Skim Geran Penyelidikan UMS- Skim Pensyarah Lantikan Baru
(SLB0034-SKK-2013)

KNOWLEDGE, ATTITUDE AND PRACTICE OF CONTRACEPTION BY DOCTORS AND WOMEN IN KOTA KINABALU, SABAH

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2014

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ABSTRACT

Introduction: Over the past decade researchers have come up with reliable data to confirm the relationship between an increased availability of effective contraception and reduction in induced abortion rate. In Malaysia, the contraception prevalence rate according to the Malaysian Population and Family Survey in 1966 was 8.8 percent. It increased substantially to 36 percent in 1974 and further to 52 percent in 1984, but has leveled off since then to about 52% in 2004.The latest but unpublished data reported in 2014 showed 55%. The negative effect of this situation can be seen in the increasing report of babies 'abandonment, maternal mortality due to unsafe abortion and probably many other adverse effects associated with unintended pregnancy, although data on the latter is scarce. There is limited research on unmet contraceptive use in Sabah. The aim of this study is to determine the knowledge, attitudes and practices related to contraception among women and doctors. The findings of this study can provide ideas for planning and implementing appropriate maternal health service delivery programs.

Methods: This study uses descriptive as well as analytical community based cross sectional study. The clinics are selected using random systematic sampling method. A total of 240 women and 60 doctors were selected from either private or public clinic in Kota Kinabalu. The instrument used was face to face interview and self-administered questionnaires for patients and doctors respectively. Statistical analysis was done using SPSS version 21.

Results: Majority of the doctors (80%) felt that contraception is extremely important, and routinely discuss (63%) it with their patients. Oral contraceptive pill (97%) is the most common type of contraceptive available in the doctor clinics. About 68% of doctors cited that abstinence plays a major part in their contraceptive advice. The average correct answer by doctors on knowledge is 62%. Almost all the women surveyed (98.8%) have heard of contraception from health professionals. The main reason for using is for spacing of pregnancy and many stops or did not use because of fear of side-effect. Women attending the public clinic appear to know more about female and male sterilization and intrauterine contraceptive device compared to those attending private clinic.

Conclusion: This study showed that both patients and doctors agreed the importance of contraception. The low uptake of contraception appears to be due to concern of side-effects. It is surprising to find out that 68% of doctors cited abstinence as major part of their contraceptive advice. The basic contraceptive knowledge of primary care doctors appears inadequate. Further and larger sample size is needed to reinforce this study.

Keywords: Knowledge, Attitude, Practice, Contraception, Doctor, Women, Sabah

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INTRODUCTION

Worldwide, 41 percent of pregnancies were unintended in 2008 (Singh & Hussain, 2010). Unintended pregnancies impacts adversely upon a woman`s lives in many ways. There are social, economic, cultural and health consequences, and at times even Maternal Mortality. Among the common outcome for a mother with unintended pregnancies are, lack or absence of antenatal care and its adverse sequelae as well as missed opportunities for higher educational achievements especially where it involves teenage mothers. Babies born to mothers with unintended pregnancies have been known to be associated with low birth weight and slow cognitive developments (Carson, Kelly, Kurinczuk, Sacker, Redshaw & Quigley, 2011).

Over the past decade researchers have come up with strong reliable data to confirm the relationship between an increased availability of effective contraception leading to reduction in induced abortion rate. There have been multiple studies showing the relationship between contraceptive use, unintended pregnancies and abortion. These studies demonstrate the consistent contraceptive use leads to low rate of unintended pregnancies and consequently abortion.

This relationship has been difficult to demonstrate. The reasons for this difficulty were initially due to the lack of reliable data on abortion. Women who have had abortion are reluctant to admit due to various reasons especially in countries where abortion is illegal. In countries where abortion is legal, women still prefer to seek abortions outside the public health system for confidentiality and convenience reasons. The other reason for the lack of reliable data concerning relationship between contraception and abortion include lack of data about use of contraception among single sexually active women, method failure and incorrect use among all users (Singh & Sedgh, 1997).

