Impact of contraceptive counselling, an essential element of post-abortion care, on uptake of contraceptives: a cross-sectional study of adolescents who received post-abortion care services in Makueni County, Kenya

Rachel N. Ngugi1*, James Musovya2, Wacuka G. Njoroge3, Maurice O. Kodhiambo4

1Department of Population, Reproductive health and Community Resources Management, Kenyatta University, Nairobi, Kenya
2Department of Nursing, Kenya Medical Training College, Makindu campus, Kenya
3Department of Medical Laboratory Science, Kenyatta University, Nairobi, Kenya
4School of Pharmacy, Kenyatta University, Nairobi, Kenya

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*Correspondence:
Rachel N. Ngugi,
E-mail: rachnjeri@gmail.com

ABSTRACT

Background: Contraceptive counselling and provision of contraceptives are essential elements of the post-abortion care model which was first published in 1994 with an aim of promoting post-abortion care as an effective public health strategy. Despite being core elements of this model, they are often overlooked during provision of post-abortion care services as health care workers focus on emergency services and removing the retained products of conception. The aim of this study was to assess the impact of contraceptive counselling on uptake of contraceptives among adolescents presenting for post-abortion care.

Methods: A cross-sectional study involving 100 adolescent girls who presented for post-abortion care at the Kibwezi-east sub-county hospital, Makueni county, Kenya. Self-administered questionnaires were used for data collection and data was analyzed using SPSS version 25. Chi-square was used to compare study participants who received/did not receive contraceptive counselling and their uptake of contraceptives.

Results: The mean age of the 100 participants was 17 years (SD=1.457), 98% of them were formally educated, 57% had the mother as their only guardian and majority of them were of Christian religion (56%). 41% (n=41) received contraceptive counselling services and 59% (n=59) were not counselled. Among the 41 participants who received contraceptive counselling, 92% (n=37) of them took up a contraceptive method and 8% (n=4) did not take up any method and among the 59 participants who did not receive contraceptive counselling, 51% (n=30) of them took up a contraceptive method while 49% (n=29) did not.

Conclusions: Contraceptive counselling remains an integral part of post abortion care and in this study it was found to have a positive correlation with utilization of post abortion contraceptives (rs=0.412, p=0.000).

Keywords: Abortion, Post-abortion care, Contraceptive counselling

INTRODUCTION

The World Health Organization (WHO) defines a clandestine abortion as removal of an unintended pregnancy by persons who do not have the needed skills and in an environment that does not meet the minimum medical standards or both.1,2 Abortion is a contentious and sensitive matter in majority of the countries in the world.13 In low-income countries, 99% of deaths associated with clandestine abortions are as a result of poverty especially for slum dwellers and with women.
being significant members of any community, maternal deaths have dismal consequences for children, families and communities.\textsuperscript{3,4}

In Kenya, clandestine abortions disproportionately affect young women when compared to older women.\textsuperscript{10} In 1999, a study conducted in central Kenya on the assimilation of various reproductive health services for clients who had undergone incomplete abortion treatment revealed that more than 50\% of participants ranged in age from 15-19 years.\textsuperscript{11} 16 years later, in 2015, a study was done on the social networks involved when girls are making a decision to have a clandestine abortion. In this study, 76\% of participants were less than 24 years of age with 34\% being under the age of 18 years and 42\% being between 18 and 24 years.\textsuperscript{10}

Women of reproductive age in Kenya who have undergone an induced or spontaneous abortion are entitled to post-abortion care.\textsuperscript{3} The post-abortion care model must include emergency management of arising complications, removal of retained products of conception, family planning counseling suited to each individual's requirements, the provision of an appropriate and approved contraceptive method, referral of problematic cases to better equipped institutions, and client follow-up.\textsuperscript{3}

Adolescent girls in Makueni county begin having intercourse at a young age, with some occurrences reported as starting as early as at the age of 10 years.\textsuperscript{9} Given that the county's adolescent contraceptive prevalence rate is 2.9\%, this results in a large number of unplanned pregnancies among adolescents, leading to a significant number of clandestine abortions. The adolescent contraceptive prevalence rate in Kibwezi East sub-county is 2.65\%, which is the lowest among the four sub-counties of Makueni county and also lower than the national average. In light of this, this study sought to investigate the impact of contraceptive counselling on utilization of post-abortion contraception among adolescents aged 10-19 years who had received post-abortion care in Kibwezi-east sub-county.

\textbf{METHODS}

\textbf{Study design}

This study adopted a community-based descriptive, cross sectional design. Kibwezi East sub-county hospital was chosen using a purposive sampling strategy since it is the sole public facility that offers PAC services in the sub-county.

\textbf{Study population}

\textbf{Inclusion criteria}

This study included adolescents aged 10 to 19 who had received post-abortion care throughout the years 2018 to 2019.

