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PERCEPTION AND PRACTICES REGARDING LONG-ACTING REVERSIBLE CONTRACEPTIVE METHODS AMONG MOTHERS OF URBAN COMMUNITIES IN BANGLADESH

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ABSTRACT

Background: Utilization of contraception is a crucial strategy for reducing fertility rates. Usage of long acting and reversible contraceptives by women of reproductive age with at least one living child may aid in making national family planning program effective. **Aim:** To assess the perception and practice of long acting contraceptive methods (LARC) among mothers of an urban communities. **Materials and Method:** This community-based descriptive cross-sectional study purposively selected 180 mothers of reproductive age (18-49 years) with at least one living child under 2 years old, excluding women who had undergone bilateral tubal ligation. Data was collected between January and December 2022 using a pretested, face-to-face, semi-structured questionnaire. **Results:** The mean age of respondents was 33.3±8.4 years. Most respondents (44.4%) were not using any contraceptives, and 66.7% were not using LARC, while 33.3% were currently using LARC. LARC perception was significantly associated with both women's and husbands' education levels (p<0.05), and marginally with husband's age (p<0.05). Women with lower education levels and homemakers were more likely to use LARC (p<0.05). Those with fewer than two living children, no desire for more children, and those who gave birth to their last child by normal vaginal delivery were also more likely to use LARC. Perception of LARC was strongly allied to its use (p<0.05). **Conclusion:** To develop a strategy for increasing LARC use among mothers in Bangladesh's urban community, further research with a larger, representative sample is needed to establish a baseline.

Keywords: Perception, Practices, LARCs, Urban communities, Bangladesh.

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INTRODUCTION

Bangladesh's family planning programs have significantly increased contraceptive prevalence in a Muslim-majority nation with low female autonomy, low literacy, and high poverty, attracting global attention[1]. According to the United Nations Family Planning Agency (UNFPA) 2022 report, Bangladesh's contraceptive prevalence rate (CPR) increased from 8.0% in 1975 to 62.4% in 2014, while the total fertility rate (TFR) declined from 6.3 children per woman in 1975 to 1.95 in 2022[2]. According to the Health, Population and Nutrition Sector Program (HPNSP) 2022 report, Bangladesh has seen significant declines in infant and maternal mortality, with infant mortality dropping from 88.0 per 1000 live births (1993–94) to 21, and maternal mortality from 22.6 (1990–91) to 1.21 in 2022[3].

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The Ministry of Local Government, Rural Development, and Cooperatives oversees primary health care (PHC) services in urban areas, primarily focusing on reproductive and child health and family planning, implemented through non-government organizations (NGOs)[4,5]. The urgent need to investigate contraceptive use and method preference among women residing in urban communities is suggested by the rapid growth of the populations in informal settlements and urban squatters[6].

Contraceptive methods are broadly classified into spacing and terminal methods, with short-acting methods like condoms and pills, and long-acting methods like intrauterine devices (IUDs), injectable, and implants[7,8]. Long-acting reversible contraceptives (LARCs), such as copper IUDs, progestogen-only IUS, injectable, and implants, require administration scarcer than once per cycle or month[9]. LARCs are highly effective, long-term contraceptives that prevent unintended pregnancies more reliably than other methods, requiring only a single insertion for prolonged use[10]. The comparative effectiveness of LARC methods is independent of compliance or proper usage by the couple, in contrast to the typical-use effectiveness of oral contraceptive pills and condoms[11]. LARCs offer several benefits for women and couples, including high effectiveness, minimal user intervention, and suitability for various women, long-term cost-effectiveness, low failure and discontinuation rates, availability, affordability, and reduced risk of unintended pregnancies, unsafe abortions, and maternal morbidity and mortality[12].

Women using traditional or temporary contraceptives are more likely to switch to long-acting contraceptive methods[13].The National Collaborating Center for Women's Health (2005) states that LARCs are safe and recommended for various women, including those with epilepsy, disabilities, cardiovascular risks, adolescents, peri-menopausal women, and nulliparous or nursing women[9]. Despite the benefits of LARCs, their use is lower than other methods in urban communities due to factors like lack of awareness, supply issues, myths, and fear of side effects[14]. This survey aims to evaluate the perception and practice of LARCs among mothers in urban communities to aid population control and achieve sustainable development goals (SDG) targets.

MATERIALS AND METHOD

This community-based descriptive cross-sectional study was carried out to explore mothers' perceptions and practices about long-acting reversible contraceptive methods in urban communities within the Dhaka North City Corporation, Bangladesh.