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The declines in abortion associated with increased availability of effective contraception are found in many researches. The few examples are in the states of the former Soviet Union and Eastern and Central Europe, where abortion rates dropped by 25 percent to 50 percent during the past decade (Henshaw, Singh & Hass, 1999). The lowest abortion rates are recorded in Belgium and Netherlands, where contraception is used extensively, while the highest rates are found in Cuba and Vietnam, where clients have access to a limited range of contraceptive methods (Henshaw, Singh & Hass, 1999). A study in Bangladesh provided a strong data linking lower abortion rates with better access to high-quality family planning services and greater contraceptive use (Rahman, DaVanzo & Razzque, 2001).There many more studies that offer strong evidence that effective use of contraception leads to declines in induced abortion rates (Senlet P, 2001).

These studies are very important to help understand the relationship between family planning and abortion, to guide policy-makers, program managers, and providers to identify ways to improve reproductive health services. It is indeed vital to countries where unsafe abortion leads to serious threat to women's health. In developing regions it is the cause of close to 13 percent of maternal death compared to 4 percent in developed regions (WHO, 2011). It account for the largest proportion of hospital admission for gynaecological services in developing countries (Singh S, 2006).This will affect the resources in many hospitals. A study by UNFPA/Guttmacher Institute showed that each dollar spent on contraception would reduce total medical spending by $1.40 by cutting down on sums spent on unplanned births and abortions. Availability and access to contraception services can avoid many of the abortion related morbidity and mortality. This fact has become even more important of recent years as many countries have curtailed funding for family planning (Singh & Derroch, 2012).

The World Health Organisation fact sheet showed that lack of access or fear of side effect to family planning is a major factor behind the 222 million unmet needs for contraception in the developing world. These unintended pregnancies lead to 22 million unsafe miscarriages, causing 47,000 deaths. For every woman who dies, 20 more suffer serious disabilities and the numbers ranges from 8 to 20 million annually. Research shows that 1 in 10 pregnancies will end in an unsafe abortion with Asia/Africa and Latin America accounting for the highest numbers. Pregnancy related deaths is the leading cause of death for adolescents 15 to 19 years old worldwide and in many countries, sexual and reproductive health services tend to focus exclusively on married women and ignore the needs of adolescents and single women. Up to 1 in 3 women worldwide will experience violence at some point in life which can lead to unwanted pregnancy and abortion among many things (WHO, Family Planning , 2012).

Realizing the importance of this fact, during the 1990's UNFDP has organized a series of conferences that emphasizes on reproductive rights as cornerstone of development. The reproductive rights among others include the right to decide the number, timing and spacing of children, the right to voluntarily marry and establish a family and the right to the highest attainable standard of health. The reproductive rights were clarified and endorsed internationally in the Cairo Consensus that emerged from the 1994 International Conference on Population and Development (UNFPA, 1995).

In Malaysia family planning services has been available even prior to 1966. Over the years there have been changes in the family planning policy in line with the Government population policy in 1984 to achieve an ultimate population of 70 million by 2100.The change in policy indirectly affects the emphasis on provision of contraception. The contraception prevalence rate according to the Malaysian Population and Family Survey in 1966 was merely 8.8 percent. It increased substantially to 36 percent in 1974 and further to 52 percent in 1984, but has levelled off since then. It was noted that unmet need for modern contraception among Malaysian had increased from 25 percent in 1988 to 36 percent in 2004 (Huang & Lim, 2012).

The increasing unmet contraceptive need means more unwanted pregnancies and more need for abortion. In Malaysia, between 1997 to 2005 abortion accounts annually for one to nine maternal deaths according to the Confidential Enquiries into Maternal Deaths in Malaysia

by the Ministry of Health (Ying, 2008). There are also an increasing number of babies being abandoned. Between January to December 3, 2012 86 cases of abandoned babies, as compared to 79, during the same period last year as reported by the police. From 2001 to 2004, the Social Welfare Department recorded 315 cases of abandoned babies, while police statistics revealed about 100 cases a year (Ang., 2007).Table 1 showed the number of 'baby dumping 'reported in each state from 2005 to 7 April 2010 according to the Royal Malaysian Police Statistic.

One of the World Health Organization's Millennium Development Goals is to promote gender equality and empower women. That goal cannot be achieved without also empowering women with reproductive as well as contraceptive knowledge and access. Malaysia being one of the member nations of United Nations is also a signatory to the Convention of Elimination of all forms of discrimination against Women (CEDAW) and is committed as a nation to do whatever to make the lives of women and young girls better, richer and healthier. Family planning is a human right and is essential to women`s empowerment and that includes all women, the young as well as unmarried.

