

**Table S1. SNPs with p-value≤0.01.**

Reproduction variables	Gene	SNP	Test	Re	Beta	S.E.	L95% CI	U95% CI	P-value
Number of pregnancies	ARNTL	rs2278749	REC	<i>TT</i>	7.2	2.12	3.04	11.35	0.001
Number of miscarriages	ARNTL	rs2278749	REC	<i>TT</i>	4.65	0.83	3.03	6.27	2.50E-07
Number of miscarriages	NPAS2	rs11673746	DOM	<i>T+</i>	-0.64	0.2	-1.03	-0.25	0.002
Number of miscarriages	NPAS2	rs11673746	ADD	<i>T</i>	-0.47	0.15	-0.77	-0.16	0.003
Seasonal variation variables	Gene	SNP	Test	Re	OR/Beta	S.E.	L95% CI	U95% CI	P-value
GSS	NPAS2	rs2305160	DOM	<i>A+</i>	-0.81	0.24	-1.29	-0.33	0.001
GSS	NPAS2	rs2305160	ADD	<i>A</i>	-0.57	0.19	-0.94	-0.2	0.003
GSS	ARNTL	rs2290035	REC	<i>TT</i>	-0.92	0.31	-1.53	-0.3	0.004
GSS1	NPAS2	rs6725296	ADD	<i>A</i>	0.27	0.08	0.11	0.42	0.001
GSS1	NPAS2	rs6725296	DOM	<i>A+</i>	0.27	0.08	0.1	0.43	0.001
GSS2	NPAS2	rs2305160	DOM	<i>A+</i>	-0.19	0.07	-0.34	-0.05	0.008
Seasonal variation in weight	NPAS2	rs6725296	ADD	<i>A</i>	1.95	0.2	1.32	2.89	0.001
Seasonal variation in weight	NPAS2	rs6725296	DOM	<i>A+</i>	1.95	0.21	1.29	2.96	0.002
Seasonal variation in weight	NPAS2	rs2305160	DOM	<i>A+</i>	0.63	0.18	0.44	0.89	0.01
Seasonal variation in appetite	ARNTL	rs2290035	REC	<i>TT</i>	0.47	0.26	0.28	0.78	0.004
Seasonal variation in appetite	ARNTL	rs2290035	ADD	<i>T</i>	0.7	0.13	0.54	0.91	0.007
Seasonal variation in energy	ARNTL	rs2290035	REC	<i>TT</i>	0.45	0.24	0.28	0.72	0.001
Vitamin D	NPAS2	rs6725296	DOM	<i>A+</i>	4.38	1.68	1.09	7.67	0.009
Well-being variables	Gene	SNP	Test	Re	OR/Beta	S.E.	L95% CI	U95% CI	P
ESS2	NPAS2	rs2305160	REC	<i>AA</i>	0.44	0.15	0.14	0.74	0.004
ESS2	CLOCK	rs2412646	REC	<i>TT</i>	0.42	0.16	0.11	0.73	0.009
Social activity	CLOCK	rs2412646	REC	<i>TT</i>	0.2	0.53	0.07	0.56	0.002

Results presented for the rare allele/genotype.

Abbreviations: ADD, additive model; DOM, dominant model; REC, recessive model; Re, reference allele / genotype(s); OR/Beta, odds ratio/regression coefficient; S.E., standard error; L/U95% CI, lower/upper bound on confidence interval; GSS, Global seasonality score; GSS1, Global seasonality score factor 1; GSS2, Global seasonality score factor 2; ESS2, Epworth Sleepiness Scale factor 2.