Abstract

Background: Myths and misconceptions about contraceptives have shaped the pattern of contraceptive use in low- and middle-income countries.

Aims: This study aimed to report the prevalence of several myths about contraceptives and their association with ever and current use of contraceptives by women in Upper Egypt.

Methods: We collected cross-sectional data from 1212 married Egyptian women aged 18-49 years who attended urban and rural health centres in Minia, Upper Egypt. Data were collected via a structured interview questionnaire and analysed by logistic regression models.

Results: 88.7% of studied women had ≥1 misconceptions about contraceptives. The most prevalent misconceptions were that birth control pills cause cancer and the intrauterine device (IUD) can travel up to the heart by penetrating the uterus. In a dose response manner, women who believed in an increasing number of myths had lower odds for having been ever-using modern contraceptives, mainly oral birth control pills; OR=0.72 (95% CI) (0.57–0.96), OR=0.61 (0.43–0.91), OR=0.48 (0.29–0.69) and OR=0.43 (0.24–0.63) in women with 1, 2, 3 and ≥ 4 misconceptions versus those with none. However, they had higher odds for using traditional contraceptives including withdrawal, calendar and breast feeding methods. Still, the current use...
of oral birth control pills and IUDs was lower among women with misguided beliefs in comparison with those who believed in none of the myths; OR=0.59 (95% CI), (0.37–0.90) and OR=0.50 (0.34–0.76), respectively.

Conclusions: Myths about contraceptives appear to be common in Upper Egypt and may have a significant effect on women’ choice and use of various contraceptive methods.

Keywords: Family planning, modern contraceptives, traditional contraceptives, women, Egypt

Citation: Eshak ES. Myths about modern and traditional contraceptives held by women in Upper Egypt. East Mediterr Health J. 2019;25(x):xxx–xxx. https://doi.org/10.26719/emhj.19.053

Received: 02/05/18; accepted: 13/08/18

Copyright © World Health Organization (WHO) 2019. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license (https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Introduction

The Egyptian Ministry of Health has announced that the proportion of current users of contraceptives remains at less than 50% and is far below the corresponding proportion of married women (>80%) who desire no more children (1). With the rapid growth of the Egyptian population from 20.8 to 91.5 million inhabitants in the past 50 years (2), strenuous efforts have been made to promote maternal and child health via family planning programmes that empower the family to make informed decisions regarding the number and interval of childbearing and to reduce unintended pregnancies.

It is undeniable that the use of contraceptives should be guided according to women’s health status (3). However, in low- and middle-income countries, culture and other non-medical factors have been shown to play an important role in women’s decision to use contraceptives (4). Despite the evidence of the impact of contraceptive use – not only on controlling fertility trends but also on women’s health, family welfare and social life in general (5) – myths about
contraceptives are still prevalent in such communities (6–8) and may hinder contraceptive uptake, which in turn attributes to lowering general health (7–9) and uncontrolled fertility rates, which represent obstacles for effective family planning programmes (7,8,10).

Myths and misconceptions about contraceptives are very common in deprived areas and low- and middle-income communities (4,6–8,11,12). In Egypt, especially in rural areas, it appears that poverty, illiteracy and misguided religiosity have created a culture and environment that facilitate the transmission of misinformation about contraceptives since their introduction in 1967 (13,14).

Published evidence on these issues still dates back to the 1980s and there remains a paucity of more contemporary studies today. Nevertheless, those earlier studies concentrated on misconceptions related only to oral contraceptive pills; for example, one study showed that 57% and 52% or urban and rural Egyptians believed that using oral contraceptive pills had substantial health risks (15). The most prevalent myths were that contraceptive pills cause severe headache (86% in rural and 95% in urban communities); anaemia (55% and 53%); sterility (20% and 37%); breast cancer (21% and 16%); and birth defects (17% and 11%) (15).

Therefore, the current study aimed to assess the prevalence of myths about various modern contraceptives used by women in Upper Egypt and explored their impact on ever and current use of modern and traditional contraceptives. It is hypothesized that myths about contraceptives in such communities could be influencing women’s choice about family planning options.

**Methods**

**Study design and population**

This was a descriptive cross-sectional study that recruited 1212 married women aged 18–49 years during their visits to any of the ten accredited urban and rural health centres (eight urban and two rural) in Minia district, Upper Egypt. Minia is an Upper Egypt governorate formed of nine districts and in which 5 million inhabitants reside in an area of approximately 30 000 km². The fertility rate in Minia according to the most recent census data was 3.8/1000 women aged 15-49 years (2). The uptake of contraceptives in Minia was 37% for the intrauterine devices (IUDs), 31% for oral contraceptives and 20% for injectables, with an overall contraceptive prevalence rate of 53% (4). These rates are comparable to national figures, which are 30% for the IUD, 16% for oral contraceptives and 9% for injectables, with an overall contraceptive prevalence rate of 59% (1).
In brief, we invited all women visiting the health centres seeking maternal and child health services and family planning services during the period from June to December 2015 to participate after giving verbal consent. Exclusion criteria included unmarried females, pregnant women, women aged <18 or >49 years, women who refused to participate or did not give their consent, and duplicate observations for women who visited the same or other centres more than once in the specified period of study. Approvals from the Egyptian Ministry of Health and the managers of the health centres were obtained, and the Minia University Ethical Committee granted ethical approval for this research.

