



EFFECT OF MASS MEDIA ON AWARENESS OF ABORTION LAW AMONG WOMEN IN NEPAL

Krishna Dhakal¹, Sudha Ghimire^{2}, Ramesh Adhikari³*

¹Associate Professor, Mahendra Ratna Campus, Health Education, TU, Tahachal.

²Assistant Professor, Gorkha Campus, Health Education, TU, Gorkha.

³Professor, Mahendra Ratna Campus, TU, Tahachal.

*Corresponding author : sudha.ghimire@gc.tu.edu.np

ABSTRACT

The government of Nepal has committed to the equitable access of family planning devices/services free of cost; however, nearly a fifth of births are unintended, which ends in abortion. Since 2002, abortion has been legalised in Nepal, but many women are unaware of it. Different studies have shown positive relation between mass media and health related behaviour, its relation with abortion is yet to know. This study aims to investigate the effects of mass media for rising awareness of abortion law among women in Nepal. The study was conducted among 12,862 females of reproductive age group using the secondary data of Nepal Demographic and Health Survey (NDHS), 2016. The finding shows that women reading a newspaper at least once a week were more than two times aware of abortion law than those who did not read [COR = 2.31, CI = 2.01–2.67]. Similarly, regarding the age, women aged 35 or above and exposed to mass media [aOR = 1.26, CI = 1.11–1.43] were more likely to have been aware of abortion law compared to those aged less than 25 years. The study showed a significant role of mass media for rising awareness of abortion law, so, reproductive health program planners and policymakers should emphasise the role of mass media to increase awareness on legal aspects of abortion among women of Nepal.

Keyword: abortion - awareness - mass media - women - Nepal

INTRODUCTION

Mass media has persuasive capacity in bringing the desirable changes in attitude & behaviour of people for achieving better health. It has significant role in enhancing health communication, health literacy, prevention of communicable diseases, family planning, reproductive services, maternal and child health issues, investigate health related

problems along with the solution (Gashu, Yismaw, Gessesse & Yismaw 2021, Sisson & Kimport 2017). The ninth, Global Conference on Health Promotion, Shanghai 2016, emphasized the need of access to information, communications technology for better health, which is also amplified in Sustainable Development Goal (SDG) 3. Furthermore, SDG goal number 9 industry, “innovation and infrastructure targeted to endeavour universal and affordable access to the internet in least developed countries by 2020”, as more than a half of the world’s population uses different forms of mass media for different purposes including health and most of them are from developed country (Chaffy 2022). In the case of Nepal, media survey 2020, showed that 59 per cent respondents listen to the radios, 61 per cent watch televisions, 32 percent read newspapers/magazines and the 44 percent use internet. However, the data show that only 10% of health news is placed on the front page and these are often negative stories (Uprety, Baral, Regmi & Ashra-mcgrath 2016). Studies have evidenced that women who were exposure to mass media messages, has high knowledge and were more interested in using contraceptives over their counterparts (Islam, Islam & Banowary 2009). It is yet to know that which methods/means of communication could be the most powerful and to what extent they can bring the change in behaviour or decision making power especially in the case of reproductive health issues.

Nepal made pioneer moment on women’s rights by breaking strict anti-abortion law, legalising abortion in March 2002, where women have right to receive abortion services till twelve weeks of pregnancy on her request, eighteen weeks’ gestation for rape or incest, and any time, if its danger to the woman’s life and a fetal abnormality (Bearak *et al.* 2020). The global data show that nearly 25 million unsafe abortions occur around the world; half of them are in Asia and among them 97% unsafe abortion are reported in developing countries (Khatri, Poudel & Ghimire 2019). However, according to NDHS (2016), in the case of Nepal, 19% of births are unintended, which ends in abortion. The study by Yogi, & Neupane (2018) shows that the women who knew about legal abortion and the services available were more likely to go for safe abortion compare to those who were not. Similarly, there is evidence that rich and educated female receives the safe abortion services compare to poor and illiterate women. Though, the abortion services have expanded to all 77 district hospitals and over 50% of PHCCs of Nepal (CREHPA 2012), yet, majority

of Nepalese women struggle to receive safe and legal procedures related to abortion, either because of access to services or because of social barriers. Those obstacles include limited information, lack of awareness, lack of transportation services to reach the facilities, social, gender norms and stigma of abortion, cost and feeling of fear about the procedure (Thapa, Sharma & Khatiwada 2014).

