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Knowledge, Attitude and Practice of Palestinian Women towards Contraceptives

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Knowledge, Attitude and Practice of Palestinian Women towards Contraceptives

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Dedication

This thesis is dedicated to the memory of my mother, who believed in me and to my father for his ongoing love and support.

Special and loving thanks go to all my sisters, my brothers, Amal, my friends and to all whom I love for supporting me spiritually throughout my research.

Declaration

I certify that the thesis submitted for the degree of master in pharmaceutical sciences is the result of my own research, except where otherwise acknowledged, and that this thesis (or any part of it) has not been submitted for a higher degree to any other university or institution.

Signed: ……

Naeema Mazen Rajabi

Date: 4/5/2019

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List of Abbreviations

BMI	Body Mass Index
CKA	Contraceptive Knowledge
COCP	Combined Oral Contraceptives
DHS	Demographic and Health Surveys
EE	Ethynil Estradiol
FP	Family Planning
GI	Gastrointestinal
IBS	Irritable Bowel Syndrome
ICPD	International Conference on Population and Development
IUD	Intrauterine Devices
LAM	Lactational Amenorrhea Method
LARC	Long-acting Reversible Contraceptive
MDG	Millennium Development Goals
NIS	New Israeli Shekel
OC's	Oral Contraceptives
PAPFAM	The Pan Arab Project for Family Health
PCBS	Palestinian Central Bureau of Statistic
REC	Research Ethical Committee
SRHR	Sexual and Reproductive Health Rights
SD	Standard Deviation
WHO	World Health Organization

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Abstract

Background: Contraceptives are currently world widely used, as declared by the World Health Organization, they are provided as one of women rights to ease in family planning decisions. Although, contraceptives have a documented efficiency, it highly depends upon women knowledge and adherence towards the available methods that must be addressed for better outcomes. In this study, we aimed to asses' knowledge and attitudes of married Palestinian women towards contraceptives, their knowledge and practice of the available methods and their side effects.

Methods: A cross sectional study of Palestinian married women of childbearing age between 18 and 50 years old was conducted from January 2017 to January 2018. A quota non-probability sample of 900 women was selected based on each governorate population. Data collection was conducted using an interview-assisted questionnaire, that assesses demographical information, current number of children, unplanned pregnancies, family planning methods, the use of instructions and their expected side effects among others.

Results: 900 women were surveyed, with 92.5% participation rate and 4.3% exclusion. Results showed that only 42.7% of women did not report the use of current means of contraception reflecting the extent of unmet need. Through their marriage life, 37.6% reported having at least one unplanned pregnancy. Within different available methods, intrauterine device IUD was the mostly used with 40.5%. While, oral contraceptives (OCPs) were the second method with 21% usage rate, with the Progestin only pills presented as the most common type of OCPs (28%). Female sterilization was used as birth control method in 2.5% of married women. Investigation of reasoning behind contraception use showed that the organization of pregnancies was the most common reason with (78.8%), (20.2%) for having a

high number of children, and (11.2%) for economical causes. Regarding attitudes and beliefs towards contraceptives uses, 6.4% of women believe that religion forbids their use, 14.5% considered them socially unacceptable. From a personal standpoint 5.7% of women consider contraception use as unacceptable, as well as, 8.5% of women partners'. The study containing 14 questions about correct use and possible side effects of contraceptives revealed weak knowledge scores (mean= 8.2 correct answers, SD= 2.9).

Conclusions: The majority of Palestinian women have used contraceptives in the past or are currently using them. Though, deficient knowledge of contraceptive use and side-effects is apparent. Attitudes of Palestinian women, as well as their partners, towards contraceptives reflect positive general acceptance of their use. However, continuous education of Palestinian women and their partners of the benefits of contraception, and clearing of common misconception is crucially needed, for it is discouraging the use of family planning.

Chapter one

Introduction

1. Introduction:

1.1. Contraceptive era (Background)

Many studies were designed and carried out to examine and achieve sexual and reproductive health rights (SRHR). Mainly conducted by the world health organization (WHO) (Jin & Patti, 2009; WHO, 2000). The research attempted to accomplish what the Fourth World Conference on Women in Beijing had declared and what the International Conference on Population and Development (ICPD) has adopted; that is prioritizing reproductive health rights and attaining for all people all over (Corrêa, 1997; Organization, 2001; Temmerman, Khosla, & Say, 2014).

Reproductive health services are a global plan that has been developed, reanalyzed and reframed over the years by Millennium Development Goals (MDG) to reinforce completion and assuring universal access and success (Crossette, 2005).

One of these services is family planning (FP) programs; which offer many interactive tools, delivering the needed guidance and the appropriate engagement with the family planning philosophy. The services also allow for feedback and documentation of estimated goals accomplished by them (Mohllajee et al., 2005).

Contraceptives are represented by the FP programs to be fertility- regulating devices that help individuals and couple's fertility-choices as well as better reproductive health (Eschen & Whittaker, 2018).

Familiarizing a variety of contraceptive choices, being a strategic approach of the WHO since the early 20th century, has been a big step for family planning roles as well as improving quality of care. The first beginnings of presenting this perception to the provider and the recipient were health oriented programs allowing for better maternal and infant healthcare quality by introducing a spacer in control for that who want to increase the interval of births

or as a fertility terminator for who do not want to have any other children that is convenient and acceptable for both partners.

Promoting FP services by using modern methods of contraception had reported 64% use world-wide in 2015, a percentage indicating of unmet need of FP services especially in developing countries, projected as follows; Africa had 24.2% (the highest prevalence) compared to Asia and Latin America (10.2%, 10.7% respectively) (DESA, 2015). While the world contraceptive report indicates a higher use of modern methods (eg: pills, injections, transdermal, condoms, inserts, intrauterine, sterilization) among contraceptive users, an elevated traditional method use (withdrawal, rhythm) was reported mainly in Southern Europe and Middle Africa (Alkema, Kantorova, Menozzi, & Biddlecom, 2013).

Contraceptive technology escalation and historical count _up:

1.1.1. Hormonal methods

Oral hormonal contraceptives were developed and introduced to the market as a reversible fertility regulation tool that helps with reproduction issues (such as pregnancy prevention) and allows for family planning. Menstrual , ovulation , menopausal and hormonal issues were managed with the same tool later (Christin-Maitre, 2013; Schindler, 2013).

The main hormones that the female reproductive system synthesizes, secrets and regulates, are estrogen and progesterone. Estrogens are a group of hormones mainly produced by the ovaries and adipose tissues. These hormones are in charge of characterizing and developing the female reproductive system, menstrual cycle and ovulation (DeMAYO, Zhao, Takamoto, & Tsai, 2002; Reed & Carr, 2015; Simpson, Ackerman, Smith, & Mendelson, 1981). They

also interfere with metabolism and homeostasis, making them a crucial part of the female's hormonal system (Godsland et al., 1990). When blood levels are manipulated through the use of birth control such as estrogen containing pills, follicular development is inhibited and in turn ovulation is inhibited as well. Consequently, a negative feedback on the anterior pituitary is developed (Frye, 2006). Nevertheless, applied clinical research reported some side effects and precautions about the sole use of estrogen in birth control pills especially in high doses. Thus, it is found in high doses on the market as a supplement source pill (replacement therapy) for various conditions and diseases, accompanied by precautions and a safety profile (Nelson, Humphrey, Nygren, Teutsch, & Allan, 2002). As a result, combined low-dose estrogen/progesterone were introduced; maintaining the pill's hormonal effectiveness and reducing their side effects (Gellersen, Fernandes, & Brosens, 2008; Kim, Kurita, & Bulun, 2013; Sitruk-Ware & Nath, 2013). Progesterone is the other vital hormone of the female's hormonal system which helps maintain the lining of the uterus preparing it for a fertilized egg to be implanted. Progesterone containing pills, simply, work by deceiving the body into believing that it's pregnant (Gellersen et al., 2008). Progesterone was discovered in 1929 shortly after the discovery of estrogen (in 1923), from a urine source as well.

The historical impact of estrogen's and progestin's development was explained since their discovery due to the realization of their potential contraceptive effect in those narrative old articles (Goldzieher, 1993; Perone, 1993). As soon as the hormones were clinically available, they were tested for various gynecological problems. The first contraceptive pill was approved in the 1960s. However, after the public fear of cardiovascular and neoplastic adverse effects, a decline in their use was noted (Mishell, 1991). Persistent efforts to change the first oral contraceptives' (OC's) composition to reduce the previously recognized undesirable side effects, led to a resume in their use with the facilitation of international

programs that were intended for Asia, the Middle East and South Africa to reduce the high rates of fertility (Burkman, Schlesselman, & Zieman, 2004).

Natural/synthetic estradiol was used instead of mestranol with a dose of 50 mcg or less, for mestranol 50 mcg inactive oral form replaced by orally-active bioequivalent ethinylestradiol 35 mcg in most birth control pills and the progestin's structures were driven from either progesterone or spironolactone. Improving their safety profile encouraging further investigations for new molecules with different metabolite profiles and safety studies (Ågren et al., 2011).

The emergency pill (on demand) was the product of a single oral dose that protects women whom had unprotected intercourse. This back up plan helps in the reduction of unplanned pregnancy and other unwanted health issues especially for women that don't use regular forms of birth control (Glasier et al., 2010).

Types of hormonal birth control:

1. Combined oral contraceptives (COCP's) a combination of synthetic low-estrogen and progestin with varying doses and generations, branching to mono- bi- and tri-phasic products trying to replicate the hormonal map of a pregnant woman (Sitruk-Ware, 2005).
2. Mini pills; progestin only pills with different steroidal structure that ranges from mimicking androgens to progesterone/estrogen effects. (Truitt et al., 2003).
3. Other dosage forms listed in Table 1.1 which were developed for compliance purposes.

   A diversity of dosage forms that differ in content, usage and duration of use are currently available in the market:

Table 1.1.1. 1: Hormonal methods (Sitruk-Ware & Nath, 2013).

Type	Notes
Pills	Must be taken for 3 weeks cycle
Hormonal ring	Vaginally inserted for 3 weeks
Muscular injection (depo)	Not reversible for three months
Hormonal patch	Replaced every week
Hormonal insert	Long term choice up to 3 years
Hormonal injection	Lasts for 3 months
Hormonal IUD	Vaginally inserted up to 5 years
Mini pill	Taken for 4 weeks cycle

Recently modern non-oral hormonal methods in different delivery systems were introduced to FP programs attempting to enhance the willingness for the use contraceptives "compliance factor".

A natural contraception "amenorrheic lactation" is also considered as a method of contraception while the high level of the prolactin hormone prevents the process of ovulation.

Non-Hormonal methods

This approach targets the reproductive system without interfering with the hormonal tract and has lesser side effects and more specific at inducing reversible infertility designed for both males and females.

Table 1.1.1. 2: Non-Hormonal methods (Sitruk-Ware & Nath, 2013).

Type	Effectiveness	Notes
Male condom	85%- 98%	Infection reaction to the material
Female condom	79%- 95%	Rare availability + infection reaction
Spermicidal (nonoxynol-9)	72%-82%	Genital lesions for both partners Can be used with a barrier
Sponge	76%- 91%	Contains spermicidal +24h wearable
Diaphragm, Cervical Cap	88%-91%	Reusable
Copper IUD	>99%	Set and leave over a decade
Rhythm method	Varies	Depends on ones body's awareness (calendar/cervical mucus/body temperature)
Tubal ligation	99%	Permanent sterilization
Vasectomy	100%	Quick permanent sterilization
Withdrawal	78%-96%	Depends on the male partner

Some cultures follow folk methods such as, herbal. Studies, though, haven't acknowledged these methods as an effective birth control (Kaur, Sharma, Kumar, & Kharb, 2011).

Modern birth control pills were first introduced in the 1960's (Dhont, 2010), followed by intrauterine devices (IUD), injectables, and transdermal methods in the early 1980's. On the other hand, the birth control concept has put most of the responsibility on the female more than the male partner, until the introduction of the male condom. This gap resulted in a little perception of the methods and thus, affected the choices of the participation or acceptance.