The study purposively selected 180 mothers of reproductive age (18-49 years) with at least one living child under 2 years old. Women who had undergone bilateral tubal ligation were excluded.From January to December 2022, a pretested face-to-face, semi-structured questionnaire was used to interview study participants at their convenience.

Data entry began immediately after data collection. Analysis was performed using IBM SPSS software, version 26. Descriptive statistics were presented as frequency distributions and percentages in tables and graphs. Inferential analysis was conducted using the chi-square test, with a *p*-value <0.05 considered statistically significant at a 95% confidence interval.

Before the interview, participants were briefed on the study's aims and objectives and informed of their right to participate or refuse. They were assured that the study involved no invasive procedures and that all information would remain confidential. Participants' privacy would be respected, and their contributions appreciated. Data were collected with proper consent while maintaining privacy. The study received

approval from the Institutional Review Board (IRB) of the National Institute of Preventive and Social Medicine (NIPSOM), Dhaka 1212, Bangladesh (Reference: NIPSOM/IRB/2017/09).

RESULTS

Table 1 showed that the majority of respondents (38.9%) were in the age group of 36-49 years, followed by 38% in the 26-35 years range, with the remaining respondents in the 18-25 years age group. The mean age of respondents was 33.3±8.4 years. Regarding the husbands, most (52.2%) were aged 26-40 years, followed by 42.2% over 40 years, and the remaining 25% were under 25 years. The mean age of husbands was 39.4±9.6 years. In terms of education, more than half (51.1%) had education up to Higher Secondary (HS) or below, 33.3% were graduates, and 15.6% were illiterate. Among the husbands, over half (50.6%) had completed HS education, 37.8% were graduates, and 11.7% were illiterate (Figure 1). Table 1 displays that most respondents (67.2%) were homemakers, followed by 25.6% employed in jobs, and 4.4% were businesswomen. As for their husbands, the majority (56.1%) were job holders, followed by 27.2% businessmen, 15.6% day laborers, and 1.1% unemployed. In terms of family income, most respondents (52.2%) had an income between 10,000 and 50,000 taka, followed by 28.3% with 50,001-100,000 taka, and 19.4% with more than 100,000 taka. The mean family income was 42,219.7±16,254.2 taka.

Figure 2 shows that the majority of respondents (44.4%) were not using any contraceptives, while 20% used condoms, 18.3% oral pills, 10.6% injections, 3.9% withdrawal method, and 2.8% IUD. In the past, 42.8% had not used contraceptives, whereas 25% used oral pills, 16.1% injections, 10% condoms, 2.8% IUD, and 1.7% each used implants or withdrawal methods. Table 2 shows the mean duration of current contraceptive use was 4.8±5.3 years, and the mean duration of previous use was 2.6±3.1 years. Most respondents (79.4%) had two or fewer living children, with a mean of 1.9±0.9. Over half (56.7%) did not want more children, while 43.3% desired another child, with a mean desired number of 1.4±0.5. The majority (63.9%) never had an abortion, while 43.3% experienced one or more, with a mean of 0.5±0.8 abortions. Most respondents (41.7%) had been married for ≤10 years, 35% for 11–20 years, and 23.3% for over 20 years; the mean duration of marriage was 13.6±8.1 years. Regarding the place of last delivery, 51.7% delivered at private hospitals, 36.1% at home, and 12.2% at government hospitals. Around 45% had normal vaginal delivery (NVD), 42.2% underwent lower abdominal segment caesarean section (LUCS), and 12.8% had NVD with episiotomy.

The study found that 80% of respondents had awareness of LARCs. Figure 3 illustrates that among them, 73.9% knew about injectable, 57.8% about implants, and 51.7% about IUDs. The main sources of perception were relatives (56.1%), neighbors (46.1%), and health workers (31.1%). Most respondents (75%) knew the site of administration, and 65% knew the duration of action. Regarding IUD advantages, 88.9% recognized fertility return after removal, 72.9% cited no effect on breastfeeding, and 50.7% said it can be removed anytime. For disadvantages, 73.6% noted self-administration was not possible, and 60.4% knew the IUD tail needs checking after periods. For implants, 87.5% knew they have no effect on intercourse, 80.6% on breastfeeding, and 77.8% that fertility returns after removal; however, 84% knew insertion requires a minor procedure. All respondents (100%) identified injectable as easy to use, with 90.3% citing no effect on intercourse and 79.9% on breastfeeding. The most common reported disadvantages of injectable LARC were painful administration (50%) and spotting between periods (47.2%). (Table 3)