Similarly, one study has emphasized unsafe abortion as a “public health issue” and a leading cause for maternal mortality and morbidity (Adhikari 2017, Gebremedhin, Semahegn, Usmael & Tesfaye 2018). Women experiencing unsafe abortion go through the range of physical, mental and social stress compromising their quality of life and well-being (World Health Organization 2019). Strengthening family planning and increasing availability of safe abortion services is key to reduce the unsafe abortion, which is not possible without accurate information and relevant laws. These accurate informations can be delivered via mass media, a popular source for information related to abortion (Lakde, Parande & Wakankar 2018). Abortion comes under reproductive right of the women, over the past few decades, Mass media campaigns from television, radio, internet, posters, magazines and newspapers have been widely used for this purpose (Robinson *et al.* 2014, Sisson & Kimport 2017) . However, there is no clear evidence on the mass media exposure on the awareness level of women specially on legal aspects of abortion. In this scenario, investigating the effectiveness of mass media for raising awareness of abortion law using a nationally representative data is desirable.

METHODS AND MATERIALS

Data source

This paper has used the data from Nepal Demographic and Health Survey, 2016, a national survey that provides estimated data source on demographic and health indicators of a country. NDHS data not only explore the health indicators of the country, but assist policy makers and program implementers to design, implement, and evaluate programs to improve the health of the citizens. The study was ethically approved from Nepal Health Research Council (NHRC) and the ICF Macro Institutional Review Board in Calverton, Maryland, USA. For the collection of data, NDHS has used its pervious frame (i.e used in 2011), where information of rural areas was taken in two stages and urban in three stages (Adhikari &

Ghimire 2020). The response rate for this study was 99%, and a total of 11,040 households were sampled for data collection. The detail process of data collection including study methodology can be access from MoHP(2017).

Study participants

The study has been completed with the involvement of 12,862 females of reproductive age. The analysis consists of females from different age groups, where 4849 are less than 25 years, 3941 number of females range from ages 25-34 years and remaining 4072 number of females who are of age 35 and above.

Data analysis

This study has used both descriptive and inferential analytical approaches to analyse data. First, the demographic status of the participants was presented. After then the exposure to the mass media was calculated. Following this, logistic regression was used to calculate females' awareness of abortion law in Nepal, keeping other independent variables constant. The regression models were developed to examine the net effect of mass media raising awareness of abortion law. The effect of mass media exposure on awareness of abortion was explained in two model, MODEL I media exposure followed by controlling all the covariates in MODEL II with 95% confidence.

The dependent variable of the study was awareness on abortion law and mass media exposure (Newspaper, Radio, Television and Internet) was considered as the main independent variables. Participants were asked how often they listen to the radio, read a newspaper, watch television and use internet. It was categoried as 'not at all' or 'less than once a week' and 'at least once a week', while for the internet, 'never'; 'before last twelve months' or 'last twelve months'.

Covariates

In this study, ten other covariates were considered apart from mass media exposure. They were referred to socio-economic and demographic features such as: age, marital status, ethnicity, religion, education, province, place of residence, employment status, wealth index and women's autonomy in household decision.

RESULTS AND DISCUSSION

Among the participants in this study, the majority were below the age of 25 years (37.7%), whereas the range of 25-34 years consisted of 30.6%. The exact half among the participants has completed a minimum of secondary level education, Janajati ethnic group had a high standing number of participants (35.8%), succeeded by Brahmin/Chhetri (31.7%). The distinguishable number of participants followed Hinduism (85.8%) and lived in an urban area (62.8%), and were at the time employed (56.9%), having the wealth index falling under the "rich" category (43.3%). A significant number of the study's participants were married (76.8%) and came from province 3, having very less autonomy in the household decision-making process.

Similarly, the participating women exposed to any mass media at least once a week were more aware of the legalisation of abortion law than those who were not. Out of total women on the mass media exposure, nearly two-thirds (63.45%) of the respondents, who read newspapers at least a week, were more aware of abortion, nearly double (33.8%) compared to those who do not. Likewise, women with a secondary level of education (51.8%), those aged less than 25 years (42.7%), those who belong to Brahmin ethnicity (47.6%), women from urban (43.2%) were more aware on the legalisation of abortion compare to their counterparts, which was statically significant ($p < 0.001$) (Refer Table 1).