While prescribing a birth control method is mostly restricted to gynecologists and not general practitioners, counseling components helps women with their choice and what range of methods availability and suitability accompanied with informative discussion to disclose the facts about the methods from falsifications. This quality of care serves the idea of FP and minimizes contraceptive failures.

1.2. Statement of the problem and study rational

Contraceptives play an important role in every couple's life in helping personal choices and decisions in their sexual-life, in a way of having rightful appropriate service. Though, substantial population growth with cultural/ personal obstacles, lack of knowledge, health concerns and limited supplies place a burden on professionals and laymen alike, creating misleading concepts and drifts. However, further studies and references must be a routine effort in every country to better understand the attitude and knowledge of the population towards contraception. Studies of such kind would shed light on misconceptions, the reason behind unmet needs of contraceptives, along with other factors that affect the community's reproductive health.

1.3. Significance of the study

This Palestinian study is an extension to the approach of the health system progression all over the globe to help and create a base-line reference (feedback) to ease the objectives of the WHO and to help the Palestinian ministry of health and health policy makers to establish an evidence-based policy in our area. This includes resolutions and upcoming actions.

1.4. Objectives of the study

1.4.1. Main objectives:

The main objective of this study is to assess the knowledge, attitudes, beliefs and practices of Palestinian married women in their reproductive age toward

contraceptives. This includes quantification, justification and explanation of the variable from professional points of view, and providing conclusions and recommendations to the Palestinian health professionals accordingly.

1.4.2. Specific objectives

- To asses' the knowledge and attitudes of Palestinian women towards contraceptives.
- To enclose a wide range of community beliefs and practices toward contraceptives
- To elaborate and provide professional explanation of the wrong theories about contraceptives in Palestine.
- To create sustainable attention about best practices in women health regarding contraceptives.
- To evaluate the most effective methods in regard to unplanned pregnancy.

Chapter two

Literature review

2. Literature review

Over the years, the subject of contraceptive's knowledge and attitude has had many rising questions, but never a reliable based-assessment tool to refer to. In 2017 (Haynes, Ryan, Saleh, Winkel, & Ades, 2017) a tool was created in which simple terminology was used to avoid confusion for the participants with literacy level considerations. Re-testing for reliability was done and validation by experts was established. The tool was considered valid for contraceptive knowledge assessment (CKA) and altering the awareness after the intervention. The results suggested the need for more focused attention on the knowledge-behavior linkage.

A previous measurement tool was created in 1991 (Bongaarts, 1991) to describe the intentions of women towards family planning with the actual practice, concluding older faulted measurements used to amount the factual unmet need for contraceptives.

In the Arab countries, the male partner is the one who determines the family size, (Donati, Hamam, & Medda, 2000). A study in Gaza strip with a cluster sample of 841 showed a gap between the preference and the actual achievement of family planning. For example, male opposition to the wife's decision of limiting the number of births, male dominance was represented here by wanting more than seven children, while some fear the unrealistic side effects due to low educational attainment resulting in the exclusion for hormonal methods.

Studies in Saudi Arabia (Al-Mansour, Sabra, & Hafez, 2012; Khraif, Salam, Al-Mutairi, Elsegaey, & Ajumah, 2017) revealed the importance of the sociodemographic factors. The study results showed that family size in poor areas is bigger than in areas with wealthier status. This is attributed to well established reliable educational programs that encourage the

use of contraceptives and that the consequences will return to a better health plan and a generation with a correct perception to live with.

Rios-Zertuche *et al* (Rios-Zertuche et al., 2017) had a view (zoomed-in correlation) of poor areas and their less effective programs impacting their rational quest of having a better respondents. Low use of contraceptive methods in Mesoamerican countries is originated from extreme poverty, low education and lack of insurance which is translated to unmet need for contraceptives. Urgent recommendations were suggested to be applied by their local government.

Religious and cultural influences are vital determinants that contribute to the attitudes towards contraceptive's use and which methods are preferred, (Hill, Siwatu, & Robinson, 2014). A theoretical model was created to help in the investigation of how various religions impose their beliefs and opinions, namely between the Catholic and Protestant believers. Believers in the Catholic faith were shown more likely to use methods that require long-term planning avoiding pregnancy despite what is expected from the church.

Another example of religion influencing contraceptive use and method of choice is the Islamic religion. This study by Egeh *et al*. (Egeh, Dugsieh, Erlandsson, & Osman, 2019) revealed the attitude of Muslims towards contraceptive use and birth spacing in Somalia. The restriction of family size is rejected and instead the term birth spacing is acceptable. Meaning that methods of the limiting number of births are prohibited in Islam like sterilization and vasectomy where other methods are permitted if used with spacing intentions. The other contraceptives are authorized if no harm is clear to the female, their use must be met with mutual agreement by both partners to prospect if jointly suitable and with the help of doctor's advice to guarantee compatibility and mother/child wellbeing.

A study in Iran (Ghodsi & Hojjatoleslami, 2012) observed a relationship between the level of education of both spouses and the awareness of contraceptives issue in terms of both discontinuation and switching. Their recommendation was creating and promoting governmental courses that help in education towards contraceptive use and knowledge for a better reproductive health and attaining the concept of family planning goal.

A comprehensive study in Oman (Al Kindi & Al Sumri, 2018; Lakew, Reda, Tamene, Benedict, & Deribe, 2013) reported that woman's age was a determinant for using a contraceptive method in a positive correlation. In other words, women who had been married for a longer time, and were thus older, were more satisfied with the number of children. This, in turn had led to a better use of limiting and spacing methods.

In 2012, a two-year project to enhance better choice of contraceptive methods was computerized (ACASI module) and tested. (Garbers et al., 2012). A randomized controlled trial recruited from poor foreign Latin American regions which were ranked with a high number of unintended pregnancies. It linked socioeconomic factors and literacy subsequently. The outcomes enforced the importance of client-centered intervention in selection improvement leading to lower rates of adherence failures, and registering also lower rates of abortions.

A Korean study (Cha, 2018) investigated the exact causes of fertility transition as notable decline was seen in data bases of South Korea over three decades. Income growth was shockingly the main leading cause even with the application of family programs. School education and control policy remained a secondary cause.

Economic security might be a motivational point for developed countries to receive family planning programs with adequate providers and a supply of contraceptive choices, as many households suffer from low income, resulting in a cutback in sustainable living-hood, as well

as the burden of unintended pregnancies or any other medical complications (Singh, Darroch, Ashford, & Vlassoff, 2009). Thus, providing a better family economic and social opportunity and allowing for a better governmental care, and in return achieving development goals.

Another contribution helps acknowledge the long-term associations (Guzzo & Hayford, 2018) with contraceptives. The study focused on the adolescent groups. A longitudinal survey was created to measure the long-term impact of reproductive and contraceptive education, using models of logistic regression to predict their adult behavior. Questions examined consistency, attitude, confidence, knowledge about sex and contraceptive methods. All these measures showed that the more educated one is, the more likely the used method of contraception is to be effective and informed about. Steering to adopt the method and preventing any sexually transmitted diseases or unintended pregnancies, their recommendations suggested continuing reproductive and sex educational programs at every stage of adulthood and not only one course through the schooling years.

Previous studies like (Stover & Ross, 2010) endorse a birth interval of three years to avert maternal and child mortality up to 25%-35%. While shortening the interval leads to a seven fold increase in abortion rates (DaVanzo, Hale, Razzaque, & Rahman, 2007; Fotso, Cleland, Mberu, Mutua, & Elungata, 2013).

Recent developments to incorporate the male partner in the unmet need equation by discovering other known male approaches. Has been reported by Chen *et al.* (Chen, Mruk, Wong, Silvestrini, & Cheng, 2019) Adjudin, which is a non-hormonal male contraceptive under development for oral administration, it induced germ cell exfoliation at very minimal dose and regained the rat's fertility after 40 days.

A novel method created recently for hormonal contraceptive delivery, (Mofidfar, O'Farrell, & Prausnitz, 2019) to increase adherence and acceptability, by incorporating transdermal patches into jewelry worn to skin.

Chapter 3

Methodology

3. Methodology

3.1. Study design

A cross-sectional study was conducted from January 2017 to January 2018, using an interview-assisted questionnaire. See appendix 1

Various literature was looked into to support the study's measurements, knowledge, attitude and practice with the subject's characteristics variables. (Sensoy et al., 2018),(Donati et al., 2000), (Hamani et al., 2007), (Haynes et al., 2017), (Bongaarts, 1991; contraceptive Misconceptions, 2019, Jan 24).

The first part of the questionnaire provided demographic and socioeconomic information for each participant. This included: Governorate, living settings (Urban/ Rural/ Camp), age, religion (Muslim/ Christian/ Jewish/ Refused), working status and profession, education, income, and number of children at time of filling this questionnaire.

The second part included health measures such as: weight, height, smoking habits and duration, physical activity, chronic diseases reported by the participants. A list of 20 prevalent diseases was compiled; these diseases were Coronary HD, Diabetes, Cancer, Osteoporosis, Rheumatoid Arthritis, Kidney Failure, Epilepsy, Hypertension, Acne, Autoimmune, Migraine, Liver Failure, Dyslipidemia, Asthma/ COPD, Heart Failure, Thyroid Conditions, Osteoarthritis, Anemia, Gout, and Chronic Pain. Four fields were also added to accommodate other reported diseases that were not in the aforementioned list.

The third part of the questionnaire assessed the participant's beliefs towards contraception. This comprised four Yes/ No questions: 1) Do you believe that your religion forbids contraception? 2) Do you believe that contraception is socially unacceptable? 3) Do you,

yourself, believe that contraception is acceptable? and 4) Do you think that your partner believes that contraception is acceptable?

The fourth part of the questionnaire aimed to report the most common methods of contraception practiced by the participants, both previously and currently, as well as their duration of use. In addition, participants were asked to mention 3 other methods of contraception other than those that they previously or are currently using. The participant was also asked if she had had any previous unplanned pregnancies. Also, the participant was asked to identify the reasons behind using contraception. The choices were: 1) Too many children, 2) Illness of partner, 3) Social issues, 4) Organization purposes (spacing between pregnancies), 5) Economic reasons, 6) Hereditary disease, 7) as well as other reasons which the participant mentioned.

For participants using oral contraceptive methods, such as combined oral contraceptives, a special section aimed to assess the participant's knowledge of this method of contraception. The participant was asked to: 1) Mention the trade name of the pill, 2) Attempt to identify the active ingredient, 3) Describe the package, 4) Describe the pill, 5) Answer the desired action to take when she misses one pill, two pills, or three pills, 6) Describe the preservation of the pill, 7) Identify on which day of her cycle she would take the first pill (1^{st}, 5^{th}, or any other day), 8) Answer whether it is okay to begin taking the pill on any day of the cycle, 9) Mention food-drug interaction, 10) Mention drug-drug interaction, and 11) Correctly identify the desired action to take in case of immediate diarrhea or vomiting after taking the pill. The answers to the questions were graded by the surveyor as correct or incorrect.

The fifth and final part of the survey aimed to assess whether the participant can correctly identify possible effects and side effects of contraceptives in general and not specifically to the type of contraception the participant used. The list of effects/ side effects was: 1)

Headache, 2) Mood swings, 3) Permanent sterility, 4) Breast cancer. 5) Uterine cancer, 6) Weight gain, 7) Birth defects, 8) Nausea, 9) Hair loss, 10) Temporary difficulty in becoming pregnant post use, 11) Prevention of sexually transmitted diseases, 12) Affecting the gender of the baby. 13) Decrease the number of abortions, and 14) Cause abortions. The answers to the questions were graded by the surveyor as correct or incorrect. The participant was also asked whether she had experienced any of the first 10 side effects. See Appendix 1.

3.2. Study setting

This study recruited a group of medical and pharmacy student researchers who conducted surveys from all governorates of the West-Bank and East Jerusalem in Palestine. These were Jenin, Bethlehem, Hebron, Tubas, Tulkarem, Nablus, Qalqiliya, Salfit, Ramallah&al-Bireh, Jericho and East-Jerusalem.

