青少年國中至高中時期睡眠情形的性別差異

該研究以 1,747 位由 2007 年（國中一年級）追蹤至 2012 年（高中三年級）的學生資料進行分析，以「上課日睡眠時數」、「放假日睡眠時數」及「上課日與放假日睡眠時間差距」反應青少年的睡眠型態，探討國中至高中時期睡眠情形的性別差異。

結果發現女生上課日睡眠時間較男生的睡眠時間短，而放假日睡眠時間則較男生長。但在長期睡眠形態的發展上並沒有性別的差異。另外，女生的放假日與上課日睡眠時數差距亦較男生大。兩者在放假日與上課日睡眠時數差距的發展，於 10 年級前皆呈現增加的趨勢，而後則漸減。父母教育、青春期發育、自覺健康、體重狀態、憂鬱情緒、學業壓力、不常運動及物質使用，皆與青少年睡眠形態的發展有關。因此建議應該重視青少年時期女性的睡眠問題，並針對青少年獨特的睡眠模式與其性別差異規劃健康促進介入或教育相關政策（Sleep, 2018）。

Table 3. Sex differences in sleep patterns at each time point (*N* = 1747)

Model Outcome	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Weekday time in bed						
Total	464.5 ± 45.4	449.7 ± 47.7	431.4 ± 51.2	419.1 ± 44.5	406.4 ± 47.5	391.8 ± 49.6
Boys	472.1 ± 45.1	457.4 ± 47.5	439.2 ± 51.9	426.0 ± 42.7	413.4 ± 46.4	398.2 ± 49.6
Girls	457.8 ± 44.7	442.9 ± 46.8	424.8 ± 49.6	413.1 ± 45.1	400.6 ± 47.6	386.4 ± 49.0
P-values for sex	<.001	<.001	<.001	<.001	<.001	<.001
Weekend time in bed						
Total	565.5 ± 82.1	560.4 ± 79.9	551.1 ± 90.3	553.4 ± 73.9	541.1 ± 80.0	515.5 ± 85.8
Boys	553.8 ± 87.8	552.0 ± 81.0	543.1 ± 94.9	547.3 ± 72.9	534.8 ± 78.0	514.0 ± 83.3
Girls	576.0 ± 75.3	567.9 ± 78.1	558.0 ± 85.6	558.7 ± 74.3	546.4 ± 81.3	516.8 ± 87.8
P-values for sex	<.001	<.001	.001	.001	.002	.520
Weekend–weekday difference						
Total	100.8 ± 74.8	108.1 ± 77.0	114.8 ± 80.3	131.8 ± 74.8	131.9 ± 75.8	119.9 ± 76.8
Boys	87.6 ± 76.1	93.9 ± 76.6	101.9 ± 82.5	121.4 ± 74.0	122.1 ± 76.3	114.4 ± 76.0
Girls	112.7 ± 71.6	120.7 ± 75.2	125.9 ± 76.7	141.0 ± 74.3	140.3 ± 74.4	124.6 ± 77.3
P-values for sex	<.001	<.001	<.001	<.001	<.001	.008

Data were presented as mean ± standard deviation (SD).

education targeting adolescents' insufficient sleep on weekdays remains an important public health concern in Asians such as Taiwan.

Our finding of an overall decreasing trend in weekday sleep length supports that of past research. The slope of the decline decreased from grade 7 to 12 and the quadratic function,

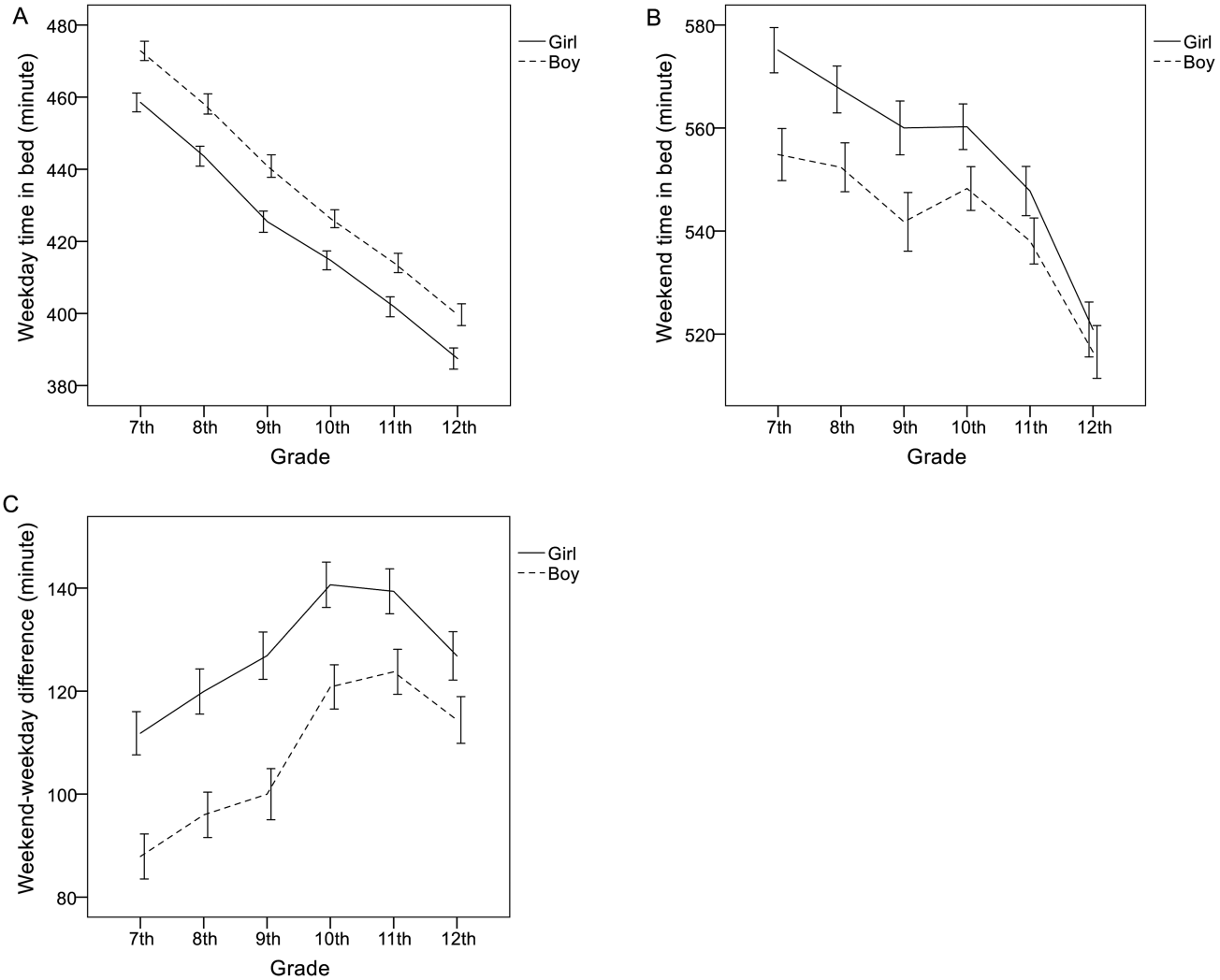

Figure 1. Observed means and 95% confidence intervals of each dependent variable by sex across the different time points.