Mass media exposure alone had a statistically significant influence for raising awareness in abortion law among women in Nepal (Model I). Women who read a newspaper at least once a week were more than two times aware on abortion law compared to those who did not read, as shown in a Model I [COR = 2.31, CI = 2.01–2.67]. Similarly, women who watch TV once a week were nearly one and a half times more likely to have been aware of the abortion law than those who do not watch [COR= 1.35, CI = 1.23–1.49]. In addition to that participant listening to radio at least a week were nearly two times more aware on the legal aspects of abortion [COR 1.63, CI = 1.49–1.79, however there was not much difference in [COR= 1.2, CI= 1.20-1.46] the level of awareness with the women using internet in past twelve to those who do not use it at all.

Table 1: Awareness of legalisation of abortion by exposure to mass media and other background characteristics of women

Exposure to Mass Media	% of Total sample	Awareness on legalisation of abortion		Total Number
		Yes	No	
Reading newspaper or magazine			***	
Not at all	69.6	33.8	66.2	8950
Less than once a week	21.7	53.4	46.6	2793
At least once a week	8.7	63.4	36.6	1119
Listening to radio			***	
Not at all	43.2	33.2	66.8	5558
Less than once a week	29.1	42.1	57.9	3738
At least once a week	27.7	50.5	49.5	3566
Watching television			***	
Not at all	28.8	31.1	68.9	3700
Less than once a week	20.9	38.1	61.9	2692
At least once a week	50.3	47.1	52.9	6470
Use of internet			***	
Never	76.1	36.3	63.7	9782
Yes, before last 12 months	0.9	52.5	47.5	111
Yes, last 12 months	23.1	54.5	45.5	2970
Demographic/socio-economic variables				
Age group			***	
Less than 25 years	37.7	42.7	57.3	4849
25-34	30.6	42.7	57.3	3941
35 or above	31.7	36.1	63.9	4072
Education			***	
No education	33.3	27.7	72.3	4281
Primary	16.7	32.8	67.2	2150
Secondary or above	50.0	51.8	48.2	6431
Marital Status			***	
Never married	20.8	46.8	53.2	2669
Currently married	76.8	39.3	60.7	9875
Separated/Divorced	0.8	29.2	70.8	105
Widowed	1.7	27.5	72.5	213
Ethnicity			***	
Brahmin/Chhetri	31.7	47.6	52.4	4072
Janajati	35.8	40.2	59.8	4600
Dalit	12.4	33.8	66.2	1596
Other	20.2	34.7	65.3	2594
Religion			***	
Hindu	85.8	41.5	58.5	11040
Buddhist	5.1	36.3	63.7	652
Muslim	5.0	27.3	72.7	644
Kirat/Christian	4.1	44.0	56.0	526
Women's autonomy in household decision			*	
No autonomy	44.3	39.6	60.4	5700
Moderate autonomy (involved in 1-2 issues)	26.7	40.3	59.7	3440
High autonomy (involved in all 3 issues)	28.9	42.5	57.5	3722
Province			***	
Province 1	16.9	45.6	54.4	2173
Madhesh	19.9	37.9	62.1	2563
Bagmati	21.2	44.0	56.0	2732
Gandaki	9.7	40.9	59.1	1249
Lumbini	17.7	35.5	64.5	2274
Karnali	5.6	33.0	67.0	724
Sudurpaschhim	8.9	43.7	56.3	1145
Place of residence			***	
Urban	62.8	43.2	56.8	8072
Rural	37.2	36.2	63.8	4790
Currently working		Ns		
No	43.1	40.9	59.1	5540
Yes	56.9	40.4	59.6	7322
Wealth index			***	
Poor	36.6	34.4	65.6	4701
Middle	20.2	39.3	60.7	2595
Rich	43.3	46.5	53.5	5566
Total	100.0	40.6	59.4	12862

Note *** Significant at $p < 0.001$; ** = $p < 0.01$ and * = $p < 0.05$, ns=not significant

In the second MODEL, in regards to the age, women aged 35 or above [aOR = 1.26, CI = 1.11–1.43] were more likely to have been aware of abortion law compared to those aged less than 25 years. Women who were educated up to secondary or above [aOR = 2.11, CI = 1.87–2.39] were two times more likely to have been aware of legalisation of abortion in reference to no education. On the other hand, Muslims [aOR= 0.80, CI= 0.65-0.98] and Buddhists [aOR= 0.80, CI=0.67-0.96] were less like to be aware of abortion law in reference to the Hindu religion. Similarly, women from rural area [aOR=0.9, CI=0.90-1.07] were less likely to be aware of abortion compare to women from urban area (*refer table 2, second Colum*).

