the study.

A PAC client who appeared in the facility during that particular period was approached for an interview. Two consecutive months were spent in each facility. A client was included in the study if the provider approved that her condition was stable to allow her participate in the study. Snowball sampling technique was applied to recruit women who have had experienced abortion-related complications but did not seek services from a formal health facility.

Exit interview was used to collect information from PAC clients who sought care from the study facilities. An interview was administered to a client when she was were about to leave the facility after receiving PAC services. Only PAC clients who agreed to participate were interviewed, clients whose condition was not good, and clients whose parents/guardians refused to consent were excluded from the study. In-depth interviews were carried out among women who have had abortion and experienced complications but did not seek PAC services from a formal health facility.

Research and ethics approval for the study, was granted by the Tanzania National Institute for Medical Research (NIMR). Consent for the participation to the study was given verbally.

Quantitative data was entered in SPSS version 20. Frequency and percentage tables were constructed to indicate the distribution of variables. Mean value was calculated for continuous variables like age. The second level of the analysis involved cross tabulation to assess the relationship between variables.

Results

Majority (49.5%) of the PAC users were below 30 years, single with either secondary or primary education. Most of them did not have a formal employment. Their religious affiliation was either Muslim or a Christian as shown on table 1.1 below

Table 1.1: Socioeconomic and demographic characteristics of participants per study facilities

Characteristic		Facilities		Total
Characteristic	Facility A	Facility B	Facility C	TULAT
Age	1 acmity A	1 acmity B	1 acmity C	
15-19	5.8	4.9	5.8	16.6
20-24	3.9	14.6	10.7	29.1
25-29	5.8	8.7	6.8	12.4
30-34	6.8	8.7	3.9	19.4
35-39	3.9	8.7	0	13.6
33-37	3.7	0.7	U	13.0
Marital status				
Single	14.6	16.5	18.4	49.5
Married	11.7	18.4	6.8	36.9
Cohabiting	0	10.7	2.9	13.6
condening	Ü	10.7	2.9	12.0
Religion				
Christian	12.6	23.3	13.6	49.5
Islamic	13.6	22.3	14.6	50.5
Education				
Primary	13.6	29.1	7.8	50.5
Secondary	12.6	15.5	15.5	43.7
Tertiary	0	1.0	4.9	5.8
Occupation				
Employed	4.9	6.8	5.8	17.5
House wife	9.7	20.4	5.8	35.9
Self employed	8.7	14.6	0.7	30.4
Student	2.9	3.9	5.8	12.6
Place of resider				
Temeke	25.2	42.7	16.5	84.5
Kindondoni	0	1	6.8	7.8
Ilala	0	1.9	4.9	4.9
Outside Dar es	1	0	0	1
Salaam				
N= 103	ld data 2014	1004 =		

Source: Field data 2014/2015

Factors which facilitated the seeking of care

Sharing information about the health status

Parents, significant others and partners had a role to play in seeking care after complications following an abortion. Most of the clients (52.4%) informed their partners about their health condition while others informed their close friends, their relatives or their parents. Clients who were single were more likely to communicate their health problem to their relatives, friends and parents than to their partners. On the other hand, clients who were married shared to their partners than to their relatives and friends. Sharing the information about one's health status enabled some PC clients to know about PAC and where to get services.

I called my friend and told her about my condition because I know that last year she experienced the same. She advised me to come because she was treated here. I have heard people saying about kusafishwa'' evacuation'' but today I have experienced it [PAC client, Facility C].

I decided to inform my sister about my problem; she advised me that I should go to the hospital because the pain killers I was using might not help. She advised me to come here since there are services [PAC client, Facility A].

You know these services are not advertised like family planning so it is difficult to know about then. I never knew if there are services like these up until I told my friend about my health problem. [PAC client, Facility B].

Support for the cost for PAC services

The support for the transport the client got from the relative, partner and friend might have been a facilitating factor in seeking care. Close to half (46.6%) reported that the transport costs was met by the partner, 30.1% on their own transport cost while 10.7% by their relatives. Furthermore 9.7% were helped by parents and 2.9% were helped by their friends.

Availability of PAC services in the study facilities

About 32% of the PAC services users indicated that they sought care elsewhere before visiting the study facilities. For those who sought care elsewhere, 30.3% sought help from pharmacy, 27.3% from public health centre, 24.2% from a public dispensary, and 18.2% from private dispensary. Clients who visited pharmacy reported that they bought some pain killer drugs and decided to go to hospital when they saw that they could not recover after taking the drug bought.