Rationale and Hypothesis of Study

It has been proven that increasing contraceptive usage will lead to reduction of induced miscarriage rate. The contraception prevalence rate in Malaysia has clearly remained unchanged for the past 20 years. The negative effect of this situation can be seen in the increasing report of babies 'abandonment, maternal mortality due to unsafe abortion and probably many other adverse effects associated with unintended pregnancy, although data on the latter is scarce.

The low and unchanged contraceptive prevalence rates are thought to be contributed by lack of knowledge and attitudes of both women and doctors. The data found on prevalence and unmet contraceptives uses are mostly from West Malaysia. There is also no data to date about the contribution of doctors in Sabah to the unmet contraceptive use. It is thus appropriate and timely that a study on the knowledge, attitudes and practice of doctors and women towards contraception in Sabah be undertaken. A preliminary study will be done in Kota Kinabalu. Conceptualization of the study result will be done and if necessary modification of the study and

subsequently expanding the survey in whole of Sabah. From this pilot study, the availability and practice of contraception can be explored to determine the knowledge, attitudes and practices related to contraception among women and doctors. It can be used as a guide to policymakers, program managers, and providers identify ways to improve reproductive health services. The findings of this study will provide ideas for planning and implementing appropriate maternal health service delivery programs which can improve the health and well-being of both mother and child.

Table 1: The Number of Baby Dumping Reported in Each State from 2005 to 7 April 2010 According to the Headquarters Of Royal Malaysian Police (PDRM).

States	**Number of cases**
Selangor	105
Johor	83
Sabah (S, 2007)	65
Sarawak	34
Negeri Sembilan	24
Pulau Pinang	22
Perak	19
Pahang	17
Kedah	17
Kelantan	10
Terengganu	5
Melaka	3
Kuala Lumpur	2
Perlis	1
Total	**407**

Hypothesis

1. Patients lack of knowledge lead to misconception towards contraception subsequently refusal the use contraception.
2. Doctors lack of knowledge lead to non-provision of contraception, and wrong advice to patients which causes the increase unmet need for contraception.

Objectives

This study embarks on the following objectives:

1. To find out about prevalence of contraceptive use in women of reproductive age group in Kota Kinabalu, Sabah.
2. To look at the reasons behind the unmet contraceptive needs.
3. To look at doctors possible contributions towards the unmet needs.
4. To recommend an integrated approach based on the study results to:
    a. Increase contraceptive uptake and acceptance by women.
    b. Increase doctor knowledge and strengthen contraceptive practice.
    c. Decreasing the level of unintended pregnancy and abortion.
    d. To enhance further the agenda of pregnancy by choice rather than by chance.
    e. To contribute to national database regarding contraceptive practice so that government and non-governmental organizations can reliably use these data in shaping future national or locally based policies.
5. Conceptualization of the study result, modification of the study if necessary and subsequently extend the survey in whole of Sabah and if possible Malaysia.

METHODOLOGY

This study is a descriptive clinic based cross sectional study. The study populations selected were women attending the public and private clinics in Kota Kinabalu, Sabah. The inclusion criteria were all women age between 18 to 45 years old attending maternal and child clinics. Women who have had a hysterectomy are excluded from this study. The study period was for 6 months from November 2014 to April 2015. Systematic sampling method was used for selection of women and study clinics. To calculate the total number of sample the total population of women age 15 to 49 and the prevalence rate in Malaysia was taken into consideration which was 226,029 (Sabah Census 2010) and 54.5% (1994) respectively. The total sample size was 240. Subjects were equally from public and private clinics which is 120 from each sector. The total sample for doctors was calculated to be 65 based on the expected contraceptive practice of 60% and prevalence rate of 80% with precision of 5%. Fifteen and 45 doctors were selected from public and private respectively. The public and private clinics were randomly selected.

The questionnaires were designed according to KAP methodology and validated in Malay and English language. Face to face interview were used for patients and self-administered for doctors. A training course regarding data collection was conducted for nurses and interviewers. All participants were given subject information sheet regarding the study and signed consent forms. An ethical clearance from health authorities such as Ministry of Health, Sabah and ethical committee of Medical School, UMS were obtained.

Statistical analysis used was SPSS version 17. The tests that used were descriptive analysis, frequency, relative frequency for prevalence, and Person Chi square test for independent sample categorical data analysis, and hypothesis testing for the hypothesis of this study. A

Data collected was entered into a Statistical Package for Social Sciences (SPSS) database using a double-punch method and latter matched to eliminate possible data entry errors.

