ORIGINAL ARTICLE

REPRODUCTIVE COERCION AND ITS EFFECTS ON WOMEN'S REPRODUCTIVE HEALTH OUTCOMES- A CROSS-SECTIONAL STUDY

Mahjabina S Ghayur[1], Jazza Jamil[2], Haleema Sadia[3], Mashal Jamil[3], Humera Adeeb[4], Shahnaz Nadir[1], Bushra Iftikhar[4]

[1]Department of Gynecology and Obstetrics, Khyber Teaching Hospital Peshawar, Pakistan

[2]North West School of Medicine, Peshawar - Pakistan

[3]Department of Medicine, Khyber Teaching Hospital, Peshawar - Pakistan

[4]Community Medicine Department, Khyber Medical College, Peshawar - Pakistan

ABSTRACT

Objective: Reproductive coercion is a constellation of behaviors obstructing a woman's autonomy in reproductive decision-making. This contributes to unwanted reproductive health outcomes in terms of physical and mental morbidity and mortality. The objective was to quantitatively explore its contribution to reproductive health outcomes in women seeking health care for other reasons.

Materials and Methods: This was a cross-sectional analytical study where the data was collected on the Reproductive Coercion Scale (by Miller) from 424 patients. The independent variables were; worried about pregnancy, pregnancy testing, induced abortion, and unwanted pregnancy/birth and the dependent variable was the scale score of each item. Data was analyzed by Chi-Square/Fisher's Exact test at Statistical significance of $p \leq 0.05$.

Results: The mean age of women was 30.13 (SD=6.51) years. Half of the women 212 (50%) were between 20 to 30 years. The majority were housewives 403(95%), living in joint family systems 314 (74.1%), and uneducated 260 (61.3%). There was a significant difference between unwanted/being worried about not pregnant and threats to leave the wife if she did not get pregnant (p=0.03), compelled wife for unprotected sex (p=0.02), and deliberately removed condoms (p=0.02). A significant difference was reported with induced abortions; as the wife was advised against the use of contraceptives (p=0.01), compelled for pregnancy (p=0.03), deliberately barred use of condoms (p=0.03), deliberately removed condom during sex (P=0.05) and damaging condom on purpose (p=0.001). Significant responses were reported for unwanted pregnancy/birth against the items; leaving the wife for not getting pregnant (p=0.001), intentionally barred access to contraceptives (p=0.02), and deliberately damaged condoms (p=0.02).

Conclusion: Reproductive coercion is overtly denied but covertly reflected in the health-seeking behaviors of women with a significant impact on reproductive health outcomes.

Key Words: Induced abortion, Reproductive Coercion, Unwanted Pregnancy

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INTRODUCTION

Reproductive coercion (RC) is a concept describing the behaviors that obstructs a woman's autonomous decision making reproductive matters. [1] These are active and passive behaviors of partners interfering with contraceptive use and pregnancy decision-making. [2] A woman may experience one or both during her reproductive life. RC is considered a form of gender-based violence and is rooted in the culturally defined norms of gender roles and power imbalance between genders. It is considered a preventable public health problem. The reported prevalence of RC ranges from 9% to 74%. This wide range is based on different settings and demographics. [3, 4] RC was reported by 16% of women presenting for routine care to obstetrics or gynecologic services in one study. Women presenting to family planning clinics and seeking help for intimate partner violence reported higher prevalence. [5]

Among the rural and uneducated strata of Pakistan, one pregnancy is unwanted out of the 4.1 Total Fertility Rate. The unmet needs for family planning stand at 35%, falling 20% short of targeted needs, resulting in 890,000 induced abortions in Pakistan. [6] The social and cultural

Correspondence
Dr. Humera Adeeb
Department Community Medicine, Khyber Medical College, Peshawar - Pakistan
Cell: +92-335-9579929
Email: adeebhumera@yahoo.com
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pressure from family and spouses for more children and women not allowed to seek and consult information about contraceptives without their husband's knowledge and approval further hinders contraceptive use. [7] Women may seek health care, especially emergency contraception, requests for pregnancy testing, and termination of pregnancy as a result of RC. [1]

The objective of this study was to quantitatively explore the contribution of Reproductive Coercion to reproductive health outcomes in women seeking health care at an Obstetrics and Gynaecology unit at a tertiary care hospital. The unwanted reproductive health outcomes contribute to significant physical and mental morbidity and mortality in women. [8] The acceptable and feasible interventions in both clinical and community settings may reduce RC and can prove a potential factor in effective strategies for improving women's reproductive health.