I visited a pharmacy to obtain some medication for the pain relief but I decided to come here for thorough treatment [PAC client, Facility B].

My problem started four days ago and I went to the pharmacy to buy some medicine, I used them for three days but the problem was still there. I had to tell my mother about my condition who brought me to this hospital [PAC client, Facility A].

The pain killer drugs that I bought from the pharmacy didn't help, I decided to come to the therefore further treatment [PAC client, Facility C].

Clients who visited other facilities were referred to the study facilities because the facilities visited did not have equipment for uterine evacuation or their cases were too complicated to be handled at the lower level facilities.

I visited public health centre but they told me that they can't manage my condition because they do not have the equipment. They told me to come here [PAC client, Facility A].

I went to a government dispensary but they referred me here because they told me that my condition needs a specialist [PAC client, Facility B].

A client decided to seek care from the private facility because she visited a public dispensary and she was told that the facility did not have a specialist to help her with her health condition.

I visited a public dispensary and I was told that they do not have a specialist to help me with my problem. My friend who escorted me advised me to come here [PAC client, Facility C].

On the other hand a client another client visited a private dispensary and she was not treated because there was no specialist to help her. She decided to seek care from a public facility.

I went to a private dispensary the doctor informed me that I was supposed to be hospitalized but they do not have the specialist no to help me. They advised me to come here [PAC client, Facility B].

Availability of transport

About 61.2% spent less than an hour to reach a facility whilst the rest spent one or more hours. The most common used mode of transport was public transport 60.2%. Other clients used motorcycle/bajaj or hired a tax. Very few (4.9%) used their own transport (private transport) to reach the facility.

Privacy and absence of ques

Postabortion care clients visited the study facilities because privacy and absence of overcrowding

I have come here because I have been here before and like their services. The environment is clean and you do not take long time to be served [PAC client].

A friend of mine advised me to come here because there is more privacy and it is less crowded, as you can see by yourself, people do not spend long time at the reception [PAC, client.

You know what, sometimes you may go to facility and spend the whole day for treatment but here people are few. To me it is better I spend more money and get the services quickly [PAC, client].

I decided to come here because I thought I will be more comfortable. You know what sometimes you may meet people at the hospital...they will ask you what is your problem...I don't like that [PAC client].

Reasons for non-use of PAC

A total of 6 in-depth interviews were carried out among PAC none-users. Each interview was treated as a single case. Cases were summarized and relevant information required for the study was extracted. Five cases were narrated by the PAC none users themselves while one case was narrated by a family member.

Case Number one: 2014

22 years and unmarried young girl

This was a case of a 22 year old unmarried young girl, not at school who was made pregnant by her boyfriend after being in a relationship for few months. She informed her boyfriend when pregnancy was one month old. Her boyfriend promised to take care of her and the pregnancy. Two months later, the boyfriend decided to travel to another region. He informed the girl that he will not return and will not be responsible for the pregnancy and child that will be born. This made the girl be confused.

She informed one of her friends about the development and they advised her against going for abortion. She could not stand the expectation of child out of wedlock, let alone the pregnancy. She finally decided to go for abortion. She went to a pharmacy where she bought pills after being assured by the pharmacist that those were abortion pills. Few (2) days after taking the pills she started bleeding and experiencing severe abdominal pain. She went back to the pharmacist who advised to go to the hospital for treatment.

She did not have money to pay for the services so she asked her friend who assisted her with 50,000Tsh. However she did not go to the hospital because she was afraid that the providers will shout at her for inducing the abortion. Finally she went to a doctor who was providing abortion services privately at his home after being told by his friend. She paid him 50,000¹ Tanzanian shilling (Tsh) for treatment services.

CASE Number 2: 2014

32 year and married

This is a case of a woman who was married but the husband was living in another region. They had children who were living with the mother. The woman had an affair with another man and got pregnant. She was afraid that her husband might leave her because of the pregnancy. She

¹ 1 Tanzanian shilling was equal to 1600\$ at the time of this research

went to a pharmacy and abortion was procured by machuma². The cost of abortion was 20,000Tsh.she thought that the induced abortion was done properly that is why she experienced no complications. She was afraid of going to the hospital because she thought she might she would not be given services because she had an induced abortion. She became very sick such that four (4) days after the abortion, her relative decided to take her to the hospital after she revealed to them (who narrated the story) unfortunately she passed away on the way to the hospital.