RESULTS

Women

A total of 184 women did the survey, 88 and 96 from the public and private sector respectively. Thirty-seven percent of the women were of Kadazandusunmurut (Indigenous people) ethnicity, 10% were Malays, and 9% Chinese and 49% stated others as their ethnicity. As for education level, 11% and 59% studied up to primary and secondary school respectively. There were 19% with tertiary education and 4.5% postgraduate level. Five percent had no formal education. Ninety-six percent of the women who did the survey were married.

Almost all the women who did the survey have heard of contraception before (98.8%). They heard it from doctors (39.1%), other health professionals (27.2%), and friends (22.8%), media, internet, radio or television (6.5%) and from family (4.35%). The respondents have heard of the contraceptive pills (90%), injectable contraception (87%), condom (81%), intrauterine device (70%) and implants (53%). Only 10% and 7.4% of respondent have heard of intrauterine system and patch respectively. Ninety-seven percent of the respondents from the public sector and 66.7% private sector acknowledge that contraception was discussed with them during their clinic visits.

Of all the women who participated in the survey 87.5% have used contraception before. The most commonly used contraception was the pill (56%), followed by injectable (43.4%), condoms (17.9%), and IUDs (10.5%). Some used lactationalamenorrhea (9.1%), rhythm method (5.6%), implanon (5.1%), done the female sterilization (4.6%), rings (4.2%), male sterilization (2.8%), IUS (2.6%) and a small number (less than 2%) have used the female condom, diaphragm, and patch. They get their contraception mainly from either government or private clinic depending on where the survey was done. A small percentage (10.7) obtained their contraception medication from pharmacies. Of the women surveyed, 24.6% used contraception for less than 6 months, 33.3% used between 6 to 12 months, 27.5% used for two years, 1.4% used for 3 years and 13% used for more than 3 years. Planning for another child was the main reason for stopping the contraception (64.2%), other reasons stated was worried of side effect (20%), not able to tolerate side-effect (7%), became pregnant while on contraception (4.5%) and asked to stop by husband (4%). Weight gain was the main concern

when it comes to side-effect of contraception (85%), other concern were emotional effect (8.7%), subfertility (4.3%) and less than 1% stated concern over pigmentation and cancer. Of those who never used contraception: 57% stated side-effect, 20.3% husband objections, 6.5% against their religion and less than 4% stated because they were advised by health professionals not to take. Almost all (97.5%) think that contraception is important.

There were no significance differences of answers provided by women attending the public and private clinic except on 2 questions. There was significance association between the clinic type and knowledge ($p<0.001$) and usage ($p=0.01$) of contraception. Only 0.59% of women attending public clinic have not heard of contraception in contrast to 5.88% from the private clinic. There were only 5.81% of women attending the public clinic who have not used contraception before compared to 17.44% from the private clinic.

