

## Supplemental Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1. Characteristics of participants according to their inclusion status in the present study**

Characteristics	No. (%)		p <sup>b</sup>
	Included (n=937)	Excluded (n=95) <sup>a</sup>	
Age at recruitment ≥32 years	380 (40.6)	35 (36.8)	0.482
Ethnicity			0.725
Chinese	672 (71.7)	71 (74.7)	
Indian	85 (9.1)	10 (10.5)	
Malay	148 (15.8)	11 (11.6)	
Mixed ethnicity <sup>c</sup>	32 (3.4)	3 (3.2)	
Educational level: <tertiary level	348 (37.1)	36 (43.9)	0.226
Monthly household income (SGD)			0.762
Low: 1 <sup>st</sup> - 3 <sup>rd</sup> decile	116 (12.4)	14 (14.7)	
Middle: 4 <sup>th</sup> - 7 <sup>th</sup> decile	625 (66.7)	63 (66.3)	
High: 8 <sup>th</sup> - 10 <sup>th</sup> decile	196 (20.9)	18 (18.9)	
Parity ≥1	323 (34.5)	31 (41.9)	0.200
Smoking status: ever smoker	96 (10.2)	11 (14.9)	0.214
Alcohol intake >1 drink per wk	99 (10.6)	12 (12.6)	0.536
BMI: <18.5 or ≥23	505 (53.9)	39 (55.7)	0.768
Vegetable intake: <2 servings per d	666 (71.1)	48 (68.6)	0.656
Folic acid supplement nonuser	456 (48.7)	34 (45.9)	0.652
Risk score level			0.115
Level 1: score of 0 or 1	209 (22.3)	18 (27.3)	
Level 2: score of 2	318 (33.9)	16 (24.2)	
Level 3: score of 3	277 (29.6)	17 (25.8)	
Level 4: score of 4	110 (11.7)	14 (21.2)	
Level 5: score of 5 or 6	23 (2.5)	1 (1.5)	
Attempted time to conception at study entry, mo			
>3	389 (41.5)	31 (32.6)	0.093
>6	258 (27.5)	24 (25.3)	0.636
>12	136 (14.5)	12 (12.6)	0.618

Abbreviations: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared); SGD, Singapore dollar

SI conversion factor: To convert SGD to US dollars, multiply by 0.74.

<sup>a</sup>Sample size of excluded women does not always equal to 95 due to missing values.

<sup>b</sup>Based on Pearson's chi-squared test.

<sup>c</sup>Mixed ethnicity may include Chinese, Indian, or Malay ethnicity.

**eTable 2. Association between risk score and fecundability, based on singleton live birth as outcome measure<sup>a</sup>**

<b>Risk score</b>	<b>Live births n</b>	<b>Crude model FR (95% CI)</b>	<b>Adjusted model<sup>b</sup> FR (95% CI)</b>
Level 1: score of 0 or 1	104	1.00 [Reference]	1.00 [Reference]
Level 2: score of 2	124	0.70 (0.54, 0.91)	0.72 (0.55, 0.93)
Level 3: score of 3	88	0.55 (0.42, 0.73)	0.59 (0.44, 0.78)
Level 4: score of 4	24	0.36 (0.23, 0.57)	0.39 (0.24, 0.61)
Level 5: score of 5 or 6	2	0.16 (0.04, 0.66)	0.18 (0.04, 0.73)
Per additional level	342	0.65 (0.58, 0.72)	0.74 (0.65, 0.83)

Abbreviations: FR, fecundability ratio; CI, confidence interval.

<sup>a</sup>Data were analyzed using discrete-time proportional hazards models.

<sup>b</sup>Adjusted for ethnicity, educational level, monthly household income, and parity.

**eTable 3. Association between risk score and fecundability, using healthful plant-based diet index at score of  $\leq 47$  to indicate unhealthy diet in the risk score<sup>a</sup>**

	<b>Crude model</b>	<b>Adjusted model<sup>b</sup></b>
<b>Risk score</b>	<b>FR (95% CI)</b>	<b>FR (95% CI)</b>
Level 1: score of 0 or 1	1.00 [Reference]	1.00 [Reference]
Level 2: score of 2	0.60 (0.48, 0.77)	0.61 (0.48, 0.78)
Level 3: score of 3	0.64 (0.50, 0.83)	0.69 (0.53, 0.90)
Level 4: score of 4	0.40 (0.27, 0.60)	0.42 (0.28, 0.63)
Level 5: score of 5 or 6	0.13 (0.02, 0.90)	0.13 (0.02, 0.95)
Per additional level	0.76 (0.68, 0.85)	0.77 (0.69, 0.85)

Abbreviations: FR, fecundability ratio; CI, confidence interval.

