

The Prevalence and Predicting Factors of Female Child Marriage in North-West of Iran: A Case-Control Multi-Center Study

İran'ın Kuzeybatısındaki Kadın Çocuk Evliliğinin Yaygınlığı ve Öngören Faktörler: Bir Vaka Kontrollü Çok Merkezli Çalışma

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ABSTRACT

Objective: Child marriage which violates the human rights is still a prevalent problem in South Asia where more than half of the teenage marriages occur. It is estimated that in developing countries one in three girls marries before the age of 18 and one in seven marries before 15. In this study we aimed to determine the prevalence of child marriage and identify potential factors predicting its occurrence.

Methods: This case-control study was carried out at the premarital counseling centers in Tabriz city. The participants consisted of 1532 subjects (766 couples) with 140 couples as the case group. Univariate and multivariate logistic regression models were used to calculate the odds ratios (OR) and 95% confidence intervals (CI).

Results: In one year period the prevalence of child marriage (before the age of 18) was 18.2% while in 8.12% of all marriages the age of bride was under 16 (fifteen years old or younger). We found that lower education and level of knowledge about the impacts of child marriage were independent predictors of early marriage. In consanguineous marriages the risk of child marriage was 95% higher compared to the control group (OR: 1.95; 95% CI: 1.23-3.09).

Conclusion: It seems necessary to implement targeted preventive interventions, including educational programs to increase the public awareness about the social, physical, and fiscal consequences of early marriage, delivering skills to empower girls in deciding for their lives, and developing educational and occupational opportunities for young girls.

Key Words: Child, marriage, adolescence, determinants, prevalence

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ÖZET

Amaç: İnsan haklarını ihlal eden çocuk evlilikleri, genç evliliklerin yarısından fazlasının meydana geldiği Güney Asya'da hala yaygın bir sorundur. Gelişmekte olan ülkelerde her üç kızdan birinin 18 yaşından önce ve yedi yaşından birinin 15 yaşından önce evlendiği tahmin edilmektedir. Bu çalışmada çocuk evliliğinin yaygınlığını ve ortaya çıkmasını öngören potansiyel faktörleri belirlemeyi amaçladık.

Yöntem: Bu vaka kontrol çalışması Tebriz şehrinde bulunan evlilik öncesi danışmanlık merkezlerinde gerçekleştirilmiştir. Katılımcılar olgu grubu olarak 140 çift ile 1532 denekten (766 çift) oluşmaktaydı. Oran oranlarını (OR) ve %95 güven aralıklarını (CI) hesaplamak için tek değişkenli ve çok değişkenli lojistik regresyon modelleri kullanıldı.

Bulgular: Bir yıllık dönemde (18 yaşından önce) çocuk evliliği yaygınlığı %18.2 iken, tüm evliliklerin %8.12'sinde gelin yaşı 16 yaşın altında (on beş yaşında veya daha küçük) idi. Düşük eğitimin ve çocuk evliliğinin etkileri hakkında bilgi düzeyinin erken evliliğin bağımsız yordayıcıları olduğunu bulduk. Akraba evliliklerinde çocuk evlilik riski kontrol grubuna göre %95 daha yüksekti (OR: 1.95; %95 CI: 1.23-3.09).

Sonuç: Erken evliliğin sosyal, fiziksel ve mali sonuçları hakkında kamuoyunun farkındalığını artırmak, kızların hayatlarına karar vermelerini sağlamak ve genç kızlar için eğitim ve mesleki fırsatlar geliştirmek için beceriler kazandırmak için eğitim programları da dahil olmak üzere hedefli önleyici müdahalelerin uygulanması gerekli görünmektedir.

Anahtar Sözcükler: Çocuk, evlilik, ergenlik, belirleyiciler, yaygınlık

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INTRODUCTION

Child marriage or teenage marriage, defined by UNICEF as the union before the age of 18, is considered as the violation of human rights and an issue of gender discrimination (1-3). Forced child marriage is believed to be the worst form of child abuse (4). Although in the previous decades, child marriage has declined globally and the age of marriage has increased, this is still a prevalent problem in South Asia, where more than half of teenage marriages occur (5-7). It is estimated that in developing countries one in three girls marries before the age of 18 and one in seven marries before fifteen (8, 9). Regarding the global estimates of UNFPA if current trends of child marriage continue, the rate will rise up from 14.2 million in 2010 to 15.1 million in 2030 (10).