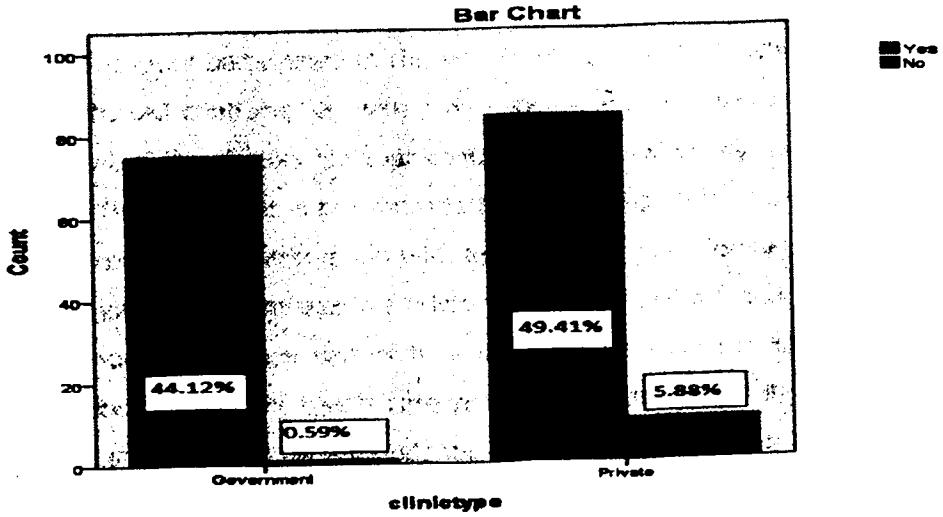

Figure 1: Association between clinic types and knowledge on contraception

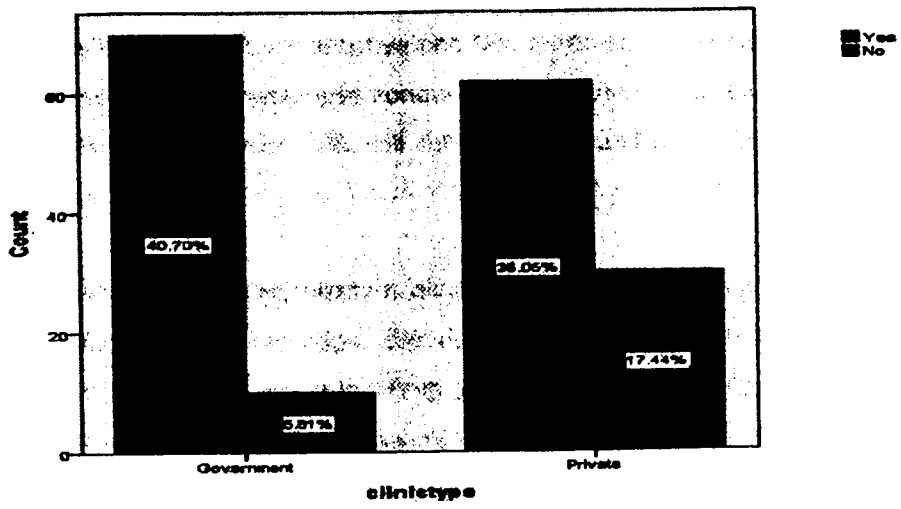

Figure 2: Association between clinic types and usage of contraception

Doctors

A total of 35 doctors participated in the survey. More than half; 63% of the doctors surveyed routinely discussed contraception with their patients and 34% will only discuss upon request. Eighty percent of the doctors felt that contraception is extremely important to the total well-being of the female patient in the reproductive age group. Almost all (92%) the doctors were comfortable discussing contraception with teenagers or single female patients. Abstinence was always a major part of contraceptive advice for 23% of doctors and 46% of Doctors reported that abstinence play a major part of their contraceptive advice most of the time. Ninety-four percent of doctors felt that health care professionals should initiate contraceptive discussion rather than patient. Among all respondents, 66% of doctor felt contraceptive discussion should be by doctors and 35% felt that it should be left to nurses. When it comes to barriers to contraception the doctors cited the causes were 36% due to fear of side effect, 27% false belief, 6% husband objections, 18% financial problems and other causes such as patients attitude and religious reasons. The available type of contraceptive methods in the doctors practices are IUCD 54%, IUS 3%, injectable 83%, implants 26%, pills 89%, condoms 34%, patch 9%, ring 6%, lactationalamenorrhea 37%, rhythm method 40%, and withdrawal method 20%. The types of contraceptives that doctors that they will discuss and offer patients were male sterilization 29%, female sterilization 40%, IUCD 69%, IUS 11%, injectable 91%, implants 66%, pills 97%, condoms 57%, patch and ring 6%, LAM 31%, rhythm 29%, and withdrawal

method 18%. Sixty-six percent of doctors routinely assess patient's need for contraception, 83% routinely discuss the Contraceptive and Non contraceptive benefits of Contraception while 48% only discuss the side effects of contraceptives in their counselling. For complicated cases, 72% will refer to O&G while 15% will refer to KKIA and only 3% will refer to Government Hospitals.

The World health Organization eligibility criteria were used as a basis to assess the doctors knowledge on contraception. Slightly over half (51%) of the doctors said that the latest a woman can start contraception is within 5 days of LMP. Majority (77%) said that a woman can start OCP immediately post abortion or miscarriage. Almost all answered that a woman can have an injectable contraception immediately after another hormonal contraception without waiting for the next menstruation. Only 33% answered that an IUCD cannot be inserted on an amenorrhea woman. In terms of whether antibiotics are needed during copper IUCD insertion, 76% answered yes, 7% no and 17% were unsure. On emergency contraception 46% get the right answer. Sixty percent of the respondent answered that there is risk of pregnancy when the pill are missed. In terms of what should be done when a woman develops amenorrhea while on injectable, 94% of respondent thinks counselling is sufficient. When a woman develop heavy bleeding while on injectable, 30% of doctor respondent will treat with Norethisterone, 27% will treat with Ethinylestradiol, 21% with Provera and 21% did not response. When a woman gets pregnant while on IUCD, 42% of doctors will remove after counseling, 39% will not remove, 18% was unsure what to do. Seventy-seven percent of 77% of doctors answered that breast and pelvic examination is essential and mandatory before prescribing any type of hormonal contraception. On average 62% of primary health care advices and management of contraceptive cases were in compliance with WHO recommendations.