The majority of respondents (66.7%) were not using LARC, while 33.3% were currently using it (Figure 4). Table 4 shows that in most cases, the decision to use LARC was made by their husbands (79.4%), followed by in-laws (20.6%), the respondents themselves (18.3%), and parents (5.6%). Among those using LARC, 68% reported being satisfied with the method, while 31.7% were not satisfied. The reasons for using LARC, based on multiple responses, showed that all users (100%) chose LARC because it does not require daily use. Additionally, 71.7% cited easy availability, 61.7% mentioned no risk of missing a dose, 58.3% used it as they did not desire pregnancy at that time, 46.7% believed it had fewer side effects, and 45.0% considered it a reliable method. The reasons for not using LARC, based on multiple responses, showed that the majority (40.8%) were satisfied with their current contraceptive method. This was followed by 36.7% who desired pregnancy, 19.2% who feared side effects, another 19.2% who were discouraged by relatives, and 14.2% who avoided LARC due to previous side effects, with others citing various additional reasons. Most of the respondents (68.0%) had misconceptions about developing menstrual irregularities after using LARC, followed by the method being painful (56.9%), pelvic inflammatory disease (PID) (54.2%), beliefs about weight gain (31.9%),and causing infertility (7.6%).Among LARC users, 30.0% reported experiencing side effects. The most common complaints were irregular menstruation (76.7%), followed by headaches (51.7%), weight gain (31.7%), and lower abdominal pain (28.3%).

Perception of LARC was found to be significantly associated with both women's and husbands' education levels. Women with secondary or lower education demonstrated a higher perception of LARC compared to those with higher education (p=0.041). Similarly, husbands with lower education levels were more likely to have wives with greater LARC perception (p=0.036). Additionally, a marginal association was noted with husband's age (p=0.057), indicating that younger couples may have had a perception of LARC. (Table 5)

The study found that current LARC use was significantly associated with several socio-demographic and reproductive factors. Higher LARC usage was observed among women with lower education levels (p=0.000) and whose husbands had lower education (p=0.000). Homemakers used LARC more than employed women (p=0.009), and husbands' occupation also showed a significant association (p=0.010). Additionally, women who had two or fewer living children (p=0.032), did not desire more children (p=0.038), and had normal vaginal delivery (NVD) in their last childbirth (p=0.000) were more likely to use LARC. Perception about LARC was strongly associated with its practice (p=0.000). (Table 6)

Table 1: Socio-demographic profile (n=180)

Variables	Categories	Frequency (n)	Percent (%)
Age groups (in years)	18-25	41	22.8
	26-35	69	38.3
	36-49	70	38.9
	Mean±SD		33.3±8.4
Husband's age (in years)	≤25	10	5.6
	26-40	94	52.2
	>40	76	42.2
	Mean±SD		39.4±9.6
Occupation	Homemaker	121	67.2
	Job holder	46	25.6
	Business	8	4.4
	Student	5	2.8
Husband's occupation	Job holder	101	56.1
	Business	49	27.2
	Day labour	28	15.6
	Jobless	2	1.1
Monthly family incomes (in Taka)	≤50,000	94	52.2
	50,001-100,000	51	28.3
	>100,000	35	19.4
	Mean±SD		42,219.7±16,254.2

n=Total number of respondents; SD=Standard Deviation

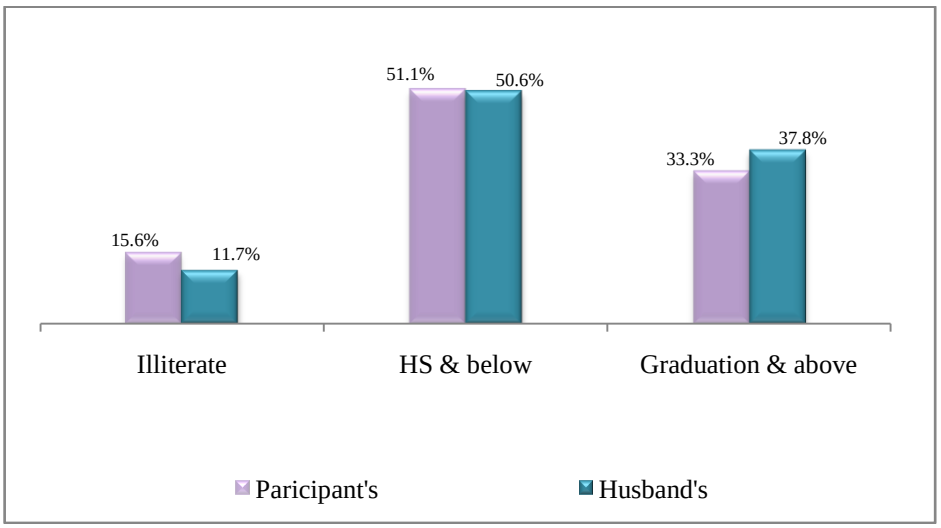

Figure 1: Educational levels of both women and their husbands (n=180); HS=Higher Secondary

