ORIGINAL ARTICLE

PERCEIVED SOCIAL SUPPORT AND ITS ASSOCIATION WITH MENTAL HEALTH AMONG WOMEN WHO EXPERIENCED CHILD MARRIAGE IN SABAH

Soraya Mohd Taufik[1], Rosnah Sutan[2], Rozita Mohd Hod[3], Sudesan Raman[4] and Hazlina Mohd Miskam[5]

[1]Public Health Medicine Department, Faculty of Medicine, Universiti Kebangsaan Malaysia,56000 Cheras, Kuala Lumpur
[2]Public Health Medicine Health Department, Faculty of Medicine, Universiti Kebangsaan Malaysia, 56000 Cheras, Kuala Lumpur
[3]Public Health Medicine Department, Faculty of Medicine, Universiti Kebangsaan Malaysia, 56000 Cheras, Kuala Lumpur
[4]Obstetrics and Gynaecology Department, Hospital Tawau, 91000 Tawau, Sabah
[5]Pusat Pengajian Citra Universiti, UKM 43600 Bangi, Selangor.

Corresponding author: **Rosnah Sutan**
Email: rosnah.sutan@ukm.edu.my ; rosnah_sutan@yahoo.com

ABSTRACT

Child marriage remains a significant public health and human rights issue. Women with a history of child marriage are vulnerable to adverse psychological outcomes, including depression, anxiety and mental health issues due to disrupted education, limited autonomy and social disadvantage. Social support is widely recognised as a protective factor that buffers the adverse effects of stress and enhances resilience. However, its association with mental health in this population remains understudied, particularly in geographical barriers and cultural traditions. This study examined the association between social support and mental health among 107 married women aged 18-30 who were married before the age of 18 in Tawau, Sabah. Social support was measured using the Multidimensional Scale of Perceived Social Support, while mental health was assessed using the General Health Questionnaire. Overall, 50.5% of respondents have moderate social support, 39.3% have high social support, and 10.3% report low social support. Findings showed a highly significant association between low social support and poor mental health outcomes (B=-3.19, p <0.004), even after adjusting for age, education, income and marital duration. This study highlights the crucial role of social support in improving mental health outcomes among women affected by child marriage. Strengthening community-based support networks and integrating psychosocial services may help mitigate the psychological consequences of child marriage. By identifying social support as a modifiable determinant of mental health, this study provides evidence to support culturally appropriate interventions, strengthen community-based mental health programmes, and inform policies aimed at improving the long-term mental health of women affected by child marriage.

***Keywords**: Child Marriage, Social Support, Mental Health, Women, Youth*

INTRODUCTION

Child marriage is a global public health issue, especially for young women from low and middle-income countries. According to UNICEF, 12 million girls are married annually in the world, at the age of less than 18[1]. Globally, up to 21% of women of early reproductive age, for instance, aged 20-24, used to get married during childhood[2]. In 2014, 20-24 year olds globally were 8% married by age 15 and 27% married by age 18. At the age of 15, the marriage rate stood at 17 per cent in South Asia and 14 per cent in West and Central Africa[3]. Although the Malaysian government has implemented various measures to lower the numbers, issues persist. There were 1856 cases of child marriages reported in Malaysia, and 90% of them were women[4]. The Syariah Judiciary Department Malaysia reported that 520 applications for underage marriages among Muslim couples were recorded from early January to September 2020, with the highest number in Sarawak (n=83), followed by Kelantan (n=80) and Sabah (n=63)[5]. There were approximately 10,240 child marriage applications in Malaysia between 2005 and 2015, with an average of 1,024 annually[5]. Furthermore, among non-Muslims, 2,104 girls aged 16–18 were reported to have married between 2011 and September 2015, which is about 420 per year[6]. These figures indicate that child marriage remains a persistent public health and social concern in Malaysia despite ongoing policy efforts. However, understanding the prevalence alone is insufficient. Women who marry before the age of 18 are likely to experience numerous adverse psychosocial factors, such as a lack of schooling, economic reliance, childbearing, limited autonomy in decision-making, intimate partner violence and social isolation. These stressors increase their risk for poor mental health and thus, in order develop positive buffers to these stressors. Among these factors, social support has long been described as one of the most significant factors related to psychological health.