3.3. Study population

The study population was married Palestinian women of child bearing age in different geographical regions in all governates in the West Bank. The women were privately interviewed and questioned confidentially.

3.4. Sampling procedure and size calculation

Statistical data was collected from the Palestinian Central Bureau of Statistics website; population figures for every governorate in 2016 with the married female ratio of age (15-49) considerations were calculated by Raosoft software with a 5% margin of error at 95% confidence interval. A sample of 900 married women was selected and stratified by governorate in accordance to the total population of the governorate and sub- grouped to each living area within, giving more sample weight to more populous governorates.

3.5. Inclusion and exclusion criteria

Inclusion criteria:

- Married Palestinian women of child bearing age (18-50) years old that provided informed consent to participate in the study.

Exclusion criteria:

- Women that are not in the aforementioned age group.
- Unmarried, divorced, sterile.

3.6. Data collection

The survey contained demographic and contraceptive (knowledge, attitude, practice) related questions divided into five sections. The tool was designed and structured in light of Palestinian-pharmaceutical related conferences and literature review. The creation of the parameters was a joint effort by the medical and the pharmacy schools at Al-Quds University.

Five collectors under the name of Pharmacy Research Team succeeded in interviewing the subjects in a skilled and confidential manner.

3.7. Statistical analysis

Questionnaires were coded keeping the participant anonymous. Complete questionnaires were entered and analyzed by IBM SPSS version 20. Descriptive analyses were carried out for all variables, frequencies calculated for all demographic variables, t-test was used to determine the significance of differences between mean values of two continuous variables and One Way ANOVA was used to determine the significances of differences between mean values of more than two groups, Chi-squared test was performed to test for differences in proportions of categorical variables between two or more groups. Spearman's correlation coefficient was used to evaluate the strength of correlation between variables. $P < 0.05$ was considered as the cut-off value for statistical significance.

3.8. Ethical consideration

Approvals were obtained from all institutions and individuals of concern:

- Research Ethical committee (REC) at Al-Quds University.
- Consent form for some medical centers
- Patient consent form, (coded) no personal identifiers in the final report.

Chapter 4

Results

4. Results

900 women were selected by a quota non-probability quantitative sample from which 833 surveys were successfully completed. The participation, exclusion, and refusal were 92.5%, 4.3% and 3.1% respectively.

4.1. Demographic and socioeconomic parameters

Sample distribution by governorate was in accordance to the predefined strata and relative to the total population of each governorate (Table 4.1.1). The majority of the sample lived in rural areas (503), were Muslims (829), and had 7-12 years of education (412). Moreover, most of the participants were unemployed (664). However, most of them were housewives and most of those who had paying jobs were either teachers or had office jobs. The sample was distributed nearly evenly across income groups. The mean age of the participants was 32.7 years old (SD=8.2) with a median age of 32 indicating a normal distribution. The mean number of children was 3.54 (SD=2.0).

Table 4.1. 1: Sample distribution by governorate.

Governorate	**Frequency**	**Percentage**
Bethlehem	54	6.5%
Hebron	179	21.5%
Jenin	82	9.8%
Jericho	16	1.9%
Jerusalem	126	15.1%
Nablus	139	16.7%
Qalqiliya	36	4.3%
Ramallah& Al-Bireh	98	11.8%
Salfit	21	2.5%
Tubas	22	2.6%
Tulkarem	60	7.2%
Total	**833**	**100%**

Table 4.1. 2: Demographic and socioeconomic characteristics.

Living area	**Frequency**	**Percentage**
Urban	292	35.0%
Rural	503	60.4%
Camp	38	4.6%
Total	**833**	**100%**
Religion	**Frequency**	**Percentage**
Muslim	829	99.5%
Christian	4	0.5%
Total	**833**	**100%**
Education	**Frequency**	**Percentage**
Less than 6 years	43	5.2
7-12 years	412	49.2
First Degree (BA/BSc)	358	43.2
Second Degree or Higher (MA/ MSc +)	20	2.4
Total	**833**	**100%**
Working status	**Frequency**	**Percentage**
Employed	169	20.3%
Unemployed	664	79.7%
Total	**833**	**100%**
Income Category	**Frequency**	**Percentage**
<1495	135	16.2
1495-2500	181	21.7

2501-3500	148	17.8
3500+	139	16.9
Refused	230	27.6
Total	**833**	**100%**

Number of children category	**Frequency**	**Percentage**
0 (No Children)	33	4.0%
≤ 5	660	79.2%
> 5	140	16.8%

Table 4.1. 3: Total number of children by income.

Income (NIS)	**Number of children**
<1495	509
1496-2500	654
2501-3500	526
3500+	465
Refused	770

No statistical difference between the number of children and the income of the participant's household at $p<0.05$

Table 4.1. 4: Total number of children by living area

Living area	**Frequency**
Urban	1015
Rural	1783
Camp	126

No statistical difference between the number of children and the living area of participant $p<0.05$.

Table 4.1. 5: number of children vs. education levels.

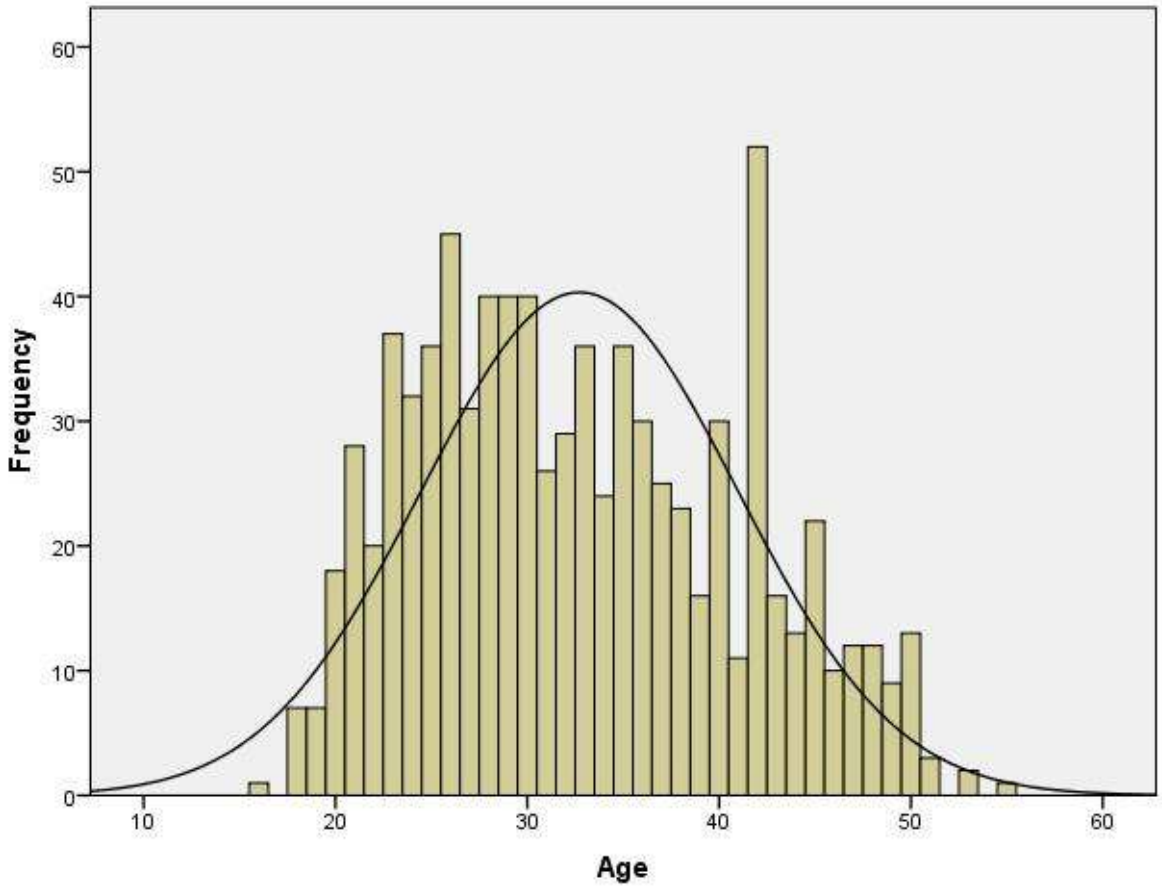
		Children			
		0	1	2	Total
Education	less than 12	15	318	112	445
	BA/BSC	17	314	26	357
	MA/MSC+	1	18	1	20
Total		33	650	139	822

The mean difference is significant at the 0.05 level.

Master's degree participant holders have the least number of children 20, while elementary level of education participants have the most 445.

When taken in light of the strong correlation between age and the number of children $p<0.01$, it becomes apparent that this difference between the categories is due that older participants who suffer from more conditions tend to have more children than younger participants.

Chart 4.1. 1: Sample distribution by age with normal curve.

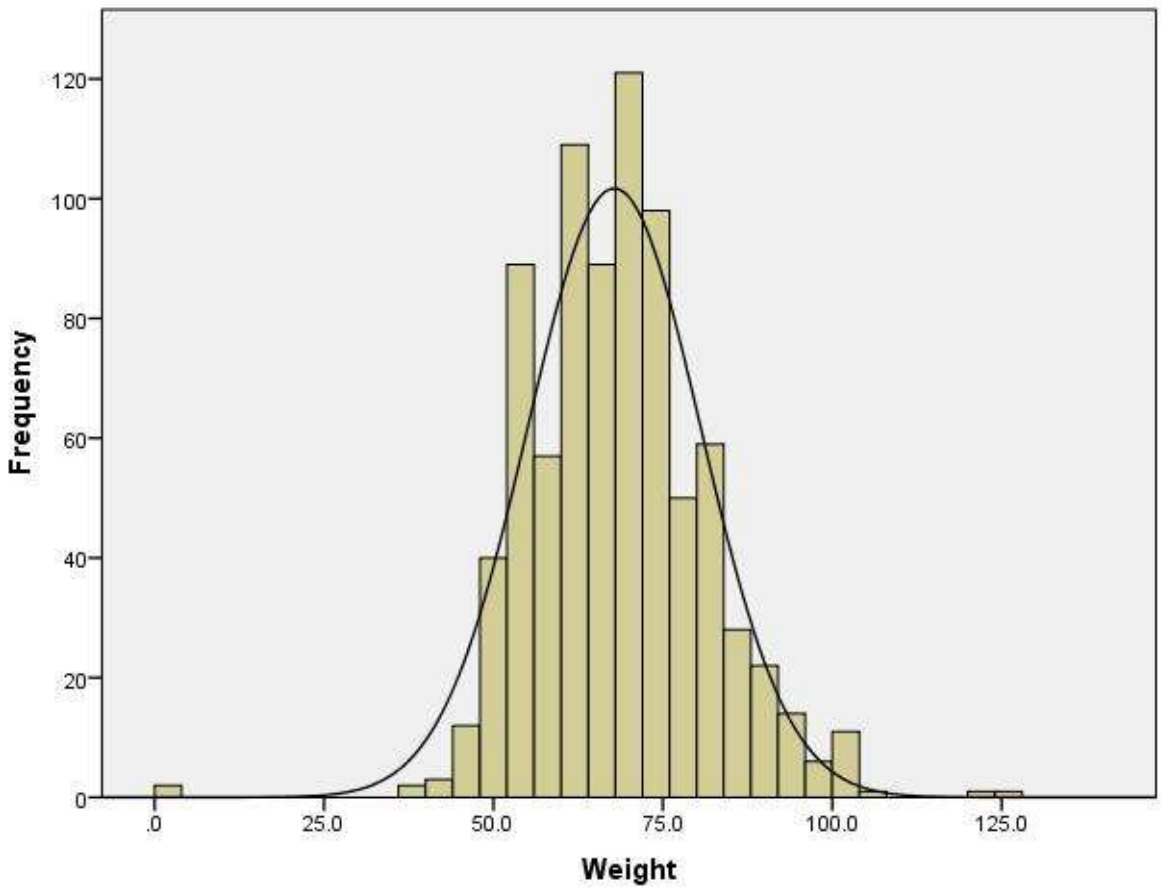


Analysis of the demographic and socioeconomic characteristics of the sample by strata revealed similar results; distribution by living area was found to be majorly rural for more than half of the governorates. Tubas, Nablus, Qalqiliya, and Jerusalem had higher figures for urban settings with their percentages being 54.5%, 50.4%, 66.7%, and 60.3% respectively though no statistical difference was found at $P<0.05$. Education level, working status, income and number of children, were not found to be statistically different at the stratum level ($P<0.05$), with all governorates agreeing with total sample analysis. The only significant difference between governorates was seen in the significantly younger participants of Hebron and Ramallah& al- Bireh women with mean ages of 30.9 and 31.1 years.

