SLEEP PRACTICES OF SOUTH AFRICAN INFANTS

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Introduction and Aim

Sleep-wake regulation changes rapidly over the first year of infancy[1]. Over time, infants begin to mimic their parents' circadian rhythms, aided by factors such as sleep rituals [2] and feeding frequency[1]. Our study describes pre-bedtime routines and sleep practices of South African infants from 3 to 18 months of age. Pre-bedtime routine entails predictable activities done an hour or so before lights out[2].

Methods

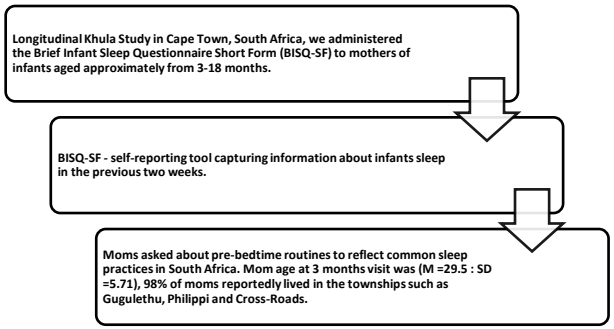


Table 1: Participant descriptive data from 3 to 18 months

	3M	6M	12M	18M
Participants	275	265	261	223
Age in months (M, SD)	(3.28,0.81)	(8.48, 0.09)	(13.73, 0.09)	(17.13, 0.10)
Sex (F, M)	(47%, 53%)	(51%, 49%)	(48%, 52%)	(48%, 52%)
Sleep routine practice	73%	80%	97%	88%

Result : 3 months sleep routine

Only 73% of moms reported having pre-bedtime routines at 3 months and 90% of babies slept on their parents' bed. Duration of sleep at night-time ranged from 3-15 hours (M = 9:50, SD = 2:00) while number of night-time wakings ranged between 0 to 10 times (M = 2.32, SD = 1.20). Duration of daytime sleep ranged from 0-15 hours (M = 03:31, SD = 02:18). Sleep measures showed expected sleep practices despite individual variability and possible self-reporting errors especially in number of night wakings.

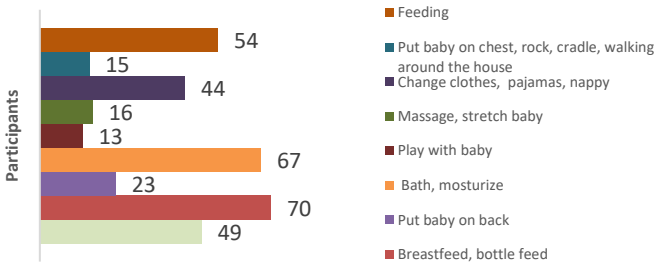
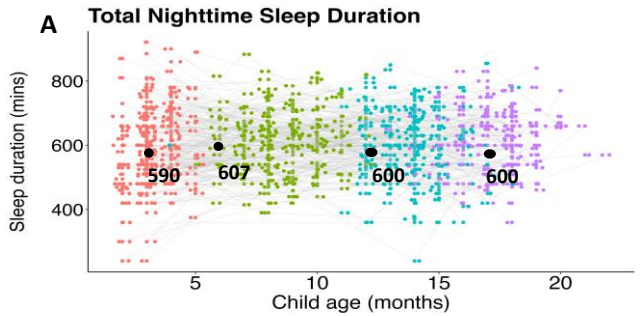
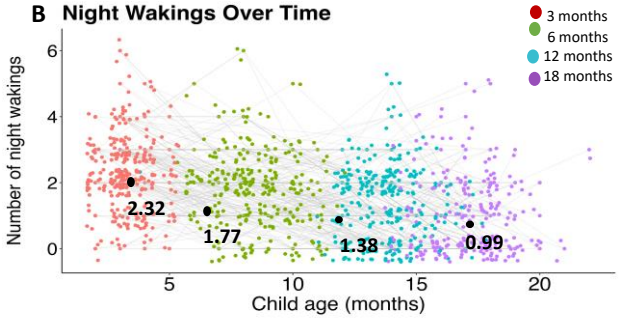


Figure 1: Mothers Pre-bedtime routines practices

Result: Sleep measurements across 18 months

- There was no relationship between age and nighttime sleep duration even with increase of pre-bedtime routines[2].
- Developmental trends observed on number of night wakings, and number of daytime naps which reduced from 3-18 months as anticipated. Duration of nighttime sleep became more uniform overtime, however, unexpectedly, remained relatively similar in mean value showing possible over or under reporting during the night and more accurate reporting during daytime sleep. There is a need for objective tool to more accurately report sleep measurements.
- Our study results, particularly, duration of nighttime sleep (t=0.17) and daytime naps (t=0.95) were similar and not significantly different from Gallands'[1] global review.
- The similarity of our study with global norms [1] highlight the usefulness of objective and subjective tools for sleep measurements.





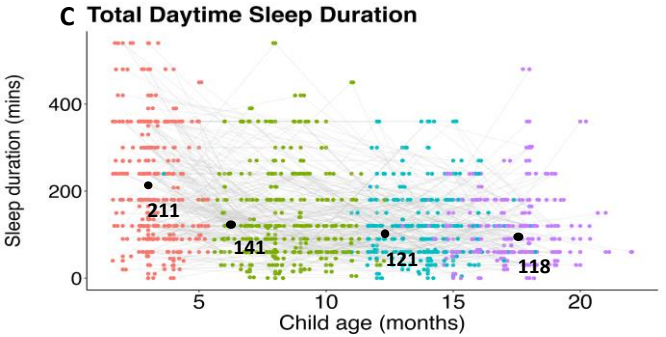


Figure 2: Cluster graphs on A. Reduced individual variability and lack of relationship between Total nighttime sleep duration and age (3-18 months), B. Reduced Number of Night wakings overtime (3-18 months), C. Reduced Total daytime sleep duration overtime (3-18 months). Black dots represent the mean value.

Future directions and References

The increase in pre-bedtime routine practices were linked with healthy sleep measures such as number of night wakings and daytime sleep duration. Variability and lack of relationship between age and sleep measures show a necessity for objective tools such as Actiwatch and polysomnography.

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