Social support is an effective psychological barrier to life stress. Nevertheless, the contribution of social support and its association with mental health in women who married before the age of 18 has not been delved into in Malaysia. Studies from Niger and Ethiopia found significant negative associations between early marriage and overall psychological well-being, affecting depression, anxiety, positive well-being, vitality and general health[7]. In Indonesia, women were found to be 9.6 percentage points more likely to be depressed[8]. Social support accounted for 13% of the variation in psychological well-being, and women with strong family support had significantly better mental health outcomes. The similarity in results across different cultural settings, such as the United States, Pakistan, Ethiopia, and India, supports the universality of social support in reducing the psychological burden of child marriage[9]. There is also evidence from local data that indicates that biopsychosocial and nutritional factors are the primary determinants of mental health in women. A local study in Malaysia found that low social support is a significant predictor of depression in women with chronic diseases and act as a fundamental factor of mental health in Malaysia, particularly among women who married under 18 years of age[10].

Although these insights have been made, there is limited evidence of the Malaysian context. This research aligns with major global development agendas, including the Sustainable Development Goals (SDGs) 3 (Good Health and Well-Being), 4 (Quality Education), 5 (Gender Equality), and 10 (Reduced Inequalities)[11]. Women married young also lack social support in many cases and may be torn between the force of social pressures by their spouses or in-laws to have babies early, without the necessary physical or emotional preparation[12]. These kinds of pressures may make one more susceptible to stress, anxiety, and other mental health-related issues. In line with national priorities outlined in the 13th Malaysia Plan (RMK-13), which emphasise enhancing population health, minimising inequalities, and strengthening support systems for vulnerable groups, this study seeks to fill a significant knowledge gap[13]. This study aims to assess the social support factor and its association with mental health among women aged 18-30 years in Sabah who have been married before 18 years old. This study contributes to evidence-based policymaking and mental health intervention for young women in Malaysia to overcome the issue of early marriage by providing empirical data.

METHODS

Study design and setting

A cross-sectional study was conducted at Hospital Tawau between April 2022 and April 2023. Hospital Tawau is a major public tertiary referral hospital located in the Tawau Division on the southeast coast of Sabah, East Malaysia. The hospital serves a large and socioeconomically diverse population from Tawau and neighbouring districts including Semporna, Kunak and Lahad Datu.

Study population and sample size

The sample for this study consisted of women aged 18 to 30 who were married before age 18. The Kish (1965) formula[14] was used to calculate the sample size, which relied on a cited prevalence of 9.6% for good mental health among women of reproductive age[8]. The minimum sample size required was 133 at a 95% confidence level (Z = 1.96) and a 5% margin of error (d = 0.05). During the study period, 197 women were recruited.

Sampling method

A simple random sampling technique was used to recruit participants from the list of admitted cases, among women aged 18-30 years who received treatment at Hospital Tawau. The inclusion criteria for this study are Malaysian female citizens who have registered and received treatment at Hospital Tawau, agreed to participate in the study, have ever been married before 18 years old and are currently aged between 18 and 30 years. Meanwhile, the exclusion criteria were unmarried women, women receiving treatment from psychiatric clinics and women who are in critical condition, intensive care, chemotherapy, or post-surgery.