Negative consequences of child marriage can be considered in multiple levels for girls, their families, their off-springs, and ultimately all over the community in terms of social, health and fiscal outcomes (11-13). Adolescence is a crucial stage in the development of young girls, and early marriage results in the rapid transition from childhood to adulthood. In this circumstance the girl is compelled to perform the responsibilities of motherhood and wifehood in spite of the fact that she is still a child [13]. Therefore, it is not surprising that the girls are deprived from the fundamental human rights, and liberty in making choices for their lives. They lose the opportunity of education and personal development due to higher risk of school drop-outs (9, 12, 14). As a consequence, these girls are condemned to experience more probability of powerlessness, social isolation, vicious cycle of poverty, limited access to familial and social networks, and higher rate of divorce (1, 5, 8, 11, 15).

It has been proven that girls who are married as adolescents are subject to several physical health issues including the suppression in growth and development, higher risk of intimate partner violence (IPV), greater acquisition of HIV infection and other sexually transmitted diseases (STDs) (7, 10, 11, 15-18). These child brides are at higher risk of ill mental health including suicide and depression (9, 12, 19). Additionally early marriage is considered as the main determinant of fertility in developing world and may result in teenage pregnancy, unintended pregnancy, rapid population growth, higher risk of abortions and stillbirth, and lower peri-natal care (13, 19, 20). The pregnancy-related morbidity and mortality before the age of 16 is four times more likely compared to the pregnancies over 20 years (8). On the other hand, children of teenage mothers are at greater risk of infantile and childhood mortality and morbidity, nutritional problems, low birth weight, and congenital anomalies (2, 7, 11, 12, 19-22). Teenage marriage directly prohibits the achievement of sustainable development goals (SDGs) (9, 20, 23). This problem has negative influences on the national and international development indicators including maternal health, education, poverty eradication, prevention and control of HIV/AIDS, and gender inequity (20, 23).

The data for prevalence and determinants of child marriage is lacking in many of low- and middle- income countries (LMICs) (12). In our country few studies have investigated the problem of child marriage and the knowledge gap remains about the scale and root causes of this problem. In order to commence proper interventions to prevent and control the problem it seems vital to better understand the magnitude and causes of child marriage. In accordance with the research priorities on ending child marriage which are identified by WHO and UNICEF (16), in this study we aimed to determine the prevalence of child marriage and to identify potential factors predicting its occurrence.

MATERIALS and METHODS

Setting

This study was conducted at two premarital counseling centers in Tabriz city in the North-West of Iran during 2013. Ordinarily it is compulsory for each couple who are going to marry in Iran to register their marriage and to obtain a certificate from these health centers. In these premarital counseling centers, health services are delivered for couples including screening for thalassemia, educations about reproductive health issues and contraceptive methods, and genetic counseling for consanguineous spouses.

Study subjects and groups

A total of 1532 individuals (766 couples) were included in the study using consecutive sampling. The case group (140 couples) consisted of couples in which the women's age at marriage was under 16. Controls (626 couples) were couples in which women were married as adults (16 years or older) and in all analyses were used as the reference group.

Study design and data collection

This was a case-control study in which two trained nurses interviewed men and women to collect the data. Data collection tool was a structured questionnaire in three dimensions including the participant's demographic characteristics, family-related and parent's characteristics, and marriage-related variables. An educational book about the recommendations for safe pregnancy was provided and delivered to each couple. All participants provided their verbal informed consent to participate in the study.

Statistical analysis

The consanguineous marriage was classified as: first cousin, double-first cousin, first cousin once removed, second cousin, and more distant relatives. We used univariate logistic regression to calculate the odds ratios (OR) and 95% confidence intervals (CI) and to identify potential predicting factors of child marriage. Variables with a P-value <0.05 in univariate analysis were included in the multiple logistic regression model. All analyses were adjusted for marriage grade of both men and women.

RESULTS

In one year period in Tabriz city 19,639 marriages were registered in the premarital counseling centers, from which 18.2 percent were child marriage (before the age of 18). In 8.12% of all marriages the age of bride was under 16 (fifteen years old or younger).

The median age of marriage was 21 years for women (Q25-Q75: 17-25) ranging from 12 to 51 years. For men the median age was 26 years (Q25-Q75: 23-29) ranging from 15 to 67 years. In the case group, 124 of women (88.6%) reported self-tendency toward the marriage during adolescence and 11.4 percent indicated the parents' pressure as the cause of their early marriage. In this study 92.7% of women and 90.7% of men were attended for their first marriage.