DISCUSSION

This study showed that women are aware of contraception and the main source of information is from health personnel. The contraceptive pill is the main method of contraception; this is in agreement with many published data (Mosher et. al., 2010; Guttmacher Inst., 2015). The other method that is commonly use is injectable, which is not reported in most published data. Most data reported that the condom is usually the other contraceptive method that is more commonly used (Mosher et. al., 2010; Guttmacher Inst., 2015). However this finding correlate with this study result on knowledge, most women in the study have heard of the pills followed by injectable. The selected public clinics in this study are clinics for women and children whereby the private clinic are general clinic that serve all population hence contraceptive were discussed more than those private clinic. This also explained the relatively low knowledge and usage of contraception among women attending the private clinic. One of the main reason for stopping or not using contraceptive was concerned of its' side-effect. Studies have shown that all contraceptive methods do have some minor side-effect but with proper selection will not cause any significance effect on a woman life. In-fact compared to the risk of unintended pregnancy, side-effect of any contraceptive methods is minute (Barr & Geffen, 2010). Recent data have shown that the most effective contraceptives are the long acting reversible contraceptive (LARC) (Winner et. al., 2012). However it is not the most discussed or commonly used methods in this study.

The healthcare professionals have been shown to have a major influence on women mode of delivery and choice of contraception (Johnson et. al., 2013; Bitzer et. al., 2012). This stresses the important role of healthcare professionals in unmet need for contraception. It is surprising that although 94% of doctors surveyed answered that healthcare professionals should initiate contraceptive discussion only 63% routinely discussed with patients. Another surprising finding of this study is that 69 % of doctors cited that abstinence always or most of the time a play a major part in their contraceptive advice. It was also interesting to note that of the surveyed group of doctors, their advices and management were in average 62% in compliance with WHO recommendations. The findings in this study appear to indicate that some doctors are giving inappropriate contraceptive advice and management. However, the

limitation of this study includes the low sample size of doctors who participated in this study. It would be interesting to do a bigger study and find out health professionals response.

CONCLUSION

The lack of knowledge by women leads to misconception towards contraception and refusal to use contraception. Health personnel; doctors and nursesplay a big role in educating and influencing patients to use contraception. Their lack of knowledge can lead to non-provision of contraception, and wrong advice to patients which caused the increase unmet need for contraception. A bigger study on the role of health personnel's on the use of contraception is needed to affirm the finding in this study. There is also a need to keep all health personnel involved in giving contraceptive advice to continuously update themselves on recent advances in contraception. This will ensure all women seeking advice receive similar standard information.