MATERIAL AND METHODS

This was a cross-sectional study conducted at Obstetrics and Gynecology Department, Khyber Teaching Hospital Peshawar from December 2021 to May 2022. Ethical approval was sought from Institutional Ethical Review Board, Khyber Medical College (No.1067/DME/KMC). Individual consent was sought from participants with explicit mention of the purpose of data collection. It was explained to the participants that the personal nature of the information is for research purposes and participants' identity and confidentiality will be maintained. Their decision to cease participation was respected if they felt uncomfortable at any stage of data collection. Demographic data was collected on a questionnaire. The following variables were collected; the age of the woman, education, parity, number of male and female children, living as an independent family or combined family, age of husband, education of husband, employment, use of any form of modern contraception over the past year and history of any abortion, number of abortions, reason of abortions, unplanned pregnancy. The reproductive Coercion Scale by Miller and colleagues (2010), a set of 9 questions with dichotomous responses, to measure reproductive coercion was used. [9] Sample size was calculated using Open Epi online software with the following assumptions, confidence level = 95%, anticipated proportions of reproductive coercion = 50%, Absolute precision = 50%, Making allowance for (10%) incomplete or missing data, the calculated sample size was 424. A convenient sampling technique was used. Data was collected from married women, currently of reproductive age (15–49 years), visiting antenatal, Gynaecology OPD, and admitted to the ward for health care seeking. Women seeking health care for primary and secondary infertility and those who had undergone sterilization (Bilateral Tubal Ligation, hysterectomy) and using Intra-Uterine Contraceptive Devices for contraception, were excluded.

Data was analyzed using software, Statistical Package for Social Sciences (SPSS)-25. Descriptive statistics were calculated as mean for the age of women and their spouses, frequency, and percentage for categories of age, education, living arrangement, and working status of women (Table-1). The frequency and percentage were calculated for outcome variables; being worried about pregnancy, taking pregnancy tests, and induced abortions. The independent variable was the RC score of each item and the dependent variables were; worried about unplanned pregnancy, pregnancy testing, induced abortion, and history of unwanted pregnancy/birth. Chi-square and Fisher's exact tests were used to find the associations of dependent variables with the independent variable (RC). Statistically, significance was defined as $p \leq 0.05$.

RESULTS

The mean age of women 30.13(SD = 6.51) was less than their spouse's mean age of 35.63 (SD = 7.18) by almost five years. Half of the women (212, 50%) were in the age range of 20 to 30 years, while the majority of men (227/53.5%) were in the age range of 30 to 40 years. Women were more (43/10.1%) in the age group less than 20 years as compared to very few men (3, 0.7%) in the same age category (Table-1). The majority of female (260/61.3%) study participants had never been to school while the partners in the same category were almost one-fourth of total participants (105/24.8%). The education in different categories of both genders is shown in Table-1. The majority of the women were housewives (403/95%) and the living arrangement was a joint family system (314/74.1%).

The mental worries about unplanned pregnancy over the past three months was reported by 96 (22.7%) women, which increased to 116 (27.4%) women when the period of inquiry was extended to over the past one year. To check unplanned pregnancy, 116 (27.4%) women underwent pregnancy testing which increased to 121 (28.5%) over the past one year. The induced abortion was reported by 32 (7.5%) women and unwanted pregnancy was reported by 93 (22%) women overall, as shown in Table-2. The partner forbidding use of contraception 50 (11.2%), having unprotected sex 35 (8.3%) and taking away contraceptives 25 (5.0%) were reported over the past three months. When the inquiry period was extended over the past one year, the frequency of these responses increased to 69 (16.3%), 42 (9.9%) and 35 (8%) respectively as shown in table-3. The frequency of the remaining items on RC scale are shown in table-3.

