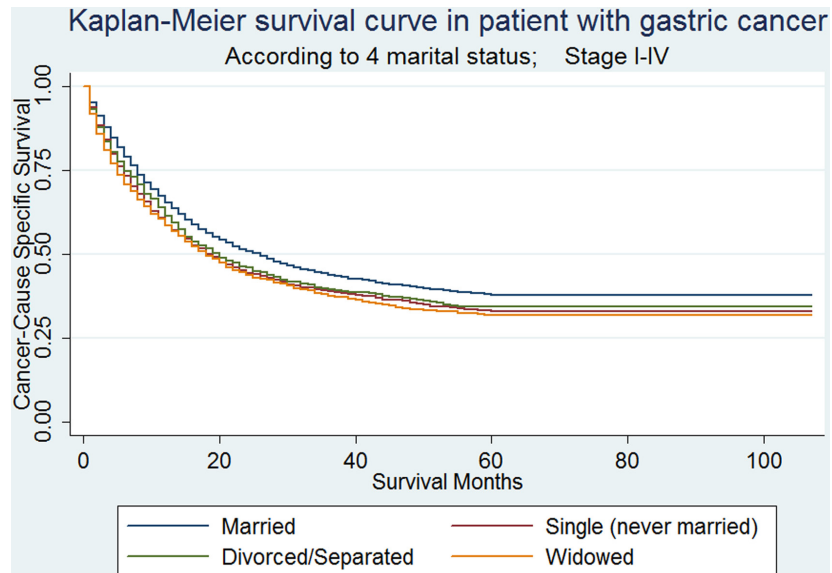
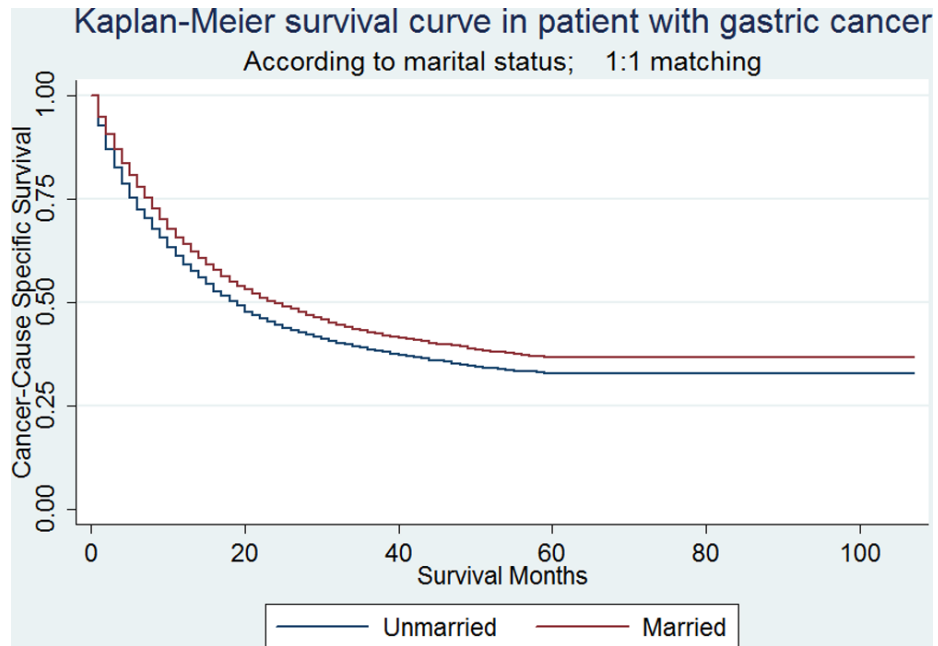


## SUPPLEMENTARY FIGURES AND TABLES



**Supplementary Figure S1: Kaplan-Meier Survival curves: The cancer-specific survival of patients with gastric cancer by marital status, categorized into married, single (never married), divorced or separated and widowed groups.** We compare the survival curves of single, divorced/separated, and widowed groups, among which there was no difference of CCS in univariate log-rank test ( $\chi^2= 3.63$ ,  $P=0.1626$ ) (Figure 1), hence we put them in the same class as unmarried group.