There were not significant differences in the frequency of various kinds of consanguineous marriage according to marriage before the age of 16 in women, and so they were pooled together in the final analysis (Table 1).

Table 1. The marriage-related factors influencing child marriage

Characteristic	N (%)		OR (95%CI)	
	Age <16	Age ≥16	Unadjusted	Adjusted ^a
Consanguineous marriage				
Yes	44 (31.4)	122 (19.5)	1.89 (1.26-2.84)**	1.95 (1.23-3.09)**
No	96 (68.6)	504 (80.5)	Referent	Referent

*: p-value<0.05, **: p-value <0.01.

a Adjusted for marriage grade of woman and man.

In the univariate analysis of the personal factors we found a statistically significant association between the occurrence of child marriage and the level of education, participants' knowledge about the impacts of child marriage, and profession in both women and men, and level of income in men.

Multivariate regression model revealed that the participants' level of education and knowledge can be considered as the independent predictors of child marriage (Table 2).

Table 2. Personal determinants of child marriage.

Characteristic	N (%)		Odds Ratio (95%CI)	
	Age <16	Age ≥16	Unadjusted	Adjusted ^a
Woman's characteristics				
Education				
Literacy	1 (0.7)	5 (0.8)	0.86 (0.09-7.52)	2.97 (0.17-51.48)
Primary	79 (56.4)	101 (16.1)	3.37 (2.24-5.07)***	3.06 (1.62-5.80)**
High school	60 (42.9)	259 (41.4)	Referent	Referent
University	0	261 (41.7)	NA	NA
Profession				
Housewife	87 (62.1)	315 (50.3)	1.50 (1.03-2.19)*	1.26 (0.67-2.37)
Simple worker	0	5 (0.8)	NA	NA
Technician	0	17 (2.7)	NA	1.36 (NA)
Employee/Student	53 (37.9)	289 (46.2)	Referent	Referent
Income				
No income	140 (100)	530 (85.6)	NA	-
Low	0	53 (8.6)	NA	-
Intermediate/High	0	36 (5.8)	referent	-
Knowledge				
No information	57 (40.7)	140 (22.4)	4.23 (2.49-7.16)***	1.45 (0.80-2.62)
Low	23 (16.4)	133 (21.2)	1.79 (0.97-3.32)	0.84 (0.43-1.67)
Intermediate	37 (26.4)	114 (18.2)	3.37 (1.91-5.94)***	2.01 (1.06-3.83)*
High	23 (16.4)	239 (38.2)	Referent	Referent
Man's characteristics				
Education				
Literacy	0	4 (0.6)	NA	NA
Primary	68 (48.6)	157 (25.1)	4.56 (2.71-7.69)***	3.11 (1.53-6.32)**
High school	50 (35.7)	233 (37.2)	2.26 (1.32-3.85)**	1.70 (0.87-3.30)
University	22 (15.7)	232 (37.1)	Referent	Referent
Profession				
Not working	1 (0.7)	2 (0.3)	5 (0.43-57.73)	4.51 (0.34-59.16)
Simple worker	12 (8.6)	44 (7)	2.72 (1.23-6.03)*	1.30 (0.50-3.37)
Technician	107 (77)	399 (62.2)	2.75 (1.63-4.61)***	1.47 (0.74-2.91)
Employee/Student	19 (13.7)	190 (30.4)	Referent	Referent
Income				
No income	3 (2.5)	10 (1.8)	1.66 (0.44-6.23)	1.85 (0.43-7.83)
Low	60 (49.6)	212 (39)	1.57 (1.05-2.34)*	1.05 (0.67-1.63)
Intermediate/High	59 (47.9)	322 (59.2)	Referent	Referent
Knowledge				
No information	53 (37.9)	156 (24.9)	3.33 (1.94-5.71)***	1.99 (1.08-3.68)*
Low	25 (17.9)	133 (21.2)	1.84 (1.00-3.40)*	1.41 (0.71-2.79)
Intermediate	40 (28.6)	121 (19.3)	3.24 (1.84-5.71)***	1.76 (1.48-5.15)**
High	22 (15.7)	216 (34.5)	Referent	Referent

NA: Not applicable, *: p-value<0.05, **: p-value <0.01, ***: p-value <0.001.

a Adjusted for marriage grade, level of education, profession, level of knowledge of both women and men, and level of income for men.