The participant's responses did not show a significant difference on all items of RC Scale when analyzed against their worries about unplanned pregnancies over the past three months (Table-3). There was statistically significant difference when inquired about testing for unwanted or being worried of not pregnant and threats to leave the wife if she did not get pregnant ($p = 0.03$), compelled wife to have sex without condoms ($p = 0.02$) and deliberately removed condoms ($p = 0.02$). The significant statistical difference was found in frequency of

Table 1: Demographic characteristics of the study participants

		Female = n (%)	Male = n (%)
Age category	Less than 20 years	43 (10.1%)	3 (0.7%)
	20 to < 30 years	212 (50%)	120 (28.3%)
	30 to < 40 years	153 (36.1%)	227 (53.5%)
	More than 40 years	16 (3.8%)	74 (17.5%)
	Total	424 (100%)	424 (100%)
Mean age	Mean age (years)	30.13(SD = 6.51)	35.63 (SD = 7.18)
	Age Range (years)	16-46	19-60
Education category	Never been to school	260 (61.3%)	105 (24.8%)
	≤ 5 years	27 (6.36%)	23 (5.4%)
	6 to 10 years	75 (17.6%)	151 (35.61%)
	12 to 14 years	57 (11.08%)	86 (20.28%)
	16 years and above	14 (3.3%)	59 (13.9%)
	Total	424 (100%)	424 (100%)
		Frequency	Percentage
Living Arrangement	Joint family	314	74.1%
	Independent family	110	25.9%
Working status of women	House wives	403	95%
	Working women	21	5%

Table 2: Descriptive statistics of four reproductive health outcomes

Reproductive health worries and outcome	Over the past three months n, (%)		Over the past one-year n, (%)	
	Yes	No	Yes	No
Worried about unplanned pregnancy	96 (22.6%)	328 (77.4%)	116 (27.4%)	308 (72.6%)
Checked pregnancy test	116 (27.4%)	308 (72.6%)	121 (28.5%)	303 (71.5%
Induced abortion	32 (7.5%)	392 (92.5%)	32 (7.5%)	392 (92.5%)
History of unwanted pregnancy (overall)	93 (22%)	331 (78%)	--	--

Table 3: Frequency distribution of responses to each item of RC Scale over the past three months and one year

Reproductive Coercion Scale items 9		Over the past three months		Over the past one year	
		Yes	No	Yes	No
1	"Told you not to use any birth control (like the pill, shot, ring, etc.)"	50 (11.2%)	374 (88.2%)	69 (16.3%)	355 (83.7%)
2	"Said he would leave you if you didn't get pregnant"	13 (03.1%)	411 (86.9%)	17 (04%)	407 (96%)
3	"Told you he would have a baby with some-one else if you didn't get pregnant (threats of second marriage)"	10 (2.4%)	414 (97.6%)	13 (3.1%)	411 (96.9%)
4	"Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control"	25 (5.9%)	399 (94.1%)	35 (8%)	389 (92%)
5	"Made you have sex without a condom so you would get pregnant"	35 (8.3%)	389 (91.7%)	42 (9.9%)	382 (90.1%)
6	"Hurt you physically because you did not agree to get pregnant"	6 (1.4%)	418 (98.6%)	6 (1.4%)	418 (98.6%)
7	"Taken off the condom while you were having sex, so you would get pregnant"	12 (2.8%)	412 (97.2%)	28 (6.6%)	396 (93.4%)
8	"Put holes in the condom so you would get pregnant"	3 (0.7%)	421 (99.3%)	4 (0.9%)	420 (99.1%)
9	"Broken the condom on purpose while you were having sex so you would get pregnant"	4 (0.9%)	420 (99.1%)	5 (1.17%)	419 (98.8%)

Table 4: Results of Chi-Square/Fisher's Exact Test for the three health outcomes A, B, C and D as per each item of Reproductive Coercion scale over past three months