CASE Number 3:2013

A case of a 17 year secondary school girl

This was a student who was pregnanted by a fellow student (not from the same school). They agreed to keep it secret for fear of being expelled from school. As time passed by, they agreed that the girl should tell her mother. Three months later the girl told her mother and the parents got angry and chased her from the home. Her parents told her to go to her boyfriend's home. The boyfriend's parents took her to a pharmacy for an induced abortion but after three days she experienced complications. She was taken back to the pharmacy but they were told that the individual who performed the abortion had travelled. They were afraid to go to the hospital because of fear of being arrested since induced abortion is illegal. They thought that the heavy bleeding would have made the providers discover that it was induced abortion. They went to another pharmacy and managed to get services. They were charged Tsh 250,000 because the pharmacist insisted that the procedure was too risky and they are not allowed to do it in the pharmacies.

CASE number 4: 204 A 24 year old University student

The girl got a boyfriend, a fellow student after joining the university. They initially used contraceptives but after few months they stopped. Later she became pregnant and agreed with her boyfriend to terminate the pregnancy because they were still students. Beside this, her school fees were being paid by one of the relatives so she was afraid that the relative might get angry and stop paying fees if he learns about the pregnancy. She was also afraid of the friends, colleagues and parents as she thought that they will think that would become a laughingstock. Another factor which made her procure abortion was her family reputation and religious background. In her family no one has ever had child before outside wedlock hence she was afraid to bring shame to the family.

Because of fear, she pretended as if someone is seeking for induced abortion services. Therefore she asked one of her friends on where a friend of her could obtain induced abortion services. Her friend informed her of a certain woman who has helped many women on induced abortion. She met the abortion provider and abortion was done at the cost of 35,000Tsh using traditional

²According to the narrator, *machuma* meant that some metallic equipment was inserted in the vagina. Since the narrator could not describe it; we associated the equipment with curette which is used in dilation and curettage procedure.

medicine. After few days, she felt some pain, and bleeding. She used pain killers but they didn't help anything. She told her boyfriend about it, and decided to go back to the woman who provided them with induced abortion services. She was given some herbs which she used for three days. After one week her condition improved.

They did not seek care from a modern health facility because she was afraid of the providers that they may stigmatize her. She believed that going to the hospital would have made her meet friends or relatives who would make her pregnancy public. She indicated that if she was to go to the hospital, she would have preferred to travel outside Dar es Salaam but it was costly.

Case Number 5

A 19 year old secondary school student 2013

She became pregnant while still at school but the boyfriend was not a student. She was shocked about the fact that she was pregnant because she was still a student. She thought that she would have drawn a bad lesson to her younger sister by falling pregnant while at school. She was also concerned about taking care of the child because her parents were not better off economically.

Her boyfriend had friend who was a medical doctor who prescribed and brought her pills for her which she could not remember. She started bleeding two days after taking the drugs. The bleeding continued for two days and she was worried because doctor told her that it would not take long. Later after informing him, the doctor conducted the evacuation process at the doctor's house. No pain killer was given but she was given an anti-biotic after the procedure. She did not seek care from the modern health facility because the abortion provider advised them to call him in case of any complication. The doctor told her and her partner that his job would be in danger if it was discovered that he was providing abortion services.

Case number 6

A 25 year old unmarried woman

She tried to have an induced abortion for her three month pregnancy using tea leaves. She bought four packets of tea leaves at Tsh 500 and boiled them in water. She took the mixture of boiled tealeaves and water. After some few days she started experiencing pains as signs of abortion .She was advised by her friend to go to the hospital for treatment but she refused because of fear of being arrested for having an induced abortion.

She later went to a woman in the neighborhood who helped women with induced abortion with the escort of her friend. She was given a glass of a concoction of herbs and told to rest. Three hours later she started bleeding heavily. She could not go to the hospital although she was advised by her friend because she did not have money to pay for the services. She went back to the abortion provider and given another medicine. She took the medicine for three days and finally got fine. She supplemented the traditional medicine with pain killer drugs that she bought from the pharmacy.

