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Child marriage and quality of marriage among young married women in a rural district, Lorestan Province, Iran

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Abstract

Purpose Child marriage remains a significant socio-cultural phenomenon with profound implications for the quality of marital relationships, particularly among young women. This study investigates the association between child marriage and the quality of marriage among young married women in Iran.

Methods This study employed a population-based cross-sectional research design. A total of 70 young women, aged 18–20 years, who had married before reaching 18 years of age, were selected from four primary health care (PHC) centers in Papi District, Lorestan Province, Iran, employing a systematic random sampling approach. Subjects were categorized into women experiencing relationship distress and those without such distress using the Quality of Marriage Index (QMI). Concurrently, their level of sexual satisfaction was assessed utilizing the Hudson's Index of Sexual Satisfaction (ISS). Furthermore, Social Support was evaluated using the Social Support Questionnaire (SSQ).

Results The mean age (SD) of women was 18.9 (0.7) years, and their mean age (SD) of marriage was 15.2 (2.1) years. Women experiencing distress showed significant differences in age of menarche ($P=0.006$), education levels ($P=0.039$), spouses' education ($P=0.025$), spouses' occupations ($P=0.004$), household income satisfaction ($P=0.041$), and household structure ($P=0.045$). Pearson's correlation coefficient analysis revealed significant and positive correlations between sexual self-efficacy and social support with marital quality ($r=0.73$, $p<0.001$ and $r=0.55$, $p<0.001$, respectively). Conversely, there was a significant negative correlation between the score of indexes of sexual satisfaction and marital quality ($r=$ -0.65, $p<0.001$).

Conclusion These findings emphasize the complex factors affecting marital quality and underscore the urgent need for interventions to support young women in early marriages. It is essential to reinforce policies aimed at reducing child marriage to improve the quality of marriage among young married women.

Keywords Marital quality, Sexual satisfaction, Social support, Early marriage

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Introduction

Child marriage, defined as marrying before the age of 18 [1], is a severely harmful practice in many societies. Its prevalence has deep, negative impacts on the individuals involved and on society as a whole [2]. Over 60 million girls under 18 years of age get married annually worldwide [3]. Child marriage occurs partly in most regions of the world and has long been a public health concern all over the world because it has the potential to deprive female adolescents of their sexual reproductive health rights and limit their ability to achieve their full potential in life [4, 5]. Child marriage is still a common activity associated with poor physical and mental health and also socioeconomic status [6].

Although the legal marriageable age in Iran is delineated at 13 years for girls and 15 years for boys, it is noteworthy that there exists no explicit statutory age limit for marriage in the country. Consequently, marriage is legally permissible at any age according to the Amendment of Article 1041 of the Civil Code enacted in 2002. According to findings by Nour et al., the prevalence of marriage among Iranian girls aged 10 to 19 years is noteworthy, with one in ten girls in this age group having encountered marriage at least once, particularly pronounced in rural settings where the ratio rises to one in five. Trends indicate a decrease in marriage incidence among younger girls aged 10 to 14 years, juxtaposed with an augmentation among older girls aged 15 to 19 years. Moreover, over a decade, the incidence of marriage among Iranian girls aged 15 to 19 years has exhibited an upward trajectory, notably prominent in rural locales, reaching its pinnacle in 2016 [7] .

Sexual health is an essential aspect of adolescents' overall health and quality of life. Sexual health includes psychosocial, physical, developmental, and emotional factors affecting sexual functioning [8]. Physical, mental, and social competence and preparation are necessary for married life. With various justifications, unfortunately, early marriages occur that often involve annoyance, exploitation, violence against children, and serious conflicts with their rights [9]. Sexual satisfaction is one of the most significant factors in ensuring married life satisfaction. Therefore, in families with no satisfactory sexual activity, all types of sexual problems occur [10]. Social norms of early marriage, the financial burden of school tuition, and the minimal opportunity for girls in education are among the consequences of child marriage. However, with the support of parents and teachers, some girls can continue their education and delay marriage. Unfortunately, girls who get married early are less supported by the family and programs available to continue their education, and efforts should be made for educational support for girls who are married and have children [11]. Besides receiving the husband's support for a woman, another source of support may also exist [12]. Given the considerable morbidity and mortality associated with early marriage in women, this study sought to investigate the quality of marriage, levels of sexual satisfaction, self-efficacy, and social support among women who married before the age of 18 in Papi District, Lorestan Province, Iran. Additionally, the study aimed to explore the correlations between these factors and marital quality.

