Exposure to Information, and Women's Attitudes and Practices towards Family Planning in Pakistan

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20 May 2022

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Abstract

Information on family planning play vital role in awareness regarding family planning. Inthis term paper, the change in attitudes towards practicing family planning methods including contraception use, unmeet demands, and demands satisfaction by these methods among ever married of age (15-49) have been investigated. Exposure of information are from either source (TV, Radio, Newspaper or Mobile). The results suggests that women who have higher exposureto information are found to follow family planning methods more than who have less exposure.Moreover, socioeconomic status of women such as education, wealth is found to vary acrossfamily planning. Similarly, the results vary across demographic characteristics like age, region, province and ethnicity in terms of practicing different family planning. Considering the role of exposure, it is recommended the government increase access to information. Besides, there isneed of incorporating the role of social media in DHS[3] survey questionnaires.

Keywords: Fertility; Family Planning; Mass media exposure; Logistic Regression.

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Introduction

If a woman has the ability to prefer fertility by her choice, she could control and regulate it, andwill be mentally and physically in good health. Such a decision will ensure a better education, productive work and safe and good health not only for herself but for her child and whole familyas well.

Comparing the recent census (2017) figure, 207.7 millions to that in 1951, 33.7 millions, thereis six times increase. To controle such a trend and meet the SDG goals, considerable attentionis required on family planning UNFPA (2019). The first such planning program was included in Pakistan's Third Five Plan (1965-70) Khan (1996). The trend of high fertility rate, 3.8 per women which is 31 percent above the suggested rate. Government efforts such as the "Sindh Reproductive Healthcare Rights Bill" are focusing on women rights in terms of reproductive health such as spacing of births, limiting pregnancy, also awareness about family planning. Pakistan's contraceptive prevalence rate is about 35 percent and modern contraceptive rate of26 percent Ali et al. (2019).

To increase this rate and control the fertility rate, information on family planning play vitalrole. The current term paper invistigates how much exposure to information are effective in changing the attitudes of ever married women (15-49) years of age towards practicing differenct family planning methods including modern and traditional. It also incorporates the socioe- conomic status such as education, and demographic characteristics of women like age, region etc. It explores, the three broad dimensions of family planning, current use of contraceptive methods, unmeet and meet demands, and demand satisfiction by traditional as well modern family planning methods.

Review of Literature

Mass media (most commonly TV, radio, and newspapers) are extensively used for compaigns ranging from products marketing to focus on attitudes change in socioeconomic perspectives Wakefield et al. (2010). In this regard, the current study explore the role of family planning compaigns through mass media on attitudes of women towards practicing methods of family planning. Such compaigns were not as common as today even in devolped countries. In 1916,

when Margaret Sanger opened first clinic of birth control in New York, he was arrested for violating norms Horwitz (2019). However, the conservative nature in these developed societieschange quickly. On the otherhand family plannings initives were becoming common in mid 20th century in developing countries. Such as in 1950s, Taiwan and 1960s, Thailand family planning methods were practicing Entwisle et al. (1996).

Before the fall of Dhaka, Ayub Khan's family planning had practiced in Pakistan and bangladesh both. However, after the event of 1971, Bangladesh promoted and priotrized family plannings Simmons et al. (1988), while Pakistan witnessed political turmoil Khan (1996). For example in 1990s, the contraception prevalance rate in Pakistan was 12 percent compare to 30 percent in Banladesh Sultan et al. (2002).

A vast literature have found a considerable impact of media exposure on family planning.**?** found a postive impact of media compaigns and contraceptive use, and remained influentialin mobilizing an attitude change towards it. Further, women with meida exposure had desired fewer children than who had not exposed.

Although, family planning methods have increased substantialy across the countries, but still there is a huge unmeet demand exist. By fulfiling the demand, women can avoid unintended pregnancies and hence could lead to lower fertility Moreland et al. (2010). Some studies like Machiyama and Cleland (2014) have found that even though there is unmeet demand but it isnot due to unavailability, but because women and men don't want practiced those.

Data and Methodology

The data use for this term paper is secondary data and taken from the Pakistan Demographicand Health Survey, 2017-18, conducted under the authority of the National Institute of Pop- ulation Studies (NIPS) and Pakistan Bureau of Statitics. The 2017-18 Pakistan Demographic and Health Survey (PDHS-2017-18) is a nationally representative sample survey designed to provide information on vast social dimensions such as child mortality, family planning, domestic violance etc. The number of observations in the ever married sample is about 15,000. Depen- dent variable is dummy (1=yes, 0=no). The dependent variable is family planning. Which is measured in its three dimension, i.e. contraceptive use, unmeet and meet demand, and demand satisfiction by methods.