4.2. Health measures, lifestyle habits and chronic disease prevalence

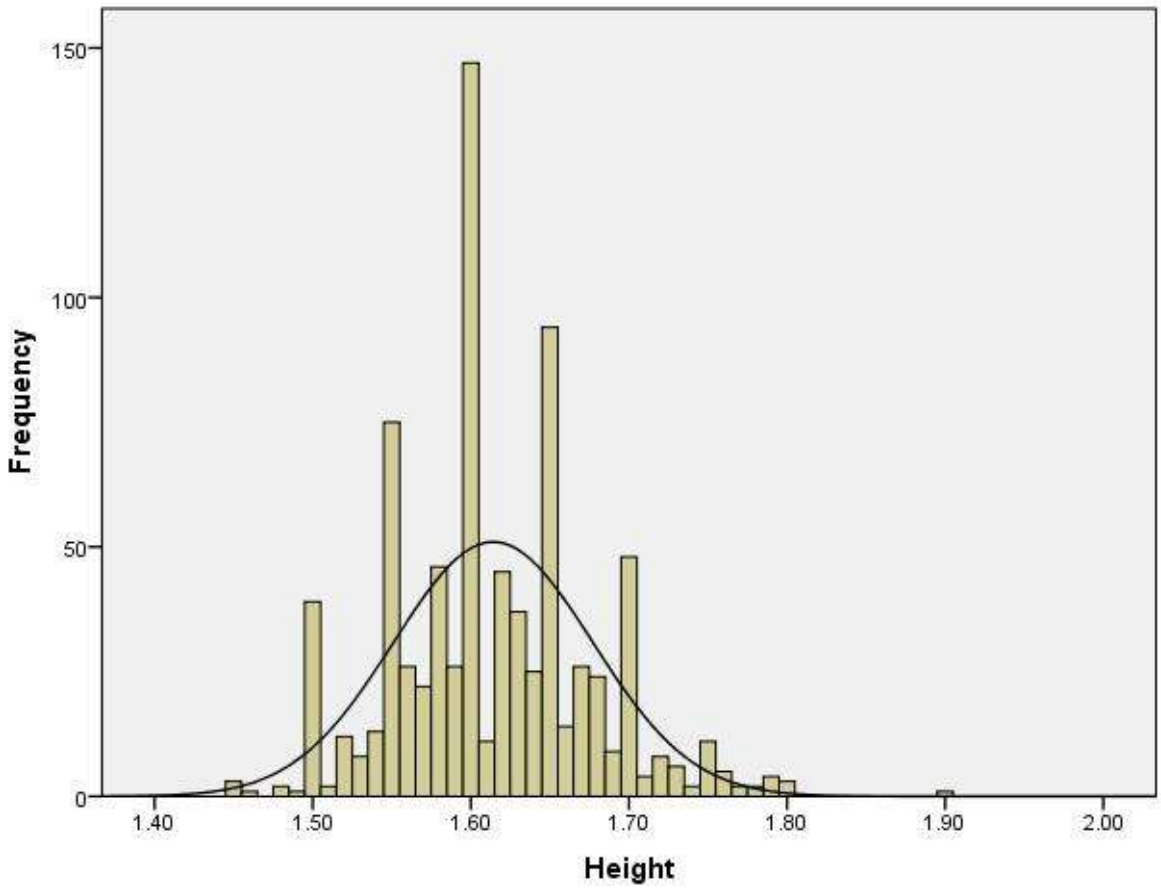
Mean weight and height of the participants was 67.8kg (SD=12.8) and 1.61m (SD=0.1). The majority of the sample was either in the normal BMI range (333) or was overweight (286) and the prevalence of obesity was low (153). The majority of the sample were non-smokers (731), were not physically active, and suffered from no chronic conditions (627) with 3% suffering from more than 2 conditions.

Chart 4.2. 1: Sample distribution by weight with normal curve.



Significant correlation was found between weight and the number of children P<0.01.

Chart 4.2. 2: Sample distribution by height with normal curve.



Measure	Frequency	Percentage
Healthy (no chronic conditions)	627	75.3%
Unhealthy (≥ chronic condition)	206	24.7%
Total	**833**	**100%**
Disease Prevalence	Coronary Heart Disease 12 (1.4%)	Diabetes 27 (3.2%)
	Cancer 6 (0.7%)	Osteoporosis 11 (1.3%)
	Hypertension 26 (3.1%)	Rheumatoid Arthritis 21 (2.5%)
	Kidney failure, 2 (.24%)	Epilepsy 2 (.24%)
	Acne 10(1.20%)	Autoimmune 13 (1.56%)
	Migraine, 24 (2.87%)	Liver failure, 2 (.24%)
	Dyslipidemia, 16 (2.02%)	Asthma/COPD 17 (2.04%)
	Heart Failure 3 (.35%)	Thyroid 28 (3.35%)
	Osteoarthritis 15 (1.80%)	Anemia 21 (2.51%)
	Gout 2 (.24%)	Chronic pain 26 (3.11%)
	Uterine Ovarian Disorder 5 (.60%)	Varicose Veins 4 (.48%)
	Gastro 7 (.84%)	Other 15 (1.80%)

Table 4.2. 1:Health status and disease prevalence.

Significant difference of the mean number of children was found between unhealthy and healthy participants at P<0.000. less number of children were had by the unhealthy participants was shown by a Chi- square test.

A health score was devised to provide insight into the lifestyle of the participant as follows:

If the participant had normal BMI, was a nonsmoker, and was physically active she got 0 points. On the other hand, if one of those 3 parameters were unhealthy, the participant was given 1 point.

Table 4.2. 2:Sample distribution by health lifestyle score

Healthy Lifestyle Score	**Frequency**
0	98
1	353
2	339
3	43
Total	**833**

4.3. Beliefs towards contraception

Four main questions were asked to measure the participant's beliefs towards contraception. Table 4.3 depicts the results of the questions.

Table 4. 1: Participant answers to questions concerning beliefs towards contraception.

Question	**Yes**	**No**	**Total**
Do you believe that your religion forbids contraception?	53 (6.4%)	780 (93.6%)	833 (100%)
Do you believe that contraception is socially unacceptable?	121 (14.5%)	712 (85.5%)	833 (100%)
Do you, yourself, believe that contraception is acceptable?	786 (94.3%)	47 (5.7%)	833 (100%)
Do you think that your partner believes that contraception is acceptable?	762 (91.5%)	71 (8.5%)	833 (100%)

The table reports dominantly positive attitude towards contraception use amongst Palestinian women. The majority of participants answered believed that neither religion, nor society, nor partners opposed the use of contraception. With the exception of the question concerning societal views on contraception use, all other questions reflected the acceptance of contraception use by over >90% of participants as well as what they think their partner believes.

4.4. Contraception types, reasons for using, unplanned pregnancies, and knowledge of oral contraceptives.

4.4.1. Contraception types.

The types of contraceptive methods reported were ten: 1) none, 2) Orally combined pills, 3) Intrauterine devices, 4) Depo injections, 5) Condoms, 6) Timing, 7) Transdermal, 8) Sterilization, 9) Withdrawal, and 10) Breastfeeding. The frequency of each method is depicted in table 4.4.1.1 below.

Table 4.4.1. 1: Frequency of contraception methods

Contraception method	Previously	Currently
None	348 (41.8%)	356 (42.7%)
Orally combined pills	159 (19.1%)	100 (12.0%)
Intrauterine devices	210 (25.2%)	193 (23.2%)
Depo injections	10 (1.2%)	2 (0.2%)
Condoms	48 (5.8%)	46 (5.5%)
Timing	31 (3.7%)	52 (6.2%)
Transdermal	1 (0.1%)	2 (0.2%)
Sterilization	1	12

	(0.1%)	(1.4%)
Withdrawal	25 (3.0%)	38 (4.6%)
Breastfeeding	0 (0.0%)	32 (3.8%)
Total	**833** **(100%)**	**833** **(100%)**

The majority of participants were had not and were not using any method of contraception at the time of the study. The second and third most common methods were intrauterine devices and orally combined pills. No preferred method of contraception could be linked to the working status of the participant (p=0.3).

Participants were asked to mentioned 3 types other than those they had previously used or are currently using.

Table 4.4.1. 2: Ability to mention 3 other types of contraception.

Can you mention three other methods of contraception?	Yes	No	**Total**
	733 (88%)	100 (12%)	**833** **(100%)**

The reported contraception methods can be divided into two categories: 1) Modern (Combined oral pills, intrauterine devices, depo injections, condoms, sterilization and transdermal) and 2) Traditional (timing (calendar method) and withdrawal (coitus interruptus)). Without taking into account participants who are not using any method of contraception, the distribution is as depicted in table 4.4.1.3.

Table 4.4.1. 3: Prevalence of Modern vs. Traditional methods of contraception

Modern methods	**Frequency**	**Percentage of method type**	**Percentage of all contraceptives**
Combined oral contraceptives	100	28.2%	21.0%
Intrauterine devices	193	54.4%	40.5%
Depo Injections	2	0.6%	0.4%
Condoms	46	13.0%	9.6%
Sterilization	12	3.4%	2.5%
Transdermal	2	0.6%	0.4%
Total Modern	**355**	**74.4%**	**74.4%**
Traditional methods	**Frequency**	**Percentage of traditional**	**Percentage overall**
Timing (calendar)	52	42.6%	10.9%
Withdrawal	38	31.1%	8.0%
Breastfeeding	32	26.2%	6.7%
Total Traditional	**122**	**25.6%**	**25.6%**
Overall Total	**477**	**100%**	**100%**

Table 4.4.1. 4: Type of current method vs. the male partner belief

Method	Partner Belief			Total
	Missing	no	yes	
None	2	15	339	356
OCP	0	6	94	100
IUD	1	3	189	193
Depo	0	0	2	2
Condoms	2	2	42	46
Rhythm	0	7	45	52
Breast feed	0	6	26	32
Transdermal	0	1	1	2
Sterilization	0	2	10	12
Withdrawal	0	8	30	38
Total	5	50	778	833

Current vs previous

Same method = 167

Discontinuation= 29

Changing= 343

In 28 cases of discontinuation, the partner was okay with contraception

4.4.2. Reasons for using contraceptives

The choices chosen for the survey design are previously mentioned in the methodology section as 1) Too many children, 2) Illness of partner, 3) Social issues, 4) Organization purposes (spacing between pregnancies), 5) Economical reasons, 6) Hereditary disease, 7) as well as other reasons which the participant mentioned. The participant was allowed to choose one or more of the reasons that best suit her rationale behind contraception use. Participants who reported other reasons were best described as “personal benefit” reasons.

Table 4.4.2. 1: Reasons for using contraceptives

Reason chosen	**Frequency**	**Percentage**
Too many children	168	20.2%
Illness of partner	17	2.0%
Social issues	24	2.9%
Organization purposes	656	78.8%
Economic reasons	93	11.2%
Hereditary disease	12	1.4%
Others (personal benefit)	25	3%

Table 4.4.2. 2: Reasons for using contraceptives vs governorate

Governorate	Too many children	Illness of partner	Social issues	Organization purposes	Economic reasons	Hereditary disease
Jenin	17	1	0	66	6	1
Tubas	8	0	0	17	2	1
Tulkarem	8	1	1	57	4	2
Nablus	28	2	4	119	14	2
Qalqiliya	12	0	3	31	3	0
Salfit	1	0	1	16	4	0
Ramallah& al-Bireh	14	3	0	86	18	0
Jericho	5	3	1	9	5	0
Jerusalem	36	4	3	90	15	1
Bethlehem	15	2	3	33	5	0
Hebron	24	1	8	132	17	5
Total	**168**	**17**	**24**	**656**	**93**	**12**

Analysis by strata shows, in agreement with table 4.4.2.1, that organization purposes dominate the reasoning behind the use of contraception.