Methods

This study constitutes a population-based cross-sectional investigation, carried out in Sepiddasht from June to September 2023. Sepiddasht is a rural district (dehestan) in Papi District, Khorramabad City, Lorestan Province, Iran. Based on the latest census in 2016 showed a population of 2,917 people in 809 households. There are 4 primary Health Care (PHC) center in Sepidasht which cover 2,197 people. Altogether 157 married young women (the age between 18 and 20 years at the time of the survey) who married before attaining 18 years of age were personally interviewed. The inclusion criteria for this study encompass married women aged between 18 and 20 years (who had married before reaching 18 years of age), with a marital duration ranging from 2 to 5 years, indicating a minimum of two years and a maximum of five years since marriage inception. Additional criteria include the age at marriage, Iranian citizenship, residency in Sepiddasht, completion of informed consent procedures, absence of substance addiction, no current diagnosis of medical conditions, and absence of speech or hearing impairments hindering communication with the researcher. The exclusion criteria involve participants' unwillingness to further engage in the study, incomplete questionnaire responses, the presence or history of underlying medical and psychological disorders, migration, and mortality. Data collection involved the selection of four Primary Healthcare (PHC) centers, each providing services to eligible women. Nineteen participants selected randomly using a random number from these PHC centers, were identified and included in the study following their voluntary agreement through written consent. Among the 76 participants who provided consent, 6 were excluded from the study in order to ensure the accurate measurement of the correlation between sexual satisfaction, sexual self-efficacy, and social support with marital quality.

Based on the McNulty study in 2016, which reported a correlation coefficient of 0.50 (r) between sexual satisfaction and marital satisfaction in women with early marriage in eastern Tennessee [13], the minimum sample size was estimated at 38 individuals with a 95% confidence level and 90% test power. Since the sampling is clustered, considering an Effect Size of 1.7, the sample size was estimated to be.

Measurements

Demographic-fertility Characteristics Questionnaire including age, husband's age, menarche age, marriage age, duration of marriage, education, husband's education, BMI (Body mass index), husband' BMI, occupation, husband' occupation, residence, satisfaction with income, interval age of couple, headed status, smoking, marriage of satisfaction, number of intercourse, type of pregnancy, number of abortion, number of children and reproductive status.

Quality of Marriage Index (QMI) was used to measure relationship distress that formulated by Norton. The mean correlation of the total items was 0.76 during the instrument development. This instrument is a six-question self-report questionnaire that measures marital quality using general phrases such as (we have a good marriage). The subject expresses a level of agreement in five questions of the questionnaire ranging from 1 (completely disagree) to 7 (completely agree). In the sixth question, which is a general question, the subject expresses a level of agreement in a range from 1 (completely disagree) to 10 (completely agree). The QMI score can range from 6 to 45, where higher scores denote greater marital satisfaction [14]. A score of ≤29 states relationship distress [15]. Maroufizadeh et al. have validated the Persian version of QMI, demonstrating its reliability with a calculated Cronbach's alpha of 0.92 for internal consistency [16].

Hudson's Index of Sexual Satisfaction (ISS) was used to assess sexual satisfaction. This index is a 25-question instrument to measure the degree, intensity, or range of marital problems between couples. This scale has sufficient internal consistency (a=0.92) and a reliability coefficient (0.76). This scale is considered a self-report questionnaire, including "I think our sexual relationships are wonderful" and "Our sexual relationships are monotonous", rating 1 (never) to 7 (always) and ranging from 25 to 175. Higher scores indicate higher sexual satisfaction [17]. In a study, the alpha coefficient for couples was higher than 0.90 [10].

