

A Cross-sectional Study on the Knowledge, Attitudes and Practices on the Contraceptive and Non-contraceptive Use of Hormonal Contraceptives among Filipino Women in a Tertiary Hospital

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Background: In the Philippines, the extent to which hormonal contraceptives (HC) are used for reasons other than birth control is unknown. This study aims to examine how Filipino women use HC for contraceptive and non-contraceptive indications.

Methods: This is Project 1 of a descriptive cross-sectional study involving a hospital-based (Project 1) and community-based (Project 2) survey. The questionnaire is adapted from the Georgia Reproductive Health Survey (RHS) 2005 and The Fog Zone 2009 from Guttmacher Institute. A face-to-face questionnaire collected demographic information and issues related to knowledge, attitude and experience in HC use among 15-45-year old Filipino women (n=244) seen at the Gynecologic Outpatient Department of the Philippine General Hospital.

Results: Filipino women showed positive attitudes towards efficacy and safety of HC, which positively correlated with patterns of use. Majority possessed little knowledge regarding OCPs (82%), injectables (56%), and IUDs (39%). The major reasons for HC use were contraception (46%) and menstrual regulation (26%). Pills (77%) were most commonly utilized. A doctor's recommendation (67%) primarily influenced choice of HC. Four out of 10 reported some difficulty in HC use.

Conclusion: Although with limited knowledge, Filipino women have positive attitude towards, and have utilized HC both for gynecologic and contraceptive purposes.

Keywords: attitude, hormonal contraceptives, knowledge, practices

Introduction

Hormonal contraceptive (HC), a collective term that refers to various preparations that contain the hormones estrogen and/or progesterone, are known to many to prevent pregnancy.^{1,2} Hormones influence benign gynecologic diseases, thus an effect of HC is expected. Although few studies have been made, HC are being administered in amenorrhea induction, menstrual cycle regulation, prevention of menstrual migraines, treatment of acne, hirsutism, menorrhagia, myoma, dysmenorrhea, endometriosis, and premenstrual syndrome.^{3,4} Studies probing the knowledge, attitude and patterns of hormonal contraceptive (HC) use for gynecologic

and contraceptive indications among Filipino women are lacking.

According to the 2006-2008 National Survey of Family Growth (NSFG), 14% of women in the United States take OCP for noncontraceptive purposes like menstrual pains (31%), menstrual regulation (28%), acne (14%), endometriosis (4%), and unspecified (11%). Thirty-three percent of those surveyed report these as their sole reason for taking the pill, while 67% also take it for pregnancy prevention.⁴⁰ In the Philippines, this aspect of hormonal contraceptive use is unexplored. The available hormonal contraceptives in the country include the oral contraceptive pills, injectables (including depot medroxyprogesterone acetate and gonadotropin releasing hormone

agonists), levonorgestrel-releasing intrauterine device (IUD), and the etonogestrel subdermal implant.

Oral Contraceptive Pills

Oral contraceptive pills (OCP) were first approved in 1957 for menstrual disorders and infertility, not for contraception. It was not until 1960 that it was approved as a contraceptive.⁶

Pituitary gonadotropin inhibition is the most important action of OCP.⁷ Combined oral contraceptives (COC) contain both estrogen and progesterone and suppress ovulation by diminishing gonadotropin-releasing hormone (GnRH) pulses and eliminating luteinizing hormone (LH) surge at midcycle.⁸ COC contain progestin and estrogen. Progestin accounts for contraceptive effects while estrogen stabilizes endometrium which is important in decreasing menstrual bleeding. The difference in use and composition of the various oral contraceptive pills provides several options that allow individualization of treatment to meet the specific needs of women.

