

**Supplementary Table 2.** Edge invariance test between control group and SMA group ( $p < 0.05$ )

Var1	Var2	p
SMA1	SMA2	<0.001
SMA2	SMA3	<0.001
SMA3	SMA4	<0.001
SMA5	SMA6	<0.001
SMA4	SMA5	0.001
SMA2	PSQI2	0.001
PSQI2	PSQI3	0.001
IGD1	SMA4	0.002
IGD4	IGD6	0.003
SMA4	SMA6	0.003
IGD3	SMA4	0.004
PSQI2	PSQI5	0.005
IGD9	SMA6	0.006
SMA2	SMA4	0.010
SMA2	SMA6	0.012
PHQ5	PHQ9	0.016
PSQI2	PSQI7	0.021
PHQ2	PHQ4	0.022
GAD2	GAD3	0.023
IGD2	SMA5	0.027
PSQI3	PSQI4	0.027
PHQ2	PHQ7	0.030
SMA5	PSQI5	0.030
PSQI3	PSQI7	0.031
IGD2	IGD5	0.032
IGD4	SMA4	0.033
GAD5	PSQI5	0.033
GAD5	GAD6	0.034
IGD1	SMA1	0.034
PHQ9	PSQI5	0.035
IGD8	PSQI7	0.035
IGD5	IGD6	0.037
SMA1	PSQI5	0.037
GAD3	PSQI3	0.040
PSQI2	PSQI4	0.041
SMA6	PSQI5	0.041
IGD8	SMA4	0.043
PHQ7	PSQI7	0.043
IGD8	SMA3	0.046
PHQ7	GAD6	0.048

PHQ1–9 refers to the items of PHQ-9, GAD1–7 refers to the items of GAD-7, IGD1–9 refers to the items of IGDS9-SF, SMA1–6 refers to the items of BSMAS, and PSQI1–7 refers to the seven factor score in scale. SMA, Social Media Addiction; PHQ-9, Patient Health Questionnaire-9; GAD-7, Generalized Anxiety Disorder 7-item; IGDS9-SF, Internet Gaming Disorder Scale-Short Form; BSMAS, Bergen Social Media Addiction Scale