This study has used secondary data from the 2016, NDHS to examine the association between mass media exposure and awareness of the legalisation of abortion among women in Nepal. We hypothesised that women exposed to mass media would be more aware of legal aspects of abortion compared to those who are not. The set hypothesis was accepted as finding showed that women who were exposed to at least once a week with the mass media were more aware on legal aspects of abortion compare to those who were not. However, the level of awareness differs based on the mass media that were exposed to newspaper was found to be more effective compare to internet. Similarly, awareness of abortion was highly correlated with the participants' education level and age after assigning multicollinearity with set variables. There is association between electronic media exposure and education in relation to reproductive health services, including abortion (Owoo, Lambon-Quayefio & Onuoha 2019). Further, the evidence suggested the women's self – efficacy on making decision about abortion is highly associated with the any form of media they were exposed to (Ahinkorah, Seidu, Mensah & Budu 2020), this finding supports with ours, where women with high autonomy were more aware of legal aspects of the abortion. The study shows that printing IEC materials, television and radio, have limited role in communicating the scientifically accurate information about health and medicine (Leask, Hooker, & King, 2010). This finding contrasted with our finding, where any form of mass media exposure were associated with the level of awareness. Further, Kasteng et al. (2018) suggested that mass media is most cost effective measure to bring awareness among people. Similarly, the likelihood of being aware of abortion was low among those belonging to the rural area compared to the urban area. This study noted the provincial disparities in abortion awareness law among women; the finding supports the study conducted in

Table 2: Unadjusted and adjusted odds ratio (OR) and 95 % confidence interval (CI) from logistic regression model of having awareness on abortion law among women in Nepal

	Model I		Model II	
	OR	95% CI (Lower-Upper)	aOR	95% CI (Lower-Upper)
Exposure to Mass Media				
Reading newspaper or magazine				
Not at all (<i>ref.</i>)	1.00		1.00	
Less than once a week	1.69***	1.53-1.86	1.39***	1.25-1.54
At least once a week	2.31***	2.01-2.67	1.79***	1.54-2.10
Listening to radio				
Not at all (<i>ref.</i>)	1.00		1.00	
Less than once a week	1.25***	1.14-1.37	1.23***	1.12-1.35
At least once a week	1.64***	1.49-1.79	1.55***	1.40-1.70
Watching television				
Not at all (<i>ref.</i>)	1.00		1.00	
Less than once a week	1.09	0.99-1.23	1.04	0.93-1.16
At least once a week	1.35***	1.23-1.49	1.15**	1.04-1.29
Use of internet				
Never (<i>ref.</i>)	1.00		1.00	
Yes, before last 12 months	1.31	0.89-1.93	1.11	0.76-1.64
Yes, last 12 months	1.32***	1.20-1.46	1.18**	1.06-1.32
Demographic/socio-economic variables				
Age group				
Less than 25 years (<i>ref.</i>)			1.00	
25-34			1.24***	1.14-1.39
35 or above			1.26***	1.11-1.43
Education				
No education (<i>ref.</i>)			1.00	
Primary			1.21**	1.07-1.37
Secondary or above			2.11***	1.87-2.39
Marital Status				
Never married (<i>ref.</i>)			1.00	
Currently married			0.96	0.84-1.09
Separated/Divorced			0.75	0.48-1.18
Widowed			0.78	0.56-1.09
Ethnicity				
Brahmin/Chhetri (<i>ref.</i>)			1.00	
Janajati			0.91	0.83-1.01
Dalit			0.88*	0.77-0.99
Other			0.91	0.78-1.05
Religion				
Hindu (<i>ref.</i>)			1.00	
Buddhist			0.80*	0.67-0.96
Muslim			0.80*	0.65-0.98
Kirat/Christian			1.09	0.90-1.32
Women's autonomy in household decision				
No autonomy (<i>ref.</i>)			1.00	
Moderate autonomy (involved in 1-2 issues)			1.09	0.97-1.22
High autonomy (involved in all 3 issues)			1.19**	1.06-1.34
Province				
Province 1 (<i>ref.</i>)			1.00	
Madesh			1.17*	1.01-1.36
Bagmati			0.78***	0.69-0.89
Gandaki			0.76***	0.65-0.88
Lumbini			0.73***	0.64-0.83
Karnali			0.74**	0.61-0.89
Sudurpachhim			1.07	0.92-1.26
Place of residence				
Urban (<i>ref.</i>)			1.00	
Rurals			0.98	0.90-1.07
Currently working				
No (<i>ref.</i>)			1.00	
Yes			1.03	0.95-1.11
Wealth index				
Poor (<i>ref.</i>)			1.00	
Middle			1.15*	1.03-1.28
Rich			1.09	0.98-1.22
Constant		0.359***		0.276***
Cox & Snell R Square		0.061		0.085
-2 Log likelihood		16558.5		16234.1