**Structured interview questionnaire**

We collected data about the participants’ sociodemographic characteristics, reproductive history and ever and current use of modern and traditional contraceptives via a structured interview questionnaire (4). Modern contraceptives included oral birth control pills, IUDs and injectables, whereas traditional contraceptives included fertility awareness-based methods such as calendar and lactational amenorrhea and the withdrawal method. Due to the small number of participants who reported the use of barrier methods (5 for condom and 3 for diaphragm), we added these to the traditional methods category and labelled the group “traditional and barrier methods”.

**Myths and misconceptions about contraceptives**

This pilot study included 50 women from two health centres (one rural and one urban) in order to assess the contraceptive prevalence rate and non-medical factors associated with their utility. Women were asked to freely report any fears and rumours about contraceptives that they had heard or were circulating in their communities or families. Thus, participants for the main study were asked if they believed in seven primary myths that were frequently reported by women in the pilot study and related to the three main modern contraceptives available in Egypt: oral contraceptives, IUDs and injectables. Common myths were that oral birth control pills cause cancer, IUDs can penetrate the uterus and travel up to the heart, injectables cause permanent infertility, difficulty in getting pregnant after stopping use of contraceptives, contraceptives adversely affect women’s health, contraceptives are for older women only, and contraceptive use risks fetal deformity.

**Statistical analysis**

SPSS software version 20 was used for data entry and analysis. Characteristics of women who have and do not have misconceptions about contraceptives were expressed as percentage or mean ± standard deviation and the significance for differences in those characteristics were tested by χ² and t-test. Numbers and frequencies of women who reported each of the studied seven myths were given for the total participants and according to their use of contraceptives as follows: never, ever, and current users. Logistic regression modelling was used to find the adjusted odds ratios (ORs) with their respective 95% confidence intervals (95% CI) for the current and ever use of oral birth control pills, IUDs, injectables and total traditional and barrier
methods among women with versus those without misconceptions about contraceptives. In addition, these estimates were given across categories of an increasing number of believed myths as follow: 1, 2, 3 and ≥4 myths versus none. P < 0.05 was used as a cutoff point for all significant tests.

Results

As shown in Table 1, 1075 women (88.7%) believed myths about contraceptives. The majority of those who had misconceptions about contraceptives were rural, illiterate or moderately educated, and unemployed women who are married to illiterate or moderately educated occasionally working men. Women believing myths about contraceptives were younger and with younger ages at menarche, marriage and first child birth. A total of 137 (12.3%) and 100 (15.5%) of ever and current users of contraceptives respectively reported no misguided beliefs, while all women who had never used contraceptives (96, 100%) reported one or more myths about contraceptives. Among these 96 never users, they were found reporting a higher mean of desired number of children (3.7 children) compared with contraceptive users (3.3 children). In addition, although never users were four years younger than contraceptive users, their mean number of children (2.5 children) did not differ greatly from that of contraceptive users (2.4 children), which infers repetitive pregnancies and deliveries. Eleven women (14%) who were currently dependent on traditional contraceptive methods reported no misconceptions compared to 33 (16.6%), 43 (18.1%) and 13 (10.1%) of current users of oral birth control pills, IUDs and injectables, respectively.

Table 2 illustrates responses to seven studied myths about contraceptives among never, ever, and current contraceptive users and the total sample of women. The most prevalent myths about contraceptives were that birth control pills cause cancer which was expressed by almost 75% of the total sample (n=926), followed by that IUDs can travel up to the heart by penetrating the uterus in 568 (46.9%) of studied women.

The multivariable ORs (95% CI) for women in ever and current users of modern and traditional contraceptives are shown in Table 3. Women who have ever used any contraceptive method, and specifically birth control pills, had lower odds for believing myths regarding contraceptives (OR=0.79, 0.65-0.89 and (OR=0.40, 0.26-0.61, respectively). However, the ever use of traditional and barrier methods was associated with higher odds for believing myths (OR=2.32, 0.92-7.47). These associations showed a dose-response pattern with the increasing number of myths (Table 4). Among current contraceptive users, the ORs (95% CIs) for believing myths about contraceptives were 0.31 (0.20–0.47) in current users of any method, 0.59 (0.37–0.90) in current users of oral control pills and 0.50 (0.34–0.76) in current users of IUDS (Table 3), and the associations were in a dose-response shape across categories of increasing number of myths regarding contraceptives.
Table 4

Discussion

To the best of our knowledge, this is the first study to measure the prevalence of myths about contraceptives among women in Upper Egypt, and the first to detect the impact of those myths on ever and current use of contraceptives. According to our findings, myths about contraceptives were prevalent in 88.7% of studied women, mainly the belief that oral birth control pills cause cancer and that IUDs penetrate the uterus in their way to the heart. Accordingly, the ever use of oral contraceptives and current use of oral contraceptives and IUDs were lower, while the ever use of traditional and barrier contraceptives was higher in women who believed in such myths about contraceptives versus women who did not.