Benefits and Non-contraceptive Use of Oral Contraceptive Pills

Symptoms related to menstruation like bloating, dysmenorrhea, headaches and mood fluctuations are associated with absenteeism.⁹ There is paucity of data on the effectiveness of OCP in heavy menstrual bleeding.¹⁰ With regular use of OCP, there is improvement in cycle control and decrease in overall bleeding.¹¹ Continuous use of COC without pill-free period results in amenorrhea.^{12,13}

Approximately 60–90% of adolescents experience dysmenorrhea.¹⁴ COC are more effective than placebo in decreasing dysmenorrhea.¹⁵ OCP reduce menstrual-related pain through prostaglandin reduction, leading to less endometrial vasoconstriction and ischemia.^{16,17}

Breast conditions in RAW include fibrocystic changes, fibroadenoma, galactorrhea, intraductal papilloma, and lobular hyperplasia. With OCP, there is 30–50% decrease in fibrocystic conditions, fibroadenomas and galactorrhea, because ovulation suppression results in suppressed breast cell proliferation.^{18,19}

Twenty-five percent of RAW have acne. Newer progestins have higher progesterone receptor affinity and lesser affinity for androgen receptors, resulting in reduced acne. OCP increase sex hormone-binding globulin (SHBG) levels, which decrease available free testosterone and ovarian androgens.²⁰⁻²²

Bone mineral density peaks at age 20–25 years, stays constant for 10 years, then progressively decreases later.²³ Estrogens modify bone metabolism by increasing calcium absorption, decreasing calcium loss, and inhibiting osteoclasts. OCP prevent bone loss and have extended protective effect with longer use.²⁴ There is 25% hip fracture risk reduction.²⁵

OCP use reduces risk of salpingitis by 50–80% through progestin-induced thickening of cervical mucus hindering bacterial ascent, and reduced menstrual flow resulting in less retrograde flow. No effect is seen against *Chlamydia trachomatis* and *Neisseria gonorrhoeae* infection.²⁶

Continuous OCP use is associated with decreased risk of benign ovarian tumors, with greatest risk reduction in endometriosis.²⁷ There is also 40-80% ovarian cancer risk reduction.²⁸ The protection commences one year after use and conveys 10–12% decrease in risk for each year, which persists for 15–20 years after discontinuation. This applies to epithelial tumors. Ovulation suppression leads to reduced injury to ovarian capsule and gonadotropin suppression. Induction of ovarian apoptosis eliminates surface epithelium inclusion cysts.²⁹

OCP use conveys protection against endometrial cancer by reducing mitotic activity of endometrial cells. There is 50% risk reduction on the first year, which increases with duration of use, persisting up to 20 years after discontinuation, and encompasses adenocarcinoma, adenosquamous masses, and adenoacanthomas.³⁰⁻³²

OCP use conveys 40% protection from colorectal cancer through reduction in bile acid production, alteration of colonic flora and mucosa, and tumor-suppression.³³⁻³⁶

Gonadotropin Releasing Hormone (GnRH) Agonists

GnRH stimulates gonadotropin release in anterior pituitary which produces initial stimulation of pituitary gonadotrophs resulting in secretion of follicle-stimulating hormone and LH.

downregulation then inhibition of pituitary-gonadal axis follows. GnRH agonists benefit endometriosis, leiomyomas, hirsutism, dysfunctional uterine bleeding, premenstrual syndrome, and assisted reproduction.³⁷

Depomedroxyprogesterone Acetate

Progestins inhibit endometriotic tissues through initial decidualization followed by atrophy from inhibiting pituitary gonadotropin and ovarian estrogen. This results in amenorrhea and makes depo-medroxyprogesterone acetate (DMPA) appropriate in menorrhagia, dysmenorrhea, iron-deficiency anemia. DMPA is effective in menopausal vasomotor symptoms in women not eligible for estrogen therapy.³⁸

Levonorgestrel Intrauterine System

A localized progestin preparation, the levonorgestrel intrauterine system (LNG-IUS) is a T-shaped device containing 52 mg of levonorgestrel. It causes endometrial stromal pseudodecidualization, glandular atrophy, leukocytic infiltration and decrease in mitotic activity. It inhibits ovulation and thickens cervical mucus. It is used in menorrhagia, endometriosis, leiomyomas and endometrial hyperplasia.³⁹

Etonogestrel Implant

Lastly, the etonogestrel-releasing subdermal implant is a single-rod identified as the most effective, long-acting reversible method of contraception, with 0.05% failure rate. It improves acne and decreases dysmenorrhea. It reduces ectopic pregnancy risk by effectively preventing all pregnancies.⁴⁰

In the Philippines, OCP use is the leading contraceptive method, with 19.8% of married women reporting use. The number increased from 16.6% in 2006 to 19.8% in 2011. The correlation among modern family planning use, level of education, and poverty status has been shown but the aspect of non-contraceptive use of OCP remains unexplored.⁴¹

This study aims to determine the utilization of HC among Filipino women both for contraceptive and non-contraceptive purposes. Understanding the clinical implications of HC not only for purposes

of contraception but also in benign gynecologic diseases holds major public health relevance since these diseases are prevalent and affect the quality of life of reproductive-age women (RAW). The results of this study will provide information that can be used in developing educational health programs and reproductive health policies.