Data Collection and Instruments

The questionnaire included a sociodemographic profile that covers age, age at first marriage, religion, occupation, education level, number of children, income, ethnicity or race, and duration of marriage, which were classified as <10 years and ≥10 years. Social support factor was assessed using the *Multidimensional Scale of Perceived Social Support (MSPSS)*. This questionnaire consists of 12 items on a 7-point Likert scale, with 1 = strongly disagree and **7** = strongly agree. The MSPSS assesses three subscales of social support: family, significant other, and friends support, each with four items. Each instrument subscale was calculated using mean values[15,16]. The scores were interpreted using predetermined cut-offs: 1.00-2.9 indicates low social support, 3.00-5.0 indicates moderate social support, and 5.1-7.0 indicates high social support. Although the total score range is 12 to 84, the average score is usually reported because it aligns with the original scale and improves comparisons with other populations[15-17]. Mental health factor was assessed using *General Health Questionnaire (GHQ-12)*. This questionnaire has been validated in Bahasa Malaysia[18] with a Cronbach's alpha of 0.90. The GHQ-12 was used to assess psychological well-being. Total scores ≥4 indicate high mental

distress, scores <4 indicate low mental health problems.

Data analysis

Data were entered into IBM SPSS Statistics 27. Data were analysed using descriptive statistics, chi-square tests and binary logistic regression to adjust for potential confounding variables. Descriptive statistics were used to summarise participants' characteristics. Chi-square and binary logistic regression models were applied to examine associations between social support and mental health outcomes. Odds ratios (OR) with 95% confidence intervals were reported, with $p<0.05$ considered statistically significant.

Ethical considerations

All the participants provided informed consent, and confidentiality was strictly maintained. UKM ethics approval was obtained on 08 December 2021, and NMRR approval was obtained on 5th April 2022.

RESULTS

Descriptive analysis

Table 1 depicts the sociodemographic characteristics of the 107 respondents, a group of women aged 18-30 who were married before age 18. Almost all respondents received treatment at Hospital Tawau during 2020-2023 (97.2%), and the majority were treated in the Department of Obstetrics and Gynaecology (97.2%), suggesting their active use of reproductive and maternal health services. About 48.6% of the respondents were aged 18-21 years, 33.6% were aged 26-30 years, and 17.8% were aged 22-25 years, indicating that the majority were at the early stage of adulthood. For age at first marriage, most respondents married at 17 (52.3%) or 16 (32.7%), with a small fraction marrying before 13-15 (15.0%).

Table 1: Sociodemographic Profile of Respondents (N = 107)

Variable	Category	Frequency	Percentage (%)
Year of Treatment Received	2011–2019	3	2.8
	2020–2023	104	97.2
Type of Treatment	Obstetrics & Gynaecology	104	97.2
	Others (General Medicine, Paediatrics, General Surgery)	3	2.8
Age (years)	18–21	52	48.6
	22–25	19	17.8
	26–30	36	33.6
Age at First Marriage	13–15	16	15.0
	16	35	32.7
	17	56	52.3
Religion	Islam	103	96.3
	Non-Islam	4	3.7
Ethnicity	Bajau	43	40.2
	Bugis	25	23.4
	Suluk	8	7.5
	Dusun	5	4.7
	Murut	5	4.7
	Tidung	7	6.5
	Others (Malay, Cocos, Sungai, Javanese, Chinese)	14	13.0
Employment Status	Not working	93	86.9
	Employed	14	13.1
Household Income	≤ RM 2000	98	91.6
	> RM 2000	9	8.4
Education Level	Low (No schooling/Primary)	31	29.0
	Secondary	76	71.0
Number of Children	0	12	11.2
	1–2	59	55.1
	3–4	27	25.2
	≥ 5	9	8.5
Duration of Marriage	<10 years	79	73.8
	≥10 years	28	26.2

The majority of the respondents were Muslims (96.3%), which is based on the religious composition of the population and the legal system on underage marriage. The sample was also ethnically representative, predominantly Bajau (40.2%) and Bugis (23.4%), with other native and minority ethnicities, demonstrating that coastal and indigenous populations were represented in the study population. About 86.9% of the respondents were full-time housewives, while 13.1% worked. Most of them had a household income of less than RM2000 per month (91.6%), and the majority had low socioeconomic status. The highest level of educational achievement was in the secondary level (71.0%), with the majority of the population in the low educational attainment level (29.0%). The number of children indicates that the majority of the women have more than one child (55.1%) and three to four children (25.2%). Overall, the majority of respondents had been married for 1-10 years (73.8%), with more than a quarter having been married for at least 10 years (26.2%).