Torkan and Molavi have validated the Persian version of ISS, showcasing its reliability with a calculated Cronbach's alpha of 0.97 for the reliability coefficient [18]. In our study, scores<70 were considered without sexual satisfaction, with mild sexual satisfaction, or with moderate sexual satisfaction, and scores≥70 were considered high sexual satisfaction.

Sexual Self-Efficacy Questionnaire is a scale based on Schwarzer's General Self-Efficacy Questionnaire [19], designed by Vaziri and Lotfi Kashani. This questionnaire consists of 10 multiple-choice questions scored from 0 (not at all correct) to 3 (completely correct). The reliability of this questionnaire has been reported as 0.86 using Cronbach's alpha. The minimum and maximum possible scores are 0 and 30, respectively. Higher scores denote better sexual self-efficacy [20]. In our study, scores<15 were considered low sexual self-efficacy, and scores≥15 were considered high sexual self-efficacy.

Social Support Questionnaire (SSQ) was developed by Fleming et al. with 25 questions regarding receiving support from friends and relatives (3 questions), neighbors (4 questions), family (7 questions), society (6 questions), and ideas about social support (5 questions). For each question, a score of 1 is considered for the positive answer, a score of 0 is considered for the negative answer, and the total score is 0–25 [21]. Faramarzi and Salmalian have validated the Persian version of SSQ, demonstrating its reliability with a calculated Cronbach's alpha of 0.72 [22].

Statistical analysis

SPSS software (version 20) and descriptive statistics indices (mean, standard deviation, frequency distribution table, and relative frequency) were used for data analysis, and Pearson's correlation coefficient test was used to determine the two-way relationship (correlation).

Results

The mean age (SD) of the women was 18.9 (0.7) years, and their mean age (SD) of marriage was 15.2 (2.1) years. The majority of them had an education level of 6–11 years and was housewives 61 (87.1). To elucidate the association between various parameters and marital quality, the participants were stratified into two groups: women experiencing marital relationship distress (comprising 47.1% of the sample) and those without such distress (constituting 52.9%). It was discerned that women experiencing marital relationship distress exhibited statistically significant disparities, including a lower onset age of menarche (p=0.006), decreased levels of educational attainment (p=0.039), diminished educational attainment of their spouses (p=0.025), a higher prevalence of spouses engaged in manual labor occupations (p=0.004), heightened dissatisfaction with household income (p=0.041), and a greater likelihood of residing in husband-headed households (p=0.045). However, the duration of the marriage, BMI of women and husband, occupation of women, interval age of the couple, and smoking were not significantly related to the marital quality of young women (Table 1).

Table 2 illustrates the fertility status of women. It reveals that a significant portion of women (47.1%) had 1–2 children, while 57.1% engaged in intercourse less than four times a week. Additionally, 47.1% expressed satisfaction with their marriage (Table 2).

The majority of participants exhibited a mean sexual self-efficacy score of 46 (55.7%), indicating a high level of sexual self-efficacy. Additionally, a small proportion of

Table 1 Characteristic of women aged 18–20 years with early marriage according to quality of marriage index in a rural district, Lorestan Province, Iran (n = 70)

