

Prevalence, health and social hazards, and attitude toward early marriage in ever-married women, Sohag, Upper Egypt

Original
Article

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ABSTRACT

Background: Early marriage is associated with many social, physical, and health problems and it is common in many developing countries including Egypt. Many factors affect the decision of the timing of marriage. In this study, we aim to estimate the prevalence, social and health hazards and to identify the attitudes and factors that affect attitudes toward early marriage.

Patients and Methods: This cross-sectional study was done in Sohag, Upper Egypt. Random samples of ever-married women aged 20–60 years were taken from six districts. A questionnaire was designed to collect the data.

Results: The prevalence of early marriage is about 60%. The associated self-reported health and social hazards included: anemia (18%), hemorrhage (27.5%), uterine prolapse (37%), preterm (36%), low birth weight (31%), delayed immunization of infants (94%), separation from the husband (17%), and discontinuation of education (23%). About 42% of the studied population supported early marriage. Reasons for supporting include: to prevent premarital promiscuity (35%) and difficulty to get married later (28%). Reasons for not supporting include: being harmful to mothers (26%), difficulty in childcare, and discontinuation of education (18% each). Final models of factors significantly affecting women's attitudes indicated that the factors for not supporting early marriage were: attaining higher education and believing that early marriage is due to ignorance, is more common among relatives, and causes health or social problems.

Conclusion: Early marriage is still very common in Sohag. Including the hazards of early marriage in the curriculum of preparatory and secondary schools as well as encouraging girls to complete their education up to the university stage will help in decreasing this problem.

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Key Words: Attitude, child marriage and Egypt, early marriage, prevalence.

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INTRODUCTION

The age at first marriage is varying from one area to another in the world. However, there are many women married before 18 years in developing countries [1]. Marriage before this age is called 'child' or more commonly 'early marriage.' Egypt, one of the developing countries, suffers from this problem with one in six women still marrying early [2]. Egyptian demographic and health survey (EDHS) [3] showed that the early marriage prevalence ranged from 17% in women aged 20–24 years to 33% in women aged 45–49 years with a total prevalence of 23.8% among women aged from 20 to 49 years.

Early marriage is associated with many social, physical, and health problems such as discontinuation of education, depression, anxiety, divorce, anemia, osteoporosis, and cervical cancers [4–9]. Women married before 18 years are also more exposed to physical and sexual violence than those married after 18 years [10]. Early childbearing increases the risk of morbidity and mortality for mothers and infants [1,6,11]. Early marriage also prolongs the childbearing period which contribute to increased fertility and population problems in Egypt. In addition, infants born

to early married women were have a high risk of being preterm or have low birth weight (LBW) [11]. In addition, infant mortality was higher in women less than 20 years compared with other women [11].

Many factors affect the decision of marriage timing [9]. In this study, we aimed to estimate the prevalence of early marriage in Sohag, Upper Egypt and its related social and health hazards. In addition, women's attitude toward early marriage and the factors affecting their attitudes were investigated.

PATIENTS AND METHODS

This is a cross-sectional study. The study was carried out during 2017n Sohag, one of the Upper Egypt governorates. This study included a sample of ever-married women aged 20–60 years from six clusters. EPI info version 7 (Epi Info™, Center for Surveillance, Epidemiology & Laboratory Services (CSELS)) was used to calculate the sample size. With a 99% confidence interval, a design effect of 2 and a 23.8% prevalence of early marriage [3], the minimum estimated sample size was calculated at 786 women.

Random samples were taken from six districts. These districts are Sohag, Tahta, Dar El-salam, El-Monshah, Sakolta, and Gohina. From each district two areas were taken, one representing rural areas and the other representing urban areas.

A questionnaire was designed after reading previous articles related to the participant. Pilot study was performed on 100 women to test the questionnaire and to make necessary changes. The questionnaire was used to collect data about demographic and social characteristics, age at first marriage, and social or health hazards related to early marriage. A direct question, about if they support or not early marriage, was asked to measure their attitude toward early marriage. This was followed by questions about the reasons for supporting or not supporting it.

Statistical analysis

Data were analyzed by Stata, version 12.1 (Stata Statistical Software, Release 12; StataCorp LP., College Station, Texas, USA). Univariate logistic regression was used to report odds ratio and 95 confidence intervals. Significant data were entered in multivariate analysis. Only final model with significant variable in multivariate analysis was kept and shown in the results. A significant level was set if the P value is less than 0.05.