The main interest of this term paper is to determine the change in attitudes towards practicing family methods due to exposure to of mass media on, which is the main independent variable of the study. The exposure to information variablke is constructed as dummy, it is 1if a respondent has received family planning information from either TV, radio, newspaper or mobile phones. And is zero if not received from none of the mentioned sources. Few others de- mographic, socio-economic important factors are given in Table 1.These explanatory variables are identified based on literature and through chi-square test. The dependent variable is family planning. Which is measured in its three dimension, i.e. contraceptive use, unmeet and meet demand, and demand satisfiction by methods.

1. Use of recent contraceptive method is reported separately for three family methods:
   - i. Use of any contraceptive method
   - ii. Use of modern contraceptive method
   - iv. Use of traditional contraceptive method
2. Unmeet and meet demands for family planning is also presented for:
   - i. Unmeet demands for family planning
   - ii. Meet demands for family planning
   - iii. Total demands for family planning
3. And demands satisfiction is
   - i. Demand satisfiction by any method
   - ii. Demand satisfiction by modern method

Table 1: Measurement of Variables

Information On Family Planning (FP)	FP Message	Dumy variable (1= if heard message on either TV, Radio,
		Newspaper or Mobile phone)
Socioeconomic Status	Employment	Dumy variable (1=if working)
	Education	Categorical variable (1=primary, 2=secondary, 3=higher)
	Wealth Index	Categorical variable (1=Poorer,2=Middle,3=Richer,4 =Richest)
Demographic Characteristics	Age	Categorical variable (1=20-24,2=25-29,3=30-34,
		4=35-39,5=40-44,6=45-49)
	Mother Tongue	Categorical variable (Punjabi, Sindhi,Pushto,Balochi,Barauhi, Siraiki,
		Hindko,

		Kashmiri,Shina,Brushaski,Wakhi,
		Chitrali/Khwar,Balti,Pahari,Potowari,Marwari,Farsi,Other)
	Urban	Dumy variable (1=urban)
	Province	Categorical variable (1=Sindh,2=KPK,3=Balochistan,
		4=GB,5=ICT,6=AJK,7=FATA)

Because our dependent variable in all models is binary in nature, therefore the logistic regression has been used to estimate the odds ratios for all models.

Results and Discussion

Recent Use of Family Planning (Contraceptive Methods)

Table 2 presents odds ratios of logistic regression results separately for the three types of recent usage of contraceptive methods.The main independent variable of interest, exposure to infor- mation is significant for modern and any method of contraception. The use of contraception methods increase among women with higher exposure to family planning information through mass media. These information are effective in increasing the prevelance rate of modern con- traceptive methods compare to traditional methods. This infers that the traditional methods maybe communicated via lady health woorker, colleagues etc.

The use of methods for women with secondary education, and with richest and middle wealthy are more common.

In terms of age, usage increases with age and decline age higher than 40. The mother tongueis a proxy for ethnicity. Among modern users, Punjabi, Sindhi, Siraiki, Kashmiri, Chitrali and balti are practiced higher than other ethnic groups. Similarly, in urban areas traditional methods are significant. In this way, across provinces modern methods are practiced more in KPK, GB,and ICT. While in FATA traditional methods are more common.

Table 2: Recent Use of Family Planning (Contraceptive Methods)

