Perception of abortion and associated female rights: use of behavior change communication strategies

Naheed Humayun Sheikh
Red Crescent Medical College, Lahore
Ayesha Humayun (drayeshah@gmail.com)
Shaikh Zayed Medical Complex https://orcid.org/0000-0001-7992-8765
Mamoon Akbar Qureshi
Allama Iqbal Medical College
Shakila Zaman
University of Health Sciences, Lahore

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Abstract

Background: Developing and delivering tailored, context-specific messages could be beneficial, if delivered through acceptable and feasible channels of communication. Change in abortion-related behavior, being a sensitive and ethical issue, is difficult in developing countries like Pakistan. This study was conducted to change perceptions about abortion and associated female rights through behavior change communication strategies using religion-based elements in female attendees of Basic Health Units of District Lahore, Pakistan.

Method: An Interventional study with Quasi-experimental design was carried out at basic health units (BHUs) of District Lahore, Pakistan during 2011-12. Total 100 eligible females were included in the study after taking written informed consent. 10 out of 37 BHUs were randomly selected for imparting religion-based, tailored messages using behavior change communication (BCC) strategies. 10 females at each BHU were conveniently recruited. Knowledge and perceptions about abortion and abortion-associated rights was assessed specifically on fate of unwanted pregnancy, decision-making, health seeking, health utilization, informed choices for prevention of abortion, abortion rights and fetal rights. Knowledge and perceptions before and after BCC were assessed to measure change on a structured, self-constructed, interviewer-administered questionnaire (local language). Data was analyzed in SPSS Version 20.

Results: Mean age of 100 participants was 28.15+ 5.35 SD. 72.0 % females were between 21-30 years of age. Pre-BCC and post-BCC knowledge and perceptions were significantly different in what should be the fate of unwanted pregnancy, female should take decision about the fate of unwanted pregnancy, female has a right to decide about fate of unwanted pregnancy, why female should or should not decide about fate of unwanted pregnancy, female's rights about seeking services of skilled personnel for delivery & termination of pregnancy, why female should or should not decide for seeking advice from skilled person for delivery & termination of pregnancy and decision about selecting place of delivery. The present study revealed that the intervention brought an observable percent point change in knowledge from 7.5% to more than 5 times.

Conclusion: Specifically designed, tailored and contextualized messages using behavior change communication strategies can bring a significant improvement in abortion-related knowledge and perceptions of females.

Introduction

An estimated 56 million induced abortions occurred each year during 2010-14 worldwide, with global annual rate of abortion for all women of reproductive age (15–44) estimated to be 35 per 1,000 for married women and 26 per 1,000 for unmarried women. In developing countries, women have higher likelihood of abortion (36/1,000) than those in developed countries (27/1,000) (1). Public health and human rights efforts are directed towards ending this silent pandemic of unsafe abortion in developing countries. Hemorrhage, infection and substance-induced poisoning are found to be the main causes of

death associated with unsafe abortions (2). Estimates on hospital admissions due to unsafe abortion from 13 developing countries showed annual rate ranging from 3/1000 women in Bangladesh to15/1000 in Egypt and Uganda while Pakistan, Nigeria, and the Philippines at 4–7 per 1000. An estimated five million women every year are hospitalized due to complications associated with induced abortions in the developing regions (3). A systematic review published in 2018, on 70 studies (1988 and 2014) from 28 countries, estimated near-miss event in 9% of abortion-related hospital admissions with approximately 1.5% that ends in a death with hemorrhage being the most common complication reported (4).

In Pakistan, evidence showed septicemia, uterine perforation (with or without bowel perforation) and hemorrhage being the most common complications of unsafe abortions attending hospitals (5). In communities of Pakistan, abortion seekers are predominantly uneducated women over 30 years age and with at least three children. Common reason for seeking abortion is found to be contraceptive failure. Complication rates with healthcare providers, perceived as 'trained' by women were also found to be associated with high complication rates in clinics (6, 7). In Pakistan, cost of abortion-associated complications are high, posing a burden on health system as well as poor families (8).

Abortion is associated with social stigma in both legally liberal and legally restrictive countries, but more in the later (9). Unsafe abortions in developing regions are among young women aged 15–24 years, 41% while 15% of those aged 15–19 years. Interventions are urgently needed to educate them about contraceptive information and services as they have a high unmet need for contraception. These interventions could be tailored by age group and other contextual factors (10).