RESULTS

This study included 1064 ever-married women with a mean age of 35 years. Other sociodemographic characteristics are shown in Table 1.

Table 1 Sociodemographic characteristics of studied women, Sohag, Egypt, 2017

| Variables | Summary statistics |
|----------------------------|--------------------|
| Age | |
| Mean±SD | 34.83±8.47 |
| Median (range) | 33 (20–60) |
| Age group [n (%)] (years) | |
| <30 | 398 (37.41) |
| 30 to <40 | 403 (37.88) |
| 40 to <50 | 184 (17.29) |
| ≥50 | 79 (7.42) |
| Residence [n (%)] | |
| Rural | 541 (50.85) |
| Urban | 523 (49.15) |
| Religion [n (%)] | |
| Muslims | 905 (85.06) |
| Christian | 159 (14.94) |
| Level of education [n (%)] | |
| Less than secondary | 577 (54.23) |
| Secondary or more | 487 (45.77) |
| Occupation [n (%)] | |
| Not working for cash | 672 (63.16) |
| Working for cash | 392 (36.84) |

| | |
|------------------------|-------------|
| Family members [n (%)] | |
| ≤5 | 391 (36.75) |
| >5 | 673 (63.25) |
| Mean±SD | 6.72±2.24 |
| Median (range) | 7 (3–12) |
| Family income [n (%)] | |
| ≤2000 | 713 (67.01) |
| >2000 | 351 (32.99) |
| Marital status [n (%)] | |
| Married | 867 (81.48) |
| Divorced or widow | 197 (18.52) |

Prevalence of early marriage

Table 2 showed that the mean marriage age was 17.86±3.27 years. It significantly decreased with age. It was 19.19±2.46 in women aged up to 30 years, decreased gradually to reach 15.15±1.77 in those aged more than 50 years (P<0.0001). The overall prevalence of early marriage was about 60%. It was lower in women aged up to 30 years (31%) compared with other age groups (about 77–78%, P<0.0001). It was lower in urban than rural areas (37 vs. 82%, P<0.0001). Women with secondary or higher education had lower prevalence than those with less than secondary education (22 vs. 92%, P<0.0001). There was no relation between the prevalence of early marriage and religion (0=0.68).

Table 2 Prevalence of early marriage by different characteristics of studied women, Sohag, Egypt, 2017

| Variables | Prevalence of early marriage [n (%)] | P value |
|---------------------|--------------------------------------|---------|
| All women | 640 (60.15) | |
| Age group (years) | | |
| <30 | 125 (31.41) | <0.0001 |
| 30 to <40 | 311 (77.17) | |
| 40 to <50 | 142 (77.17) | |
| ≥50 | 62 (78.48) | |
| Residence | | |
| Rural | 446 (82.44) | <0.0001 |
| Urban | 194 (37.09) | |
| Religion | | |
| Muslims | 542 (59.64) | 0.68 |
| Christian | 98 (61.64) | |
| Level of education | | |
| Less than secondary | 533 (92.37) | <0.0001 |
| Secondary or more | 107 (21.97) | |

Hazards of early marriage

Table 3 shows that women married before 18 years had health and social hazards and their infants also were affected. Health hazards included anemia (18%), hemorrhage (27.5%), uterine prolapse (37%), toxemia of pregnancy (8%), and gestational diabetes (4%). The social problems reported were separation from the husband (17%)

and discontinuation of education (23%). Mothers reported that many of them had preterm deliveries (36%) and LBW infants (31%). Immunization was delayed for most infants born to women younger than 18 years (94%).

Table 3 Health and social hazards of early marriage reported by early married women, Sohag, Egypt, 2017

| Hazards | n (%) |
|---------------------------------|-------------|
| Health hazards ^a | 450 (70.31) |
| Anemia | 117 (18.28) |
| Hemorrhage | 176 (27.50) |
| Uterine prolapse | 237 (37.03) |
| Toxemia of pregnancy | 50 (7.81) |
| Gestational diabetes | 28 (4.38) |
| Social problems ^a | 181 (28.28) |
| Separation from the husband | 106 (16.56) |
| Discontinuation of education | 150 (23.44) |
| Problem to infants ^a | 599 (93.59) |
| Preterm | 232 (36.25) |
| Low birth weight | 202 (31.56) |
| Delayed immunization | 599 (93.59) |

^aThe total does not sum up to 100% due to multiple responses.