Table 2: Information regarding reproductive health (n=180)

Variables	Categories	Frequency(n)	Percent (%)
Mean duration of utilization (in years) (n=100)	Mean±SD		4.8±5.3
Mean duration of utilization(in years(n=103)	Mean±SD		2.6±3.1
Number of living child (n=180)	≤2	143	79.4
	>2	37	20.6
	Mean±SD		1.9±0.9
Number of desired child (n=180)	0	102	56.7
	≥1	78	43.3
	Mean±SD		1.4±0.5
Number of abortion (n=180)	0	115	63.9
	≥1	65	36.1
	Mean±SD		0.5±0.8
Duration of marriage (in years) (n=180)	≤10	75	41.7
	11-20	63	35.0
	>20	42	23.3
	Mean±SD		13.6±8.1
Place of last delivery (n=180)	Home settings	65	36.1
	Govt. hospital settings	22	12.2
	Private hospital settings	93	51.7
Mode of last delivery (n=180)	NVD	81	45.0
	NVD with episiotomy	23	12.8
	LUCS	76	42.2

n=Total number of respondents; SD=standard Deviation

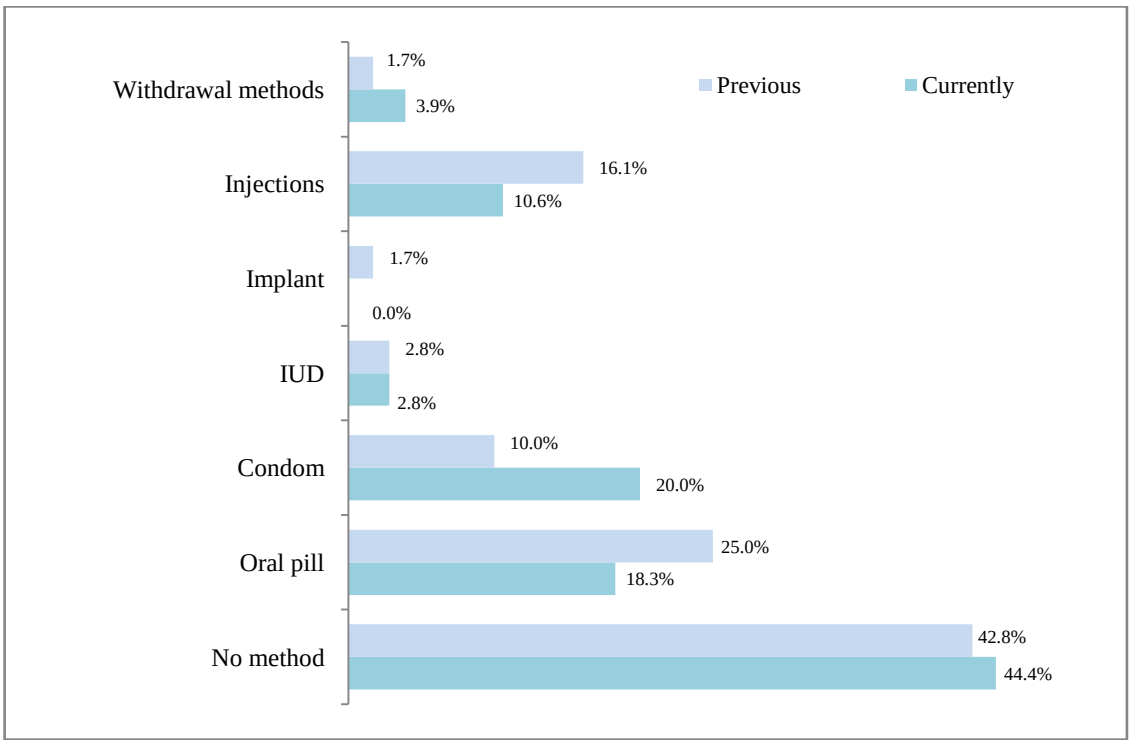

Figure 2: Current and previous utilization status of contraceptives (n=180)