Table 2 shows that 107 women aged 18-30 who have been married before age 18 indicated moderate perceived social support (50.5%, n=54). Based on the findings, only 39.3% (n=42) of respondents had high social support, and 10.3% (n=11) had low social support. This distribution indicates that participants in the study perceive social support to varying degrees. The moderate level of social support dominance implies incomplete access to interpersonal resources, which are unlikely to be enough to counteract psychosocial stress factors related to early marriage. The finding of a significant proportion of women reporting high levels of social support, on the other hand, indicates the variability of social environments and the accessibility of supportive relationships within this population.

Table 2: Social support level among women aged 18-30 years old who have experienced child marriage in Sabah

Category	Frequency	Percentage (%)
Low (score **1.0-2.9)**	11	10.3
Moderate (score **3.0-5.0)**	54	50.4
High (score **5.1-7.0)**	42	39.3
TOTAL	**107**	**100.0**

Inferential analysis

Table 3 showed the association of social support factors and the mental health levels among women aged 18-30 years old who have experienced child marriage. The mental health level is highly significant with the social support factor (p = 0.017). Respondents who had low social support tended to have higher rates of psychological distress, as 72.7% of them had a score >4, which is high mental health, whereas 31.5% and 26.2% of women with moderate and high social support, respectively. Subscale analysis showed that the support of a significant other was significant in relation to the mental health outcomes (p = 0.037), with poorer mental health being more common in those who reported low support. Family support showed the highest level of relationship with the mental health status (p = 0.003), with 77.8% of women with low family support showing psychological distress as compared to women who reported moderate or high family support. Conversely, the friendship support has not shown a significant relationship with the mental health status (p = 0.304).

Table 4 presents the binary logistic regression analysis used to determine the relationship between the three areas of social support (partner, family and friends) and the mental health status of women who have been married before the age of 18. By controlling for other factors in the model, two social support domains, partner support and family support, were identified as important predictors of mental health. The family support showed the highest association with mental health. Women who reported having low social support from the family had significantly higher odds of having poor mental health than those who reported high levels of family support (p <0.05), with an odds ratio of 0.04 (95% CI: 0.00-0.37). High family support has reduced the risk of poor mental health by 96 per cent, which highlights the importance of the protective role played by familial networks in this population. Based on the results, there was also a significant association with social support from a spouse or partner. The woman who had moderate social support from their partner was more likely to have high mental health compared to those with high support (p=0.039, OR = 0.24). A lack of social support from spouses has a significant psychological vulnerability for young married women. Social support from friends, as shown in the table, is not significantly associated with mental health (P=0.27).

Table 3: Social Support Factor and Its Association with Mental Health among Women aged 18-30 Years Old Who have Experienced Child Marriage

Factor	Category	Mental Health GHQ-12		Total	$\chi 2$	P-value
		Low <4	High ≥ 4			
Social Support	Low	8 (72.7)	3 (27.3)	11	8.20	0.017*
	Moderate	17 (31.5)	37 (68.5)	54		
	High	11 (26.2)	31 (73.8)	42		
Significant Other Support Subscale (SO's subscale)	Low	11 (33.3)	22 (66.7)	33	6.62	0.037*
	Moderate	18 (47.4)	20 (52.6)	38		
	High	7 (19.4)	29 (80.6)	36		
Family support subscale (FS's subscale)	Low	7 (77.8)	2 (22.2)	9	11.31	0.003*
	Moderate	13 (41.9)	18 (58.1)	31		
	High	16 (23.9)	51 (76.1)	67		
Friend support's subscale (FR's scale)	Low	11 (39.3)	17 (60.7)	28	2.38	0.304
	Moderate	17 (37.8)	28 (62.2)	45		
	High	8 (23.5)	26 (76.5)	34		