Note *** Significant at $p < 0.001$; ** = $p < 0.01$ and * = $p < 0.05$

Ghana difference in awareness based on place of residence and ethnicity (Boah, Bordotsiah & Kuurdong 2019). Furthermore, a study by Rijal and Tuladhar in medical collage teaching hospital shows that more than one third of women visiting the gynaecological OPD of the hospital do not know about the legal aspects of abortion. Similarly the study revealed that socio- demographic variables were significant with the level of awareness Abortion among participating women. (Tuladhar & Risal 2010). This study suggests for reproductive health program planners and policymakers to emphasise the mass media to increase awareness of legal aspects of abortion among women of Nepal.

CONCLUSIONS

We are in the journey of twenty year of legalised abortion in Nepal, yet many women are unaware of legal part of safe abortion. It has direct impact on reproductive health. The secondary data from the Nepal Demographic and Health Survey, 2016 reveals that there is significant role of mass media for raising awareness of abortion. Women who were exposed to at least once a week with the mass media were more aware of legal aspects of abortion compare to those who were not. However, the level of awareness differs based on the mass media that were exposed to newspaper was found to be more effective in comparison to internet. The mass-media campaigns are most cost-effective measures in raising awareness as well. Thus, reproductive health program planners and policymakers should emphasise the mass media to increase awareness of legal aspects of abortion among women of Nepal.

REFERENCE

- Adhikari, R. (2017). Awareness of liberalization of abortion law among students in Nepal. *BMC Women's Health*, **5**(5): 327-337. <https://www.researchgate.net/publication/318539187>
- Adhikari, R. & Ghimire, S. (2020). Open defecation free: Where do we need to focus? *Health Prospect*, **19**(1): 1-6. <https://doi.org/10.3126/hprospect.v19i0.27394>
- Ahinkorah, B. O., Seidu, A. A., Mensah, G. Y. & Budu, E. (2020). Mass media exposure and self-efficacy in abortion decision-making among adolescent girls and young women in Ghana: Analysis of the 2017 Maternal Health Survey. *PLoS ONE*, **15**(10 October): 1–12. <https://doi.org/10.1371/journal.pone.0239894>