Multiple factors influence the reproductive behavior of females mainly, socioeconomics and male involvement in reproductive decisions (11, 12). Knowledge about reproductive issues and care seeking play vital role in improving reproductive health behaviors (13). Behavior Change Communication (BCC) strategies/ interventions are effective in removing and reducing negative perceptions associated with abortions by improving community knowledge and local availability of services for safe abortion (14). BCC interventions are used in mobile health (mHealth) technologies and telecommunications and more strong evidence is being generated for establishing its effectiveness (15). Social and behavior change communication can be effective using infotainment at community level (16). Recent literature focuses on the access to safe abortion services, abortion implications and effect of behavior change communication (BCC) interventions on women's behaviors associated with safe and unsafe abortions. Implementation of such interventions is very challenging when it comes to low literacy, resource-poor settings. Interpersonal approaches are found to be effective in engaging community leaders, key persons and influencers who can effectively counteract negative social norms and stigma associated with abortion. In stigmatized public health issues, multiple approaches are found to be effective in improving knowledge and perceptions of target population (14, 17). Relative effectiveness of high-intensity and low-intensity behavior change communication intervention models for care-seeking in abortion is assessed in Bihar and Jharkhand, India. Study showed that higher level of exposure to messages related to abortion resulted in more accurate knowledge (18). Multi-pronged intervention through BCC in India was found to improve access to safe abortion care and this can be replicated in similar settings (19).

BCC is based on behavioral model of health services (20). BCC interventions can build enabling resources including human resource and accessible facilities, adequate knowledge of where and how to avail these services, financial resources, and social support for seeking abortion care. BCC interventions for safe abortion services can be implemented using enabling resources, by raising the level of knowledge and developing enabling environment for women to develop positive reproductive health behavior. BCC interventions can bridge the gap in service availability and effective utilization (18, 21).

It is direly needed to change reproductive behaviors of Pakistani women through educating them on their reproductive rights and empowering them to change. Based on ongoing research on BCC interventions in developing countries, it is important to deliver such interventions in our context and show the extent and level of change through BCC. Developing and delivering context-specific tailored messages, considering religious, cultural, socio-economic and decision-making factors, is a difficult task but can bring fruitful results if combined with acceptable and feasible modes of communication for a specific/ targeted community. Present study was conducted to change perceptions about abortion and associated female rights through behavior change communication strategies using religion-based elements in female attendees of Basic Health Units of District Lahore, Pakistan.

Method

An Interventional study with Quasi-experimental design was carried out at basic health units (BHUs) of District Lahore, Pakistan during June 2011 to June 2012.

Participants:

Total 100 females fulfilling the inclusion criteria were included in the study after taking written informed consent. Out of 37 Basic Health Units, 10 were randomly selected through simple random sampling (lottery method) for imparting religion-based communication through Behavior Change Communication (BCC) strategies. At each Basic Health Unit, a group of ten female attendees was selected through non-probability convenient sampling, making 100 participants from 10 BHUs. Muslim married females of reproductive age (15–49 years), with parity less than or equal to four, age at marriage 18 years, illiterate (who cannot read and write in her local language) and income per capita per month of ≤ PKR-3000/ were included in the study. Primary infertile, widows and unmarried gravid females were excluded. Minimum age of participants was 19 years.

Knowledge and perceptions:

Knowledge and perceptions about abortion and abortion-associated rights was assessed specifically on fate of unwanted pregnancy, decision-making, health seeking, health utilization, informed choices for prevention of abortion, abortion rights and fetal rights. Women perceiving correctly in at least 50% of all these areas were categorized as knowledgeable. Knowledge and perceptions before and after BCC were assessed to measure change in all these areas.

BCC Intervention:

Tailored messages including religion-based elements (Islamic teaching in relation to abortion and associated female rights) were developed in local language covering all the areas mentioned above. Intervention was delivered in 10 selected BHUs.

In pre-BCC phase, 10 eligible females were conveniently enrolled and assessed for their level of knowledge and perceptions about abortion and associated rights on a structured, self-constructed, interviewer-administered questionnaire (local language).

In BCC intervention phase, during the first session, these females were gathered in a separate room in BHU for delivering messages through small group discussion methodology. Message delivered in local language assisted with use of flash cards, charts, short video and a role play. Question and answers were encouraged throughout the session and a commitment to change was taken before closing. Participants were given monetary incentive for their participation and refreshments served. First session of BCC intervention took almost 2 hours. Participant presence and contact details were marked on a specified sheet for record. Second session of intervention was done with the same participants after six months with same messages and mode of communication. The details recorded and commitment to change made. 100% participants attended this second session.

In post BCC phase, participants were approached again after 9 months of first phase and they were assessed for their level of knowledge and perceptions about abortion and associated rights on the same structured, self-constructed, interviewer-administered questionnaire (local language).

Data analysis:

Data was entered and analyzed in SPSS Version 20. The change in knowledge and perceptions before and after the BCC was analyzed using Chi square test and fisher exact test (where needed) and presented as percent point change as well. $P \leq 0.05$ was taken as statistically significant.