Note: GHQ-12=GeneralHealthQuestionnaire (12-items), (SO)=Significant Other, (FS)=Family Support, (FR)=Friend Support, x^2=Chi-square, p-value (probability value), p=<0.05

Table 4: A predictive model of factors affecting mental health among reproductive-age women with the social support factor

Factor	Category					**95% C.I.**	
		B	**Wald**	**P-value**	**OR**	**Lower**	**Upper**
Social Support Subscale (Spouse)	High		4.80	0.091			
	Low	-0.32	0.20	0.659	0.73	0.18	2.97
	Moderate	-1.44	4.28	0.039	0.24	0.06	0.93
Social Support Subscale (Family)	High		8.15	0.017			
	Low	-3.19	8.15	0.004	0.04	0.00	0.37
	Moderate	-0.67	1.17	0.280	0.51	0.15	1.73
Social Support Subscale (Friends)	High		1.36	0.507			
	Low	0.83	1.01	0.315	2.30	0.45	11.60
	Moderate	0.78	1.22	0.270	2.18	0.55	8.74
Constant		21.21	0.00	0.999			

Note : B=regression coefficient, OR = odds ratio, CI = confidence interval, Wald = Wald chi-square, p-value =probability value, p<0.05

DISCUSSION

The majority of respondents were married within the age range of 16-17 years, which is consistent with the national and regional data on the fact that underage marriage usually takes place during mid-adolescence[19]. Most of them were Muslims, which is indicative of the fact that Muslim communities make the most significant number of underage marriage applications in Malaysia[5]. The sample was ethnically Bajau, Bugis, Suluk, Murut, and Tidung, which were the highest, carrying historical references to the reports that indicated child marriage prevalence among indigenous and coastal community members in Sabah[20]. Some children marry as young as 14 years old[21]. Most respondents are unemployed and act as housewives (86.9%), with only 13.1% working. The scenario is an indicator of the low economic aspect of young women in Sabah, which is in line with the fact that low employment rates enhance psychosocial vulnerability and health disparities[11,22]. The majority of respondents had household incomes below RM2000, and healthcare research attributes early marriage to economic disadvantage among B40 households in Malaysia[23]. The level of education was mostly lower secondary, which aligns with research on early marriage, which shows it is more likely among girls who have stopped attending school[24]. The number of children indicated that the majority of women had one to two children, which is natural

given their youth and the social pressure to have children as soon as they married[25]. In Malaysia, previous studies found long-term effects such as health risks due to child marriage[26]. Generally, this trend indicates that most respondents come from low socioeconomic status, marry young and have low educational levels, which have been reported in the global literature as key predictors of mental health of women who have experienced child marriage[27-28]. The findings of this study showed that the majority of women aged 18-30 years who were victims of child marriage in Sabah had a moderate level of social support, with a less significant percentage of high support and a significant percentage of low support. This trend indicates the low social support for women who have experienced early marriage, even though some interpersonal resources can be accessed.

Moderate social support can indicate dependence on small family or spouse systems under restrictive socioeconomic and cultural conditions, especially in rural and semi-rural areas like Tawau. The presence of women with poor social support creates a vulnerable subgroup in which people have less access to both emotional and instrumental resources. These observations coincide with international evidence that early marriages tend to be linked with broken social networks as a result of dropping out of school, financial dependence, and lack of autonomy, which might carry on to adulthood[29-32]. Women with lower levels of social support were more likely to report psychological distress, consistent with evidence identifying social support as a key buffer against stress[33]. Subscale analyses indicated that social support by family and social support by partner are highly significant with mental health outcomes. A high level of social support has a greater impact on psychological well-being[34,35].