Variables	Total f (%)	Relationship distress (n = 33) f (%)	No relationship distress (n = 37) f (%)	P-value[†]
Age (years), mean (SD)	18.9 (0.7)	18.8 (0.6)	18.9 (0.7)	0.385
Husband's age (years), mean (SD)	26.0 (5.1)	24.4 (3.7)	27.4 (5.8)	0.012
Marriage age (years), mean (SD)	15.2 (2.1)	15.5 (1.1)	15.0 (2.6)	0.301
Menarche age (years)				0.006
< 13	48 (68.6)	28 (84.8)	20 (54.1)	
≥ 13	22 (31.4)	5 (15.2)	17 (45.9)	
Duration of marriage (years)				0.832
2–3	33 (47.1)	16 (48.5)	17 (45.9)	
4–5	37 (52.9)	17 (51.5)	20 (54.1)	
Education (years)				0.039
< 6	27 (38.6)	17 (51.5)	10 (27.0)	
6–11	29 (41.4)	13 (39.4)	16 (43.2)	
≥ 12	14 (20)	3 (9.1)	11 (29.7)	
Husband's education (years)				0.025
< 6	20 (28.6)	11 (33.3)	9 (24.3)	
6–11	26 (37.1)	16 (48.5)	10 (27.0)	
≥ 12	24 (34.3)	6 (18.2)	18 (48.6)	
BMI[*](kg/m^2)				0.394
< 25	58 (82.9)	26 (78.8)	32 (86.5)	
≥ 25	12 (17.1)	7 (21.2)	5 (13.5)	
Husband' BMI[*](kg/m2)				0.592
< 25	59(84.3)	27 (81.8)	32 (86.5)	
≥ 25	11 (15.7)	6 (18.2)	5 (13.5)	
Occupation				0.588
House wife	61 (87.1)	28 (84.8)	33 (89.2)	
Worker	9 (12.9)	5 (15.2)	4 (10.8)	
Husband' occupation				0.004
Employee	3 (4.3)	0.0 (0.0)	3 (8.1)	
Worker	41(58.6)	26 (78.8)	15 (40.5)	
Farmer	26 (37.1)	7 (21.2)	19 (51.4)	
Residence				0.487
Village	57 (81.4)	28 (84.8)	29 (78.4)	
City	13 (1.6)	5 (15.2)	8 (21.6)	
Satisfaction of income				0.041
Satisfied	19 (27.1)	6 (18.2)	13 (35.1)	
Relatively satisfied	31 (44.3)	13 (39.4)	18 (48.6)	
Unhappy	20 (28.6)	14 (42.4)	6 (16.2)	
Interval age of couple (years)				0.266
< 5	18 (25.7)	11 (33.3)	7 (18.9)	
5–10	42 (60.0)	19 (57.6)	23 (62.2)	
> 10	10 (14.3)	3 (9.1)	7 (18.9)	
Headed status				0.045
Female-headed household	2 (2.9)	2 (6.1)	0.0 (0.0)	
Husband- headed household	57 (81.4)	23 (69.7)	34 (91.9)	
Family husband-headed household	11 (15.7)	8 (24.2)	3 (8.1)	
Smoking				0.058
Usage history/no current use	20 (28.5)	5 (15.2)	15 (40.5)	
Exposed to	40 (57.1)	23 (69.7)	17 (45.9)	
Current smoker	10 (14.3)	5 (15.2)	5 (13.5)	

[*] BMI: Body mass index

[†]The data were assessed using chi-square and t-test

Table 2 Fertility status of women aged 18–20 years with early marriage in a rural district, Lorestan Province, Iran (n = 70)

Variables	f (%)
Marriage of satisfaction	
Satisfied	33 (47.1)
Relatively satisfied	30 (42.9)
Unhappy	7 (10.0)
Number of intercourse (in week)	
< 4	40 (57.1)
≥ 4	30 (42.9)
Pregnancy (number)	
Wanted pregnancy	44 (62.9)
Unwanted pregnancy	15 (21.4)
Abortion (number)	
Induced abortion	10 (14.3)
Spontaneous abortion	9 (12.9)
Children (number)	
0	29 (41.4)
1–2	33 (47.1)
≥ 3	8 (11.4)
Still birth	2 (2.9)
Reproductive status	
Breastfeeding	19 (27.1)
Pregnant	2 (2.9)
Non-pregnant	49 (70.0)
Pregnancy intention	20 (28.6)
Non-use of contraceptive method	23 (32.9)

Table 3 Status of sexual satisfaction, sexual self- efficacy, social support, and quality of marriage in women aged 18–20 years with early marriage in a rural district, Lorestan Province, Iran (*n* = 70)

Variables	mean (SD)
ISS*	
no/mild/moderate < 70	52 (74.3)
Sever ≥ 70	18 (25.7)
Sexual self – efficacy	
Low Sexual self – efficacy < 15	24 (34.3)
High Sexual self – efficacy ≥ 15	46 (55.7)
Social support	
Friends	1.7 (1.2)
Neighbors	2.5 (1.4)
Family	5.2 (2.1)
Public	2.7 (1.6)
Belief about the support	3.3 (0.8)
QMI**	
Marital relationship distress	33 (47.1)
No marital relationship distress	37 (52.9)