Attitude toward early marriage

As shown in Table 4, about 42% of the studied populations supported early marriage. The reported reasons for supporting early marriage were to prevent premarital deviation (35%), difficulty to get married later (28%), less annoying to parents (13%), less cost (15%), and helping in childcare (8%). Reasons for not supporting early marriage were harmful to mother (26%), difficulty in childcare, discontinuation of education (18% each), hinders mother's ambition (14%), mother's death due to childbirth (12%), and causing anemia for the mother (9%).

Table 4 Attitude of studied women toward early marriage, Sohag, Egypt, 2017

| Variables | n (%) |
|---|-------------|
| Attitude toward early marriage | |
| Not supporting | 613 (57.61) |
| Supporting | 451 (42.39) |
| Reasons for supporting early marriage | |
| Prevent premarital promiscuity | 160 (35.48) |
| Difficult to get married later | 130 (28.82) |
| Less annoying to parents | 58 (12.86) |
| Less cost | 68 (15.08) |
| Helping in childcare | 35 (7.76) |
| Reasons for not supporting early marriage | |
| Harmful to mothers | 159 (25.94) |
| Difficulty in childcare | 111 (18.10) |
| Mother's death due to childbirth | 74 (12.07) |
| Causing anemia for the mother | 56 (9.06) |
| Personal ambition prevention | 87 (14.19) |
| Discontinuation of education | 109 (17.78) |
| Others | 17 (2.77) |

Factor affecting attitude toward early marriage

Table 5 shows univariate analysis of factors affecting the attitude toward early marriage. Women aged more than 40 years, those with family members more than five, and those believing that early marriage is due to poverty were supporting early marriage. On the other hand, women from urban residence, those with secondary or higher education, with a family income of more than 2000 pounds, with previous early marriage, believing that early marriage is due to tradition, ignorance, is common in relatives, causing health, social, or community problems were not supporting early marriage. However, factors such as religion, occupation, or marital status did not affect the attitude toward early marriage. In multivariate analysis, many factors became insignificantly related to the attitude to early marriage.

Table 6 shows the final models of factors significantly affecting women's attitudes. Only women with more than five family members were supporting early marriage (odds ratio: 2.79; confidence interval: 1.62–4.77). Higher education, believing early marriage is due to ignorance or is more among relatives, or is causing health or social problems were factors not supporting early marriage.

Table 6 Final multivariate regression model of factors supporting early marriage

| Variables | Odds ratio (95% confidence interval) | P value |
|---|---|----------|
| Level of education | | |
| Less than secondary | 1 | <0.0001* |
| Secondary or more | 0.35 (0.21–0.58) | |
| Family members | | |
| ≤5 | 1 | <0.0001* |
| >5 | 2.79 (1.62–4.77) | |
| Early marriage is due to ignorance | | |
| No | 1 | <0.0001* |
| Yes | 0.12 (0.08–0.18) | |
| Early marriage is more among relatives | | |
| No | 1 | <0.0001* |
| Yes | 0.29 (0.19–0.43) | |
| Early marriage has health and social hazards for the family | | |
| No | 1 | 0.0006* |
| Yes | 0.54 (0.35–0.84) | |

*P<0.05, statistically significant

Table 5 Factors affecting attitude of studied women toward early marriage, Sohag, Egypt, 2017

