The effects of the number of consecutive night shifts on sleep duration and quality[1]

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1. *Supplementary table*
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Supplementary table 1. Sleep duration and quality.

Inter-vention	Night/ Rec.	Day	PSD (h:mm)		TST (h:mm)		Premature awakening		Difficulty falling asleep		Difficulty of awakening		Non-refreshing sleep		Disturbed sleep		No. of awakenings		Sleep quality		Sleep onset (hh:mm)	
			Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)	Avg	(SD)
2+2	Night	1	05:03	(1:25)	05:46	(1:37)	2.2	(1.2)	1.2	(0.5)	2.4	(0.8)	3.2	(0.9)	1.9	(0.9)	2.5	(1.1)	2.2	(0.8)	89	6,3
2+2	Night	2	04:25	(1:16)	05:04	(1:30)	2.0	(1.2)	1.5	(0.7)	2.8	(1.0)	3.5	(0.9)	1.8	(0.9)	2.2	(1.1)	2.2	(0.9)	89	6,6
2+2	Rec.	1	07:02	(1:36)	07:00	(1:50)	1.8	(1.0)	2.0	(1.1)	2.7	(1.0)	3.0	(0.9)	2.0	(1.0)	2.7	(1.3)	2.2	(1.0)	88	7,5
2+2	Rec.	2	06:35	(1:20)	06:46	(1:28)	1.5	(0.8)	1.8	(1.1)	2.6	(0.9)	2.9	(1.0)	1.8	(0.7)	2.2	(1.1)	2.1	(0.9)	87	8,0
4+4	Night	1	05:15	(1:37)	05:58	(1:44)	2.1	(1.1)	1.4	(0.7)	2.6	(1.0)	3.1	(0.9)	1.9	(0.9)	2.8	(1.0)	2.3	(0.8)	88	9,5
4+4	Night	2	05:18	(1:21)	05:54	(1:32)	2.2	(1.0)	1.4	(0.7)	2.4	(0.8)	3.0	(0.8)	1.8	(0.8)	2.6	(1.2)	2.1	(0.7)	88	7,8
4+4	Night	3	05:32	(1:16)	05:57	(1:21)	2.1	(1.2)	1.4	(0.6)	2.3	(0.8)	3.1	(0.9)	2.0	(1.0)	2.8	(1.2)	2.2	(0.8)	88	7,1
4+4	Night	4	04:35	(1:09)	05:08	(1:18)	1.9	(1.2)	1.5	(0.8)	2.9	(1.0)	3.4	(0.9)	1.7	(0.9)	2.2	(1.2)	2.1	(0.9)	87	7,4
4+4	Rec.	1	06:49	(1:39)	06:53	(1:37)	1.8	(1.1)	1.9	(1.1)	2.6	(1.1)	2.9	(1.0)	2.0	(1.1)	2.7	(1.4)	2.3	(1.1)	88	8,3
4+4	Rec.	2	06:20	(1:33)	06:31	(1:33)	1.6	(1.0)	1.9	(1.1)	2.8	(1.2)	3.0	(1.1)	2.1	(1.0)	2.5	(1.3)	2.2	(1.0)	85	9,1
4+4	Rec.	3	06:38	(1:25)	06:50	(1:29)	1.7	(1.0)	1.9	(1.0)	2.5	(1.0)	2.7	(0.9)	1.7	(0.9)	2.4	(1.3)	2.1	(0.9)	87	6,8
4+4	Rec.	4	06:45	(1:44)	06:48	(1:43)	1.5	(0.7)	1.8	(1.0)	2.3	(0.9)	2.6	(1.0)	1.7	(0.8)	2.3	(1.1)	1.9	(0.7)	87	11,5
7+7	Night	1	05:20	(1:29)	06:01	(1:27)	2.3	(1.2)	1.4	(0.7)	2.2	(0.8)	3.1	(0.9)	2.1	(0.9)	2.7	(1.2)	2.3	(0.9)	88	7,1
7+7	Night	2	05:26	(1:25)	05:57	(1:22)	2.0	(1.1)	1.3	(0.6)	2.2	(0.7)	3.0	(0.8)	1.8	(0.8)	2.4	(1.2)	2.3	(0.8)	90	6,2
7+7	Night	3	05:12	(1:28)	05:47	(1:19)	2.0	(1.1)	1.4	(0.7)	2.4	(0.9)	3.1	(1.0)	2.0	(0.9)	2.5	(1.2)	2.4	(0.8)	89	7,2
7+7	Night	4	05:26	(1:19)	06:00	(1:24)	2.0	(1.0)	1.4	(0.6)	2.4	(0.7)	3.0	(0.8)	1.8	(0.8)	2.6	(1.2)	2.2	(0.8)	88	8,5