- Bearak, J., Popinchalk, A., Ganatra, B., Moller, A. B., Tunçalp, Ö., Beavin, C., ... Alkema, L. (2020). Unintended pregnancy and abortion by income, region, and the legal status of abortion: estimates from a comprehensive model for 1990–2019. *The Lancet Global Health*, **8**(9): e1152–e1161. [https://doi.org/10.1016/S2214-109X\(20\)30315-6](https://doi.org/10.1016/S2214-109X(20)30315-6)
- Boah, M., Bordotsiah, S. & Kuurdong, S. (2019). Predictors of unsafe induced abortion among women in Ghana. *Journal of Pregnancy*, 2019. <https://doi.org/10.1155/2019/9253650>
- Chaffy, D. (2022). Global social media statistics research summary 2022. *Smart Insights*. <https://www.smartinsights.com/social-media-marketing/social-media-strategy/new-global-social-media-research/>
- CREHPA. (2012). *Abortion and unintended pregnancy in Kenya. Abortion and Unintended Pregnancy in Nepal*.
- Gashu, K. D., Yismaw, A. E., Gessesse, D. N. & Yismaw, Y. E. (2021). Factors associated with women's exposure to mass media for Health Care Information in Ethiopia. A case-control study. *Clinical Epidemiology and Global Health*, **12**(July), 100833. <https://doi.org/10.1016/j.cegh.2021.100833>
- Gebremedhin, M., Semahegn, A., Usmael, T. & Tesfaye, G. (2018). Unsafe abortion and associated factors among reproductive aged women in Sub-Saharan Africa: A protocol for a systematic review and meta-analysis. *Systematic Reviews*, **7**(1): 1–5. <https://doi.org/10.1186/s13643-018-0775-9>
- Islam, M. R., Islam, M. A., & Banowary, B. (2009). Determinants of exposure to mass media family planning messages among indigenous people in Bangladesh: A study on the Garo. *Journal of Biosocial Science*, **41**(2): 221–229. <https://doi.org/10.1017/S0021932008003088>
- Kasteng, F., Murray, J., Cousens, S., Sarrassat, S., Steel, J., Meda, N., ... Borghi, J. (2018). Cost-effectiveness and economies of scale of a mass radio campaign to promote household life-saving practices in Burkina Faso. *BMJ Global Health*, **3**(4): 1–11. <https://doi.org/10.1136/bmjgh-2018-000809>

- Khatri, R. B., Poudel, S. & Ghimire, P. R. (2019). Factors associated with unsafe abortion practices in Nepal: Pooled analysis of the 2011 and 2016 Nepal Demographic and Health Surveys. *PLoS ONE*, **14**(10): 1–15. <https://doi.org/10.1371/journal.pone.0223385>
- Lakde, R., Parande, M. & Wakankar, P. (2018). Knowledge of emergency contraception among women seeking abortion services at tertiary care hospital in Western Maharashtra. *International Journal of Medical Science and Public Health*, **7**(6): 507–513. <https://doi.org/10.5455/ijmsph.2018.0206922032018>
- Leask, J., Hooker, C. & King, C. (2010). Media coverage of health issues and how to work more effectively with journalists: A qualitative study. *BMC Public Health*, **10**, 535. <https://doi.org/10.1186/1471-2458-10-535>
- Owoo, N. S., Lambon-Quayefio, M. P. & Onuoha, N. (2019). Abortion experience and self-efficacy: Exploring socioeconomic profiles of GHANAIAN women. *Reproductive Health*, **16**(1): 1–13. <https://doi.org/10.1186/s12978-019-0775-9>
- Robinson, M. N., Tansil, K. A., Elder, R. W., Soler, R. E., Labre, M. P., Mercer, S. L., ... Rimer, B. K. (2014). Mass media health communication campaigns combined with health-related product distribution: A community guide systematic review. *American Journal of Preventive Medicine*, **47**(3): 360–371. <https://doi.org/10.1016/j.amepre.2014.05.034>
- Sisson, G. & Kimport, K. (2017). Depicting abortion access on American television, 2005–2015. *Feminism and Psychology*, **27**(1): 56–71. <https://doi.org/10.1177/0959353516681245>
- Thapa, S., Sharma, S. K. & Khatiwada, N. (2014). Women’s knowledge of abortion law and availability of services in Nepal. *Journal of Biosocial Science*, **46**(2): 266–277. <https://doi.org/10.1017/S0021932013000461>
- Tuladhar, H. & Risal, A. (2010). Level of awareness about legalization of abortion in Nepal: a study at Nepal Medical College Teaching Hospital. *Nepal Medical College Journal : NMCJ*, **12**(2): 76–80. <https://pubmed.ncbi.nlm.nih.gov/21222401/>

- Uprety, B. S., Baral, S. C., Regmi, K. & Ashra-mcgrath, N. (2016). Health reporting in The Kathmandu Post, Nepal. In *COMDIS-HSD, a*. Kathmandu.
- World Health Organization. (2019). Preventing Unsafe Abortion: Evidence Brief. *World Health Organization*, (4), 2.
- Yogi, A., K.C, P. & Neupane, S. (2018). Prevalence and factors associated with abortion and unsafe abortion in Nepal: a nationwide cross-sectional study. *BMC Pregnancy and Childbirth*, **18**(1): 1–10. <https://doi.org/10.1186/s12884-018-2011-y>