*ISS: Index of sexual satisfaction

**QMI: Quality of marriage index

Table 4 Association sexual satisfaction and sexual self – efficacy with marital quality in women aged 18–20 years with early marriage in a rural district, Lorestan Province, Iran

Variables	Marital relationship distress (n = 33) mean (SD)	No marital relationship distress (n = 37) mean (SD)	P-value†
ISS*			< 0.001
no/mild/moderate < 70	16 (48.5)	36 (97.3)	
Sever > = 70	17 (51.5)	1 (2.7)	
Sexual self – efficacy			< 0.001
Low Sexual self – efficacy < 15	22 (66.7)	2 (5.4)	
High Sexual self – efficacy ≥ 15	11 (33.3)	35 (94.6)	

*ISS: Index of sexual satisfaction

†The data were assessed using t- test

Table 5 Correlation between sexual satisfaction, sexual self – efficacy, and social support with marital quality in women with early marriage (*n* = 70)

Variables	*r**	P-value†
ISS*	-0.65	< 0.001
Sexual self – efficacy	0.73	< 0.001
Social Support	0.55	< 0.001

*ISS: Index of sexual satisfaction

†The data was assessed using Pearson Correlation

*Correlation is significant at the P-value < 0.01

young women (6.9%) reported receiving social support from various sources such as friends or neighbors, family members, or the public (Table 3).

Women experiencing relationship distress reported significantly higher levels of severe sexual dissatisfaction compared to those without relationship distress (51.5% vs. 2.7%). This finding underscores a notable association between sexual satisfaction and marital quality ($p < 0.001$). Furthermore, women facing relationship distress exhibited markedly higher levels of sexual self-efficacy compared to their counterparts without such distress (94.6% vs. 33.3%), indicating a significant correlation between sexual self-efficacy and marital quality ($p < 0.001$) (Table 4). Pearson's correlation coefficient analysis revealed significant and positive correlations between sexual self-efficacy and social support with marital quality ($r = 0.73$, $p < 0.001$ and $r = 0.55$, $p < 0.001$, respectively). Conversely, there was a significant negative correlation between the score of indexes of sexual satisfaction and marital quality ($r = -0.65$, $p < 0.001$) (Table 5).

Discussion

Child marriage represents an infringement of human rights, depriving individuals of essential opportunities such as access to health, safety, education, and sexual

autonomy [23].The study examines the marital quality among young women, with a focus on various factors such as demographics, fertility, sexual self-efficacy, social support, and sexual satisfaction. This study found a noteworthy proportion of young married women who entered into child marriage perceive their marital relationships positively, with over 50% reporting marital quality within the "no relationship distress" range. The results highlight significant disparities between these groups, providing insights into the factors that may contribute to marital distress among young women. Women experiencing marital distress showed a statistically significant earlier onset of menarche, which could suggest early biological development might impact their psychosocial environment and relationship dynamics [24]. Additionally, these women and their spouses had lower levels of educational attainment, indicating that educational disparities might play a critical role in marital satisfaction and stability. The diminished educational attainment of both partners likely limits economic opportunities and can contribute to stress and dissatisfaction within the marriage [25].

Furthermore, the data shows a higher prevalence of spouses engaged in manual labor occupations among distressed women. Manual labor jobs often come with lower wages, less job security, and higher physical demands, potentially leading to financial and emotional stress that adversely affects marital quality. Correspondingly, there was heightened dissatisfaction with household income, emphasizing the economic challenges faced by these couples. The likelihood of residing in husband-headed households was also greater among women experiencing distress, suggesting that traditional household structures might exacerbate feelings of inequality and dissatisfaction within the marriage. These women might have less autonomy and face more significant power imbalances, contributing to marital strain. [26, 27]. Interestingly, certain factors were not significantly related to marital quality, such as the duration of the marriage, BMI of both partners, the woman's occupation, age difference between the couple, and smoking habits. This indicates that while these aspects may influence other areas of life, they do not directly impact marital quality in this context. Overall, these results underscore the multifaceted nature of marital quality, highlighting the importance of addressing educational, economic, and household structural factors to support young women in achieving healthier, more satisfying marriages. Interventions aimed at improving education and economic stability, as well as promoting more egalitarian household dynamics, could be crucial in mitigating marital distress.