Wide evidence about child marriage and mental health showed that high social support plays an important role in reducing psychological distress among women who are married at an early age[36]. The predictive model further highlighted family support as the strongest determinant of mental health after adjusting for sociodemographic factors. Women with low family support exhibited a markedly higher risk of psychological distress, underscoring the importance of family relationships in sustaining mental well-being among women facing social and reproductive vulnerabilities[12,37,38]. Moderate partner support was also associated with mental health, while friend support was not, possibly reflecting reduced peer engagement following early marriage[39,40].

CONCLUSION

The study presents the evidence that the perceived social support, specifically family and partners, is also one of the main determinants of mental health in women aged 18-30 years who were child-married in Sabah, Malaysia. The low social support by family and partner among women was much more strongly linked to psychological distress. In contrast, the role of friends' support could not be linked to mental health outcomes, which highlights the pivotal role of proximal support systems in the context of child marriage. These findings highlight that mental health vulnerabilities among women married early are shaped not only by individual and socioeconomic factors but also by relational and household dynamics. From a public health perspective, the results support the integration of family-centred and partner-inclusive psychosocial support within reproductive, maternal, and primary healthcare services. Such approaches are aligned with national priorities to reduce health inequities and global commitments to improving women's mental health. Future research should employ longitudinal designs and culturally adapted measures to examine further pathways linking social support and long-term mental health outcomes among women affected by child marriage.

Competing Interests
Not all authors have competing interests.

Funding:
The authors received no specific funding for this work.

Ethics Statement:
This study was reviewed and approved by the UKM Ethics Committee with the approval number JEP-2021-816 (10.12.2021) and the National Medical Research and Ethics Committee (NMRR) with the approval number NMRR ID-22-00254-OHU (05.04.2022). All participants/patients provided informed consent to participate in the study.

Data Availability Statement:
Data will be made available upon request

Acknowledgement:
We would like to thank the Director General of Health Malaysia for granting permission to publish this article. Authors also extend their appreciation to the Faculty of Medicine, UKM; the Hospital Tawau Director and Head of Obstetrics and Gynaecology at Hospital Tawau; and the participating hospitals and their staff for their outstanding collaboration throughout the study. Additionally, the authors thank all the participants who took part in this research.

REFERENCES

1. UNICEF. 2023. Child marriage: Latest global trends. New York: United Nations Children's Fund. (accessed 24 March 2026).

2. UNICEF. 2021. Child marriage: Global estimates. New York: United Nations Children's Fund.(accessed 24 March 2026).

3. Walker,JA. Mapping child marriage policies in low- and middle-income countries. *World Development* 2019. **122**: 1–12.

4. UNICEF Malaysia. 2018. "Child Marriage in Malaysia." Working Paper, prepared by Noor Aziah Mohd Awal. https://www.unicef.org/malaysia/media/711/file/Child%20marriage%20in%20Malaysia.pdf.(accessed 24 March 2026).

5. Jabatan Kehakiman Syariah Malaysia. 2020. Laporan statistik permohonan kebenaran berkahwin 2019–2020. Putrajaya.

6. Asia News. 2020. Poverty, laws and traditions are among the causes of child marriages in Malaysia. https://www.asianews.it/news-en/Poverty,-laws-and-traditions-among-the-causes-of-child-marriages-in-Malaysia-49061.html. (accessed 24 March 2026).

7. John, NA, Edmeades, J, and Murithi,L. Child marriage and psychological well-being in Niger and Ethiopia. *BMC Public Health* 2019. **19**, 1029. https://doi.org/10.1186/s12889-019-7314-z.

8. Jayawardana.D. Happily, ever after? Mental health effects of early marriage in Indonesia. *Journal of Feminist Economics* 2022. **28**(4), 1–28. https://doi.org/10.1080/13545701.2022.2079698

9. Maham Fayyaz, Nuzhat Shaheen, Hifza Imran, Laiba Jamil. Educational Continuation, Social Support and Mental Well-being among Married and Unmarried Women. *Journal of Social Sciences Review*. 2025. https://doi.org/10.62843/jssr.v5i1.509.