Reasons for not seeking PAC services

Fear of the health care providers

Fear of ill treatment and harassment from the health care providers was another factor that hindered some participants from seeking care from modern health facility. Case number one and Case number four have shown that they did not seek care from modern health facilities because of fear of harassment from the healthcare providers.

Fear of being arrested

Case six indicated that she did not seek care from the formal health facility because of fear of being arrested because induced abortion is illegal in Tanzania. She understood that the laws does not allow induced abortion, therefore going to the modern health facility for PAC services might expose her for an arrested. Similarly, Case number three indicated that the parents of her boyfriend were not ready to go to a modern health facility for fear of being arrested because of the induced abortion.

The fear of being arrested was not only felt by the seekers of induced abortion services but also the providers of induced abortion services. For example, in Case five, the abortion provider who was a healthcare provider insisted that the client should call him in case of any problem after the induced abortion. The provider was afraid that if they go to the hospital, it might expose him for an arrest and putting his job at risk. The provider had to provide PAC service at home, but it is not known if the equipment used was privately owned or owned by the facility the provider was working with.

Fear of relatives and friends (stigma)

Case number four has shown that the PAC none user was not ready to seek care from the formal health facility because she thought that she would meet relatives and friends at the hospital who might publicize her induced abortion. She preferred the induced abortion option for the sake of privacy between her and her boyfriend. She was afraid of setting a bad example and bad reputation to the family members.

Lack of money to pay for PAC services

As indicated in case one, the non-user of PAC services was not employed therefore she had to ask for an assistance from friends in order to pay for PAC services. Similarly in case four, the participant indicated that she could have sought care outside Dar es Salaam if she was to go to the hospital for PAC, however, lack of money to meet the cost made her decide go back to the same traditional healer who provided her with induced abortion services. Surprisingly, she did not seek care from the formal facility after receiving money from friends.

Discussion

Young and unmarried women are at high risk of suffering from abortion related complications compared to older women [20] and are more likely to delay in seeking care for the treatment of the complications [21]. Having a high proportion younger and unmarried women seeking PAC may be associated with improvement in care seeking behaviour among this group [22]. It is difficult to conclude from this study about the relationship between education and choice of a health facility because of the number of the facilities involved. It is documented that educated women are more likely to seek care from private facilities because of the belief in good quality of care, good providers' attitude and ability to pay for the services [23]. The present study was done in an urban district where PAC services may be available compared to rural areas. Women who live in rural areas are less likely to access PAC services because of unavailability of PAC services in their localities [24, 25]. The fact that half of the participants were Muslim and half were Christian indicates that women from various religious background are in need of PAC in case of complications regardless of the religious affiliation. Of note, almost all religious teachings condemn abortion, however the way women from different religious background react to the teachings may differ.

Married women were more likely to share their information about their health status to their partners than to their friend or relative. However decision to seek care was almost done by the woman herself. Other studies have found that although partner involvement in seeking PAC may be high, some married women can make their own independent decision to seek care especially when they are able to pay for the services [22, 26]. In other places married women may seek approval from partner or family member to seek postabortion care [26]. In other instances partner may object seeking of PAC [25, 27].

The current study has shown that PAC clients sought care from the study facilities because PAC services were available. However, a proportion of the clients sought care elsewhere before the study facility. In most cases, lack of equipment and experts for PAC has been reported as among the inadequacies at lower level facilities which is consistent with the findings of this study [26, 28, 29]. When PAC clients move from facility to facility seeking for PAC may increase the likelihood of maternal mortality due to delayed care [26, 29].

This study has indicated that availability of transport may have facilitated the seeking of care, other studies have documented that women who are poor and those who live in rural areas are more likely face transport problems because the facilities are far from their usual places of residence [27].

Privacy is one of the key factors to PAC service improvement [30]. A postabortion care client is more likely to seek care where her privacy is guaranteed due to stigma associated with abortion. Public facilities have been characterized by long ques and long waiting hours[23]. Long ques and long waiting hour may discourage clients from seeking PAC. On the other hand, private facilities

are characterized by high quality services and good provider attitude but high cost of the services compared to public facilities ([22, 23].