Regarding the effects of family-related factors on the occurrence of child marriage, we found that for men the factors including location of residence, father's job, and father's death significantly predicted the occurrence of child marriage. In women family characteristics including the location of residence, father's job, being single daughter of the family, and birth grade were found to be the risk factors of child marriage (Table 3).

DISCUSSION

Study's main findings

Our results showed that the prevalence of marriage before the age of 18 in women in our region (18.2%) is lower than global rate of 30% in 2012 (19). However, this figure is higher in comparison with the western communities like United States where it is estimated to be 10% (1). According to UNICEF in other countries the rate of child marriage is reported to be 47% in India, 12% in Azerbaijan, 14% in Turkey, 24% in Pakistan, 43% in Afghanistan, 13% in Syria, and 17% in Iraq, 75% in Niger, 17% in Indonesia (6, 12, 15, 19, 20).

Additionally our findings made it clear that a considerable proportion of women (8.12%) marry at the age of 15 or younger, which necessitates the need for preventive actions. This special problem is less prominent here in comparison with India and Saudi Arabia (27% and 22% respectively) (1, 20), but more serious compared to U.S and Indonesia where it is reported that 5% and 6% of women marry before the age of sixteen respectively (12, 18). A study in Iran showed that 14.5% of pregnancies occur before the age of 20, which may indirectly be in parallel with the findings of this study (21). Reports from some provinces of Iran like Sistan-Baluchestan indicate that the practice is held for children as young as seven and eleven in rural and urban areas consecutively (24, 25).

Our findings indicated that about two third of all participants have intermediate and low level of information about the adverse health impacts of child marriage on young girls and their children. On the other hand the multivariate analysis showed that this lack of information poses men and women at higher risk for child marriage (Table 2). These findings are in agreement with other studies which reported that having low information about the reproductive health is a cause of early marriage (25, 26).

Table 3. Family-related factors influencing child marriage.

Characteristic	N (%)		Odds Ratio (95%CI)	
	Age <16	Age ≥16	Unadjusted	Adjusted ^a
Woman's characteristics				
Residency				
Rural	69 (49.3)	115 (18.4)	4.31 (2.92-6.36)***	3.48 (2.28-5.32)***
Urban	71 (50.7)	511 (81.6)	Referent	Referent
Father's job				
Not working	3 (2.3)	19 (3.4)	1.83 (0.49-6.87)	1.76 (0.44-6.97)
Simple worker	11 (8.3)	45 (8.1)	2.84 (1.23-6.54)*	2.26 (0.93-5.47)
Technician	102 (77.3)	303 (54.8)	3.91 (2.24-6.83)***	3.11(1.73-5.62)***
Employee	16 (12.1)	186 (33.6)	Referent	Referent
Father				
Dead	6 (4.3)	72 (11.5)	Referent	Referent
Alive	132 (95.7)	553 (88.5)	2.86 (1.21-6.73)*	1.97(0.80-4.80)
Birth grade				
First offspring	66 (47.1)	178 (28.4)	2.24 (1.54-3.26)***	2.00 (1.31-3.06)**
Others	74 (52.9)	488 (71.6)	Referent	Referent
Single Offspring				
Single	6 (4.3)	17 (2.7)	1.60 (.62-4.14)	-
Have siblings	134 (95.7)	609 (97.3)	Referent	
Single daughter				
Single	45 (32.1)	139 (22.2)	1.66 (1.11-2.48)*	1.64 (1.03-2.60)*
Have sisters	95 (67.9)	487 (77.8)	Referent	Referent
Living situation				
With parents	131 (94.2)	538 (86.1)	Referent	-
Single parent	7 (5)	52 (8.3)	0.16 (0.24-1.24)	
Step family	0	10 (1.6)	NA	
Others ^b	1 (0.7)	25 (4)	0.55 (0.02-1.22)	
Man's characteristics				
Residency				
Rural	66 (47.1)	111 (7.7)	4.13 (2.80-6.11)***	4.09 (2.67-6.28)***
Urban	74 (52.9)	515 (82.3)	Referent	Referent
Father's job				
Not working	6 (4.6)	16 (3)	2.96 (1.05-8.34)*	1.96 (0.65-5.84)
Simple worker	12 (9.2)	31 (5.8)	3.06 (1.38-6.78)**	2.44 (1.06-5.59)*
Technician	89 (68.5)	309 (58.4)	2.27 (1.39-3.73)**	1.53 (0.91-2.58)
Employee	23 (17.7)	182 (33.8)	Referent	Referent
Father				
Dead	7 (5.1)	88 (14.1)	Referent	Referent
Alive	130 (94.9)	538 (85.9)	3.03 (1.37-6.71)**	2.73 (1.20-6.18)*
Birth grade				
First offspring	43 (30.7)	160 (25.6)	1.29 (0.86-1.92)	-
Others	97 (69.3)	466 (74.4)	Referent	
Single Offspring				
Single	2 (1.4)	5 (0.8)	1.80 (0.34-9.37)	-
Have siblings	138 (98.6)	621 (99.2)	Referent	
Single son				
Single	22 (15.7)	109 (17.4)	0.88 (0.53-1.45)	-
Have Brothers	118 (84.3)	517 (82.6)	Referent	
Living situation				
With parents	125 (89.3)	510 (81.5)	Referent	
Single parent	8 (5.7)	67 (10.7)	0.48 (0.22-1.04)	-
Step family	2 (1.4)	5 (0.8)	1.63 (0.31-8.51)	
Others ^b	5 (3.6)	44 (7)	0.46 (0.18-1.19)	