Variables	Any	Modern	Traditional
FP Message	0.122*** (-0.046)	0.118** (-0.05)	0.046 (-0.072)
Employment	0.101* (-0.055)	0.107* (-0.058)	-0.005 (-0.09)
Education			
Primary	0.228*** (-0.059)	0.218*** (-0.064)	0.114 (-0.096)
Secondary	0.253*** (-0.057)	0.239*** (-0.062)	0.134 (-0.091)
Higher	0.150** (-0.068)	0.146** (-0.074)	0.074 (-0.107)
Wealth Index			
Poorer	0.452*** (-0.068)	0.413*** (-0.074)	0.472*** (-0.134)
Middle	0.711*** (-0.073)	0.599*** (-0.079)	0.773*** (-0.137)
Richer	0.686*** (-0.079)	0.549*** (-0.086)	0.811*** (-0.145)
Richest	0.783*** (-0.086)	0.587*** (-0.094)	0.940*** (-0.154)
Age			
20-24	0.741*** (-0.145)	0.759*** (-0.169)	0.577** (-0.254)
25-29	1.261*** (-0.14)	1.274*** (-0.164)	0.907*** (-0.245)
30-34	1.794*** (-0.14)	1.701*** (-0.163)	1.370*** (-0.243)
35-39	1.922*** (-0.14)	1.842*** (-0.163)	1.384*** (-0.244)
40-44	1.959*** (-0.143)	1.872*** (-0.166)	1.407*** (-0.248)
45-49	1.536*** (-0.146)	1.495*** (-0.17)	1.173*** (-0.254)
Mother Tongue			
Punjabi	0.07 (-0.089)	0.038 (-0.096)	0.095 (-0.131)
Sindhi	-0.049 (-0.1)	0.251** (-0.106)	-1.070*** (-0.201)
Pushto	-0.006 (-0.105)	-0.106 (-0.114)	0.225 (-0.161)
Balochi	-0.721*** (-0.149)	-0.446*** (-0.161)	-1.244*** (-0.308)
Barauhi	-0.393** (-0.186)	-0.236 (-0.203)	0.493 (-0.5)
Siraiki	-0.034 (-0.104)	0.121 (-0.111)	-0.384** (-0.175)
Hindko	-0.115 (-0.131)	-0.196 (-0.143)	0.123 (-0.194)
Kashmiri	-0.132 (-0.244)	0.181 (-0.256)	0.493 (-0.5)
Shina	-0.106 (-0.295)	-0.018 (-0.313)	-0.175 (-0.448)
Brushaski	0.152 (-0.333)	-0.081 (-0.355)	0.391 (-0.481)
Wakhi	1.063 (-0.739)	-0.152 (-0.69)	1.310* (-0.736)
Chitrali/ Khwar	0.233 (-0.27)	0.451 (-0.28)	-0.493 (-0.5)
Balti	-0.05 (-0.305)	0.27 (-0.323)	-0.747 (-0.492)
Pahari	-0.283** (-0.135)	-0.128 (-0.148)	-0.426** (-0.209)
Potowari	-0.554*** (-0.2)	-0.318 (-0.212)	-0.839** (-0.386)
Marwari Farsi	-0.243 (-0.289)	0.048 (-0.295)	-1.579 (-1.017)
Other	-0.152 (-0.15)	-0.085 (-0.164)	-0.181 (-0.243)
Region			
Urban	0.159*** (-0.044)	0.031 (-0.048)	0.347*** (-0.072)
Province			
Sindh	-0.031 (-0.083)	0.005 (-0.089)	-0.101 (-0.131)
KPK	0.019 (-0.093)	0.127 (-0.1)	-0.216 (-0.146)
Balochistan	-0.469*** (-0.11)	-0.430*** (-0.122)	0.493 (-0.5)
GB	0.497* (-0.276)	0.35 (-0.293)	0.478 (-0.419)
ICT	0.093 (-0.078)	0.227*** (-0.083)	-0.261** (-0.12)
AJK	-0.231** (-0.107)	-0.271** (-0.118)	-0.024 (-0.16)
FATA	0.02532	-0.323** (-0.137)	0.08 (-0.182)
Constant	-2.966*** (-0.173)	-3.268*** (-0.196)	-4.258*** (-0.297)
Observations	**15053**	**15053**	**15053**

Standard errors in parentheses ****** p<0.01 , ** p<0.05,* p<0.1***

Note: In this table the odd ratios of logistic regression have been reported. Where, the dependent variable in the third, fourth and fifth columns are respectively the recent use of any, modern or traditional contraceptive methods.

Unmeet and Meet Demand of Family Planning (Contraceptive Methods)

In Tabel 3, the odds ratios of logistic regression are reported for unmeet, meet and total demands. There is a positive and significant relationship between exposure to media and meeting demands for using family plannings for the purpose of birth spacing and limiting pragnancies. The demand meets as women exposure increase.

The exposure has a negative relationship with unmeet demands which, portrays that the more women are exposed, the more they are aware and thus the unmeet demand decreases. maybe because women can get alternatives plannings, they are unaware of. Similarly unmeet demand decrease with increase in education and wealth.