10. Amsah Norizzati, Zaleha Md Isa and Norfazilah Ahmad. Biopsychosocial and Nutritional Factors of Depression among Type 2 Diabetes Mellitus Patients: A Systematic Review. *Int. J. Environ. Res. Public Health* 2022. **19**, 4888. https://doi.org/10.3390/ijerph19084888.

11. United Nations Population Fund (UNFPA). 2025. Child Marriage. (accessed 24 March 2026).

12. Anvita Dixit, Nandita Bhan, Tarik Benmarhnia, Elizabeth Reed, Susan M. Kiene, Jay Silverman, and Anita Raj. 2021. The association between early marriage, fertility pressure from in-laws, and family planning behaviours, among married adolescent girls in Bihar and Uttar Pradesh, India. https://doi.org/10.1186/s12978-021-01116-9. (accessed 24 March 2026).

13. Rancangan Malaysia Ke-13 (RMK-13). 2024. Buku utama. https://rmk13.ekonomi.gov.my. (accessed 24 March 2026).

14. Kish, Leslie 1965. Survey Sampling. New York: John Wiley and Sons, Inc. p. 78-94

15. Zimet, GD, Dahlem, NW, Zimet, SG, & Farley, GK. The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 1988. **52**(1), 30–41.

16. Zimet, GD, Powell, SS, Farley, GK, Werkman, S, and Berkoff, K. A. Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*,1990. **55**(3–4), 610–617.

17. Ng, CG, Amer Siddiq, AN, Aida, SA, Zainal, NZ, and Koh, OH. Validation of the Malay version of the Multidimensional Scale of Perceived Social Support (MSPSS-M). *Malaysian Journal of Psychiatry*, 2010. **19**(1), 1–8.

18. Yusoff, MSB, Abdul Rahim, AF, and Yaacob, MJ. The sensitivity, specificity and reliability of the Malay version of the 12-item General Health Questionnaire (GHQ-12). *Education in Medicine Journal*, 2009.**1**(1), e1–e8.

19. Ooi, Kok Hin. 2017. Child Marriages in Malaysia: Reality, Resistance and Recourse. Penang Institute, 10 July. https://penanginstitute.org/

publications/issues/981-child-marriages-in-malaysia-reality-resistance- and-recourse/. (accessed 24 March 2026).

20. Department of Statistics Malaysia (DOSM). (2020). Household income and basic amenities survey report. Putrajaya: DOSM. (accessed 24 March 2026).

21. Kwan Faye Kwan. (2020). Pandemic woes may lead to more child marriages. Pandemic woes may lead to more child marriages, says women's group. https://www.freemalaysiatoday.com/category/nation/2020/12/06/pandemic-woes-may-lead-to-more-child-marriages-says-womens-group. (accessed 24 March 2026).

22. Parsons Jennifer, Jeffrey Edmeades, Aslihan Kes, Suzanne Petroni, Maggie Sexton, and Quentin Wodon. Economic Impacts of Child Marriage: A Review of the Literature. *The Review of Faith & International Affairs*,2015. **13**(3):12-22. https://doi.org/10.1080/15570274.2015.1075757.

23. Nor Asmat Ismail, Lynda Daud, Saidatulakmal Mohd, Narimah Samat and Abdul Rahim Ridzuan. 2023. Consumption Pattern Determinants of Low-income Household: Evidence from Malaysia. http://dx.doi.org/10.17576/JEM-2024-5703-03. (accessed 24 March 2026).

24. Bengesai AV, Amusa LB, Makonye F. The impact of girl child marriage on the completion of the first cycle of secondary education in Zimbabwe: A propensity score analysis. *PLoS ONE*, 2021. **16**(6): e0252413. https://doi.org/10.1371/journal.pone.0252413.

25. Godha, D, Hotchkiss, DR, and Gage, AJ. Association between child marriage and reproductive health outcomes. *Global Health Action*, 2019. **12**(1), 160–170.