| Variables | n (%) | Attitude toward early marriage [n (%)] | | Odds ratio (95% confidence interval) | P value |
|--|-------------|--|-----------------|--------------------------------------|----------|
| | | Not support (N=627) | Support (N=437) | | |
| Socioeconomic characteristics | | | | | |
| Age group (years) | | | | | |
| ≤40 | 801 (75.8) | 554 (90.38) | 247 (54.77) | 1 | <0.0001* |
| >40 | 263 (24.72) | 59 (9.62) | 204 (45.23) | 7.76 (5.59–10.74) | |
| Residence | | | | | |
| Rural | 541 (50.85) | 291 (47.47) | 250 (55.43) | 1 | 0.01* |
| Urban | 523 (49.15) | 322 (52.53) | 201 (44.57) | 0.72 (0.57–0.93) | |
| Religion | | | | | |
| Muslims | 905 (85.06) | 521 (84.99) | 384 (85.14) | 1 | 0.95 |
| Christian | 159 (14.94) | 92 (15.01) | 67 (14.86) | 0.99 (0.70–1.39) | |
| Level of education | | | | | |
| Less than secondary | 577 (54.23) | 193 (31.48) | 384 (85.14) | 1 | <0.0001* |
| Secondary or more | 487 (45.77) | 420 (68.52) | 67 (14.86) | 0.08 (0.06–0.11) | |
| Occupation | | | | | |
| Not working for cash | 672 (63.16) | 382 (62.321) | 290 (68.30) | 1 | 0.51 |
| Working for cash | 392 (36.84) | 231 (37.68) | 161 (35.70) | 0.91 (0.71–1.18) | |
| Family members | | | | | |
| ≤5 | 391 (36.75) | 348 (56.77) | 43 (9.53) | 1 | <0.0001* |
| >5 | 673 (63.25) | 265 (43.23) | 408 (90.47) | 12.46 (8.76–17.73) | |
| Family income | | | | | |
| ≤2000 | 713 (67.01) | 381 (62.15) | 332 (73.61) | 1 | <0.0001* |
| >2000 | 351 (32.99) | 232 (37.85) | 119 (26.39) | 0.59 (0.45–0.77) | |
| Marital status | | | | | |
| Married | 867 (81.48) | 502 (81.89) | 365 (80.93) | 1 | 0.69 |
| Divorced or widow | 197 (18.52) | 111 (18.11) | 86 (19.07) | 1.06 (0.78–1.46) | |
| Previous early marriage | | | | | |
| Age of marriage (years) | | | | | |
| <18 | 640 (60.15) | 260 (42.41) | 380 (84.26) | 1 | <0.0001* |
| ≥18 | 424 (39.85) | 353 (57.59) | 71 (15.74) | 0.14 (0.10–0.19) | |
| Beliefs and knowledge | | | | | |
| Early marriage is due to poverty | | | | | |
| No | 837 (78.67) | 521 (84.99) | 316 (70.07) | 1 | <0.0001* |
| Yes | 227 (21.33) | 92 (15.01) | 135 (29.93) | 2.41 (1.79–3.26) | |
| Early marriage is due to tradition | | | | | |
| No | 785 (73.78) | 400 (65.25) | 385 (85.37) | 1 | <0.0001* |
| Yes | 279 (26.22) | 213 (34.75) | 66 (14.63) | 0.32 (0.24–0.44) | |
| Early marriage is due to ignorance | | | | | |
| No | 477 (44.83) | 109 (17.78) | 368 (81.60) | 1 | <0.0001* |
| Yes | 587 (55.17) | 504 (82.22) | 83 (18.40) | 0.05 (0.04–0.07) | |
| Early marriage is more among relatives | | | | | |
| No | 256 (24.06) | 83 (13.54) | 173 (38.36) | 1 | <0.0001* |
| Yes | 808 (75.94) | 530 (86.46) | 278 (61.64) | 0.25 (0.19–0.34) | |
| Early marriage has health or social hazards for the family | | | | | |
| No | 301 (28.29) | 66 (10.77) | 235 (52.11) | 1 | <0.0001* |
| Yes | 763 (71.71) | 547 (89.23) | 216 (47.89) | 0.11 (0.08–0.15) | |
| Early marriage has a bad effect on community | | | | | |
| No | 343 (32.24) | 86 (14.03) | 257 (56.98) | 1 | <0.0001* |
| Yes | 721 (67.76) | 527 (85.97) | 194 (43.02) | 0.12 (0.09–0.17) | |

DISCUSSION

Early marriage before the age of 18 years is shown to have many drawbacks on the health of mothers and their children [12]. It is prohibited in many countries [12] including Egypt [3]. EDHS [3] showed that age at first marriage decreases with age, with a prevalence rate of early marriage of 23.8% for all women from age 20 to 49 years. In this study, although the prevalence rate of early marriage dropped from 78% in older groups to 31% in women aged less than 30 years; the prevalence was 60% for all women. Many factors could be related to the reported high prevalence in this study. For the overall prevalence, we included women aged up to 60 years and the prevalence increases in proportion to the increase in women's age. Early marriage rate was also high in many developing countries, for example, including Bangladesh (65%) [13], Yemen (48.4%) [14], South Asia (48%), and Africa (42%) [15].