Ethical issues were addressed by taking written informed consent (in local language), maintain confidentiality of information and data, keeping in view principles of Helsinki's declaration. Formal ethical approval was taken for this doctoral project from Advanced Studies and Research Board of University of Health Sciences, Lahore, Pakistan.

Results

Mean age of 100 participants was 28.15 ± 5.35 SD. 72.0% females were between 21–30 years of age. Mean age at marriage was 20.40 ± 3.257 SD. Thirty seven percent females were illiterate. Spouses of 39% respondents were laborers. Almost 53% females had family size less than 5. Average family size was 5.82 ± 2.40 SD. Total 93% females belong to a family, having income ≤ PKR-3000 per capita per month. 41% of females were ever user of contraceptives. Eighty three percent females did not experience any abortion while, 15% reported experience of one abortion and 2% of two. Out of those 17% females who experienced abortion, 68.4% had spontaneous abortions, 21.1% had missed while 10.5% were induced. 98.9% of the abortions were medically indicated where respondent's life was in danger. 42.2% of the

abortions were performed by LHV, 31.6% by doctor whereas 26.2% were performed by Dai or TBA (Traditional Birth Attendant). Out of total 19 abortions 26.4% abortions were performed at home, 36.8% performed at clinic and 36.8% at hospital. 68.4% of the abortions were performed with instruments. 31.6% of abortions were performed with the help of IUCD and herbs. Among them 5.3% approached after 24 hours of mishandling. 87.5% were accompanied by husband and or in-laws (Table 1).

Table 1
Demographic information of respondents (n = 100)

Variables	Frequency	Percent
Age of respondents (Mean = 28.15 ± 5.35)		
≤ 28 years	51	51.0
> than 28 years	49	49.0
Age at marriage		
≤ 18 years	34	34.0
> 18 years	66	66.0
Education of respondents		
Illiterate	37	37.0
Literate	63	63.0
Occupation of Spouse		
Officer worker Govt./ Pvt.	19	19.0
Labor, farmer ,driver, cook & peon	64	64.0
Business	16	16.0
Unemployed	1	1.0
Working status of respondents		
House Wife	83	83.0
With Wages	17	17.0
Total family members (Mean = 5.8 ± 2.4)		
≤ 5 members	53	53.0
> than 5 members	47	47.0
Income per capita/month		
≤ 3000/- month	93	93.0
>Rs. 3000/month	7	07.0

Results of Behavior Change Communication:

Total 85.0% of the respondents believed that abortion induction is a sin and it increases the magnitude of social evils. 85.5% respondents thought that the decision about abortion must be of wife. Total 51.0% of

the respondents knew that decision about abortion is women's right. Only 15.0% of the respondents had a thought about fetal right to survive and live. (Table 2)

Table 2
General perception of females about abortion

Variables	Frequency n(%)
Is it a sin?	
Yes	85 (85%)
No	15 (15%)
Decision about abortion is the right of whom:	
Wife	85 (85%)
Husband	9 (9%)
Don't Know	6 (6%)
Is it a women's right issue?	
Yes	51 (51%)
No	23 (23%)
Don't Know	26 (26%)
Have you thought about fetal right that it shouldn't be aborted?	
Yes	15 (15%)
No	48 (48%)
Don't Know	37 (37%)

Pre-BCC and post-BCC knowledge and perceptions were significantly different in what should be the fate of unwanted pregnancy ($P = 0.003$), Female should take decision about the fate of unwanted pregnancy ($P < 0.001$), Female has a right to decide about fate of unwanted pregnancy ($P < 0.001$), reasons of why female should decide about fate of unwanted pregnancy ($P < 0.001$) and reasons of why female should not decide about fate of unwanted pregnancy ($P = 0.328$), (Table 3).

Table 3
Behavior change in knowledge about unwanted pregnancies (n = 100)

Variables	Pre BCC 100	Post BCC 100	p-value
What should be the fate for unwanted pregnancy			
Given Birth	87	98	P = 0.003
Abort	13	2	
Decision for fate of unwanted pregnancy			
Couple	23	14	P = 0.000
Female herself	12	79	
Husband only	65	7	
Female right about decision for fate of unwanted pregnancy			
Yes	17	43	P = 0.000
No	83	57	
Reasons Female should decide about unwanted pregnancy			
She knows her health status	3	32	P = 0.000
She knows her economic status	3	8	
For child's health	11	3	
Reasons female should not decide about unwanted pregnancy			
It's a Sin	34	28	P = 0.328
Religion does not allow	45	29	
Social issues	4	6	

Pre-BCC and post-BCC knowledge and perceptions were significantly different regarding female's rights about seeking services of skilled personnel for delivery & termination of pregnancy (P = 0.001), Reasons of why female should decide for seeking advice from skilled person (P < 0.001), Reasons why female should not decide about seeking skilled personal for delivery & termination of pregnancy (P < 0.001) and decision about selecting place of delivery (P < 0.001), (Table 4).