4.4.3. Unplanned pregnancies

The incidence and number of unplanned pregnancies are depicted in tables 4.4.3.1 and 4.4.3.2

Table 4.4.3. 1: Incidence of unplanned pregnancies

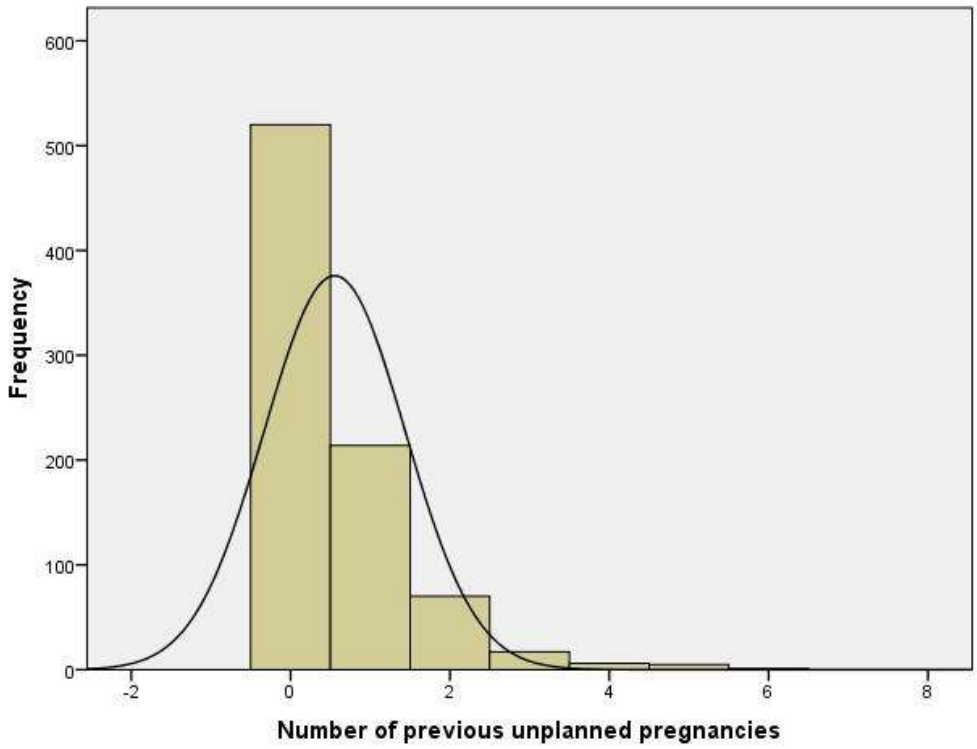
	Yes	**No**	**Total**
Unplanned pregnancy	**313 (37.6%)**	**520 (62.4%)**	**833 (100%)**

Table 4.4.3. 2: Number of unplanned pregnancies

Number of unplanned pregnancies	**Frequency**	**Percentage**
None	520	62.4%
1	214	25.7%
2	70	8.4%
3	17	2.0%
4	6	0.7%
5	5	0.6%
6	1	0.1%
Total	**833**	**100%**

The majority of participants did not report any unplanned pregnancies (62.4%). Those with previous unplanned pregnancies (313) reported a range of 1-6 unplanned pregnancies many of whom (214) reported just one unplanned pregnancy.

Chart 4.4.3. 1: Number of unplanned pregnancies



Naturally, positive correlation was found between the number of unplanned pregnancies and age: $p<0.000$. No significant difference in unplanned pregnancies was found between living areas (urban, rural, or camp). Significant difference was found between age groups and unplanned pregnancies at $p<0.05$; the younger age bracket (18-25 years old) reported only 39 unplanned pregnancies while the older groups (26-35) and (36-50) reported 133 and 143 unplanned pregnancies respectively. Also, a clear correlation was found between the healthy lifestyle score and unplanned pregnancy: while 30.6%, 34.8%, 42%, and 49% are the percentages of unplanned pregnancies from 0-3.

Table 4.4.3. 3: current modern method vs. previous unplanned children.

Current modern method		Total participants with previous unplanned
	OCP	28
	IUD	85
	Depo	2
	Male condoms	17
	sterilization	9

Most of women who had unplanned pregnancy switched or started the intrauterine method by 85 out of 313.

Two subjects used injection method after having unplanned pregnancies.

Nine had tubule ligation; a permanent sterilization method after their incidents.

Twenty-eight preferred oral contraceptive method, while male condom method (male dependent method) was seventeen.

Table 4.4.3. 4: unplanned pregnancy vs. education.

		Unplanned		
		Percentage	yes	Total
Education	12 years and less	22.9	188	445
	BA/BSC	14.6	120	356
	MA/MSC+	0.5	4	20
Total		38	312	821

With higher education less unintended pregnancies

Elementary education n= 188, master's degree n= 4

Table 4.4.3. 5: unplanned pregnancy vs. age categories

		Unplanned		
		no	yes	**Total**
Age	1	145	39	184
	2	212	133	345
	3	154	143	297
Total		511	315	826

The age between 36-50 had the higher number of unplanned pregnancy with 143. While the younger age of the categories was the lowest n=39.

Table 4.4.3. 6: : unplanned pregnancy vs. healthy status.

		Unplanned		
		no	yes	**Total**
Smo.BMI.Phys	0	68	30	98
	1	232	121	353
	2	211	164	375
Total		511	315	826

4.4.4. Knowledge of oral contraceptives

In table 4.4.1.1, one hundred participants reported currently using oral contraceptives. As was previously mentioned in the methodology section, these participants were given a series of tasks to measure their knowledge of this specific form of contraception. The eleven questions and how they were answered is depicted in table 4.4.2.1

Table 4.4.4. 1: Knowledge of oral contraceptives

Task	**Frequency of (correct) answers**	**Percentage of 100 participants in this section**
Mention the trade name of the pill	50	50%
Identify the active ingredient(s)	12	12%
Describe the package	76	76%
Describe the pill	91	91%
Correctly identify the desired action when missing **One Dose**	63	63%
Correctly identify the desired action when missing **Two Doses**	12	12%
Correctly identify the desired action when missing **Three Doses**	6	6%
Describe the preservation of the pill	94	94%
Identify if she takes the first pill on the **first day** of her cycle	7	7%
Identify if she takes the first pill on the **fifth day** of her cycle	83	83%
Identify if she takes the first pill on	10	10%

the **any day** of her cycle		
Answer whether it is okay to begin taking the pill on any day of the cycle	76	76%
Mention food-drug interaction	13	13%
Mention drug-drug interaction	21	21%
Correctly identify the desired action to take in case of immediate diarrhea or vomiting after taking the pill	37	37%

4.4.5. Knowledge assessment of effects and side effects of contraceptives in general and prevalence of experienced side effects

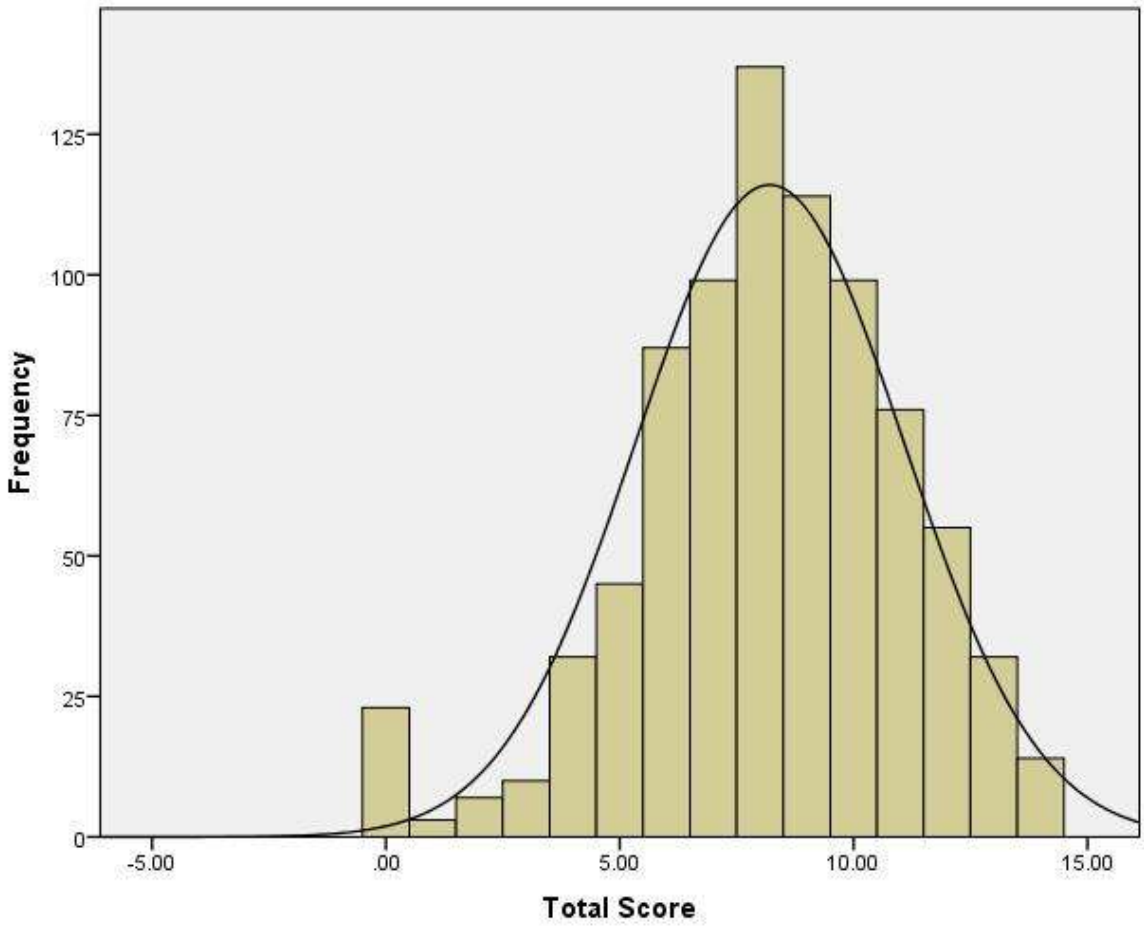
The fifth and final part of the questionnaire aimed to assess the general knowledge of the participants towards contraceptives particularly in regards to side effects, STDs, risk of abortions, as well as others. Also, the participant was asked to report whether she had experienced any side effect previously. It should be noted that the list of effects included legitimate effects and misconceptions with the aim to assess whether the participant can correctly identify legitimate ones or misrule misconceptions. In table 4.4.5.1, the participant was asked to correctly identify whether contraceptives in general can cause the list of effects. The participant was asked: "Can contraceptives in general cause (the effect)?" and the surveyor would indicate whether the participant correctly answered the question or not. If the question was answered with "I don't know", it was recorded as incorrect.

Table 4.4.5. 1: Assessment of knowledge of effects and side effects by participants

Effect/ Side effect	Frequency of correct answers	Percentage
Headache	532	63.9%
Mood Swings	670	80.4%
Permanent Sterility	438	52.6%
Breast Cancer	415	49.8%
Uterine Cancer	448	53.8%
Weight Gain	631	75.8%
Birth Defects	435	52.2%
Nausea	402	48.3%
Hair loss	366	43.9%
Temporary difficulty in becoming pregnant	430	63.3%
Prevention of STDs	519	62.3%
Affect the gender of the baby	667	80.1%
Decrease the number of abortions	285	34.2%
Cause abortions	496	59.5%

The level of knowledge reported was unsatisfactory. While some effects were correctly identified or misruled, such as mood swings, weight gain, and the nonrelation between contraceptives and the gender of the baby, the rest of scores were lower than acceptable. The total score (out of 14 maximum points) ranged from 0-14. The mean score was 8.2 (SD=2.9), with a median and mode values of 8.