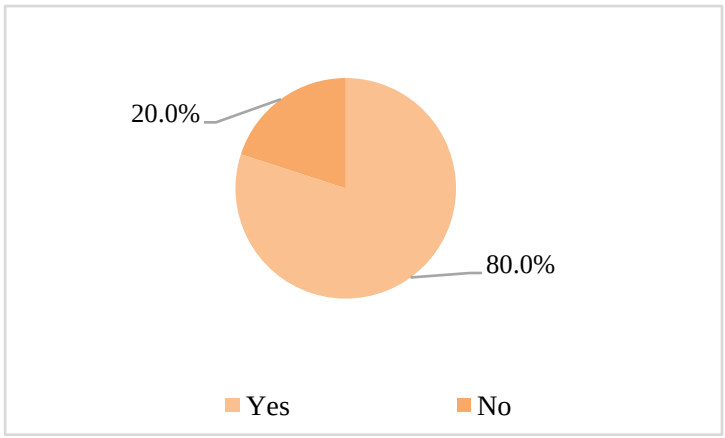

Figure 3: Perception regarding LARCs method (n=180)

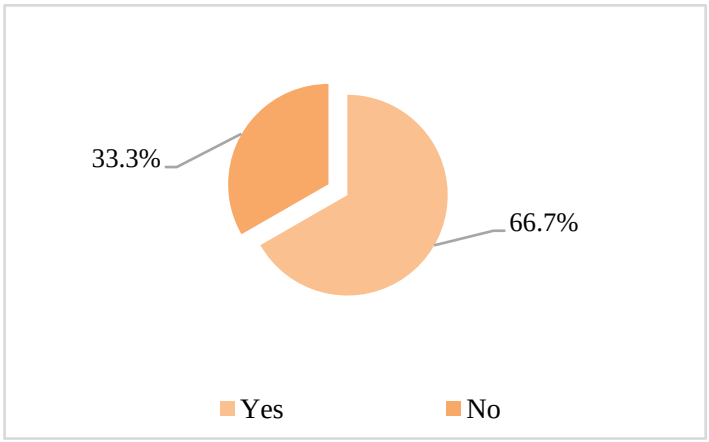

Figure 4: Current utilization status of LARCs method (n=180)

Table 3: Information regarding perception of LARC (n=180)

Variables	Categories	Frequency (n)	Percent (%)
Perception about different types of LARC (n=144)	IUD	93	51.7
	Implant	104	57.8
	Injectable LARC	133	73.9
			*Multiple responses
Sources of perception (n=144)	Relatives	101	56.1
	Neighbors	83	46.1
	Health workers	56	31.1
	Mass media	25	13.9
	Educational institutions	14	7.8
	Husband	8	4.4
			*Multiple responses
Perception about site of administration (n=144)	Yes	135	75.0
	No	9	5.0
Perception about site of administration (n=144)	IUD	76	42.2
	Implant	89	49.4
	Injectable LARC	122	67.8
			*Multiple responses
Perception about duration of action (n=144)	Yes	117	65.0
	No	27	15.0
Perception about duration of action (n=144)	IUD	62	34.4
	Implant	73	40.6
	Injectable LARC	105	58.3

Table 3 : Continued

Variables	Categories	Frequency (n)	Percent (%)
			*Multiple responses
Perception about advantages of IUD (n=144)	Easy to use	67	46.5
	Actions start immediately	64	44.4
	No effect on breastfeeding	105	72.9
	No effect on intercourse	70	48.6
	No hormonal problem	57	39.5
	Can conceive after removal	128	88.9
	Can be removed anytime	73	50.7
	Others	16	11.1
			*Multiple responses
Perception about disadvantages of IUD (n=144)	Feeling discomfort	44	30.5
	Lower abdominal pain	19	13.2
	Increased bleeding during menstruation	50	34.7
	Accidental expulsion	25	17.4
	Failure of birth protection	9	6.3
	Self-administration not possible	106	73.6
	Need to check IUD tail after period	87	60.4
	Does not protect from STD/HIV	38	26.4
	Others	13	9.0
			*Multiple responses
Perception about advantages of implant (n=144)	Easy to use	59	41.0
	Actions start after 24 hours	28	19.4
	No effect on breastfeeding	116	80.6
	No effect on intercourse	126	87.5
	No hormonal problem	54	37.5
	Can conceive after removal	112	77.8
	Can be removed anytime	80	55.6
	Others	10	6.9
			*Multiple responses
Disadvantages of implant (n=144)	Feeling discomfort	63	43.8
	Irregular menstruation	45	31.3
	Stoppage of menstruation	23	16.0
	Need small operation to use	121	84.0
	Headache/Nausea/Weight gain	25	17.4
	Cannot protect from STD/HIV	48	33.3
	Others	30	20.8
			*Multiple responses
Perception about advantages of injectable LARC (n=144)	Easy to use	144	100
	Actions start immediately	98	68.1
	No effect on breastfeeding	115	79.9
	No effect on intercourse	130	90.3
	No hormonal problem	58	40.3
	Others	43	29.9
			*Multiple responses
Perception about disadvantages of injectable LARC (n=144)	Painful administration	72	50.0
	Spotting between periods	68	47.2
	Stoppage of menstruation	54	37.5
	Headache/nausea/weight gain	60	41.7
	Cannot protect from STD/HIV	38	26.3
	Can conceive 8-10 months after removal	7	4.9
	Others	16	11.1
			*Multiple responses