7+7	Night	5	05:27 (1:29)	06:04 (1:21)	1.9 (1.1)	1.4 (0.7)	2.4 (0.9)	3.0 (0.8)	1.7 (0.9)	2.4 (1.1)	2.1 (0.7)	89	6,9
7+7	Night	6	05:26 (1:26)	05:50 (1:28)	1.9 (1.0)	1.6 (0.9)	2.5 (1.0)	3.1 (0.9)	1.7 (0.7)	2.5 (1.2)	2.1 (0.8)	87	8,7
7+7	Night	7	04:05 (1:25)	04:44 (1:39)	1.9 (1.2)	1.8 (1.0)	3.2 (1.1)	3.8 (1.0)	1.8 (0.9)	2.2 (1.1)	2.2 (0.8)	85	13,4
7+7	Rec.	1	06:25 (1:49)	06:27 (1:59)	2.0 (1.2)	2.1 (1.3)	3.0 (1.0)	3.2 (1.0)	2.2 (1.1)	2.7 (1.3)	2.4 (1.1)	87	7,5
7+7	Rec.	2	06:46 (1:55)	07:03 (1:58)	1.7 (0.9)	1.9 (1.2)	2.8 (1.0)	3.0 (1.0)	2.1 (1.0)	2.6 (1.3)	2.1 (0.9)	89	6,6
7+7	Rec.	3	06:40 (1:41)	06:45 (1:47)	1.6 (1.0)	1.7 (1.0)	2.7 (1.0)	2.9 (0.9)	1.9 (0.9)	2.5 (1.1)	2.1 (0.9)	87	7,8
7+7	Rec.	4	06:14 (1:28)	06:20 (1:33)	1.6 (0.9)	1.6 (0.9)	2.7 (1.0)	3.0 (1.0)	1.9 (1.0)	2.3 (1.2)	2.2 (1.0)	87	8,0
7+7	Rec.	5	06:33 (1:31)	06:47 (1:44)	1.6 (0.8)	1.6 (0.8)	2.7 (0.9)	2.8 (0.9)	1.6 (0.7)	2.3 (1.1)	2.0 (0.8)	88	7,4
7+7	Rec.	6	06:37 (1:15)	06:48 (1:32)	1.6 (0.8)	1.7 (0.9)	2.3 (0.9)	2.7 (1.1)	1.7 (0.8)	2.4 (1.2)	2.0 (0.9)	87	8,1
7+7	Rec.	7	07:06 (1:41)	07:09 (1:57)	1.5 (0.7)	1.7 (0.9)	2.5 (0.9)	2.5 (0.9)	1.8 (1.0)	2.4 (1.2)	2.0 (0.9)	87	5,8

Average (avg) and standard deviation (SD) of 26 days in the three different work schedules (2+2, 4+4 and 7+7) of consecutive night shifts followed by consecutive recovery (rec.) days based on 73 police officers. Difficulty falling asleep, sleep quality, disturbed sleep, premature awakening number of awakenings, difficulty of awakening, non-refreshing sleep were all measured on a scale ranging from 1-5 with higher scores representing poorer sleep. Primary sleep duration (PSD), total sleep time (incl. naps.; TST) and sleep efficiency were assessed by actigraphy.