Risk Factors of Unintended Pregnancy among Women attending Antenatal Care Clinics of Ain Shams University Hospital

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Introduction

Pregnancies can be divided into two types: intended or unintended. An unintended pregnancy may be **unwanted** (if it occurs when no children or no more children are desired) or **mistimed** (if it occurs earlier than desired). [Barber,1999]

In Egypt, unintended births comprised 23.6%; 13.8% were unwanted and 9.8% were mistimed. Contraceptive failure accounted for 28.8% of unintended pregnancies; 47.1% of women who reported unintended pregnancy were not using contraception. Age, education and parity were predictors of unwanted pregnancy. Contraceptive use and maternal employment status predicted mistimed pregnancy. Unintended pregnancy was a barrier to antenatal care, but not to child care .Only 28.8% of the women with unintended pregnancy were contraceptive users at the time of conception.(Youssef et al ,2002).

The women who were not using any contraceptive method at the time they became pregnant represented 11.1% of the total number of women surveyed which indicates the proportion of the surveyed population that have an 'unmet need' for family planning.(Youssef et al ,2002).

Examining ideal and actual fertility preferences of Egyptian women shows a clear gap between the two, with 61.6% of women having more children than they want. It is not unlikely that this gap is to some extent the result of unintended pregnancy resulting in a live birth. Indeed, unintended pregnancies not only lead to unnecessary increases in fertility , but also endanger the health and welfare of the mother, and possibly the child. A number of studies have shown that nearly half of all unintended pregnancies end in abortion, and that women who decide to

carry their pregnancy to term tend to place less value on their pregnancy, as reflected in their lower tendency to seek antenatal care. The effect of pregnancy intention on the child is uncertain. Some studies have suggested a link between unintended pregnancy and the child subsequently suffering a lack of care , while others have shown no effect. The lack of consistency in these findings may be because so much of the behavior surrounding pregnancy and motherhood is strongly culturally determined.[Youssef et al,2002].

Concerning the determinants of unintended pregnancy, a prospective study in 2 governorates of Upper Egypt revealed that the majority of women never used contraception, and unintended pregnancy was more prevalent in this category compared to those who had ever used [El-Zeini et al,2003]. In Harare, a significant association was found between unintended pregnancy and age, with women aged 19 years and below or 35 years and above having a higher risk of unintended pregnancy [Mbizvo et al, 1997].

Moreover, women with more than 5 children, and women who were unemployed, nulliparous and with low income, were significantly more likely to present with unplanned pregnancy [Forrest et al,1994].

Cultural and social factors play an important role in shaping women's attitudes towards family size and preferred sex. In Egyptian society, boys are highly valued and the lack of a boy in the family encourages further pregnancies .Nevertheless, families strive to have both sons and daughters. This explains the higher risk of unwanted birth among women who had surviving sons and daughters[Hills et al,2000].Other possible determinants that may lead to unintended pregnancy are:

- Difficulties with access to and quality of family planning supplies and services,
- Health concerns about contraceptives and side effects,
- Lack of information ,
- Opposition from husbands, families, and communities and
- Low perceived risk of pregnancy.

In addition, some women give conflicting answers to different survey questions about their fertility preferences, which may reflect ambivalence or uncertainty about childbearing and reproductive intentions (Westoff and Bankole, 1995).

One of the common results of unintended pregnancy is abortion [Grimes 1994], an outcome for which there are few, if any, data in developing countries as it is not generally reported. In addition, unintended pregnancy is associated with risky health behaviours, such as domestic violence [Donovan, 1995], decreased likelihood of breastfeeding initiation or continuation [Taylor, 2002, Dye et al, 1997], and poor antenatal care [Santelli et al,2003]. In Egypt, poor antenatal care is considered the second most important preventable factor in maternal mortality after substandard obstetric care [Campbell et al, 2005].

Unintended pregnancy is not simply the result of contraceptive failure or the lack of access to family planning, but reflects the inability of family planning programs to respond fully to client needs. Family planning programs should consider assisting women in determining their fertility goals—both in terms of number and timing of children—and advise on the most appropriate means of achieving those goals. Health visitors should ensure they are able to reach women who are reluctant to seek care of

their pregnancies, and motivate them to do so. Effective family planning programs should meet the needs of all women during their whole reproductive span. National programs should be directed to improving women's status and encouraging their employment, as these women will be able to recognize the threat of an unwanted or mistimed child, and adopt behaviors aimed at prevention conception.(Youssef et al,2002).