Methods

This study is the first of a two-part descriptive cross-sectional study involving hospital-based (Project 1) survey. Project 2 will be community-based. This study was passed for iterative review.

The questionnaire is an adaptation of two instruments - the Georgia Reproductive Health Survey (RHS) 2005 and The Fog Zone (A Survey of Young Adults 2009).^{42,43} The questionnaire was translated to Filipino, and back-translated into English. The questionnaire was designed to collect information on demographic characteristics, family planning and reproduction preferences, reasons, acceptability and manner of HC use, use of reproductive health care services, and fertility intent.

Project 1 involved pretesting of the questionnaire and data collection and sampling among women seen at the out-patient clinic. The adapted questionnaires were already previously validated, tested and used in large scale studies. To test Face Validity and adaptability, a pretest involving 10 patients was performed to determine question clarity and understandability. Three topic experts, practicing for more than 10 years, were consulted for content validity. A test-retest reliability was done among 10 patients and re-administered after 7 days. Finally, pilot testing was done involving 244 women aged 15–45 years old who sought consult from March to June 2018. Simple random sampling was used. Women with malignant gynecologic cases were not included. A minimum of 244 subjects is based on a level of significance of 5%, a prevalence of 19.8%¹ with a desired width of confidence interval of 10%. Full informed consent was obtained from eligible participants. No participant withdrew from study. Girls aged 15-17 years old were given full informed assent, along with parents or legal guardians. All interviews were face-to-face and on a one-is-to-one ratio. Anonymity, confidentiality and privacy were

observed. The author funded the expenses of the study and declares no conflict of interest.

The primary outcome was assessment of knowledge, practice and attitude of Filipino women on HC for contraceptive and non-contraceptive use. Secondary outcomes were social and demographic characteristics of Filipino women using HC, desire for future fertility, and utilization of reproductive healthcare services.

Descriptive statistics was used to summarize general and clinical characteristics of participants. Frequency and proportion were used for nominal variables, median and range for ordinal variables, and mean and standard deviation for interval/ratio variables.

For content validity, Item-level content validity index (I-CVI) was used to determine accepted item using proportion of experts who agreed either quite or highly relevant. Kappa statistic/Intraclass correlation coefficient was computed for reliability test-tetest analysis

All valid data were included in the analysis. Missing variables were neither replaced nor estimated. Null hypothesis was rejected at 0.05 α -level of significance. STATA 15.0 was used for data analysis.

Results

The results of 244 Filipino women (Table 1) were analyzed. These were 15-52 (median 33) years of age, majority possessed highschool (40%) or college (33%) attainment. Three-fourths were urban dwellers, with 44% engaged in work outside home. There were 11% and 56% who reported no sexual partner or one sexual partner, respectively. More than 1 in 5 (22%) reported having two sexual partners. Among a subset of 208 respondents, most male partners worked locally (84%), whereas the rest were unemployed (8%) or worked abroad (8%). The monthly income for 72% was below PHP15,000.

About 95% believed that sex education should be taught in schools and commence at 14 years of age. For the majority, parents have talked to them about menstrual cycle (69%), pregnancy (63%), and premarital sex (67%). In contrast, more women did not have conversations with a parent regarding

Table 1. Demographic characteristics of Filipino women using hormonal contraceptives. (N = 245)