26. Md Alwi N, Muhamad R, Ishak A and Suwankhong. You Know How People Talk," Reasons Behind Child Marriage among Female Youth in The North-Eastern State of West Malaysia.**IIUM Medical Journal Malaysia,** 2024. **23**(03):105-117. https://doi.org/10.31436/imjm.v23i03.

27. Aggarwal, S, Francis, KL, Dashti, SG, and Patton, G. Child marriage and the mental health of adolescent girls: a longitudinal cohort study from Uttar Pradesh and Bihar, India. *The Lancet regional health. Southeast Asia*,(2022). **8**, 100102. https://doi.org/10.1016/j.lansea.2022.100102

28. Efevbera, Y., Bhabha, J., Farmer, PE, and Fink, G. Child marriage as a risk factor for early childhood development and stunting. *Social science & medicine* (2017). (1982), 185: 91–101. https://doi.org/10.1016/j.socscimed.2017.05.027.

29. Girls Not Brides. 2016. Launch of new multi-country initiative to protect millions of girls from child marriage - UNICEF/UNFPA. https://www.girlsnotbrides.org/articles/multi-country-initiative-en-child-marriage-unicef-unfpa. (accessed 24 March 2026).

30. Asadullah, MN. and Wahhaj, Z. Early Marriage, Social Networks and the Transmission of Norms. *Economica*, 2019. **86**:801-831. https://doi.org/10.1111/ecca.12291

31. Pintu Paul, Kalysha Closson, and Anita Raj. Is parental engagement associated with subsequent delayed marriage and marital choices of adolescent girls? Evidence from the Understanding the Lives of Adolescents and Young Adults (UDAYA) survey in Uttar Pradesh and Bihar, India. *SSM - population health*,2023. **24**, 101523. https://doi.org/10.1016/j.ssmph.2023.101523.

32. Kidman R. Child marriage and intimate partner violence: a comparative study of 34 countries. *International journal of epidemiology*,2017. **46**(2), 662–675. https://doi.org/10.1093/ije/dyw225

33. Cohen, S., & Wills, T. A. Stress, social support and the buffering hypothesis. *Psychological Bulletin*,1985. **98**(2), 310-357. https://doi.org/10.1037/0033-2909.98.2.310.

34. Thomas, PA, Liu, H, and Umberson, D. Family Relationships and Well-Being. *Innovation in aging*, 2017. **1**(3), igx025. https://doi.org/10.1093/geroni/igx025

35. Tina Khanna, Rachana Patel, Faiyaz Akhtar and Sunil Mehra. 2023. Relationship between partner support and psychological distress among young women during pregnancy: A mixed-method study from a low- and middle-income country. Journal of Affective Disorders Reports, 2023. **14**:1-9. https://doi.org/10.1016/j.jadr.2023.100672.

36. Burgess Rochelle A, Mairi Jeffery, Sabina Adhiambo Odero, Kelly Rose-Clarke and Delanjathan Devakumar. Overlooked and unaddressed: A narrative review of mental health consequences of child marriages. *PLOS global public health*, 2022. **2**(1),e0000131. https://doi.org/10.1371/journal.pgph.0000131.

37. Eray, Ş, Uçar, HN, and Murat, D. Early marriage and related mental illnesses. *Van Medical Journal*, (2019). **26**(1), 86–90.

38. Low, SK, Zainal, R, and Ahmad, N. Socioeconomic disparities and health outcomes among B40 households in Malaysia. *Malaysian Journal of Public Health Medicine*,2021. **21**(2), 55–63.

39. Raj, A, McDougal, L, and Silverman, J G. Gendered effects of child marriage on education, health, and economic outcomes. *Annual Review of Public Health*, 2019. **40:** 299–316.

40. Mehedi Hasan and Md Al Amin. Determinants of depression among ever-married adolescent girls in Bangladesh: Evidence from the Bangladesh Adolescent Health and Well-being Survey 2019-2020. *PloS ONE*,2024. **19**(11), e0314283. https://doi.org/10.1371/journal.pone.0314283.