In this study, the prevalence was lower in urban than in rural areas. This is in contrast with data from EDHS [3] that showed that the age at marriage was 4 years earlier in rural Upper Egypt than urban governorates. High early marriage prevalence in rural areas was reported in many studies from different countries [11,16,17]. In Egypt, early marriage is associated with lower wealth, lower education levels, and higher labor force participation that are more common in rural areas [2].

Previous studies [13,18–21] reported that female education is an important determinant of early marriage. Education has an important role in delaying the time of marriage. It also gives women new ideas and help in controlling their decision. Education helps women to improve their career and to wait for a better match [22]. The present study showed that women with secondary or higher education had lower prevalence than those with less than secondary education. This indicates the importance of female education in reducing early marriage.

A report from UNICEF showed that being a member of majority or minority religious group may or may not affect marriage before 18 years [15]. Our study reported no relation between the prevalence of early marriage and religion.

Many social, physical, and health problems like discontinuation from education, divorce, anemia, osteoporosis, cervical cancers, physical and social violence, increased morbidity and mortality for both mother and child including preterm and LBW were reported in previous studies [1,4–11]. Our study also showed that women who were married early reported that they suffered from many health problems mostly uterine prolapse (37%), hemorrhage (27.5%), and anemia (18%). This study also found that about one-fifth early married women suffered from social problems such as separation from the husband and discontinuation of education. We also found that about one-third of infants born to early married women were

preterm and/or of LBW and for most of them (94%) their immunization was delayed.

Our study has shown that 42% of the studied population still supported early marriage. A higher proportion of women in our study supports early marriage than that from Bangladesh [13]. This is because our study included all women till the age of 60 years and not just adolescents.

Our study showed that the reported reasons for supporting early marriage were to prevent premarital deviation (35%), difficulty to get married later (28%), less annoying to parents (13%), less cost (15%), and helping in childcare (8%). This is in contrast with data from a study in Bangladesh [13] that showed that the main reasons for supported early marriage were less chance to go astray (24.5%), very difficult to get married at later ages (23.5%), and less troublesome to the parents (22.9%).

The reason for not supporting early marriage, in this study were: harmful to mother (26%), difficulty in childcare, discontinuation of education (18% each), hinders mother's ambition (15%), mother's death due to childbirth (13%), and causing anemia for the mother (10%). Similar findings were reported from a study in Bangladesh [13]: leading to maternal and child health problems (37.7%) and physical immaturity to have a child and difficulty in rearing an immature child (57.4%) were the main reasons for not supporting early marriage. Another study in Pakistan [23] also showed the main reasons for not supporting early marriage were: harmful to mothers (26%), difficulty in childcare, and discontinuation of education (18% each).

Many studies [9,16,24–26] that investigated the determinants of early marriage showed that the most important determinants of early marriage showed that most important determinants were related to traditional, cultural lack of awareness of hazards of early marriage, and poverty. These studies emphasized on the importance of girls' education to prevent early marriage. Our study showed similar finding as we found that many factors were affecting women's attitude toward early marriage including age, poverty, residence, education, family income, tradition, and ignorance. However, in a multivariate analysis, significant factors for not supporting early marriage were higher education, believing early marriage is due to ignorance, or is more among relatives, or is causing health or social problems. These findings indicate the important role of education of either girls or their parents on facing the problem of early marriage.

Strength and limitations of the study

This study is a community-based study that included many women from rural and urban areas from six districts that represent the entire population in Sohag, one of the Upper Egypt governorates. So, it is possible to generalize our results to other governorates with similar characteristics. In addition, the prevalence, hazards, and attitude of women were obtained by self-reporting. However, there is some

limitations of this study; mainly the recall bias of self-reported morbidity especially of elderly women. Some questions included medical terms such as uterine prolapse, gestational diabetes, preterm, LBW, etc., that need to be explained to some women to obtain a true response.

CONCLUSION

This study indicated that in spite of decreasing with age, the rate of early marriage is still high in Sohag governorate, Upper Egypt. The rate can be reduced by health education of parents about health and social hazards of early marriage on women and their children and by encouraging them to delay marriage until the legal age of marriage. Other important ways to decrease early marriage is to include the hazards of early marriage in the curriculum of preparatory and secondary schools and by encouraging girls to complete their secondary and university level which will delay marriage.

Conflicts of interest

No conflicts of interest.

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