	Median (Range); Frequency (%)
Age (years)	33 (15–52)
Major residence during lifetime	
City	180 (73.47)
Bayan (Town)	65 (26.53)
Others	4 (1.63)
Highest educational attainment	
Elementary	8 (3.27)
Highschool	99 (40.41)
Vocational	19 (7.76)
College	80 (32.65)
Postgraduate course	13 (5.31)
Did not finish high school	7 (2.86)
Did not finish vocational course	2 (0.82)
Did not finish college	17 (6.94)
Working outside home \geq 20hrs/wk	
No	132 (53.88)
Yes	107 (43.67)
Yes but in maternity leave	6 (2.45)
Vice	
None	163 (66.53)
Smoking	44 (17.96)
Alcohol	28 (11.43)
Preferred not to answer	10 (4.08)
Total sexual partners during lifetime	
0	27 (11.02)
1	138 (56.33)
2	53 (21.63)
3	23 (9.39)
4	3 (1.22)
5	1 (0.41)
Educational attainment of partner (n=209)	
Elementary	7 (3.35)
Highschool	98 (46.89)
Vocational	18 (8.61)
College	59 (28.23)
Postgraduate course	12 (5.74)
Did not finish high school	6 (2.87)
Did not finish vocational course	1 (0.48)
Did not finish college	8 (3.83)
Work of current husband/partner (n=208)	
Yes, Philippines	174 (83.65)
Yes, abroad	17 (8.17)
None	17 (8.17)
Monthly income (PHP)	
<15 000	177 (72.24)
15 000–30 000	54 (22.04)
30 000–45 000	9 (3.67)
45 000–60 000	3 (1.22)
>60 000	2 (0.82)

contraceptives (56%), HIV/AIDS (57%), and STIs (58%). School taught regarding menstrual cycle (75%), pregnancy (73%), and premarital sex (70%). However, topics on contraceptives (51%), HIV/AIDS (49%), and STIs (49%) were less frequently discussed.

Women who have ever been pregnant comprised 78% of the respondents. Majority (83%) wanted to get pregnant then. About 87% reported using HC when they got pregnant; most (67%) were taking OCP. The OB-GYN was the major provider of prenatal care (66%). Six (3%) women had induced abortion. Only 43% received a contraceptive after pregnancy.

All women reported HC use. The major reasons were prevention of pregnancy (46%) and regulation of menses (26%) (Figure 1). Pills (77%) were the most common HC utilized, followed by injectables (25%) (Figure 2). A doctor's recommendation (67%) was the primary reason for HC choice. Four out of 10 reported some difficulty in their current HC use. The median cost of HC was PhP350 per month. A little over half paid out of their own pockets while 21% obtained these from either a health center or a government hospital (Figure 3). Among those with sexual partners (n=201), 94% of partners agreed with women's use of HC.

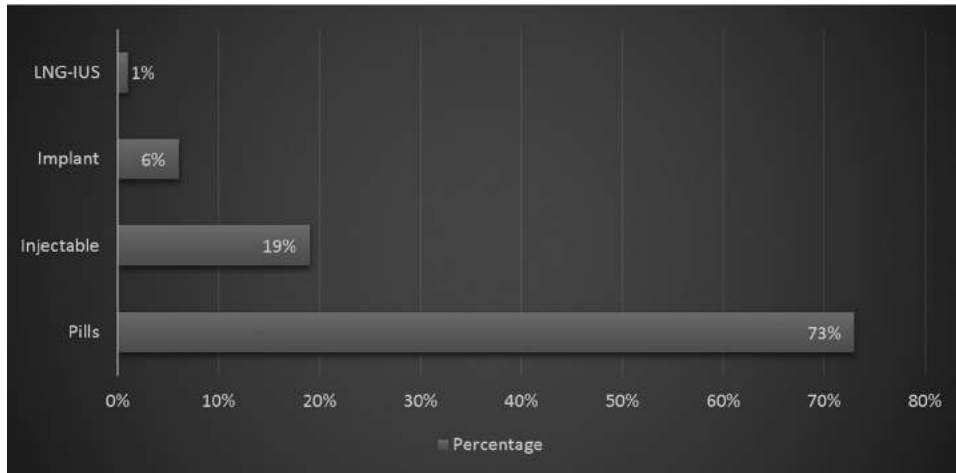


Figure 1. Hormonal contraceptives used by Filipino women. Oral contraceptive pills are the most commonly used hormonal contraceptive, followed by injectables which include DMPA and GnRH agonists.