Obtaining information on abortion is challenging where abortion is not legally permitted and highly stigmatized [31]. Thus, the six PAC non-user cases shade light on possible factors which may prevent some women from seeking PAC services from a formal health facility. Fear of healthcare providers, of being arrested and of being seen by relatives and friends may indicate stigma associated with abortion issues. Provider's attitude on abortion and postabortion care has an influence on the clients' utilization of PAC [15, 26, 32]. A provider who is not willing to provide PAC due to moral or religious belief [33] may judge a PAC client negatively, which may affect future utilization. Fear of being arrested was not felt by the PAC clients alone. Case five shows clearly that, the abortion provider who was a healthcare provider insisted that the client should call the provider in case of any problem after the induced abortion. The provider was afraid that if PAC care was sought from a health facility the provider might have been exposed for an arrest and putting his job at risk. Fear of the legal prosecution by the providers may affect their willingness to treat complications resulting from unsafe abortion [34]. Women may overcome the obstacles of stigma and fear however lack of money to pay for PAC services may be a limiting factor for seeking PAC from formal facilities. Financial constraints has been indicated as one of the challenges that face women in accessing PAC services ([22]. Household economies has an impact on women's decision to seek PAC [25].

This study was done in three health facilities in Dar es Salaam and to six women who did not utilize PAC services therefore limited in scope. Similar study needs to be done in both rural and urban places of Tanzania for a wider generalization. The findings suggest that women who are young and unmarried seek PAC from formal health facility contrary to what is generally believed that married women are more likely to seek care from health facility compared to unmarried women. Therefore efforts are needed to make sure that PAC services are friendly to those women who need them. The study indicates that some clients visited health centers or dispensaries for PAC before seeking care in the study facilities. This may imply that having postabortion care services at lower level facilities may increase its utilization. It will reduce the movement of clients from facility to facility hence reducing the risks of maternal mortality. Reducing abortion stigma and making PAC services affordable may increase its utilization as they were indicated as the main factors for not utilizing PAC services from a formal health facility.

Acknowledgement

This work was supported by the Consortium for Advanced Research and Training in Africa (CARTA). CARTA is jointly led by the African Population and Health Research Center and the University of the Witwatersrand and funded by the Wellcome Trust (UK) (Grant No: 087547/Z/08/Z), the Department for International Development (DfID) under the Development Partnerships in Higher Education (DelPHE), the Carnegie Corporation of New York (Grant No: B 8606), the Ford Foundation (Grant No: 1100-0399), Google.Org (Grant No: 191994), Sida (Grant No: 54100029) and MacArthur Foundation Grant No: 10-95915-000-INP".

Conflicting interests

The authors declare that they do not have conflicting interests

References

- 1. Adinma, E.D., *Post Abortion Care Services in Nigeria, From Preconception to Postpartum*2012: InTech.
- 2. Singh, S., et al., *Abortion Worldwide:A Decade of Uneven Progress*, G. Institute, Editor 2009: New York.
- 3. Woog, V. and A. Pembe, *Unsafe abortion in Tanzania: a review of the evidence. In Brief.*, in 2013, Guttmacher Institute: New York.
- 4. WHO, Unsafe abortion Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2003, 2007: Geneva
- 5. Vibeke, R., et al., *Acceptance of contraceptives among women who had an unsafe abortion in Dar es Salaam.* Tropical Medicine and International Health, 2004 **9** p. 399–405.
- 6. Kinemo, R.E.J., *Abortion and Family Planning in Tanzania*, 2006.
- 7. Okonofua, F., *Abortion and Maternal Mortality in the Developing World.* J Obstet Gynaecol Can 2006. **28**(11): p. 974-979.
- 8. Tripney, J., et al., *The impact of post-abortion care family planning counselling and services in low-income countries: a systematic review of the evidence (Technical report).* 2010, EPPI-Centre, Social Science Research Unit, Institute of Education, University of London: London.
- 9. Woog, V. and A. Pembe *Unsafe abortion inTanzania: a review of the evidence, In Brief No1. New York: Guttmacher Institute.* 2013.
- 10. Ceylan, A., et al., *Post abortion family planning counseling as a tool to increase contraception use.* BMC Public Health 2009. **9**(20).
- 11. MSH, Scaling Up Postabortion Care Services: Results from Senegal. Occasional Papers No 5, 2006.
- 12. Ferreira, A.L.C., et al., *Choices on contraceptive methods in post-abortion family planning clinic in the northeast Brazil.* Reproductive Health, 2010. **7**(5).
- 13. Curtis, C., Meeting Health Care Needs of Women Experiencing Complications of Miscarriage and Unsafe Abortion: USAID's Postabortion Care Program. Midwifery & Women's Health, 2007 **52**(4): p. 368-375.
- 14. Melkamu, Y., M. Betre, and S. Tesfaye, *Utilization of post-abortion care services in three regional states of Ethiopia*. Ethiop. J. Health Dev, 2010(Special issue 1): p. 123-129.
- 15. Shah, I. and E. Åhman, *Age Patterns of Unsafe Abortion in Developing Country Regions.* Reproductive Health Matters. **12**(24): p. 9-17.
- 16. Jain, A., et al., *Tanzania Baseline Survey 2004–2005: Technical Report E&R Study #4.*, 2006, EngenderHealth/The ACQUIRE Project.: York.
- 17. MOH, Postabortion Care Clinical Skill Curiculum: Trainer's Guide Vol. 1 M.o. Health, Editor 2002.
- 18. Curtis, C., Meeting Health Care Needs of Women Experiencing Complications of Miscarriage and Unsafe Abortion: USAID's Postabortion Care Program Midwifery Women's Health 2007 **52**: p. 368–375
- 19. VSI Tanzania fights maternal mortality, registers misoprostol for postabortion care services. 2011.
- 20. WHO, Maternal, newborn, child and adolescent health [Accessed 26/04/1013]. 2013.