Supplementary Figure S2: Kaplan-Meier Survival curves: The cancer-specific survival of patients with gastric cancer by marital status in 1:1 matching, unmarried versus married patients.  $\chi^2=35.35$ ,  $P<0.001$

**Supplementary Table S1: Univariate and multivariate survival analysis for overall survival (OS) predictors. SEER 2004-2012 (n=16910)**

See Supplementary File 1

**Supplementary Table S2: Characteristics of patients by marital status in 1:1 matching, unmarried versus married. SEER 2004-2012 (n=14056)<sup>a</sup>**

See Supplementary File 1

**Supplementary Table S3: Univariate and multivariate survival analysis for gastric cancer-caused special survival (CSS) predictors in 1:1 matching. SEER 2004-2012 (n=14056)**

See Supplementary File 1

**Supplementary Table S4: Univariate and multivariate survival analysis for marital status on overall survival (OS) by stage at diagnosis. SEER 2004-2012 (n=16910)**

TNM stage	Univariate analysis			Multivariate analysis		
	5-year OS	Log rank $\chi^2$	P value	HR	95%CI	P value
<b>StageI(n=4468)</b>						
<b>Marital status</b>		105.13	<0.001			
Unmarried	44.59%			Reference		
Married	60.60%			0.93	0.84-1.03	0.139
<b>StageII(n=3, 724)</b>						
<b>Marital status</b>		60.38	<0.001			
Unmarried	30.78%			Reference		
Married	43.39%			0.85	0.78-0.94	0.001
<b>StageIII(n=4077)</b>						
<b>Marital status</b>		31.99	<0.001			
Unmarried	16.03%			Reference		
Married	22.70%			0.88	0.82-0.96	0.003
<b>StageIV(n=4641)</b>						
<b>Marital status</b>		16.34	<0.001			
Unmarried	3.33%			Reference		
Married	3.50%			0.92	0.86-0.99	0.018

Abbreviation: NOS= no other specific; SEER=Surveillance, Epidemiology and End Results.

**Supplementary Table S5: Characteristics of patients by surgery with corresponding multinomia univariate analysis. SEER 2004-2012 (n=16910)<sup>a</sup>**

See Supplementary File 1

**Supplementary Table S6: Characteristics of patients by radiotherapy with corresponding multinomia univariate analysis. SEER 2004-2012 (n=16910)<sup>a</sup>**

See Supplementary File 1

**Supplementary Table S7: Multinomial multivariate analysis of surgical type by marital status, compared to patients with non-total or non-near-total gastrectomy. SEER 2004-2012 (n=16910)**

Surgery	Multivariate analysis		
	RRR	[95%CI]	P value
<b>No surgery</b>			
<b>Marital Status</b>			
Unmarried	Reference		
Married	0.75	0.69-0.81	<0.001
<b>Non-Total or Non-near-total gastrectomy</b>	(base outcome)		
<b>Marital Status</b>			
Unmarried			
Married			
<b>Total or near total gastrectomy</b>			
<b>Marital Status</b>			
Unmarried	Reference		
Married	1.03	0.93-1.14	0.55

Abbreviation: SEER=Surveillance, Epidemiology and End Results.

**Supplementary Table S8: Univariate and multivariate survival analysis for marital status on overall survival (OS) by treatments. SEER 2004-2012 (n=16910)**

Treatment	Univariate analysis			Multivariate analysis		
	5-year OS	Log rank $\chi^2$	P value	HR	95%CI	P value
<b>Surgery and radiotherapy (n=3159)</b>						
<b>Marital Status</b>		8.81	0.003			
Unmarried	37.59%			Reference		
Married	43.12%			0.92	0.83-1.03	0.131
<b>Surgery without radiotherapy (n=8108)</b>						
<b>Marital Status</b>		45.31	<0.001			
Unmarried	33.06%			Reference		
Married	41.24%			0.86	0.81-0.92	<0.001
<b>No surgery but radiotherapy (n=709)</b>						
<b>Marital Status</b>		0.74	0.390			
Unmarried	4.70%					
Married	4.53%					
<b>No surgery or radiotherapy (n=4681)</b>						
<b>Marital Status</b>		10.59	0.001			
Unmarried	3.11%			Reference		
Married	4.08%			0.87	0.81-0.94	<0.001
<b>Unknow (n=253)</b>						
<b>Marital Status</b>		0.19	0.665			
Unmarried	29.96%					
Married	28.48%					

Abbreviation: NOS= no other specific; SEER=Surveillance, Epidemiology and End Results.