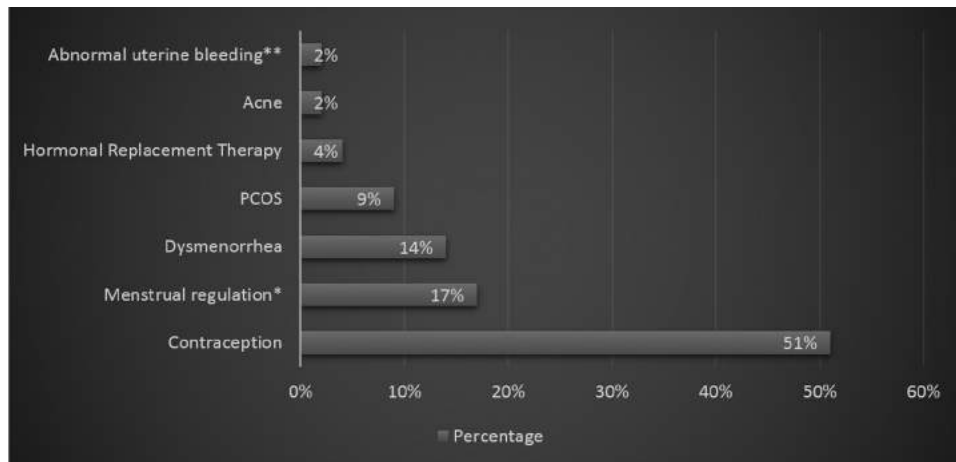


Figure 2. Reasons for hormonal contraceptive use by Filipino women. Majority of respondents use hormonal contraceptives mainly to prevent pregnancy;

*Menstrual regulation refers to those that use hormones for cases with amenorrhea;

**Abnormal uterine bleeding refers to those that use hormones for profuse vaginal bleeding.

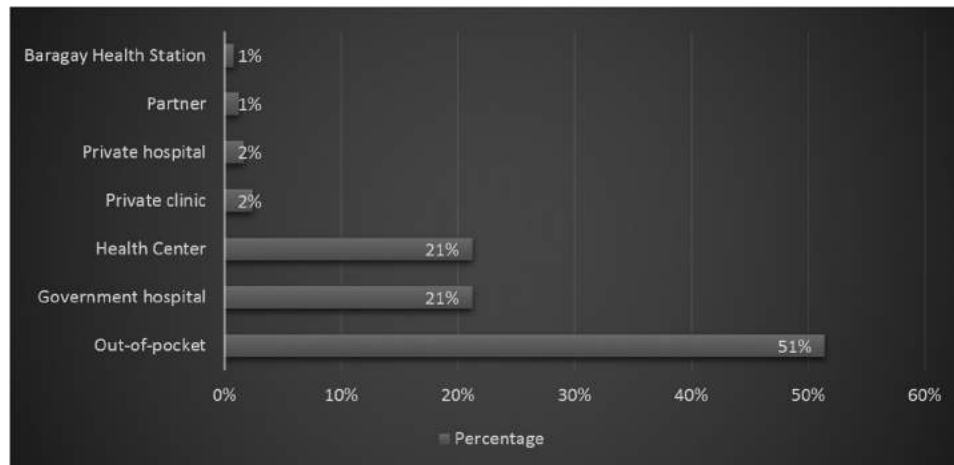


Figure 2. Source/ Provider of hormonal contraceptives. Majority of the respondents (51%) had to pay for their own supply of hormonal contraceptives. The government sector provided 43% of the hormonal contraceptive needs of the women.

Majority felt they possessed little knowledge regarding OCP (82%) and injectables (56%). There were 39% each who knew nothing or only a little about IUDs. Couples who still desired future pregnancies (45%) were more prevalent than those who don't. (37%).

Majority were aware of the composition (76%) and frequency of dosing (86%) of OCP. The levels of awareness regarding effects of OCP on various ailments ranged from 12% to 68%. Respondents were more adept with knowledge pertaining to injectables than to IUDs. Only 25% knew about the fertile period.

Majority of women opined that the Filipino family should have 1-2 offsprings (57%). In a hypothetical scenario of an unwanted pregnancy, 93% thought that a woman should keep the pregnancy. About 82% supposed that both partners should decide on the number of offsprings. The doctor was named as best source of information about HC by 62%. About 64% received professional healthcare during the past year, and 92% have ever received a doctor's advice regarding HCs.