- 21. Bruyn, M.d. and S. Packer, *Adolescents, unwanted pregnancy and abortion. Policies, counseling and clinical care*, 2004, Ipas: Chapel Hill, NC.
- 22. Sathar, Z.A., et al., Post Abortion Care in Pakistan: A National Study, 2013, Population Council
- Wariki, W.M.V., et al., *Post-abortion care in North Sulawesi, Indonesia:Patients determinants in selection of health facility.* Quality in Primary Care 2015. **23** (3): p. 181-188.
- 24. Singh, S., Hospital admissions resulting from unsafe abortion: estimates from 13 developing countries. Lancet 2006, 2006. **368**: p. 1887-92.
- 25. Azmat, S.K., et al., *Delivering Post-Abortion Care through a Community-Based Reproductive Health Volunteer Programme in Pakistan.* J. Biosoc. Sci., 2012. **00**: p. 1-13.
- 26. Melkamu, Y., M. Betre, and S. Tesfaye, *Utilization of post-abortion care services in three regional states of Ethiopia*. Ethiop. J. Health Dev., 2010. **24** (Special Issue 1): p. 123-129.
- 27. Vlassoff, M., et al., Menstrual Regulation and Postabortion Care in Bangladesh: Factors Associated with Access to and Quality of Services, 2012, Guttmacher Institute
- 28. Kumbi, S., Y. Melkamu, and H. Yeneneh, *Quality of post-abortion care in public health facilities in Ethiopia*. Ethiop.J.Health Dev, 2008. **22**(1): p. 26-33.
- 29. Melkamu, Y., M. Betre, and S. Tesfaye, *Utilization of post-abortion care services in three regional states of Ethiopia*. Ethiop. J. Health Dev. , 2010. **24**(Special Issue 1): p. 123-129.
- 30. Webb, D., *Attitudes to 'Kaponya Mafumo': the terminators of pregnancy in urban Zambia.* Health Policy and Planning, 2000. **15**(2): p. 186-193
- 31. Haddad, L.B. and N.M. Nour, *Unsafe Abortion: Unnecessary Maternal Mortality.* Rev Obstet Gynecol, 2009. **2**(2): p. 122-126.
- 32. Likwa, R. and M. Whittaker, *The characteristics of women presenting for abortion and complications of illegal abortions at the University Teaching Hospital, Lusaka, Zambia: an explorative study.* Afr J Fertil Sexual Reprod Heal, 1996. **1**(1): p. 42-49.
- 33. Harries, J., K. Stinson, and P. Orner, *Health care providers' attitudes towards termination of pregnancy: A qualitative study in South Africa. BMC Public Health*, 2009. **9**(1).
- 34. Rahman, A., L. Katzive, and S.K. Henshaw, *A Global Review of Laws on Induced Abortion, 1985-1995.* Iternational Family Planning Perspectives 1998. **24**(2): p. 56-64.