Chart 4.4.5. 1: Frequency of total score of knowledge with normal curve



One-way ANOVA revealed significant difference between the total score and governorates at P<0.05 and confidence interval of 95%. Tubas had the highest mean score of 10.4 (SD=2.8) whilst the lowest score was recorded for Hebron 7.4 (SD=3.2).

Also, significant difference between education and total score was found at p<0.05. Mean total scores were found to be better in higher educated individuals; participants with <6 years of education had 7.9 points (SD=3), 7-12 years of education had 7.9 (SD=3), BA/BSc had 8.4 (SD=2.7), and MA/MSc+ had 9.5 (SD2.3). However, total score of knowledge was weakly correlated with age in general (p<0.01).

Significant difference was found between the lowest income bracket (<1495) and the rest of the income brackets at p<0.05 where this group scored the lowest of all groups with a mean

score of 7.3 points (SD=2.8) vs 8.8 points (SD=2.8) for 1496-2500, 8.7 points (SD=3) for 2501-3500 and 8.6 (SD=3) for 3500+.

Surprisingly, no correlation was found between total knowledge score and the number of unplanned pregnancies (p=0.3).

A total of 39 participants worked in the medical profession. Their lowest score was 6 points with an incidence of 2.6% and ranged up to 14 points with an incidence of 5.1%. 25% of medical professionals scored higher than 10/14 points. Significant difference of the mean number of points was found in participants with a medical background $T(467)=3.64$, $p<0.000$.

Another test was carried out to measure the incidence of estrogen containing pills in smoking participants over the age of 35 years old. Out of the 30 participants which too estrogen. (30% of oral contraceptive users) none of them were smokers and over the age of 35. Moreover, women who reported higher incidence of migraines were also not on estrogen pills.

Chapter 5

Discussion

5. Discussion

The distribution of the sample was found to majorly rural with the exception of Tubas, Nablus, Qalqiliya, and Jerusalem. This is due to higher population density in the urban part of these governorates due to relatively lower number of villages in comparison to other governorates. Though this was not statistically different at the $P<0.05$ level, the higher percentage of urban participants in these governorates made sense. Significantly lower ages of participants in Hebron and Ramallah& al-Bireh could be indicative of a younger population in these governorates in comparison to other regions of Palestine, an assumption which this data cannot confirm. This could possibly reflect in marriage at a younger age, an assumption which cannot be confirmed either.

One of the key findings of the WHO is that "at least one in ten in-union or married women has an unmet need for family planning" (Bearak, Popinchalk, Alkema, & Sedgh, 2018). However, the Palestinian Central Bureau of Statistic (PCBS) revealed a substantial decline in total fertility rate by 33% and infant mortality rates by 50% as the population projections registered a decline in crude births and in household size (4.2 persons) in 2018, with the indication of a decline in registered marriages by 5.4%, (Palestinian Central Bureau of Statistic, 2019,march 10).

The study shows that the majority of the sample (#654 families) have numbers of children below five which is consistent to the (PCBS)'s findings (Table 4.1.2). However, the survey readings are 20.2% of having too many children as one of the reasons for using contraception, which might suggest some level of unmet need of contraception among married women leading to unintended pregnancies with at least one child either mis-timed or

unwanted, hindering to an even lower realistic number of household children and fertility rate.

Number of children in the study was observed with residency, education, employment, income (the socio-economic fertility predictors) and age.

With 316 of the sample subjects ranging from 26 to 35 years of age the number of children was around five, which meets the expected prevalence of children in every household, Therefore, this category is considered the Palestinian females' years of childbearing in which family planning services is most needed.

An initiation and adherence of contraceptive method depend predominantly on a full range of accessibility and availability with cost-effective proprieties. Signifying the economic status especially for developing countries, reflects how countries with established economy tend to manage their number of births and exchange quantity with quality. The study had 27.6% missing values of the income measurement, resulting to a P-value higher than 0.05 but the other valid inputs showed a pattern of the same discussed feature with a total of just 465 number of children had by participants with a monthly income of +3500 NIS. This change of behavior improves wider social acceptability, since 5.8% of the individuals in Palestine (The West Bank) suffered from deep poverty in 2017, according to consumption patterns (Palestinian Central Bureau of Statistic, 2018, July 11).

There was no statistical difference in the number of children compared to the participant's residency at $p<0.05$. This feature is considered positive for indicating an equal fertility rate among Palestinian governorates and among living areas which sheds light on the camp fertility orientations. This unique result counters the usual literature done in relation to

developing countries (Lakew et al., 2013; Seyife, Fisseha, Yebyo, Gidey, & Gerensea, 2019) where urban, rural and camps exponentially vary in children's total numbers.

A strong negative correlation is noticed between level of education and number of children. P=0.00. Since most educated women tend to join the employment sector, a fewer number of children are preferred as the maternal roles are challenged by work.

The reason for women seeking contraception might be a personal-benefit decision (Frost & Lindberg, 2013) or an external intervention. In this study women were asked about the reason/s of why they used contraception, the organization purpose had the most selected answer by 78.8%, which is expected from a society ruled by Islamic rules since spacing is encouraged in this religion. Other reasons like social and economic, illness of partner, hereditary diseases and having too many children were mentioned.

Hebron was found to list the higher frequency numbers of all districts, this is related to the high population compared to other governorates. Meanwhile, a positive rational correlation is seen with age and reasons of: limiting births, illness of partner and hereditary issues (Table 4.4.2.2).

Between the age of 36-50 the higher numbers for the subject's reasons for using contraceptives were too many children (102) and illness of partner (10) and hereditary (7). While between the age of 26-35 their higher frequent reasons were organization (288) and social issues (14) and economical (49).

Educational categories were interrelated with reasons of using contraceptives, elementary education had a total of 110 elects of too many children reason, while 57 for high certificated

education. Organization and economic reasons had some equal distribution between elementary and higher education.

The highest frequency in social issues is noticeable in the mid-aged women of the sample (26-35). Most of the Arabian societies are gatherings of the same family, this creates constrains on women's decision-making abilities. However, organization purpose also had high numbers in this category of age. What also sustains women leadership in utilizing the FP program's instructions is that 50 of the participant's partners were against using any method, only 15 approved their partner's decision (Table 4.4.1.4).

Delaying marriage to avoid early motherhood is recently observed (Hammoudeh & Hogan, 2012). This could be established by young females involving themselves in to educational elongated programs. When surveying the highly educated women, they had the lowest choice for reasons to use contraceptives, engaging in their next chapter of their lives, childbearing and parenthood. This correlates with the PCBS finding which is a significant decrease in the rate of early marriage among (Palestinian Central Bureau of Statistic, 2018, Aug 12) .

Or in another picture, some women with economic independence, they tend not to get married and pursue their personal achievements instead.

14.5% of the sample believe in contraceptive usage to be socially unacceptable (Table 4.3.1). This proximate determinant of fertility proposes a challenge for family planning programs to resolve.

Every pregnancy carries a high risk complication, for that, unplanned pregnancy represents a general public health indicator for unmet need, inadequate services and ineffective management. However, an essential monitoring from governmental benchmarks allows

measuring such rates. This guarantees a regression expected after the intervention and better healthcare outcomes (Roudi-Fahimi & Monem, 2010).

Factors that drive unintended births in Palestine consist of multiple domains that should be looked into and analyzed; one of such is the political system influence, by cutting-off the primary supplies to different regions hampering a correct and appropriate family planning service, besides the deprivation of medical insurance coverage; referred to politically condiment families as one of the punishments. Nevertheless, the cut-off of birth control supplies (Hadweh, 2019) was conducted recently in Palestine .

The findings of the suggested sample had presented (Table 4.4.3.1) with previous unplanned pregnancy (one child at least) 313 (37.6%). With 141 women changed the method of contraception to prevent another incident, 85 of them switched to IUD; a long-acting reversible contraceptive (LARC) for being the most effective recommended method by health care especially after incidents of unintended pregnancy. This practice was considered positive meeting long-term family planning roles. While 28 of them to pills. Seventeen others preferred male-condoms, but unexpectedly nine Muslim women ended having tubal ligation "sterilization" in spite of religious prohibition, which is a negative attitude for family planning objectives. But when discussed with the subject, a medical reason was always on the table to overcome this prohibition (Table 4.4.3.3).

As for Islamic religion bans against the termination of unwanted pregnancy, the Islamic community must initiate the educational process from a young age for a substantial decrease in risks of maternal and infant mortality and morbidity afterword. This future practice lessens the burden on family's households, local ministry of health and the government. Furthermore,

some believe that male children provide financial security to their parents at an older age. This preference causes hazardous population growth for subsequent unfound resolutions.

These beliefs influenced the mentality of women for a very extended amount of time, but what the study exposed was that women nowadays with higher education manage their lives more efficiently than others with lesser education. This was shown by a noticeable decline in numbers of unplanned pregnancies when compared between educational levels (Table 4.4.3.4).

The incidence of unplanned pregnancy (either mis-timed or unwanted) is higher with older women logically $p<0.000$, but it reaches some kind of a plateau after the age of 35, owing that to a fulfilled number of kids that makes having another child thought through and less mandatory especially when the parents are trying to offer an equal care of parenting, well-being and economic safety to their already born intended children (Table 4.4.3.5) (Chart 4.4.3.1).

Women's personal health had a clear correlation $p<0.01$. Good health is defined as non-smoking, normal BMI and physical workout in their life style. Unplanned children had the least incidence by this category (n=30). This shows the effect of personalized power in determining life choices and achievements (Table 4.4.3.6).

Eight cases reported previous unplanned pregnancy without using any modern methods, neither previous nor current. However, 49 cases have no previous unplanned pregnancy and they have never used any previous or modern types of contraceptives. This contradiction indicates that Palestinian women are accomplished in the use of traditional contraceptive methods.

Palestine has at least one camp in every district which coincides by a crowded population. When their numbers of unintended births turned out to be proportionally the same with Rurales and Urbans in this study, two theories were proposed; women who live in a camp either tend to be more aware when to plan a pregnancy governed by the hard living conditions and their attempt to urbanize or the other theory of less managed fertility plan due to the lack of family planning services and supplies , calling any pregnancy to be intended in terms of the camp's nature, an extended study must be done.

The percentage of women displayed knowledge in contraceptive methods mentioning three or more was 88% with 74.4% of them are using a modern method (Table 4.4.1.2, Table 4.4.1.3). However, some methods were not verbally included by the subjects and when mentioned by the surveyor the subjects were not familiar with their availability. Emphasizing the need to promote the other methods more efficiently.

This study also measures the subject's knowledge with other parameters, here to be detailed: The Arab middle east nation studied knowledge and behavior towards contraceptive recently to adjust and intervene with the quality assessment of FP programs. (Roudi-Fahimi, Monem, Ashford, & El-Adawy, 2012b) The Pan Arab Project for Family Health (PAPFAM) and the Demographic and Health Surveys (DHS), demonstrate the estimated prevalence and progression over the years with a brief feedback on Arab countries, for example: four out of ten Arab women use modern contraceptives and 77% of the maternal deaths in Arab countries are found where less prevalence of contraceptive use is documented.

Most of contraceptive rejection and discontinuation is believed to the side effect fear attributed by one or both partner misinformed, whether sourced from the media or the

ethos.(Kinaro, Kimani, Ikamari, & Ayiemba, 2015; Omideyi et al., 2011). Other main reasons are lack of knowledge and the desire of having more children, the prevalence of each reason might vary but opposing the idea of family planning is definite.

The most important finding that is related to knowledge is identifying the method (88% of the sample did), but herein this study a further tool was applied where common side effects and misleading statements either answered correctly or failed the score, by that a complete picture is conveyed (Table 4.4.1.1).