Discussion

In 2013, 55% of married Filipino RAW were using a contraceptive method.⁴⁴ An upward trend in

HC use is seen, from 49% in 2003 to 51% in 2008, but plateaued (54%) in 2017.^{45,46} OCP remain the most popular method employed for birth spacing alone.⁴⁷

HC use is not dependent on sexual activity. Among the respondents, 11% never had sex, while 89% were sexually-experienced. Sixteen percent reported not having a sexual partner at the time of the survey but were using HC for menstrual regulation (44%), treatment for dysmenorrhea (33%), PCOS (11%), acne (4%), and as HRT (8%). Majority (96%) preferred the pill. In NSFG, 9% have never had sexual debut but were using HC for menstrual pain (57%), menstrual regulation (43%) and treatment of acne (26%).^{5,46}

Adolescents use HC for non-contraceptive purposes, too. Three respondents (1%) were adolescents and reported OCP use for menstrual cycle regulation, HRT and contraception. In NSFG, 82% of teenagers used OCP for non-contraceptive purposes, while 67% reported use for contraception.^{5,46}

Age influences the choice of HC. In this study, pill users constitute women at 15-46 years old (median=30 years). Women receiving injectables were aged 16-52 years old (median=36 years). Women using long-acting reversible contraceptives (LARC) such as etonogestrel implant and LNG-IUS were aged 24-45 years old (median=31 years and 44 years, respectively). This shows that older women

Table 2. Hormonal contraceptives knowledge, attitude and utilization pattern.

	Frequency (%)		Frequency (%)
Knowledge on oral contraceptive pills	(n=244)	Attitudes toward HC use	Acceptable use
Knows a lot	22 (8.98)	Contraceptive use of HC	197 (80.41)
Knows everything	7 (2.86)	HC use among couples	215 (87.76)
Knowledge on intrauterine device	(n=244)	Availability and cost of HC	105 (42.86)
Knows a lot	11 (4.51)	Ease of use of HC	78 (31.84)
Knows everything	1 (0.41)	Positive perception of women using HC	161 (65.71)
Knowledge on injectables (DMPA, GnRH agonists)	(n=244)	Acceptability of HC use in the community	148 (60.41)
Knows a lot	9 (3.69)	Primary reason for choosing this HC	
Knows everything	3 (1.23)	Doctor's recommendation ⁱ	164 (66.94)
Desire for future fertility	108 (45.38)	Cost	19 (7.76)
Sought consult for Fertility issues	(n=241)	Effect	19 (7.76)
Yes	59 (24.08)	Side effects	9 (3.67)
No	182 (74.29)	Media advertisements	1 (0.41)
	Correct Responses	Ease of use	11 (4.49)
	Frequency (%)	Choice of partner	4 (1.63)
		Use by peers	12 (4.90)
		Curiosity	4 (1.63)
		Allows spontaneity during intercourse	2 (0.82)
		Concerns during HC use	
		With concerns	98 (40)
		With side effects	57 (23.27)
		Health concerns	28 (11.43)
		Availability	6 (2.45)
		Cost	16 (6.53)
		Compliance issues	11 (4.49)
		Issues with partner	2 (0.82)
		Without concerns	147 (60)
		Average monthly cost of HC use	350 (0–7500) pesos
		Partner's approval with HC use	192 (78.37)
		Probability of future HC use	176 (71.84)
Statements regarding the use of OCP			
Content of OCP	185 (75.51)		
Dosing of OCP	210 (85.71)		
Missing doses of OCP	123 (50.20)		
Frequency of use of OCP	88 (35.92)		
Side effects of OCP	167 (68.16)		
Consultations with a physician while using OCP	160 (65.31)		
Statements on IUD use			
IUD use in women without children	83 (34.02)		
IUD placement	58 (23.77)		
Effect of IUD in sexual intercourse	56 (22.95)		
Displaced IUDs	70 (28.69)		
Statements on DMPA use			
Dosing of DMPA	147 (60.25)		
Missing doses of DMPA	133 (54.51)		
Side effects of DMPA	67 (27.46)		
Subdermal Implant and IUD removal	157 (64.34)		
Knowledge on fertility period*	61 (24.90)		

preferred LARC, while younger women were more inclined to OCP (OR = 0.945, $p < 0.03$).