N=Total number of respondents

Table 4: Information regarding utilization of LARC (n=180)

Variables	Categories	Frequency (n)	Percent (%)
Decision maker regarding selection of LARC (n=180)	Husband	143	79.4
	Father/Mother-in-law	37	20.6
	Self	33	18.3
	Parents	10	5.6
			*Multiple responses
Satisfaction to LARC methods (n=60)	Yes	41	68.3
	No	19	31.7
Reasons for using LARC (n=60)	Free from daily use	60	100.0
	Easily available	43	71.7
	No chance of missing dose	37	61.7
	Pregnancy is not desired	35	58.3
	Method is reliable	28	46.7
	Less side effects	27	45.0
	Need space between children	11	18.3
	Others	5	8.3
			*Multiple responses
Reasons for not using LARC (n=120)	Satisfied with present method	49	40.8
	Pregnancy is desired	44	36.7
	Fear of side effects	23	19.2
	Discouragement from family/relatives	23	19.2
	Previous experience of side effects	17	14.2
	Religious barriers	11	9.2
	Cultural taboos	15	12.5
	Misconceptions	15	12.5
	Lack of availability	7	5.8
	Others	19	15.8
			*Multiple responses
Misconceptions (n=144)	Menstrual irregularities	98	68.1
	Painful procedures	82	56.9
	PID	78	54.2
	Weight gain	46	31.9
	Abortion	18	12.5
	Infertility	11	7.6
	Ectopic pregnancy	2	1.4
	Others	12	8.3
			*Multiple responses
Side effects (n=180)	Yes	60	30.0
	No	120	70.0
Side effects faced by the users (n=60)	Menstrual irregularities	46	76.7
	Headache	31	51.7
	Weight gain	19	31.7
	Lower abdominal pain	17	28.3
	Others	13	21.7
			*Multiple responses

n=Total number of respondents; PID=Pelvic Inflammatory Disease

Table 5: Association of LARC perception with different variables (n=180)

Variables		LARC perception			χ2 value	*p*-value
		Yes	No	Total		
		n(%)	n(%)	n(%)		
Age groups (in years)	18-32	79(54.9)	13(36.1)	92(51.1)	4.052	0.062
	33-49	65(45.1)	23(63.9)	88(48.9)		
Husband's age (in years)	≤25	6(4.2)	4(11.1)	10(5.6)	5.924	0.057
	26-40	81(56.3)	13(36.1)	94(52.2)		
	>40	57(39.6)	19(52.8)	76(42.2)		
Education	Illiterate	4(2.8)	3(8.3)	7(3.9)	8.544	*0.041
	HS and below	83(57.6)	14(38.9)	97(53.9)		
	Graduation & above	57(39.6)	19(52.8)	76(42.2)		
Husband's education	Illiterate	5(3.5)	0(0.0)	5(2.8)	4.182	*0.036
	HS and below	75(52.1)	14(38.9)	89(49.4)		
	Graduation & above	64(44.4)	22(61.1)	86(47.8)		
Occupation	Homemaker	102(70)	19(52.8)	121(67.2)	6.057	0.076
	Job holder	32(22.2)	14(38.9)	46(25.6)		
	Business	7(4.9)	1(2.8)	8(4.4)		
	Student	3(2.1)	2(5.6)	5(2.8)		
Monthly family incomes (in Taka)	≤50,000	76(52.8)	18(50.0)	94(52.2)	0.121	0.970
	50,001-100,000	40(27.8)	11(30.6)	51(28.3)		
	>100,000	28(19.4)	7(19.4)	35(19.4)		
Duration of marriage (in years)	≤10	62(43.1)	13(36.1)	75(41.7)	2.516	0.292
	11-20	52(36.1)	11(30.6)	63(35.0)		
	>20	30(20.8)	12(33.3)	42(23.3)		
Number of desired child	0	79(54.9)	23(63.9)	102(56.7)	0.956	0.353
	≥1	65(45.1)	13(36.1)	78(43.3)		
Number of living child	≤2	115(79.9)	28(77.8)	143(79.4)	0.077	0.819
	>2	29(20.1)	8(22.2)	37(20.6)		
Mode of last delivery	NVD	66(45.8)	15(41.7)	81(45.0)	0.647	0.786
	NVD with episiotomy	17(11.8)	6(16.7)	23(12.8)		
	LUCS	61(42.4)	15(41.7)	76(42.2)		