<sup>a</sup>Data were analyzed using discrete-time proportional hazards models.

<sup>b</sup>Adjusted for ethnicity, educational level, monthly household income, and parity.

**eTable 4. Association between weighted risk score and fecundability<sup>a</sup>**

Weighted risk score <sup>c</sup>	Crude model	Adjusted model <sup>b</sup>
	FR (95% CI)	FR (95% CI)
Level 1: score of 0 or 1	1.00 [Reference]	1.00 [Reference]
Level 2: score of 2 or 3	0.59 (0.41, 0.84)	0.59 (0.42, 0.83)
Level 3: score of 4 or 5	0.47 (0.33, 0.66)	0.49 (0.35, 0.69)
Level 4: score of 6 or 7	0.37 (0.25, 0.56)	0.38 (0.25, 0.56)
Level 5: score of 8 or 10	0.22 (0.13, 0.39)	0.22 (0.13, 0.39)
Per additional level	0.73 (0.70, 0.78)	0.85 (0.81, 0.90)

Abbreviations: FR, fecundability ratio; CI, confidence interval.

<sup>a</sup>Data were analyzed using discrete-time proportional hazards models.

<sup>b</sup>Adjusted for ethnicity, educational level, monthly household income, and parity.

<sup>c</sup>The weighted risk score values were estimated based on the range of FRs for each risk factor in the multivariable discrete-time proportional hazards model in relation to fecundability. Score 1: >FR 0.8; Score 2: FR 0.7-0.8; Score 3: FR <0.7.

**eTable 5. Association between risk score and fecundability among women with conception attempts of  $\leq 3$ ,  $\leq 6$  and  $\leq 12$  months at study entry<sup>a</sup>**

	<b><math>\leq 3</math> months conception attempts before study entry (n=548)</b>	<b><math>\leq 6</math> months conception attempts before study entry (n=679)</b>	<b><math>\leq 12</math> months conception attempts before study entry (n=801)</b>
<b>Risk score</b>	<b>FR (95% CI)</b>	<b>FR (95% CI)</b>	<b>FR (95% CI)</b>
Level 1: score of 0 or 1	1.00 [Reference]	1.00 [Reference]	1.00 [Reference]
Level 2: score of 2	0.57 (0.34, 0.96)	0.71 (0.54, 0.93)	0.75 (0.58, 0.96)
Level 3: score of 3	0.33 (0.18, 0.61)	0.58 (0.43, 0.77)	0.63 (0.48, 0.84)
Level 4: score of 4	0.29 (0.13, 0.65)	0.49 (0.32, 0.75)	0.51 (0.34, 0.76)
Level 5: score of 5 or 6	0.35 (0.06, 1.86)	0.36 (0.11, 1.13)	0.27 (0.08, 0.84)
Per additional level	0.65 (0.52, 0.82)	0.78 (0.69, 0.87)	0.79 (0.71, 0.88)

Abbreviations: FR, fecundability ratio; CI, confidence interval.

<sup>a</sup>Data were analyzed using discrete-time proportional hazards models, adjusting for ethnicity, educational level, monthly household income, and parity.

**eTable 6. Association between risk score and fecundability when excluding women with polycystic ovarian syndrome (PCOS) reported or when excluding maternal age from the risk score<sup>a</sup>**

	<b>Excluding PCOS cases</b>		<b>Excluding maternal age factor</b>
<b>Risk score</b>	<b>FR (95% CI)<sup>b</sup></b>	<b>Risk score</b>	<b>FR (95% CI)<sup>c</sup></b>
Level 1: score of 0 or 1	1.00 [Reference]	Level 1: score of 0 or 1	1.00 [Reference]
Level 2: score of 2	0.67 (0.54, 0.85)	Level 2: score of 2	0.73 (0.57, 0.93)
Level 3: score of 3	0.58 (0.45, 0.75)	Level 3: score of 3	0.67 (0.50, 0.89)
Level 4: score of 4	0.49 (0.34, 0.71)	Level 4: score of 4 or 5	0.51 (0.34, 0.76)
Level 5: score of 5 or 6	0.23 (0.07, 0.70)		
Per additional level	0.77 (0.69, 0.86)	Per additional level	0.81 (0.72, 0.91)

Abbreviations: FR, fecundability ratio; CI, confidence interval.

<sup>a</sup>Data were analyzed using discrete-time proportional hazards models.

<sup>b</sup>Adjusted for ethnicity, educational level, monthly household income, and parity.

<sup>c</sup>Adjusted for ethnicity, educational level, monthly household income, parity, and maternal age.