NA: Not applicable, *: p-value<0.05, **: p-value <0.01, ***: p-value <0.001.

a Adjusted for marriage grade, location of residence, father's job, and father's death in men; and for marriage grade, location of residence, father's job, father's death, birth grade, and being single daughter of the family in women.

b living alone, with siblings or relatives other than parents.

Additionally, the majority of young girls declared that the decision to marry young is made by themselves without the pressure or obligation by their parents. It is unclear to which extent this self-reporting is over-reporting. However it is likely that the causes of self-tendency toward early marriage is rooted in cultural and religious beliefs in Iran, where extramarital relationships between girls and boys are banned and prohibited.

So, as it is reported in an qualitative research, there is no wonder that marriage bring respect, value, social identity, and feeling of maturity for girls in Iranian community and this social pressure plays a major motivational role in decision making about marriage (26). Similarly other studies in our country have shown community's positive attitude toward the younger age of marriage in girls (24).

In the logistic regression model after adjustment for marriage grade of men and women, consanguineous marriage was 95 percent more likely to occur in the case group (OR: 1.95; 95% CI: 1.23-3.09) compared to women whose age at marriage was 16 or older. This is congruent with other studies which reported the inbreeding as a risk factor for early marriage (18, 25). This statistically significant interconnectedness between child marriage and consanguineous mating proposes the opportunity to implement interventional programs with an integrated approach focusing on both of these global problems (18).

In agreement with other researches, we found that living in rural areas for both women and men was associated with higher occurrence of child marriage. This can be due to cultural beliefs, lower level of education, restricted liberty of women, and lower opportunity of employment for women in rural context (17, 20, 25, 27, 28).

In this study lower level of education in couples was significantly related to child marriage. This was also reported by several studies, even in countries where child marriage is uncommon (6, 10, 13, 25, 27). Education is supposed to be the most important factor influencing the age of marriage in girls (15, 29, 30). In agreement with our findings a study in India showed that higher level of education in husbands also prevents the child marriage in women (20, 30).

Among the personal characteristics, after adjustment for other variables, no statistically significant association between the level of income, profession of participants and early marriage were found. This finding may be due to the lack of opportunity to obtain any income or job, resulting from the early marriage. Although these characteristics have not been investigated separately for men and women, it is reported in other studies that poorer girls are at greater risk for child marriage (10, 29).

In Iran children live with their parents until they marry, therefore the parents' characteristics and conditions influence the pattern of marriage in children. Among the family-related factors, father job in both men and women was associated with early marriage. Men whose fathers were simple workers and women whose fathers were technicians had higher risk of early marriage in comparison with employees. This is in agreement with other studies which demonstrated higher educational and financial level of parents to be protective factor against child marriage (27).

We found no significant effect of living situation with parents on the occurrence of child marriage. In contrast another study has indicated that children of step families are at higher susceptibility to early marriage (27). On the other hand in this study father's death in both women and men was a protective factor for child marriage. This finding can be explained by the supportive role of parents, especially fathers, to help children marry young or may be due to their pressure to force the early marriage in children. Similarly, other researchers found that single parenthood decreases the likelihood of child marriage (27).