n=Total number of respondents; Chi-squaretest done, $p<0.05$ considered as statistically significant value

Table 6: Association of LARC practices with different variables (n=180)

Variables		LARC practices			χ2 value	*p*-value
		Yes	No	Total		
		n(%)	n(%)	n(%)		
Age groups (in years)	18-25	13(21.7)	28(23.3)	41(22.8)	0.424	0.822
	26-35	25(41.7)	44(36.7)	69(38.3)		
	36-49	22(36.7)	48(40.0)	70(38.9		
Husband's age (in years)	≤25	1(1.7)	9(7.5)	10(5.6)	2.797	0.259
	26-40	34(56.7)	60(50.0)	94(52.2)		
	>40	25(41.7)	51(42.5)	76(42.2)		
Education	Illiterate	12(20.0)	16(13.3)	28(15.6)	†17.398	*0.000
	HS and below	40(66.7)	52(43.3)	92(51.1)		
	Graduation & above	8(13.3)	52(43.3)	60(33.3)		
Husband's education	Illiterate	12(20.0)	9(7.5)	21(11.7)	18.881	*0.000
	HS and below	38(63.3)	53(44.2)	91(50.6)		
	Graduation & above	10(16.7)	58(48.3)	68(37.8)		

Table 6 : Continued

Variables		LARC practices			χ2 value	*p*-value
		Yes	No	Total		
		n(%)	n(%)	n(%)		
Occupation	Homemaker	48(80.0)	73(60.8)	121(67.2)	†10.855	*0.009
	Job holder	7(11.7)	39(32.5)	46(25.6)		
	Business	4(6.7)	4(3.3)	8(4.4)		
	Student	1(1.7)	4(3.3)	5(2.8)		
Husband's occupation	Job holder	26(43.3)	75(62.5)	101(56.1)	†10.252	*0.010
	Business	18(30.0)	31(25.8)	49(27.2)		
	Day labour	16(26.7)	12(10.0)	28(15.6)		
	Jobless	0(0.0)	2(1.7)	2(1.1)		
Monthly family incomes (in Taka)	≤50,000	38(63.3)	56(46.7)	94(52.2)	4.650	0.094
	50,001-100,000	14(23.3)	37(30.8)	51(28.3)		
	>100,000	8(13.3)	27(22.5)	35(19.4)		
Duration of marriage (in years)	≤10	19(31.7)	56(46.7)	75(41.7)	3.767	0.160
	11-20	24(40.0)	39(32.5)	63(35.0)		
	>20	17(28.3)	25(20.8)	42(23.3)		
Number of desired child	0	41(68.3)	61(50.8)	102(56.7)	4.989	*0.038
	≥1	19(31.7)	59(49.2)	78(43.3)		
Number of living child	≤2	42(70.0)	101(84.2)	143(79.4)	4.916	*0.032
	>2	18(30.0)	19(15.8)	37(20.6)		
Mode of last delivery	NVD	42(70.0)	39(32.5)	81(45.0)	23.083	*0.000
	NVD with episiotomy	3(5.0)	20(16.7)	23(12.8)		
	LUCS	15(25.0)	61(50.8)	76(42.2)		
LARCs perception	Yes	60(100)	84(70)	144(80)	22.500	*0.000
	No	0(0)	36(30.0)	36(20.0)		

n=Total number of respondents; Chi-squaretest and †Fisher exact test done, $p<0.05$ considered as statistically significant value.

DISCUSSION

The mean age of responders were 33.3±8.4 years, with 38.9% being between the ages of 36 and 49 years. This study did not find a causal association between age and LARC use, contradicting an Ethiopian study that did[15]. Further, the mean age here was greater than the 30.3 years reported in the National Institute of Population Research and Training (NIPORT) study[16].Most mothers (67.2%) in this study were homemakers, while 25.6% were job holders and 4.4% were businesswomen. A significant association ($p<0.05$) was found between mothers' occupation and LARC practice. Similarly, previous researches also showed a significant relation between husbands' occupation and LARC use[5,17,18].