Table 3: Unmeet and Meet Demand of Family Planning (Contraceptive Methods)

Variables	Unmeet Demand	Meet Demand	Total Demand
FP Message	-0.037(-0.059)	0.122***(-0.046)	0.097**(-0.044)
Employment	-0.292***(-0.07)	0.101*(-0.055)	-0.069(-0.051)
Education			
Primary	0.008378	0.228***(-0.059)	0.119**(-0.055)
Secondary	-0.039(-0.068)	0.253***(-0.057)	0.178***(-0.053)
Higher	-0.021(-0.085)	0.150**(-0.068)	0.106*(-0.064)
Wealth Index			
Poorer	-0.087(-0.066)	0.452***(-0.068)	0.234***(-0.056)
Middle	-0.243***(-0.076)	0.711***(-0.073)	0.340***(-0.062)
Richer	-0.351***(-0.087)	0.686***(-0.079)	0.261***(-0.069)
Richest	-0.450***(-0.098)	0.783***(-0.086)	0.321***(-0.077)
Age			
20-24	0.118(-0.109)	0.741***(-0.145)	0.415***(-0.095)
25-29	0.202*(-0.106)	1.261***(-0.14)	0.824***(-0.092)
30-34	0.238**(-0.107)	1.794***(-0.14)	1.299***(-0.093)
35-39	0.038(-0.109)	1.922***(-0.14)	1.285***(-0.094)
40-44	-0.358***(-0.12)	1.959***(-0.143)	1.112***(-0.098)
45-49	-0.582***(-0.128)	1.536***(-0.146)	0.634***(-0.101)
Mother Tongue			
Punjabi	0.098(-0.127)	0.07(-0.089)	0.075(-0.086)
Sindhi	0.402***(-0.133)	-0.049(-0.1)	0.119(-0.094)
Pushto	0.537***(-0.138)	-0.006(-0.105)	0.220**(-0.099)
Balochi	0.406**(-0.16)	-0.721***(-0.149)	-0.306**(-0.122)
Barauhi	0.664***(-0.182)	-0.393**(-0.186)	0.151(-0.147)
Siraiki	0.295**(-0.137)	-0.034(-0.104)	0.058(-0.097)
Hindko	0.287*(-0.173)	-0.115(-0.131)	-0.005(-0.124)
Kashmiri	0.464*(-0.27)	-0.132(-0.244)	0.103(-0.216)
Shina	0.497(-0.364)	-0.106(-0.295)	0.139(-0.287)
Brushaski	0.334(-0.416)	0.152(-0.333)	0.318(-0.331)
Wakhi	-0.445(-1.107)	1.063(-0.739)	1.054(-0.828)
Chitrali/ Khwar	-0.012(-0.367)	0.233(-0.27)	0.118(-0.26)
Balti	0.712*(-0.371)	-0.05(-0.305)	0.339(-0.296)
Pahari	0.561***(-0.171)	-0.283**(-0.135)	0.028(-0.126)
Potowari	0.478**(-0.238)	-0.554***(-0.2)	-0.28(-0.182)
Marwari	0.334(-0.281)	-0.243(-0.289)	-0.057(-0.23)
Farsi	1.501**(-0.592)	-0.346(-0.693)	0.769(-0.591)
Other	0.412**(-0.18)	-0.152(-0.15)	0.051(-0.136)
Urban	-0.089*(-0.051)	0.159***(-0.044)	0.085**(-0.04)
Province			
Sindh	-0.066(-0.105)	-0.031(-0.083)	-0.065(-0.077)
KPK	-0.144(-0.113)	0.019(-0.093)	-0.053(-0.086)
Balochistan	-0.031(-0.122)	-0.469***(-0.11)	-0.335***(-0.096)
GB	0(-0.34)	0.497*(-0.276)	0.449*(-0.267)
ICT	0.095(-0.105)	0.093(-0.078)	0.165**(-0.077)
AJK	0(-0.133)	-0.231**(-0.107)	0.017424
FATA	-0.562***(-0.14)	0.02532	-0.485***(-0.108)
Constant	-1.513***(-0.169)	-2.966***(-0.173)	-1.302***(-0.131)
Observations	**15066**	**15066**	**15066**

Standard errors in parentheses *** p<0.01 , ** p<0.05,* p<0.1*

Note: In this table the odd ratios of logistic regression have been reported. Where, the dependend variable in the third, fourth and fifth columns are respectively the recent unmeet demand, meet demand, and total demand. Unmeet and meet demand includes both respctive demand for spacing and limiting. While the toatl demand then includes both unmeet as well meet demands

Demand Satisfiction of Family Planning (Contraceptive Methods)

From the odds ratios in Table 4, it is found that the relationship between demand satisfictionand mass media exposure are insignificantly related.