Aim of the work

1. To achieve safe motherhood among Egyptian women.
2. To assess the role of the following factors as possible risk factors of unintended pregnancy:

    - Employment & Education.
    - Awareness about different contraceptive methods.
    - Previous unfavorable experiences with contraceptive methods.
    - Husband opposition.
    - Low perceived risk of pregnancy.
    - Availability, accessibility &acceptability of family planning health services.
    - Method failure.

3. To put recommendations to reduce magnitude of unintended pregnancy especially among women attending antenatal care clinic of Ain Shams university

Review of literature

Every pregnancy should be intended and wanted, according to international agreements related to family planning and reproductive health. However, a significant number of women living in the Middle East and North Africa region experience unintended pregnancies (Roudi and Abdul Elmonem, 2009)

Standard definition of unintended pregnancy:

Unintended pregnancies can be defined as "pregnancies reported to have been either unwanted (i.e. occurring when no children, or no more children, were desired) or mistimed (i.e. occurring earlier than desired). Unintended pregnancy is an important issue to address because the risk factors of unintended pregnancies are similar to those of maternal mortality, and unintended pregnancy is often an indicator of the presence of risk factors for maternal mortality .(Shaheen et al ,1999)

A concept related to unintended pregnancy is unplanned pregnancy-one that occurred when the woman used a contraceptive method (contraceptive failure) or when she did not desire to become pregnant but did not use a method (unmet need). All of these definitions assume that pregnancy is a conscious decision.(Klerman ,2000)

Magnitude of unintended pregnancy

The high rate of unintended pregnancies is a serious public health issue that impedes the governments' efforts to improve women's and children's health through longer intervals between births and lower fertility (births per woman). International studies have shown that when a

pregnancy is not intended at the time of birth, it endangers the health of both the mother and child. Unintended pregnancies carry a higher risk of maternal and child illness and death because they are associated with unsafe abortions, late initiation and under use of prenatal care, poor health behaviors during pregnancy, complications during delivery, low birth weight, and problems in child development.(Roudi and Abdul Elmonem, 2009)
Every minute in the world 380 women become pregnant, 190 of these didn't plan or wish for this pregnancy ,and every minute 110 women experience a pregnancy related complication 40 of these have unsafe abortion. (Selvaraj ,2006)

Unintended Pregnancy in Egypt

Unintended pregnancy that ended in birth in 1999 was reported by 18.4%.
Mistimed pregnancies were 5.8% and unwanted pregnancies were 12.5% of total number of surveyed women.(Shaheen et al ,1999).

Unintended births comprised 23.6%; 13.8% were unwanted and 9.8% were mistimed. Contraceptive failure accounted for 28.8% of unintended pregnancies; 47.1% of women who reported unintended pregnancy were not using contraception. Age, education and parity were predictors of unwanted pregnancy. Contraceptive use and maternal employment status predicted mistimed pregnancy. Unintended pregnancy was a barrier to antenatal care, but not to child care .Only 28.8% of the women with unintended pregnancy were contraceptive users at the time of conception.

The women who were not using any contraceptive method at the time they became pregnant represented 11.1% of the

total number of women surveyed which indicates the proportion of the surveyed population that have an 'unmet need' for family planning.(Youssef et al ,2002).

Overall, the wanted fertility rate is 2.3 births per woman. Thus, if unwanted births could be eliminated, the total fertility rate in Egypt would decline by around 25 percent.

The gap between the wanted and actual fertility rates is greatest among rural women (especially those living in Upper Egypt), women in the Frontier Governorates, women who never attended school or have less than a primary education, and women in the lowest wealth quintile.