\textbf{Exclusion criteria}

Adolescents who met the eligibility criteria but were critically ill, could not comprehend or refused to give consent were ruled out.

\textbf{Sample size and sampling procedure}

Fisher's formula was used to calculate the sample size.

\[ n = Z^2 \left( \frac{1}{n} \right) \times \left( \frac{1}{1-n} \right) \]

(Mugenda and Mugenda, 1999)

The formula was then adjusted for a sample size less than 10,000 and this was done at a 95\% confidence level.

According to studies on the uptake of post-abortion contraception among women seeking post-abortion care services in Kisumu, 76\% of the target group is believed to have characteristics of interest (Makenzius, 2018).

As a result, \( p=0.76 \) was obtained.

\[ n = (1.96)^2(0.76)(0.24)(0.05)^2 \]

\[ n=280 \]

\[ n = 1.962 \times (0.76)(0.24) \div 0.052 \]

calculated to get \( n=280 \).

As the target population was less than 10,000, the second part of the formula was used to determine the sample estimate to be used i.e.

\[ (nf)nf = n \div (1 + n \div N) \]

In which:

\( nf = \) final desired size of sample (with a population of less than 10,000)

\( n = \) the final sample size (with a population of more than 10,000).

\( N = \) final size of sample to be used,

calculated at

\[ nf = 280 \div (1 + 280 \div 217) = 122 \]

The computations resulted in a sample size of 122 people. To account for attrition, a 10\% allowance was applied, bringing the total to 134.

The respondents used for the study were adjusted to 100 as recommended by the Ethics Review Commission-Kenyatta University.
**Sampling**

Kibwezi East sub-county hospital was chosen using a purposive sampling strategy since it is the sole public facility that offers PAC services.

The study participants were chosen by purposeful sampling, as the target group was teenagers aged 10 to 19. To choose study participants from the sample frame, systematic sampling was used. Every second client in the PAC registry was chosen to be a study participant.

**Research instruments**

Structured self-administered questionnaires containing open-ended and closed-ended items were used for data collection. The tool comprised of four parts. Part 1 consisted of social-demographic characteristics of the study participants, part 2 consisted of questions on the prevalence of post-abortion contraception, part 3 consisted of questions on health system factors that influence the utilization of post-abortion contraceptives and part 4 consisted of questions on the influence of perception of contraceptives on utilization of the same.

**Pre-testing of study instruments**

Pre-testing of study instruments was done at Makindu sub-county hospital and involved 10% (10) of the sample participants. Pre-testing was done to test for significance, completeness, and simplicity of data collection. Establishing validity and reliability of the tool formed an integral part of the process.

**RESULTS**

Between January to March 2020, 100 adolescent girls participated in this study. Informed assent was obtained prior to participation.

**Table 1: Age distribution of study participants.**

| Age in years | Frequency (n=100) | Currently on a contraceptive method? |
|--------------|-------------------|--------------------------------------|
|              |                   | Yes | No | Percent |
| 13           | 2                 | 1   | 1  | 2.0     |
| 14           | 2                 | 1   | 1  | 2.0     |
| 15           | 8                 | 6   | 2  | 8.0     |
| 16           | 20                | 15  | 5  | 20.0    |
| 17           | 23                | 17  | 6  | 23.0    |
| 18           | 23                | 16  | 7  | 23.0    |
| 19           | 22                | 11  | 1  | 22.0    |
| Total        | 100               | 67  | 33 | 100.0   |

**Social-demographic characteristics of the study population**

The study respondents were aged between 13-19 years, with a mean age of 17.17 and SD= 1.457 years. Girls aged 17 and 18 years were the majority respondents with each age constituting 23% (n=23) of the study population.

**Table 2: Socio-demographic characteristics of study participants.**

| Variables                          | Frequency (n=100) | Percentage |
|------------------------------------|-------------------|------------|
| Level of education                 |                   |            |
| University                         | 11                | 11.0       |
| Technical training institutions    | 16                | 16.0       |
| Secondary                          | 38                | 38.0       |
| Primary                            | 33                | 33.0       |
| No formal education                | 2                 | 2.0        |
| Do you have a source of income     |                   |            |
| Yes                                | 36                | 36.4       |
| No                                 | 61                | 61.6       |
| Respondent’s guardian              |                   |            |
| Father only                        | 23                | 23.0       |
| Mother only                        | 57                | 57.0       |
| Both parents                       | 9                 | 9.0        |
| Step-parents                       | 2                 | 2.0        |
| Husband                            | 9                 | 9.0        |
| Respondent’s religion              |                   |            |
| Christian                          | 56                | 56.0       |
| Muslim                             | 43                | 43.0       |
| Hindu                              | 1                 | 1.0        |

**Table 3: Respondents counselled on contraception during their hospital stay for post-abortion care.**

|          | Frequency | Percentage | Cumulative percentage |
|----------|-----------|------------|----------------------|
| Yes      | 41        | 41.0       | 41.0                 |
| No       | 59        | 59.0       | 100.0                |
| Total    | 100       | 100.0      |                      |

98% (n=98) of participants were formally educated and only 2% (n=2) had not received formal education. The vast majority of respondents of had no source of income, representing 61.6% (n=61) of the study population. Respondents with no formal education and a section of those in technical training institutions had a source of income and represented 36.4% (n=36) of the study respondents.