Table 4: Demand Satisfiction of Family Planning (Contraceptive Methods) by Methods

Variables	Any Method	Modern Method
FP Message	0.081(-0.06)	0.105(-0.067)
Employment	0.214***(-0.072)	0.297***(-0.081)
Education		
Primary	0.197**(-0.077)	0.254***(-0.083)
Secondary	0.183**(-0.075)	0.229***(-0.08)
Higher	0.099(-0.089)	0.099(-0.098)
Wealth Index		
Poorer	0.365***(-0.086)	0.469***(-0.086)
Middle	0.529***(-0.093)	0.778***(-0.095)
Richer	0.529***(-0.102)	0.863***(-0.106)
Richest	0.540***(-0.112)	1.014***(-0.118)
Age		
20-24	0.546***(-0.188)	0.557***(-0.174)
25-29	0.875***(-0.182)	0.939***(-0.168)
30-34	1.068***(-0.181)	1.279***(-0.168)
35-39	1.266***(-0.182)	1.525***(-0.169)
40-44	1.473***(-0.187)	1.900***(-0.178)
45-49	1.416***(-0.192)	1.869***(-0.186)
Mother Tongue		
Punjabi	-0.034(-0.116)	-0.036(-0.138)
Sindhi	0.217*(-0.132)	-0.431***(-0.151)
Pushto	-0.365***(-0.138)	-0.433***(-0.156)
Balochi	0.651*(-0.371)	-0.908***(-0.199)
Barauhi	-0.461**(-0.229)	-0.902***(-0.235)
Siraiki	0.112(-0.136)	-0.241(-0.154)
Hindko	-0.272(-0.17)	-0.296(-0.192)
Kashmiri	0.11(-0.308)	-0.52(-0.372)
Shina	-0.108(-0.385)	-0.407(-0.427)
Brushaski	-0.282(-0.428)	-0.147(-0.48)
Wakhi	-0.553(-0.752)	0.977(-1.149)
Chitrali/ Khwar	0.651*(-0.371)	0.305(-0.419)
Balti	0.162(-0.395)	-0.45(-0.436)
Pahari	-0.185(-0.177)	-0.615***(-0.196)
Potowari	-0.229(-0.261)	-0.766***(-0.277)
Marwari	0.087(-0.36)	-0.52(-0.372)
Farsi	-0.433(-0.775)	-1.552**(-0.79)
Other	-0.183(-0.195)	-0.458**(-0.212)
Urban	-0.033(-0.057)	0.184***(-0.061)
Province		
Sindh	0.087(-0.108)	0.102(-0.121)
KPK	0.223*(-0.121)	0.128(-0.132)
Balochistan	0.037(-0.506)	-0.336**(-0.148)
GB	0.051(-0.363)	0.269(-0.403)
ICT	0.202**(-0.1)	-0.014(-0.116)
AJK	-0.245*(-0.141)	-0.183(-0.155)
FATA	0.017(-0.161)	0.328*(-0.168)
Constant	-1.680***(-0.225)	-1.300***(-0.226)
Observations	**7500**	**7500**

Standard errors in parentheses ****** p<0.01 , ** p<0.05,* p<0.1***

Note: In this table the odd ratios of logistic regression have been reported. Where, the dependend variable in the third, fourth and fifth columns are respectively the recent use of any, modern or traditional contraceptive methods.

Conclusion

In this term paper, it is investigated that how exposure to mass media (TV, radio, newspaper and mobile phone) can impact a women attitudes towards practicing different family methods. The family planning methods have been expolred in all its three dimensions (use of contra-ception methods, unmeet and meet of demands for these contraception methods, and third the demand satifiction through modern or traditional methods). Exposure to information was the main variable of interest. The results suggest that women who have higher exposure to information are found to follow family planning methods more than who have less exposure. Moreover, socioeconomic status of women such as education, wealth is found to vary acrossfamily planning. Similarly, the results vary across demographic characteristics like age, region, province and ethnicity in terms of practicing different family planning. Considering the role of exposure, it is recommended the government increase access to information. Besides, there isneed of incorporating the role of social media in DHS survey questionaires.

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