(knowledge score – side effect section) tool, answered with either yes or no to fourteen questions. A total of 14 had a score of 14 while 6 did not have any one correct answer, however, the score scales up till score 8 to form a Bell-shaped graph shifted to the right (Chart 4.4.5.1), which is a distribution in favor of correct responses by a mean score of 8.2 (SD=2.9), this indicates an unsatisfactory knowledge among the west-bank and east Jerusalem women. This positive aftermath was completed by the explanation of every statement to the respondents by the surveyor at the end of the questionnaire hereby helping with family planning awareness. The correlated demographics with this variable are education, working status and age.

Women between 26-35 had higher scores than others, this might relate to the fact of them seeking information about family planning since these are the years of already having the first child and the time has come to interfere with when to have the others, and may be the desired family size is complete to stop having any more. However, total score of knowledge was weakly correlated with age in general $p<0.01$.

Education is another factor helped in contraceptive knowledge obtained from schools and universities where basics are introduced and the thought of sexual-life is clearer. At this interval the literature findings were logical and acceptable in that the ones who limit their education to secondary school had less information than the ones with bachelor and master's degrees, These In-built data guided literates for more insightful quest and search aimed at needed information to help them with their choices and informed decisions. But the sample unexpectedly disclaimed this rationale as no significant difference was found between education and the number of unplanned pregnancies($p=0.333$). for that, a knowledge does not reflect practice.

The working women environment has demonstrated to be a positive control as observed to correlate with higher scores than others without a job, a rational explanation is the extra interaction that takes place in the out-doors, this information exchange augments a better fulfilled choice and avoids unwanted medical exposures(Takkar, Goel, Saha, & Dua, 2005).

The living area was not significant with the score-test, reporting a mutual success and fail rates, this claim might be considered as a reference point to distribute the subsequent recommended adjustments equally on these areas.

Every contraceptive has its limitations and drawbacks that make it questionable to be used; especially oral contraceptives, the pill that interfere with the natural hormonal track whether combined or not (Drill, 1966), had its share of notable side effects like mood swings and weight gain were the most experienced, also headache due to estrogenic vascular effect. When mention cancer liability, relatively half were correct in increasing the chances of breast cancer (estrogenic effect) and lowering the uterine (progestin effect). Hair loss, sterility, nausea and defects listed the most "I don't know" answers and guessing were also marked as incorrect, linked to uneducated resultant.

After a long period of time of using oral contraceptives, if discontinued to plan a pregnancy, this organization might be delayed (Bracken, Hellenbrand, & Holford, 1990) to three months, (63.3% answered correctly) this could give the wrong message that the pills may cause sterility and turn to either switching the method or to discontinue it. This realistic example of inadequate knowledge gave rise to incorrect perception of side effects and the risks that follow.

Other side effects like breakthrough blood, spotting, DVT, skin darkening, acne…etc. were excluded because of different ought to explanations to the subject, making it harder to continue with the rest of the questionnaire and it is time consuming.

Specified questions were introduced exclusively to currently oral contraceptive users 100 women in the study 12%:

Knowledge was estimated by product familiarity, directions instructed, and how to manage in certain situations (Table 4.4.4.1).

Description of the product's pill had a higher percentage than the package, the explanation for this result is; buying the pills without the package in monthly basis (most packages have a fill of three months).

A close probe was done to the correct actions in certain possible situations by a series of questions:

The "pill" is the most common hormonal method used, but the understanding of the mechanism of action is physiologically (Drill, 1966) confusing and complex to explain to the patient especially when a missing dose situation is on the table (Guilbert et al., 2008); which week of the cycle, how many pills are missed, what type of pill is she taking and what strength must be considered before accepting the correct action.

Current oral contraceptive users are reported to be 100 cases (21% of total method type), 12% of women only know their pill's active ingredient, 50 % within all who knows the oral current pills names (Table 4.4.4.1).

In the study, initially the name of the type is defined then questions are asked about missing doses and what action is performed to be measured and analyzed. The one dose missed had the more advantage percentage of the correct action than the second and the third missed doses, after so the accurate action was spoken and explained by the surveyor.

The preservation part was interviewed if the right conditions were applied, the findings suggested an interest in following the right recommended instructions by 94% of the sample, the main reason was the concern of forgetting, so the majority had their pills next to them in a closed case or cabinet. But the interaction part had low record, which may hold the blame of unplanned pregnancies since the pill's bioavailability hence effectiveness may decrease.

Special women with special features such as: overweight, smokers, diseased with epilepsy or cancer or migraine or suffers from acne or hirsutism or many other female issues. These have to be treated and followed up with an exceptionally unique approach, for example: if the method of oral contraceptive is compatible with the patient's condition and approved medically, then the type must be chosen and advised accordingly.

In this study, correlations were done to assure the medical provision and the risky choices are avoided in our medical field. The results imply an overall good medical supervision, but the sample we studied is not considered to be a representable one for the medical staff total for investigation. Further and larger inspection is in order to generalize the findings.

Estimation of contraceptive prevalence by method for Palestinians in 2015 was 56.5 for any method natural, traditional, and modern. With IUD method being the highest prevalence in use (United Nations, 2015, March).

57.3% was the study's percentage for both traditional and modern methods, 40.5% of copper IUD usage ranked the highest among other methods used (Table 4.4.1.3). The study's results represent similar numbers to the estimation of 2015, this translation supports the internal validity of the study to be representable for population method use.

A growing demand and use were seen by Arab countries (Roudi-Fahimi, Monem, Ashford, & El-Adawy, 2012a). However, the gap of unmet need is still seen with women who avoid pregnancy without using any method, 42.7% of the sample reported to not use any method currently, the reasons vary from low sexual activity related to opposition to use related, despite the supply and service access availability.

Continues use of the same familiar contraceptive method will result in maximum efficacy of contraception, 167 women in the sample practiced the same method use without discontinuation or changing, while this is mostly observed in the older ages of women's reproductive years, younger married women tend not to adhere with one method for lacking the intention of family planning (spacing or limiting) since they are at their prime years of childbearing. Evidenced by 29 women of the sample discontinued contraceptive use and 343 changed their methods multiple times.

While the prevalence of partner's approval for using contraceptives is considered very high, this does not reflect the actual practice of achieving the desired family size in the early years of marriage, especially noted with the low percentage (9.6%)of male condom utility, hence, participation.

Examining this obvious shift from using short reversible-acting methods to longer-acting methods, helped in perceiving why high educated women follow the same trend. As pointed out earlier in the study that women with higher educational attainment usually choose a small family size, using contraceptive methods and FP programs to accomplish that goal. However, the extent of switching the type of the method or initiating a suitable method is positive. Attempting to pursue their competent effective sustainable method after they achieve their fertility preference.

High prevalence of using contraceptive methods includes a mixture of traditional, natural and modern (reversible and irreversible) methods (Hubacher & Trussell, 2015). This statement does not reflect the widespread of unmet need. Short term methods used among women are identified to be less effective and inconvenient compered to longer-acting or permanent methods. The later methods demonstrate a more prominent role in FP programs, with a total of 355 females in the study using modern methods out of 477 women used or using, which constitutes most contraceptive use ≈42.6%, but around 2.5% of them have done female sterilization, worthy here to point it is religiously opposed, as so this later prevalence was not expected, but the methods that require direct male participation were positively more surprising for withdrawal (n=38) and condoms (n=46) with no vasectomy(n=0), all accounts for 17.6% of the using sample, which is higher than the 2015 prevalence. Another interesting finding by this study is that the breast feeding/ lactational amenorrhea method (LAM) was used by 32 of the participants and no registered unplanned pregnancies was associated, this natural method is used by women in every country by married women and identified by the WHO to be 99% effective in preventing pregnancy if the woman has given birth in the previous six months, breastfed the infant exclusively and have not experienced menstrual bleeding since childbirth (Health, Organization, Family, & Health, 2005). Extended lactation practice alone does not meet the criteria and might cause unintended pregnancies.

Chapter 6

Conclusion and recommendations:

6. Conclusions and Recommendations

6.1 Strengths and limitations

This study is an empirical qualitative study done by a qualified research team.

The articles included for this subject are either Palestinian refugees UNRWA based or one Gaza strip survey based, and one article focused on one governorate with a very small sample for political context. However, the study covers all governates in the West Bank and East-Jerusalem unlike the previous two studies mentioned, with a range of questions that cover more well the family planning subject in every sociodemographic difference.

A questionnaire tool to measure the contraceptive knowledge was created based on true and false believes.

Study limitations

This thesis has several limitations. The article determinants of fertility were in a simple little scope cross-sectional framework.

The questionnaire did not cover many related to reproductive health topics:

The reasons for nonuse, source of knowledge, husbands age, duration of marriage, the age of marriage, number of miscarriages and questions for the emergency pill method.

The questionnaire did not study the husband's knowledge about family planning nor any personal characteristics.

The satisfaction of the used method was not measured.

And finally the familiarity of the subject with the family planning programs.

6.2 Conclusions

The study included many important contraceptive issues that aim to target the unmet need found in the various cross-tabulations.

Some impressive findings were detected and reflected the improvement in the community fertility indicators;

- The majority of the sample are well familiar with the modern methods contraceptive and show positive attitude toward but the overall modern contraceptive practice was low.
- The sample's practice was regulated by various characteristics such as: age, economic factors, educational and traditional beliefs, religion, family type and level of knowledge.
- The more the educated level the less number of children is desired and less unplanned pregnancies with higher rhythm in changing the method towards the most effective and long-term use, this practice linked to education is a family planning goal.
- There is a relatively equal contraceptive-knowledge between educated and less educated subjects. And no significant relationship between any of the subject characteristics.
- The Palestinian wives are in fertility-control, for opposing the partner's rejection of contraceptive use in some cases.
- The decline in fertility rate of camper's populations to range the same rate of urban's population.
- Highly educated Palestinian women don't tend to use contraceptive methods in their first years of marriage till the desired family size is reached.

6.3. Recommendations

- To define each governorate's limitations and barriers to inform the governmental/nongovernmental organizations to act upon it.
- Improvement of fertility school education for both males and females in their early age, with individuals learning about modern family planning methods for a positive attitude and contribution for a healthy community.

- Involving men in family planning programs to fill the unmet need and ensure the childbearing and reproductive health goals.
- More focus on educated women about their preferences and how to accomplish by indorsing contraceptive use in their first years of marriage by rising the awareness of un-spaced pregnancy complications on their health and the infant's mortality either in the short or long term.
- Improving the quality of information and services of defining the need for family planning by expanding the range of reversible long acting contraceptive methods.
- Political and financial requirements are a major part of Palestine unmet need, hindering public and privet health sectors to reach out for border audience.
- Planning effective campaigns to correct and inform about contraceptive side effects and how to manage them.
- The need for more well- established healthcare female providers.
- Involving men in the family planning programs with encouraging wife and husband communication for a mutual decision making.