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APPENDIX

Results Graphs

Figure 1: Ethnic group of women participants

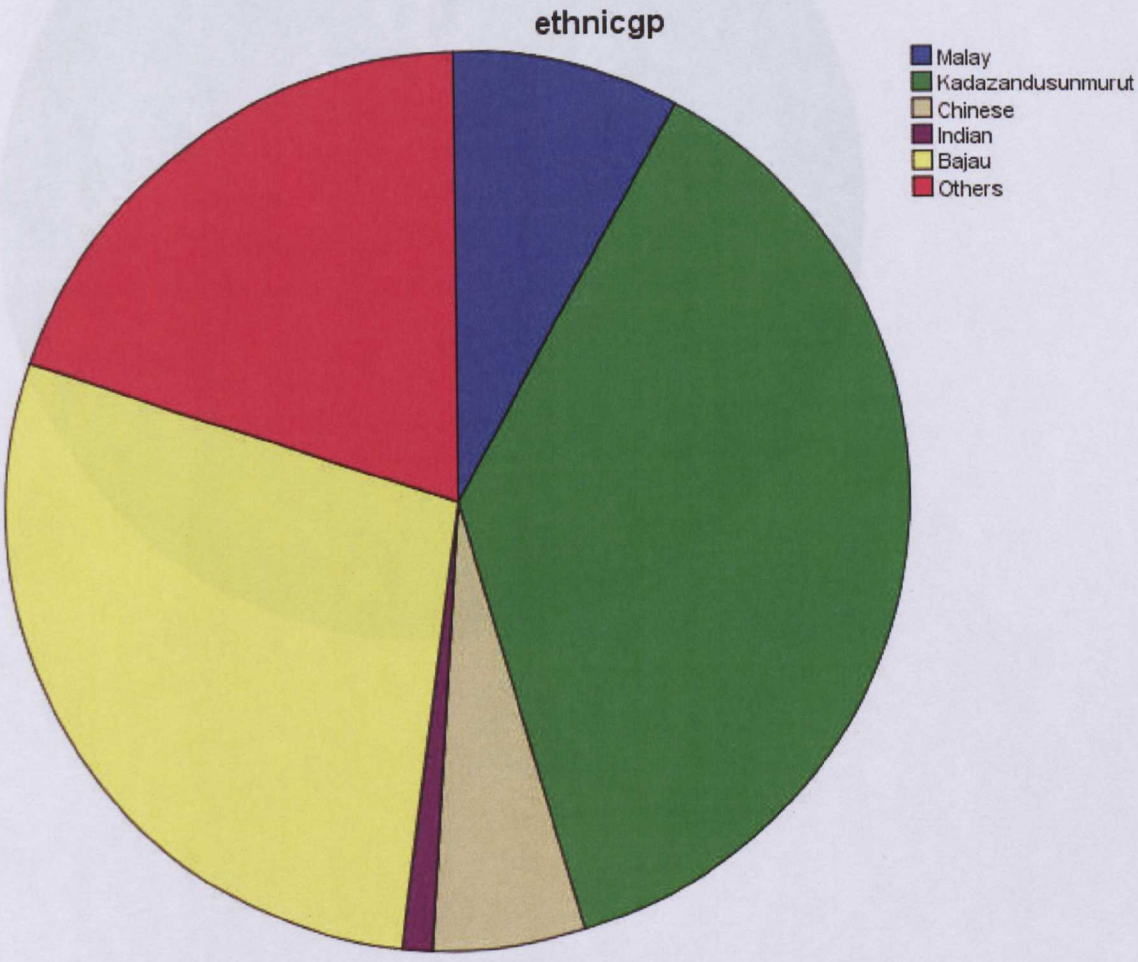

Figure 2: Marital status of women participants