Consistent with findings from prior research [28, 29], our study reveals significant associations between sexual satisfaction, sexual self-efficacy, social support, and marital quality among women experiencing relationship distress. Specifically, our results indicate that severe sexual dissatisfaction is considerably higher in distressed relationships. Additionally, women in such relationships tend to exhibit higher levels of sexual self-efficacy, which may act as a coping mechanism. The positive correlations between sexual self-efficacy and social support with marital quality suggest that these factors play crucial roles in enhancing relationship satisfaction. Conversely, the negative correlation between sexual satisfaction and marital quality highlights the detrimental impact of sexual dissatisfaction on overall marital health. These findings underscore the importance of addressing sexual health and support systems to improve marital outcomes in distressed relationships. we found significant findings about the relationship between sexual satisfaction, sexual self-efficacy, social support, and marital quality among women experiencing relationship distress. These findings suggest that addressing sexual dissatisfaction and enhancing sexual self-efficacy and social support might be essential strategies for improving marital quality, particularly among women experiencing relationship distress. The strong correlations underscore the interconnectedness of sexual health, personal efficacy, social support, and the overall quality of marital relationships.

There are several limitations for this study: this study used a cross-sectional design to determine the association between early marriage and quality of marriage among young married women early marriage in Iran, it cannot establish causality or temporality between variables, limiting the ability to infer causal relationships. Second, the study's reliance on participants from PHC centers may introduce selection bias, as individuals seeking healthcare may differ from the general population. The third, the reliance on self-reported data, particularly for sensitive topics such as sexual satisfaction and marital quality, may be subject to recall and social desirability biases. Fourth, the study's focus on a specific rural district in Lorestan Province, Iran, may limit the generalizability of findings to other populations or settings. Fifth, despite efforts to control for confounding variables, other unmeasured factors may influence the observed associations between variables.

Conclusion

In conclusion, this study highlights the complex relationship between early marriage and marital quality among young women, especially those facing relationship distress. Demographic factors like age, education, and household dynamics play significant roles, but psychological aspects such as sexual satisfaction, self-efficacy, and social support are critical determinants. Addressing both psychosocial and sociodemographic factors is crucial for improving marital well-being in early marriages.

Therefore, several implementing recommendations to foster positive changes in the community and influence decision-makers' mindsets regarding early and child marriage. First, highlight risks of early marriage, emphasizing education and social support. Second, Advocate delaying marriage through programs promoting education and empowerment. Third, present findings to policymakers, advocating for comprehensive policies addressing root causes. Fourth, expand services for young married women, focusing on empowerment and social support. Fifth, engage with community leaders, religious authorities, and other stakeholders to challenge traditional norms and attitudes that perpetuate early and child marriage. By implementing these recommendations, the authors can contribute to shifting community norms and decision-makers' mindsets regarding early and child marriage, ultimately leading to policy changes and interventions that support the well-being and empowerment of young women.

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Author contributions
Hajar Adib-Rad and Fatemeh Zolfaghary contributed to the conception and design of the study. Hajar Adib-Rad; Fatemeh Zolfaghary; Mouolud Agajani-Delavar; Fatemeh Bakouei, and Mahboobe kazem-aslani guided the design and conduct of the study. Hajar Adib-Rad; Fatemeh Zolfaghary and Mouolud Agajani-Delavar were involved in data analysis and manuscript write-up analysis or interpretation.

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Data availability
All data generated and analyzed during this study are included in this article. Datasets for this study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate
This study (IR.MUBABOL.REC.1401.148) was approved by the Ethics Committee of Babol University of Medical Sciences. Participants signed a written informed consent form before taking part in the study, in accordance with the guidelines of the Declaration of Helsinki.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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