Abortion and unintended pregnancy in Egypt:

Although abortion is illegal in Egypt, one-third of women reported trying to terminate a pregnancy. Age and parity affected attempted abortion rates. The percentage of women who attempted abortion was 23 percent among women younger than age 20 and 36 percent among women 35 or older. Rates of attempted abortion were highest for women with five or more children (approximately 35 %). As expected, women who wanted to end childbearing were more likely to attempt abortion than women who wanted to space or delay pregnancy. Women with a secondary education were less likely to seek abortion than women with no schooling (19 % versus 32 %). In all geographic regions except the Urban Governorates, women were most likely to seek help from a physician in terminating a pregnancy. Forty-four percent of women said they saw a doctor but were refused help, 21 % consulted a physician who gave them medications, 35 % used traditional abortion methods, and 15 % tried a combination of modern and traditional methods. **(**Kader and Makhlouf ,1998)

Egypt demographic and health survey (EDHS) shows the percent distribution of births in the five years preceding the 2005 EDHS by planning status of the birth. Overall, 19 percent of births in the five-year period were not wanted at the time of conception, with seven percent wanted but at a later time and 12 percent not wanted at all. The proportion of births that were not wanted at the time of conception increases directly with birth order.

Somewhat more than two-fifths of all fourth and higher order births were unplanned, compared to only about 15 percent of second order births. The planning status of births is also affected by ***the age of the mother***. In general, ***the older the mother, the larger the percentage of children that are unwanted at conception;*** for example, more than half of the births to women age 40-44 are unwanted.(El Zanaty et al.,2005)

Risk Factors related to Unintended pregnancy

Cultural and social factors play an important role in shaping women's attitudes towards family size and preferred sex. In Egyptian society, boys are highly valued and the lack of a boy in the family encourages further pregnancies .Nevertheless, families strive to have both sons and daughters. This explains the higher risk of unwanted birth among women who had surviving sons and daughters (Hills et al,2000).

Unintended pregnancy includes the following points:

A- Unmet need, risk factors for unmet need are:

1. Difficulties with access to and quality of family planning supplies and services,
2. Health concerns about contraceptives and side effects,

3. Lack of information ,
4. Opposition from husbands, families, and communities ,
5. Low perceived risk of pregnancy and
6. Apparent ambivalence.

B- Method failure
C- Inconsistent use of contraception

A-Unmet need for family planning:

An important question that concerns the relationship between contraceptive need categories and unintended pregnancy is "To what extent are unintended pregnancies concentrated among women with unmet need?" From one perspective, this question answers itself: **Except for those resulting from contraceptive failure, unintended pregnancies by definition occur to women with an unmet need for contraception at the time of conception**.(El-Zeini ,2003)

Unmet need for family planning—i.e., use of no method despite sexual exposure and an expressed desire to avoid pregnancy—characterizes an estimated 17% of married women in the developing world.(Ross,2002)

The average woman must use some form of effective contraception for at least 20 years if she wants to limit her family size to two children, and 16 years if she wants four children.

• Two-thirds of unintended pregnancies in developing countries occur among women who are not using any method of contraception.

• More than 100 million married women in developing countries have an unmet need for contraception, meaning they are sexually active; are able to become pregnant; do

not want to have a child soon or at all; and are not using any method of contraception, either modern or traditional.
• The reasons why women (married and unmarried) do not use contraceptives most commonly include concerns about possible health and side effects and the belief that they are not at risk of getting pregnant.(Guttmacher,2007)

Among the most common reasons for unmet need are inconvenient or unsatisfactory services, lack of information, fears about contraceptive side effects, and opposition from husbands, relatives, or others. While many women who are using contraception have similar concerns, the obstacles to contraceptive use may loom larger for women in the unmet need group, or their commitment to controlling their fertility may be less certain.(Robey et al., 1996)

1-Difficulties with access to and quality of family planning supplies and services:

In most countries unmet need is greatest among two groups that have the least access to family planning programs—rural women and women with little education (Westoff and Bankole, 1995). For some women access appears to be a persistent problem (World Bank, 1994): In the DHS the percentage of women who cite lack of access as the main reason for not using contraception is higher among women who have never used a contraceptive method than among those who have tried contraception.