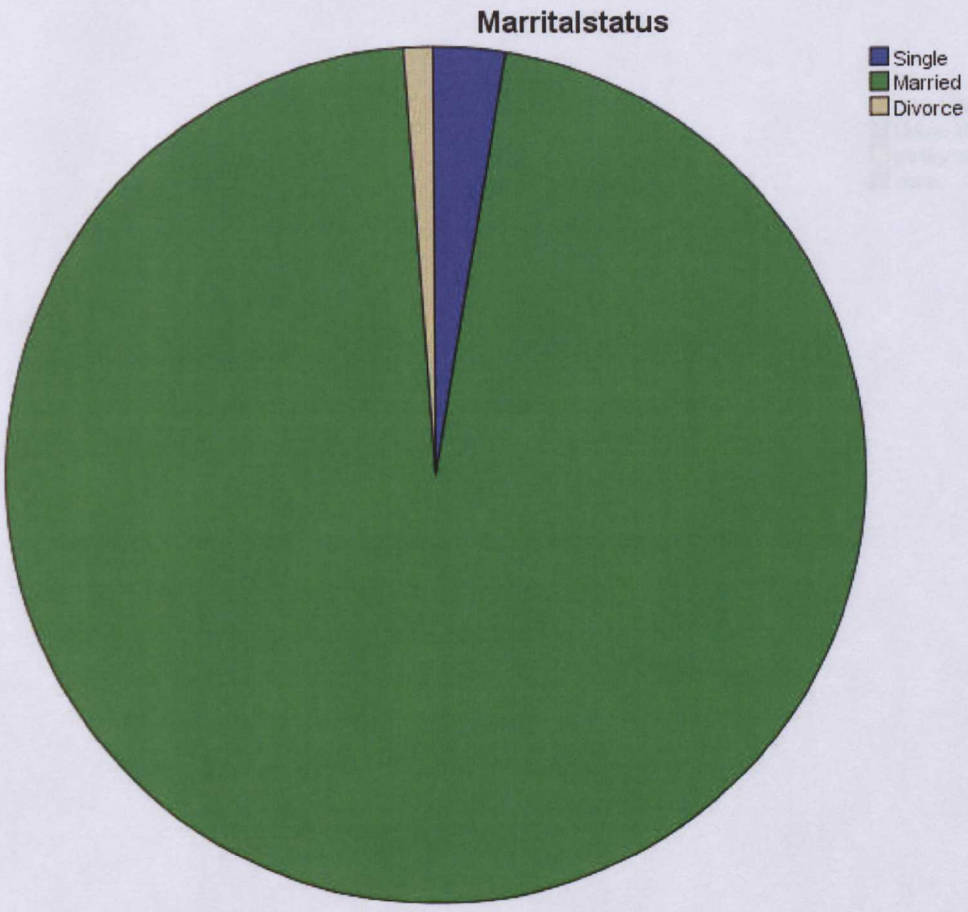

Figure 3: Education level of women participants

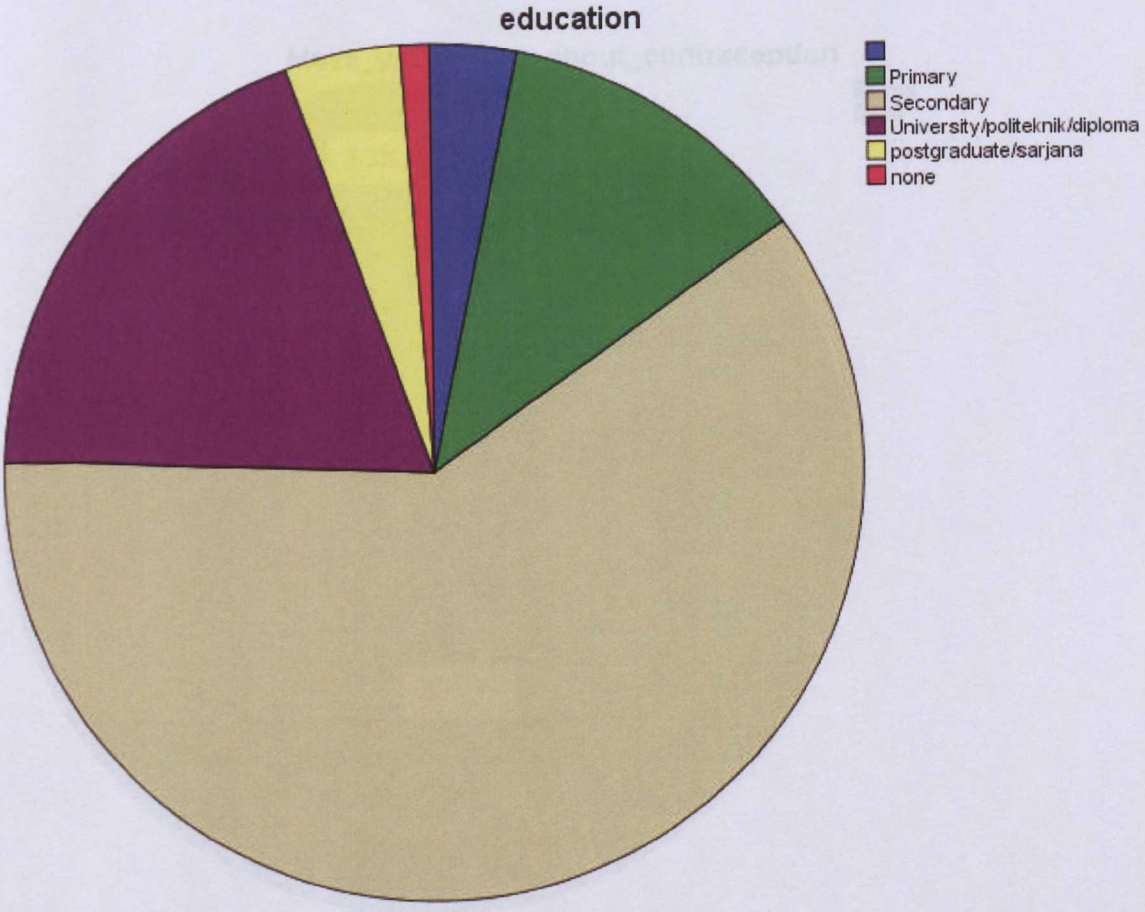

Figure 4: Percentage of women who have heard of contraception