This survey found that 44.4% of urban community members did not use any contraceptive method, and 3.9% used the withdrawal method. These findings are similar to Bangladesh Demographic and Health Service (BDHS) 2017–18 results (34.6% non-use, 3.5% withdrawal). The most common modern methods identified in this study were condoms (20%), oral pills (18.3%), and injections (10.6%), closely matching BDHS 2017–18 data that showed injectable use at 10%, condom use at 12.4%, and oral pill use at 24.9%[19].In our study, a significant association was observed between the number of living children ($p<0.05$) and the desired number of children ($p<0.05$) with LARC practice.

As expected in an urban setting, most respondents (79.4%) had one or two children. Previous studies have shown that the number of living children and a history of abortions are key factors influencing contraceptive use[5,14].Couples with longer marriage duration are more likely to use long-acting contraceptive methods compared to those married for a shorter time[19-22].While it was expected that most perceptions would come from government and private health providers' home visits, the majority actually came from neighbors (46.1%) and family members (56.1%). Healthcare workers contributed 31.1% of perceptions.

In this study, the majority of respondents (66.7%) were not using LARC, while 33.3% were using it. Most decisions to use LARC were made by husbands (79.4%). Among LARC users, 68% were satisfied with the method. Reasons for not using LARC included being satisfied with current methods (40.8%) and concerns about potential side effects (19.2%). Injectable use was higher among women from lower socioeconomic backgrounds, whereas women from higher socioeconomic groups preferred barrier methods[23]. A qualitative study conducted in Pakistan found limited spouse involvement in family planning decision-making[24]. Low-income women faced limited support from male partners, who cited ignorance, fear of promiscuity, and reduced sexual pleasure as concerns[25]. In contrast, male partners from higher socioeconomic urban groups were more supportive of family planning and encouraged condom use. Studies found that IUDs, injectable, and subdermal implants are popular among users due to their effectiveness, reversibility, long-lasting nature, simplicity, and affordability[23,26].Other studies found that fear of side effects was the most common reason for avoiding LARC[27,28].A survey on public opinions of LARC showed that over 84% were aware of them, but fewer than 5% used them[29].In contrast, this study found that 33.3% of respondents were using LARC methods and 80% had a perception of them. Additionally, 68% of LARC users in this study were satisfied with their method, whereas another study showed only 6.1% of urban women were very satisfied[30].Common barriers to LARC use included misconceptions about side effects, pain, and serious health issues found in this studies[14,29,31]. This study found that the main myths were that LARC causes irregular menstruation (76.7%), headaches (51.7%), and weight gain (31.7%).). Other misconceptions included infertility, discomfort, and PID also identified weight gain and irregular menstruation as reasons for discontinuing LARC[32].

Perception of LARC was significantly linked to both women's and husbands' education levels, with women and husbands having lower education showing a higher perception of LARC ($p<0.05$). A marginal association was also found with husband's age ($p<0.05$), suggesting younger couples may have a higher perception of LARC. LARC use was significantly associated with various socio-demographic and reproductive factors. Women with lower education levels and homemakers were more likely to use LARC ($p<0.05$), as were those whose husbands had lower education and certain occupations. Additionally, women with fewer than two living children, those not desiring more children, and those with NVD in their last delivery were more likely to use LARC. The perception of LARC was strongly related to its actual use ($p<0.05$).

CONCLUSION

A targeted family planning program encouraging eligible couples to use LARC methods is essential for managing fertility levels, particularly in urban communities. This study provides a comprehensive analysis of various factors, including socio-demographics, reproductive history, perceptions of LARC benefits and drawbacks, misconceptions, and physical

side effects, and their impact on LARC use among urban mothers. It found that educated and economically active women are more informed about and likely to use LARC. Institutional delivery also influenced LARC usage, with a significant association found between LARC perception and practice.

RECOMMENDATIONS

This study suggests that improving awareness of the benefits, drawbacks, and access to long-acting contraceptives is essential for mothers in urban communities. To boost LARC usage, targeted efforts should be focused on this group.

Author's contribution:

Conceptualization, methods, and literature reviews: Farha T, and Uddin MJ; Data collection: Farha T; Statistical analysis: Farha T, and Nurunnabi M; Preparation of draft manuscript: Farha T, and Nurunnabi M; Finalization of manuscript: Farha T, Uddin MJ and Nurunnabi M. All the authors approved the final manuscript.

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CONFLICT OF INTEREST

There is no conflict of interest.

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