Contraception remains the principal reason for HC use. Among those aged 18-29 years, the principal reason for HC use were menstrual regulation (23%), dysmenorrhea (19%), PCOS (11%), acne (4%), AUB (0.5%), and HRT (0.5%). Majority (42%) were using HC for birth control. Women aged 30-39 years old use HC for menstrual regulation and dysmenorrhea (11%), HRT and PCOS (5%), and AUB and acne (3%). Majority (62%) primarily used HC for prevention of pregnancy. Lastly, women aged 40 years and older use HC for dysmenorrhea (8%), menstrual regulation (8%), PCOS (8%), HRT (3%) and AUB (2%). Majority (32%) were using it for contraception. These findings parallel the results

Table 3. Characteristics of respondents in relation with hormonal contraceptive acceptability and utilization.

	Pills (n = 180)	Non – pills (n = 65)	Crude Odds Ratio (95% CI)	p – value
Age	30 (15 – 45)	36 (16 – 52)	0.945 (0.91 – 0.98)	0.003
Educational background				
Elementary	4 (2.22)	4 (6.15)	(reference)	-
HS	75 (41.67)	24 (36.92)	3.125 (0.73 – 13.46)	0.126
Vocational	15 (8.33)	4 (6.15)	3.75 (0.64 – 22.04)	0.144
College	63 (35)	17 (26.15)	3.706 (0.84 – 16.37)	0.084
Postgraduate course	8 (4.44)	5 (7.69)	1.6 (0.27 – 9.49)	0.605
Did not finish HS	5 (2.78)	2 (3.08)	2.5 (0.29 – 21.40)	0.403
Did not finish vocational	2 (1.11)	0	Omitted	-
Did not finish college	8 (4.44)	9 (13.85)	0.889 (0.17 – 4.78)	0.891
Income	[n = 178]			
<15 000	134 (75.28)	43 (66.15)	(reference)	-
15 000 – 30 000	38 (21.35)	16 (24.62)	0.762 (0.39 – 1.50)	0.432
30 001 – 45 000	3 (1.69)	6 (9.23)	0.160 (0.04 – 0.67)	0.012
45 001 – 60 000	3 (1.69)	0	Omitted	-
Religion				
Catholic	165 (91.67)	58 (89.23)	(reference)	-
Islam	1 (0.56)	0	Omitted	-
Christian	12 (6.67)	5 (7.69)	0.844 (0.28 – 2.50)	0.759
Others	2 (1.11)	2 (3.08)	0.352 (0.05 – 2.55)	0.301
Desire of future fertility	[n = 173]			
Desirous	79 (45.66)	29 (44.62)	(reference)	-
Not desirous	64 (36.99)	25 (38.46)	0.940 (0.50 – 1.76)	0.846
Respondent wants, but partner does not	6 (3.47)	1 (1.54)	2.203 (0.25 – 19.09)	0.474
Respondent is not desirous, but partner is	5 (2.89)	1 (1.54)	1.835 (0.21 – 16.38)	0.587
Unsure	19 (10.98)	9 (13.85)	0.775 (0.32 – 1.91)	0.579
Desire of future fertility	[n = 173]			
Desirous	85 (49.13)	30 (46.15)	1.068 (0.58 – 1.97)	0.834
Not desirous	69 (39.88)	26 (40)	(reference)	-
Unsure	19 (10.98)	9 (13.85)	0.795 (0.32 – 1.98)	0.623
Source of HC				
Barangay health station	2 (1.11)	0	(reference)	-
Health center	31 (17.22)	21 (32.31)	0.403 (0.20 – 0.81)	0.011
Private clinic	4 (2.22)	2 (3.08)	0.545 (0.09 – 3.14)	0.497
Public hospital	40 (22.22)	12 (18.46)	0.909 (0.42 – 1.97)	0.809
Private hospital	2 (1.11)	2 (3.08)	0.273 (0.04 – 2.03)	0.204
Partner	2 (1.11)	1 (1.54)	0.545 (0.05 – 6.24)	0.626
Out of pocket	99 (55)	27 (41.54)	Omitted	-
Knowledge of fertile period	4 (0 – 6)	4 (0 – 6)	1.203 (0.99 – 1.45)	0.057
Partner's Opinion on Use of Hormonal Contraceptive	Accepted (n = 156)	Not accepted (n = 48)	Crude Odds Ratio (95% CI)	p – value
Approved	147 (94.23)	45 (93.75)	(reference)	-
Disapproved	2 (1.28)	1 (2.08)	0.612 (0.05 – 6.91)	0.692
No opinion	5 (3.21)	2 (4.17)	0.765 (0.14 – 4.08)	0.754
Unsure	2 (1.28)	0	Omitted	-
Knowledge of hormonal contraceptive	13 (1 – 25)	12 (1 – 19)	1.112 (1.03 – 1.20)	0.006