Implications for health-care officials and policy-makers

This study has several implications for policymakers, health officials, and all health-care workers. First, the rate of child marriage, more specifically the marriage before the age of 16, calls for action to design and implement proper interventions in order to prevent and control the problem. One out of six recommendations in the guideline of World Health Organization (WHO) for the prevention of early pregnancy is focused on the decrease of adolescent marriage (8). To achieve this objective the enactment and enforcement of regulations and policies to prohibit the marriage before the age of 18 are strongly recommended (2, 3, 8, 15). In some countries with implementation of laws for legal minimum age of marriage, the practice of marriage before the age of 18 in women and 21 in men is considered as a crime, like in India (28). Currently in Iran the minimum legal age of marriage according to the Article 1041 of civil law is 13 for girls and 15 for boys. However a clause has been added to this law stating that earlier marriage can be allowed if the girl's guardian or the judge confirms that the girl is ready for marriage. So, like other parts of the world marriage may be held even before the legal age as our results showed that six of women in study population (8%) were aged 12 years at marriage (4, 15, 24, 26).

Second, our findings elucidated the need for promoting health literacy in multiple levels of individual, family, school, and community-based programs (8). Various educational efforts should be developed in order to increase the public awareness about the adverse social, physical, fiscal and developmental consequences of child marriage.

The role of mass media and targeted campaigns can be of value to promote the community's and family's attitude toward the optimal age of marriage and to alter the harmful social norms (3, 15). Providing living skills for the girls in their childhood can increase their empowerment in deciding for marriage and health (10, 15).

Third, developments in the opportunity of educations and employment for girls are suggested to be beneficial in delaying the age at marriage (2, 3, 5, 8). Improving education as one of SDGs is proven to be a protective factor against child marriage (12, 30). On one hand, the poverty is one of the root causes of child marriage, on the other hand child marriage per se, may result in defective cycle of powerlessness and poverty. Poorer families force their daughters to marry early in order to reduce the family costs (9). Poverty reduction policies are considered to influence most of the health indicators as well as the frequency of child marriage (12, 14, 24).

Additionally girls of high risk characteristics should be identified and supported by programs to empower them, to advocate with their families, to support them to obtain human rights, and to provide financial incentives to encourage their parents to allow them continue schooling and to delay their marriage (2, 3, 5, 26).

Besides, there are a tremendous number of girls at child age who are already married or are marrying. They have many unmet needs. Educations about the reproductive health, methods of contraception, and skills of parenthood are necessary for this group (8). Researches indicate that using modern contraceptive methods in not sufficient in women with early marriage (14, 19). Therefore, the risk of unwanted pregnancy, unsafe abortions, and early or teenage marriage is higher in child brides (9, 14, 19). Consultation with their husbands, parents, and in-laws is also important in encouraging them to delay the pregnancy in the child bride, and to prevent the psychological and social problems commonly seen in adolescent brides like violence, depression, and social isolation (2, 3, 5, 8).

It appears that cultural and social factors influence the occurrence of child marriage, so further studies should aim to investigate the problem in other regions, especially in rural context. High coincidence and interaction between the child marriage and consanguineous marriage indicate an occasion for integrated intervention in order to address these two global problems simultaneously.

Finally, the practice of child marriage even in communities with legal prohibitions, suggest that multi-disciplinary partnership is crucial to address this multifactorial public health issue (3).

Study limitations and strengths

It is important to consider that our study was subject to some limitations. Many of variables in this study were self-reported and could not be validated. Besides this study was conducted in an urban context which limits the generalizability of findings throughout the community. We propose the researchers to evaluate the magnitude of child marriage in the rural setting and to compare the prevalence and determinants with that of urban areas. One of the strengths of this study is the inclusion of other factors in the analysis, considering the context of family relations in Iran, which were not evaluated in previous studies. In this regard, we found that being the single daughter and the first off-spring of the family can be considered as the independent risk factors of child marriage for girls.

CONCLUSIONS

This study challenged the prevalence and determinants of child marriage. The frequency of child marriage necessitates the need for action through targeted, multi-sector preventive interventions including educational programs to increase the public awareness about the social, physical, and fiscal consequences of early marriage, delivering skills to empower girls in deciding for their lives, and developing educational and occupational opportunities for women especially in rural areas.

Conflict of interest

No conflict of interest was declared by the authors.

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