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Appendices

Appendix 1

Code: ____/ _____

Governorate: _____ Urban/ Rural/ Camp

Age: _____ years Religion: Muslim/ Christian/ Jewish/ Refused

Weight: _____ kg Height: _____ m

Smoking: Yes/ No If yes: Cig/ Day: _____ Years: ____

Argileh/ Day: ____ Years: ____

Education: <6 / 7-12/ BA/ BSc / MA/MSc+

Income: <1495 / 1496-2500 / 2501-3500/ 3500+

Children: _____ Physical Activity: ___h/day. ___ days/ week

Working Status: Yes/ No Profession: _____

Chronic Diseases:

Coronary HD		Migraine	
Diabetes		Liver Failure	
Cancer		Dyslipidemia	
Osteoporosis		Asthma/ COPD	
Hypertension		Heart Failure	
Rheumatoid Arthritis		Thyroid Conditions	
Kidney Failure		Osteoarthritis	
Epilepsy		Anemia	
Acne		Gout	
Autoimmune		Chronic Pain	

Other Conditions:

1) _____

2) _____

3) _____

4) _____

Beliefs: Do you believe that:

Your religion forbids it? Yes/ No
It is socially unacceptable? Yes/ No
Do you believe that it is acceptable? Yes/ No
Does your partner believe that it is acceptable? Yes/ No

Contraception: **Previous method type: _____** ___ months ____ years
Current method type: _____ ___ months ____ years

Mention 3 other types? Yes/ No Previous unplanned pregnancies? Yes/ No If yes: ____ pregnancies

---

Your Reasons for using contraception: Too many Illness of partner children
Social Issues Organization Purposes Economical
Hereditary Disease Other Reason: _____

Correct Choice?
According to patient? Yes/ No **According to surveyor: Yes/ No**

ORAL CONTRACEPTIVES ONLY

Current Method Name: _____ A.I.: _____ Yes/ No
Can describe:
Package: Yes/ No Pill: Yes/ No

Correct Missed Dose Action:
1 Day Yes/ No 2 Days Yes/ No 3 Days Yes/ No

Correct Preservation? Yes/ No Beginning Cycle Day 1^{st}/ 5^{th}/ Any

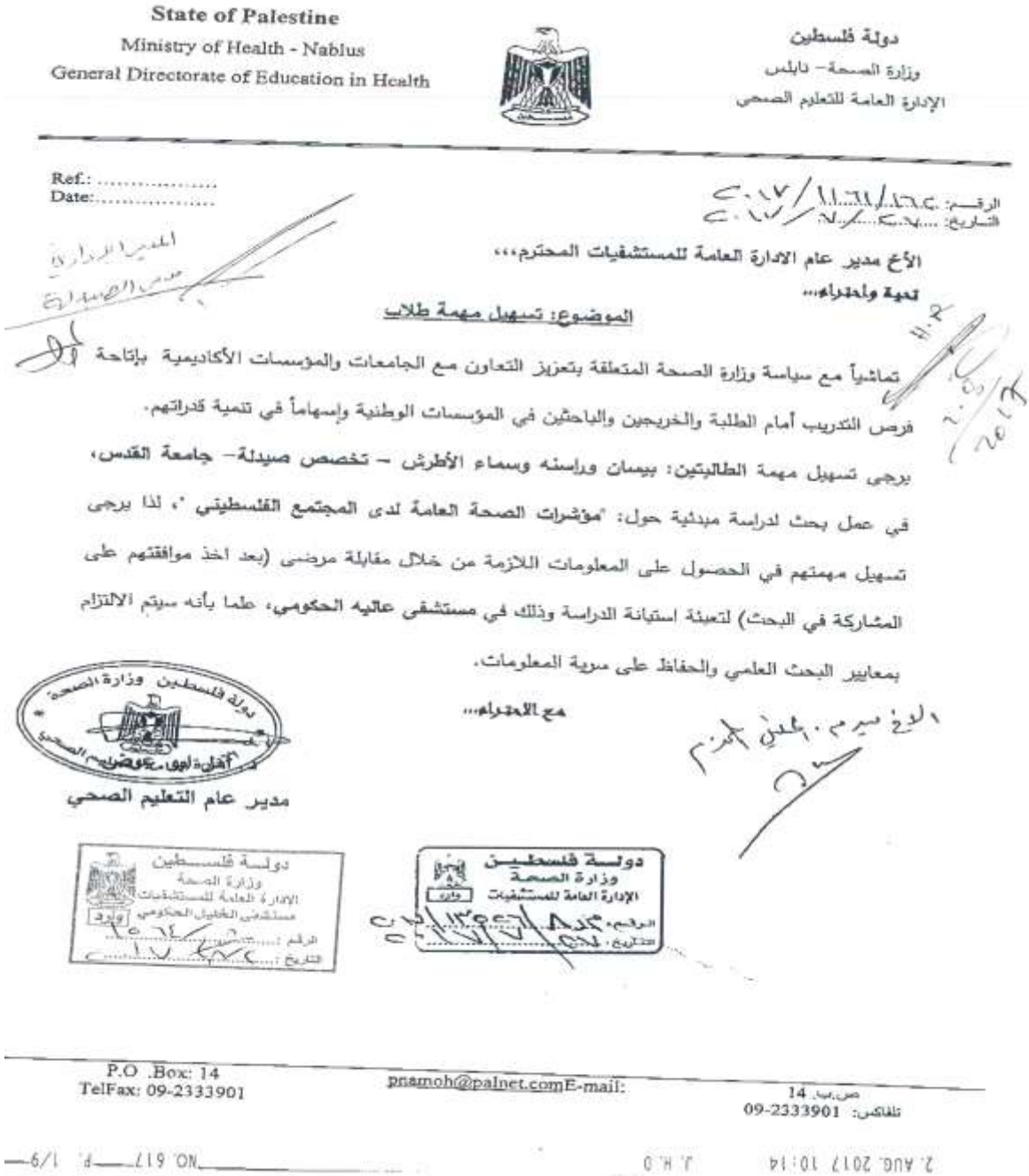
Can you begin on any day? Correct/ Incorrect

Can Mention?
Food- Drug Interaction Yes/ No Drug- Drug Interaction: Yes/ No
Correct Diarrhea/ Vomiting Action? Yes/ No

CONTRACEPTIVES IN GENERAL

Side Effects	Generally?		Did you experience it?
Headache	Correct	Incorrect	
Mood Swings	Correct	Incorrect	
Sterility	Correct	Incorrect	
Breast Cancer	Correct	Incorrect	
Uterine Cancer	Correct	Incorrect	
Weight Gain	Correct	Incorrect	
Birth Defects	Correct	Incorrect	
Nausea	Correct	Incorrect	
Hair Loss	Correct	Incorrect	
Permanent Sterility	Correct	Incorrect	
Temporary difficulty in getting pregnant?	Correct	Incorrect	
Can Prevent STDs?	Correct	Incorrect	
Affects Gender of the baby?	Correct	Incorrect	
Decrease the number of abortions?	Correct	Incorrect	
Cause an abortion?	Correct	Incorrect	

Appendix 2



State of Palestine
Ministry of Health - Nablus
General Directorate of Education in Health

دولة فلسطين
وزارة الصحة – نابلس
الإدارة العامة للتعليم الصحي

Ref.: .....
Date: .....

الرقم: .....
التاريخ: .....

الأخ مدير عام الادارة العامة للمستشفيات المحترم،،،

تحية واحترام،،،

الموضوع: تسهيل مهمة طلاب

تماشياً مع سياسة وزارة الصحة المتعلقة بتعزيز التعاون مع الجامعات والمؤسسات الأكاديمية بإتاحة فرص التدريب أمام الطلبة والخريجين والباحثين في المؤسسات الوطنية وإسهاماً في تنمية قدراتهم.

يرجى تسهيل مهمة الطالبتين: بيسان وراسنه وسماء الأطرش – تخصص صيدلة– جامعة القدس، في عمل بحث لدراسة مبدئية حول: "مؤشرات الصحة العامة لدى المجتمع الفلسطيني "، لذا يرجى تسهيل مهمتهم في الحصول على المعلومات اللازمة من خلال مقابلة مرضى (بعد اخذ موافقتهم على المشاركة في البحث) لتعبئة استبانة الدراسة وذلك في مستشفى عاليه الحكومي، علما بأنه سيتم الالتزام بمعايير البحث العلمي والحفاظ على سرية المعلومات.

مع الاحترام،،،

مدير عام التعليم الصحي

دولة فلسطين
وزارة الصحة
الإدارة العامة للمستشفيات
مستشفى الخليل الحكومي
وارد
الرقم: .....
التاريخ: .....

دولة فلسطين
وزارة الصحة
الإدارة العامة للمستشفيات
وارد
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Appendix 3

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الموضوع: المساعدة في اجراء بحث علمي

تقوم الباحثة _____ من كلية الصيدلة في جامعة القدس بإجراء بحث ميداني يهدف إلى دراسة إستعمال موانع الحمل لدى النساء الفلسطينيات وتوجهاتهم نحوها. لذا نرجو من حضرتكم تسهيل مهمة الباحثة في الحصول على المعلومات اللازمة لإجراء البحث، علماً بأنه لن يتم التعرض لبيانات المشتركين في هذه الدراسة وسيتم مراعاة أخلاق البحث العلمي.

شاكرين لكم حسن تعاونكم،

مشرف البحث
د. أحمد عمرو
كلية الصيدلة
جامعة القدس
جوال: 0599205307

المعرفة والمواقف والممارسات للنساء الفلسطينيات تجاه وسائل منع الحمل

إعداد الطالبة: نعيمه مازن حمدي رجبي

إشراف: د. أحمد عمرو

الملخص

الخلفية: تُستخدم وسائل منع الحمل حاليًا في جميع أنحاء العالم، كما أعلنت منظمة الصحة العالمية ، ويتم توفيرها كواحدة من حقوق المرأة في تيسيير قرارات تنظيم الأسرة. على الرغم من أن وسائل منع الحمل لها كفاءة موثقة ، إلا أنها تعتمد بشكل كبير على معرفة النساء والالتزام بالوسائل المتاحة التي يجب معالجتها لتحقيق نتائج أفضل. في هذه الدراسة، كنا نهدف إلى استكشاف المواقف ومعرفة النساء الفلسطينيات المتزوجات تجاه وسائل منع الحمل ومعرفتهن بالطرق المتاحة وبآثارها الجانبية.

الطريقة: أجريت دراسة مقطعية معبرة على النساء الفلسطينيات المتزوجات في سن الإنجاب بين 18 و 50 سنة من يناير 2017 إلى يناير 2018. تم اختيار عينة عشوائية طبقية من 900 امرأة على أساس الكثافه السكانيه لكل محافظة. أُجري جمع المعطيات من خلال استبيان بمساعدة المقابلة الشخصية ، والذي يبحث في العوامل الديموغرافيه كالمعلومات سكانية ، والعدد الحالي للأطفال ، وحالات الحمل غير المخطط لها ، وطرق تنظيم الأسرة ، وتعليمات الاستخدام ، وآثارها الجانبية المتوقعة من بين أمور أخرى.

تم معاينة 900 امرأة ، بنسبة المشاركة 92.5 ٪ و 4.3 ٪ الاستبعاد. أظهرت النتائج أن 42.7٪ فقط من النساء لم يبلغن عن استخدام وسائل منع الحمل الحالية. من خلال حياتهم الزوجية ، أفاد 37.6 ٪ لديهم واحد على الأقل من الحمل غير المخطط له. ضمن الطرق المختلفة المتاحة ، كان اللولب الأكثر استخدامًا بنسبة 40.5٪. بينما كانت موانع الحمل الفموية (الأقراص) هي الطريقة الثانية مع معدل استخدام 21 ٪ ، حيث أن الحبوب من النوع الذي يحتوي على بروجستين فقط كان الأكثر شيوعا (28 ٪) بين الحبوب. تم استخدام عمليات العقم كوسيلة لتحديد النسل في 2.5 ٪ من النساء المتزوجات. أوضحت دراسة الأسباب وراء استخدام موانع الحمل أن تنظيم الحمل هو السبب الأكثر شيوعًا مع (78.8٪) و (20.2٪)

لإنجاب الكثير من الأطفال و (11.2٪) لأسباب اقتصادية. فيما يتعلق بالمعتقدات الخاصة باستخدام موانع الحمل ، تعتقد 6.4٪ من النساء أن الدين يحرم استخدامها ، واعتبرها 14.5٪ غير مقبولة اجتماعيًا. من وجهة نظر شخصية ، يعتبر 5.7٪ من النساء أن استخدام وسائل منع الحمل غير مقبول. وكذلك 8.5 في المائة من شركائهم (أزواجهم). كشفت الدراسه عن نقاط ضعف المعرفة عند طرح 14 سؤال (متوسط =8.2) حول الاستخدام الصحيح والاثار المحتملة لوسائل منع الحمل.

الاستنتاجات: لقد استخدمت غالبية النساء الفلسطينيات وسائل منع الحمل في الماضي أو يستخدمن حالياً. رغم ذلك ، فإن المعرفة الضعيفة باستخدام موانع الحمل والآثار الجانبية واضحة. تعكس مواقف النساء الفلسطينيات ، وكذلك شركائهن ، تجاه وسائل منع الحمل ، القبول العام لاستخدامهن. لذلك ، هناك حاجة لتعليم النساء الفلسطينيات وشركائهن بفوائد منع الحمل وتطهير المفاهيم الخاطئة الشائعة..