of NHDS 2017 where contraceptive prevalence rate peaks at age 30-34 years but declines among women age 45-49 years.⁴⁵ On the other hand, NSFG showed that women aged 20 years and older were using the pill for birth control 90% of the time, while 54% reported using them for non-contraceptive benefits, and that 49% use the pill for more than one reason.⁴⁶ There were no significant differences in HC utilization according to demographic variables such as education, income, and religion (Table 3).

The knowledge of and positive attitude toward a hormonal contraceptive were positively correlated with its use (OR = 1.112, $p < 0.006$). Majority were aware of composition and dosing of OCP and have positive attitude, with 60% reporting no major issues, and 72% considering future HC use. Eighty percent and 88% believe that HC are not only for contraception and for married women, respectively. They also negated the statement that women who use HC are bad (66%), and that it is embarrassing to discuss HC (60%).

Knowledge of the fertile period was seen in only 25% of respondents. Women who were knowledgeable prefer use of short-acting reversible contraception (pills (67%), injectables (20%)) than LARC (implant (10%), IUD (2%)). This indicates understanding and knowledge of the ovulation cycle. This is in contrast with NDHS 2017 where women with correct knowledge of the fertility cycle are inclined to use rhythm methods.⁴⁵

Partner support increased HC acceptance. Women who have partners at the time of the survey constituted 83% of the respondents. Among these women, 94% have partners who are knowledgeable of and agree with their HC use, 4% were neutral, 1% were unsure, and 1% disagreed. Among the women with partners who agreed with their HC use, 77% acknowledged the non-contraceptive benefits of the HC. The findings of Laguna et. al were similar. Women with greater spousal communication had greater use of HC.⁴⁷

Women who want another child showed high acceptability of HC use. Those who sought consult for infertility showed greater acceptability and a more positive attitude towards HC use (OR = 0.490, $p < 0.019$). Forty-five percent were desirous of future fertility. Among these, 80% affirmed HC use for non-contraceptive benefits. These contrasted

with Hubacher, et al. who showed that women who wanted a future pregnancy prefer rhythm methods.⁴⁸

The source of HC reflects acceptability in the community. Two percent discontinued HC use because of unavailability. Table 3 shows that majority of HC are obtained by the user at their own expense. These contrast the results of NDHS 2017 which showed that the government sector is the biggest provider of HC, providing 56% of HC. Barangay health stations cater to 25% of users, government hospitals provide 17% while urban health centers serve 12%. The private medical sector meets 38% of contraceptive needs. Twelve percent were obtained at the expense of the user, while 7% were from unspecified sources.⁴⁵

Conclusion

Despite the knowledge gap, Filipino women have positive attitude towards, and robust utilization of HC not only for the purpose of contraception but also for gynecologic purposes. The study is limited by the number of respondents and the bias that may be present since the respondents are seen at the outpatient clinic of a tertiary hospital. The next study should include the general population. This survey may be used as evaluation tool in a pre-test–post-test study, after an intervention such as a teaching module is given, to objectively measure outcome. The factors and reasons for cessation of HC use may be explored in future studies.

Implication on Clinical Practice and Public Health

Knowledge of the reproductive cycle is fundamental. Sex Education should expand to include Reproductive Health. Parents, teachers, primary healthcare providers and partners should also be educated regarding HC. This will maximize utilization and benefits of HC. A positive experience will increase positive attitude towards both contraceptive and non-contraceptive use.

The results of this study showed that 51% percent paid for their own medications. It is recommended that HC should be made free and readily available through local health units. Moreover, the

Reproductive Health Law should expand to provide HC use for gynecologic indications.

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