Challenging traditional customs and fertility habits by encouraging people to use contraceptives has always faced resistance (5,6,11–16). Due to the wide gap between scientific evidence and public perception of contraceptives’ safety, one path of resistance to contraceptives’ use was the ready transmission of health-related myths about contraceptives in Egypt (13,14). Similar to our findings, these myths were prevalent and hindered the use of contraceptives in Senegal, Nigeria and Kenya (11), Ghana (12,17), India (18), Malawi (19), Nigeria (20) and many other countries as indicated in two previously published reports (7,8).

Ever and current use of oral birth control pills was significantly lower among women in Upper Egypt who believed in myths about contraceptives. This is plausible considering that the most prevalent myth about contraceptives reported by over three quarters of those women was that oral contraceptives cause cancer. Since its availability in 1960s, oral contraceptives have been the most stigmatized method and resulting in disinformation and myths. Such falsehoods started during 1980s with the rumour that oral contraceptives cause ‘weakness’, a non-medical based condition of lethargy, dizziness and fatigue associated with contraceptive pill use, and the myth was prevalent in Egypt (13), Botswana and the Islamic Republic of Iran (21). Additional myths reported worldwide include the oral contraceptives/ovarian, endometrial and breast cancer risk association (22).

Despite the scientific evidence that IUDs are one of the safest forms of contraceptive (23), and its discontinuation rate is the lowest among contraceptive users in Egypt (1,4), the second most prevalent myth about contraceptives among women in Upper Egypt was that IUDs can travel up to the heart by penetrating the uterus, and accordingly the current use of IUDs was 50% lower among women who believed such myths. Similar falsehoods were prominent barriers to IUDs uptake in other low- and middle-income countries (7,8,24).
Parallel to the low uptake of oral birth control pills and IUDs with increasing number of myths about contraceptives, the ever use of traditional and barrier contraceptives was significantly higher among those who believed such myths. Women in communities with lower levels of educational attainment were also found to prefer traditional health practices rather than modern ones, especially if public perception of such modern methods was tainted by doubts regarding its safety.

Previous research has pointed to the non-contraceptive health benefits of modern contraceptive use on women’s health, their impact on uncontrolled fertility rates and accordingly improving family welfare (5,9). Unfortunately, observed high prevalence of contraceptives myths in Upper Egypt implies one can assume a general unfavourable health condition, high fertility rate and other adverse family impacts of our studied women (7,8). Further research regarding these effects is needed, especially with the observance of higher number of children desired by women with misguided beliefs about contraception (Table 1).

Limitations

The current study has some limitations. This study had a cross-sectional design. It is clear that myths were widely circulated and persisted even among women who were using modern contraceptives. Moreover, all never users reported believing in all or some of the myths, but unfortunately, we do not have data on timing of rumour exposure – before or after marriage for example – and the duration for believing in such myths. However, a report from eight low- and middle-income countries, including Egypt, showed no difference in the rate of contraceptive use with different durations of myth acceptance (15), and another study showed that the duration of oral contraceptive use did not influence the prevalence of misconceptions about the birth control pills (21).

Another limitation is including women from one governorate of Upper Egypt (in response to lack of funds) that could affect generalizability of the study findings; however, we recruited a reasonable number of urban and rural women for the analyses. A review has shown that male respondents in many studies have reported several myths about condoms such as weakening the penis, causing impotency or reducing pleasure (8). We have not collected information about myths regarding male contraceptive methods including condoms and might be influential in the observation that very few participants in the current study reported depending on the use of condoms. Future studies extending the investigation to include the experience of both men and women as regard to male methods of contraception are needed.
Conclusion

The belief in myths about contraceptives is common in Upper Egypt and was associated with lower utility of modern contraceptives, especially oral contraceptive pills and IUDs, but higher utility of traditional methods of contraception. Contraceptive prevalence in Egypt rose rapidly in the 1980s, and continued to rise, reaching 60% in the 2003, but has not changed significantly since then (1,2). Thus, the policy implications of our findings can be summarized in the need for reproductive health programmes to refute myths and misguided beliefs about modern contraceptives along with continuous provision of such contraceptives. Suggestions have been made toward mass media and family planning health communication campaigns to improve awareness about the properties of modern contraceptives and to change social norms about their use (25). However, we also suggest training of reproductive health service providers to interact with and respond to incorrect information held by clients, and also community participation through counseling sessions and seminars with presence of satisfied contraceptive users to share their experiences and help dispel pervasive myths in their local communities.

Acknowledgements: The authors would like to thank all the workers in health centres of the study.

Funding: None.

Competing interests: None declared.

References


24. Robinson N, Moshabela M, Owusu-Ansah L, Kapungu C, Geller S. Barriers to