Table 4

Change in knowledge and perceptions about utilization of services

Variables	Pre BCC	Post BCC	P- value
Female have right about seeking skilled personal for delivery & termination			
Yes	90	100	P = 0.000
No	10	0	
Reasons, why female should decide about seeking skilled personal for delivery & termination			
She knows her health status so it is her right	65	87	P = 0.000
She knows her economic status	23	13	
Reasons, female should not decide for seeking skilled personal for delivery & termination			
Veil/Purdah	3	0	P = 0.006
Easy to have unskilled attendant at home	7	0	
Decision about place of delivery			
Couple	27	46	P= 0.000
Herself	6	28	
Husband	58	24	
In-laws	9	2	

After BCC intervention, the change in knowledge and perceptions regarding reproductive health behavior was expressed as percentage points (Table 5). The present study revealed that intervention brought an observable change in knowledge from 7.5% to more than 5 times.

Table 5
Percentage Point Change Before and After BCC

Statements	Pre BCC n = 100	Post BCC n = 100	Percentage Change
1. Female should decide for unwanted pregnancy	12	79	5.5 (times)
2. Female have right to decide for unwanted pregnancy	17	43	1.5 (times)
3. Female have right to seek advice from skilled person	90	100	11%
4. Female herself should decide about place of delivery	6	28	3.6 (times)

Discussion:

Behavior change communication strategies can enhance level of knowledge and change perceptions about abortion and associated rights. In current study majority participants were on average young (28.15 ± 5.35 SD) with 17% experienced abortion (6, 7). Participants were living below poverty line and half of them with parity more than 5 with low ever use of contraceptives. In such target population with low literacy and poor socio-economic status, the change in perception was challenging as we found in behavior change studies done in other South Asian countries in similar settings (14, 17). Majority Pakistani women are economically dependent on men, and Pakistani cultures are largely patriarchal. Women have poor access to educational facilities and face poverty and violence (22).

In this study before BCC, majority females thought abortion induction to be a sin and also that the decision about abortion must be made by wife. More than half thought that the decision about abortion is women's right. While 15.0% of the females thought about fetal right. In contrary to our study, a study in Iran showed that their females had poor knowledge about laws, majority were not aware of the consequences of unsafe abortion and a very low number perceived that abortion must not be allowed at all (23).

Knowledge and perceptions were significantly enhanced about the rights of females and sound reasoning for having these rights. Decision making in our society is dominated by males and ignorance among females enhances the consequences of abortion related practices. A study explored financial, social and gender-based factors which create dependencies among women by influencing their perceived options in abortion related decision-making (24).

Pre-BCC and post-BCC knowledge and perceptions were significantly improved about taking decision and seeking services of skilled personnel for delivery & termination of pregnancy with proper meaningful reasoning for such decisions. A recent study suggested use of strategies to increase knowledge of

abortion rights and available services and also to enhance the quality and accessibility of abortion care (25). Perceptions of women change by using meaningful educational strategies taking into consideration the religious, socio-cultural and patriarchal influences. Behavior change is difficult when considering socially sensitive and stigmatizing issues.

In current study, after BCC intervention, there was a measurable change in knowledge and perceptions regarding different aspects of reproductive health behavior related to abortion. Literature from South Asian region has demonstrated a strong relationship between exposure to health education messages on abortion and on the level of knowledge in a meaningful way (18, 19). Socio-economic issues, limiting parity are found to be main reasons for seeking abortion and women often have more than one reason for deciding for abortion. There is a need to educate them the ways to prevent contraceptive failure and if occurred then to know her rights as well as fetal rights (26). Current study has limitations of long follow up of the participants to see for changing behavior after change in perception. More insight into the role and impact of religion-based educational messages to bring reproductive behavior change could be achieved through further studies.

Conclusion:

This study provides an insight into the significant impact of BCC in enhancing knowledge and improving perceptions of females in abortion-related matters and rights by using religion-based educational messages, especially tailored for the specific context and population.

Declarations

Ethics approval and consent to participate

Ethical approval was obtained by the ethical review committee at the institute. Written informed consent was obtained from all the participants of the study.

Consent for publication

All authors gave consent for this publication and authorized the corresponding author to submit for publication.

Competing interests

No competing interests

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Authors' contributions

NH contributed in designing of the study, data collection and scientific writing of the manuscript. AH gave intellectual input in scientific writing and reviewing the final manuscript. MAQ gave input in data management including statistical support and writing of manuscript. SZ supervised all work and gave significant intellectual input in designing the study and drafting the manuscript.

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Access supporting data

Supporting data can be requested to from the first author on the specified email

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