Reproductive Coercion Scale items9		A	B	C	D
		Worried about being pregnant (p value)	Did pregnancy test (P value)	Induced abortion (P value)	Unwanted pregnancy & birth (P value)
1	"Told you not to use any birth control (like the pill, shot, ring, etc.)"	0.68	0.22 (FE)	0.01 (FE)	1.0
2	"Said he would leave you if you didn't get pregnant"	0.56 (FE)	0.03	0.37 (FE)	0.001 (FE)
3	"Told you he would have a baby with someone else if you didn't get pregnant (threats of second marriage)"	0.40 (FE)	0.26 (FE)	0.03 (FE)	0.26 (FE)
4	"Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control"	0.32	0.28 (FE)	0.03 (FE)	0.02 (FE)
5	"Made you have sex without a condom so you would get pregnant"	1.0 (FE)	0.02 (FE)	0.19 (FE)	0.52 (FE)
6	"Hurt you physically because you did not agree to get pregnant"	0.59 (EF)	0.47 (FE)	0.62 (FE)	0.14 (FE)
7	"Taken off the condom while you were having sex, so you would get pregnant"	0.20 (FE)	0.02	0.05 (FE)	0.33 (FE)
8	"Put holes in the condom so you would get pregnant"	0.26 (FE)	0.17 (FE)	0.001 (FE)	0.02 (FE)
9	"Broken the condom on purpose while you were having sex so you would get pregnant"	0.77 (FE)	0.20	0.32 (FE)	1.0 (FE)

induced abortions when wife was advised against use of contraceptives ($p = 0.01$), compelled wife for pregnancy ($p = 0.03$), deliberately barred use of condoms ($p = 0.03$), deliberately removed condom during sex ($P = 0.05$) and damaging condom on purpose by putting holes in it ($p = 0.001$). The participants' responses were analyzed against unwanted pregnancy/birth, revealed statistically significant differences, said he would leave the wife for not getting pregnant ($p = 0.001$), intentionally barred access to contraceptives ($p = 0.02$) and deliberately put holes in condoms ($p = 0.02$) as shown in Table-4.

DISCUSSION

Several studies reported on pregnancy coercion, which for this study was taken as pressure not to become pregnant or to become pregnant. Forbidding a partner from using contraceptives resulted in induced abortion on the part of the female partner. [7, 10] The active or passive behavior of telling a partner not to use birth control, taking away contraceptives, expressing to leave the partner, or intentions of second marriage if she did not become pregnant resulted in significantly higher induced abortion. For this analysis, abortion coercion was considered as pressure not to terminate or to terminate, to control the outcome of pregnancy. [11] Two research studies reported findings on abortion coercion as 1 to 2% a low prevalence compared to 7.5% in our study. [10, 12] The increasing incidence of induced abortion over the past decade, in Pakistan is reported as 27 per 1000 women despite legal barriers. [13] The high prevalence is partly explained by the sociocultural pressures for more children and women are not empowered to gain access to or use contraceptives without family and partner's permission implicitly reflecting reproductive coercion. [7, 14, 15] This in turn poses a risk to women in health in terms of side effects and increase case fatality rates. [15,8, 16]

Though the participants responses did not reveal overt anxiety about being pregnant or not pregnant, an implicit indication of anxiety is revealed by taking pregnancy tests repeatedly (27.4%) if the partner expressed intentions to leave her or there were deliberate attempts at sabotaging condoms and having unprotected sex. Partner perpetrated reproductive coercion has been reported as most significant predictor of posttraumatic stress disorder (47.1%) ($P < 0.05$) over the past week and depression (69%). The mental health effects of reproductive coercion needs to be considered. [17, 3, 18, 19] The RC resulted in unwanted pregnancy and birth if the partner expressed intention to leave his wife, took away contraceptives or deliberately damaged the condom. The high prevalence of unwanted pregnancy has been related to unmet needs for contraception but the contribution of RC cannot be overlooked to this outcome [6]. Disagreement over use of contraception may reflect concerns about religious objection, family pressure and mistrust over safety of contraceptives as well as pregnancy coercion [6, 17, 20].

CONCLUSION

Certain health seeking behaviours among women attending Obstetrics and Gynecology services may implicitly reflect reproductive coercion on part of their partners. Along with other concerns this should be considered while evaluating health of these women. This is overtly denied

but covertly reflected by other health seeking behaviours of women with significant impact on reproductive health outcomes.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

Ghayur MS:	Concept, Critical appraisal, and Discussion Writing
Jamil J:	Data collection, compilation of results, formatting of the article
Sadia H:	Data Collection, Manuscript writing
Jamil M:	Manuscript Writing, Bibliography
Adeeb H:	Overall compilation of the article
Nadir S:	Supervision, Critical appraisal
Iftikhar B:	Manuscript Writing, Bibliography

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.