Overall, the 2008 EDHS found that 60 percent of currently married women in Egypt are currently using a contraceptive method. The most widely used method is the IUD (36 percent) followed by the pill (12 percent) and injectables (7 percent). As expected, there are differences in the level of current use of family planning methods by

residence. Urban women are more likely to be using than rural women (64 percent and 58 percent, respectively). Use rates are higher in the Urban Governorates (65 percent) and Lower Egypt (64 percent) than in Upper Egypt (53 percent) and the Frontier Governorates (52 percent).(El Zanaty et al.,2008)

Within Upper Egypt, the use rate among urban women (62 percent) is markedly higher than the rate among rural women (48 percent). Within Lower Egypt, the urban-rural differential is much narrower; 66 percent of married women living in urban areas in Lower Egypt are using a family planning method compared to 64 percent of rural women. Current use rises rapidly with age, from a level of 23 percent among currently married women 15-19 to a peak of 74 percent among women 35-39. Use rates also are related to family size. Few women use before having the first birth.

After the first child, contraceptive use increases sharply with the number of living children, peaking at 76 percent among women with 3-4 children, after which it declines. (El Zanaty et al.,2008)

2-Health concerns about contraceptives and side effects:

There are multiple interpretations of the meaning and cause of fear of side effects as measured by surveys such as the DHS. Respondents may be referring to fear that a side effect of a contraceptive method will make a respondent unwell, fear that they will be unable to obtain medical care in the event of experiencing a side effect, fear of the possible social consequences of side effects such as menstrual disruption. This fear may be based past personal experience of using contraception, from the observed or relayed effects on others in the community or it may be a

perceived fear stemming from misinformation and rumors. Each of these definitions would need very different policy or programmatic intervention if the fear of side effects were to be lessened as a barrier to contraceptive use; therefore a better understanding of this issue is required. (Claire, 2008) In many countries concerns about health and contraceptive side effects cause much unmet need (Westoff, 1995). These concerns come from a variety of sources, including women's own experiences with using contraception, experiences of friends, and the rumors that often result as these experiences are told and retold throughout communities.

Women who have never used contraception. Most women with unmet need who cite a health concern about a particular method have never used that method themselves. Sometimes they have heard about medical problems that others experienced using contraception. In the Philippines women provided interviewers with detailed, often graphic descriptions of the health risks of using contraception—for example, of women who had been hospitalized because IUDs were incorrectly inserted (Casterline ,1996). In Nepal women with unmet need told interviewers that they feared sterilization because they knew of women who had died of sepsis following sterilization procedures (Stash, 1995).

Sometimes people's fears are based on rumors. For example, a study among Aymara women in urban Bolivia found that almost all had heard alarming stories and "often fantastic" rumors about harmful side effects **(**Schuler,1994). In Kenya women in focus-group discussions spoke of pills accumulating into life-threatening masses in the stomach and other bizarre effects thought to accompany contraceptive use (Rutenberg and Watkins**,** 1996). In Nepal some women said that they would not consider sterilization

because it was said to cause weakness and so require additional nutritious foods that they could not afford.

Rumors often have a basis in reality. Thus several reasons can combine to contribute to unmet need—poor-quality services or methods lead to real health problems that, in turn, become the basis for exaggerated rumors, which are spread and believed by many people who have little direct knowledge of contraception.

According to EDHS 2005, the reasons for nonuse given by women who do not intend to use family planning are of interest to the family planning program since they help to identify areas for potential interventions to support the adoption of contraception by nonusers. More than 70 percent of nonusers have various fertility-related reasons for not planning to adopt contraception. These reasons include a perceived lack of need for contraception because the woman is subfecund or infecund (40 percent), is menopausal or has had a hysterectomy (18 percent), or is not sexually active or has sex infrequently (8 percent). In addition, seven percent of the nonusers want more children. Method-related reasons are cited by 18 percent of nonusers; nine percent mention fear of side effects and eight percent other health concerns. Opposition to use—either the woman's own attitude or that of her husband or others—is a factor for 8 percent of the nonusers.(El Zanaty et al.,2005)

Women in the survey were classified into two age groups (under age 30 and age 30 and over) in order to consider how the reasons for nonuse are related to a woman's age. Nonusers under age 30 are more likely to mention the desire to have more children than those age 30 or over (26 percent and 4 percent, respectively), while, as might be expected, lack of need for contraception because of