The larger portion of the respondents had the mother as the only parent at 57% (n=57), respondents with the father as the only guardian were 23% (n=23) of the total sample population interviewed, those with both parents were 9% (n=9) while 2% (n=2) had a step-parent as their guardian and 9% (n=9) were married.

The study respondents belonged to three major religions: - Christians, Muslims, and Hindus. Christians were the majority at 56 (56%), Muslims at 43 (43%) while the
least were Hindu at 1 (1%) of the total sampled population.

Table 4: Relationship between contraceptive counselling and uptake of contraceptives.

| Were you counselled on family planning during your hospital stay for post-abortion care * Are you currently on a contraceptive method | Total |
|---|---|---|
| Yes | No | |
| Counselling on family planning during the hospital stay for PAC | 37 | 4 | 41 |
| No | 30 | 29 | 59 |
| Total | 67 | 33 | 100 |

Table 5: The contraceptive methods chosen.

| contraceptive methods | Frequency | Percent |
|---|---|---|
| Male condom | 13 | 19.4 |
| Female condom | 9 | 13.4 |
| Diaphragm | 4 | 6.0 |
| Progestin-only pill | 2 | 3.0 |
| Withdrawal | 7 | 10.4 |
| Combined oral contraceptives | 27 | 40.3 |
| Implant | 5 | 7.5 |
| Total | 67 | 100.0 |

Counselling on contraceptives during post-abortion care

41% (n=41) of the study participants received counselling on family planning during their stay at the hospital for post-abortion care were while fifty-nine 59% (n=59) of the respondents did not.

92% of study participants who were counselled on contraceptives took up a contraceptive before discharge from the facility. In contrast, only 51% of participants who did not receive counselling took up a contraceptive method.

In this study, there was a positive correlation between the independent variable 'Counselling on contraceptives during hospital stay' and the dependent variable 'Are you currently on contraceptive method (rs= 0.412 and p=0.000). The more adolescent girls are counselled on contraceptives the more likely they are to take up contraceptives and vice versa. There was also a significant relationship between the variables (X2=16.98, and p=0.000).

Specific contraceptive methods chosen by the study participants

In this study, the most preferred contraceptive methods were the combined oral contraceptive chosen by 40.3% (n=27) of adolescents, followed by the male condom chosen by 19.4% (n=13).

DISCUSSION

Counselling on contraceptives is an essential element of post-abortion care model. Before a client is discharged from the health facility for PAC, it is preferable to offer them a family planning method because they will be motivated to use the method to prevent further unintended pregnancies as they are not pregnant, and they are near a reproductive health care practitioner which is not common for adolescents.

In this study, the adolescent post-abortion contraceptive prevalence rate for Kibwezi-east sub-county was 67%. This result is comparable to a study done in Kisumu, Kenya in which uptake of contraceptives increased to 76% after counseling on contraceptives was done but it is significantly higher than the national adolescent contraceptive prevalence rate of 2.6%. This can be attributed to the adolescents being motivated to use contraceptives to prevent more abortions in the future. Despite the high contraceptive prevalence rate, contraceptive counselling remains an overlooked element of post abortion care. Only 41% (n=41) of participants were counselled on contraception during their hospital stay for post abortion care.

This study established that contraceptive counseling remains an important element of post abortion care. There was a positive association between counseling on contraceptives and utilization of post-abortion contraceptives (rs=0.412 p=0.000). The more adolescents were counseled on post-abortion contraception, the more likely they were to take up contraceptives. This is consistent with a research on post-abortion family planning in Ethiopia, which found that women who received contraceptive counseling were 25 times more likely than those who did not receive counseling to use a contraceptive method.

30% of study participants took up a contraceptive method but did not receive any contraceptive counseling prior. This can be attributed to the social networks that adolescents have that may connect them to contraceptive services after accessing post abortion care services even when health care workers do not offer them the much needed contraceptive counseling services.
CONCLUSION

The uptake of contraceptives among adolescents in Kibwezi East sub-county after post abortion care is good (67%) but contraceptive counseling is still overlooked. More health care workers need to be sensitized on the importance of contraceptive counseling and its impact on contraceptive uptake which helps reduce future abortions and maternal mortality.

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