



## Movement Behaviour Questionnaire

### Baby Open Version

### (MBQ-B)

#### OVERVIEW

- The MBQ is a validated rapid assessment tool for measuring movement behaviours in children aged 0 – 5 years.
- The MBQ-B measures tummy time or active play, restrained time, screen time and sleep.

#### TARGET POPULATION

For babies from 0 years who are *yet to reach their walking milestone*.

#### HOW IT IS MEASURED

- 6 items
- Open-ended questions
- Self-report
- Hard-copy or electronic completion (REDCap data dictionary available upon request)
- Supplemented by the User guide for administration and scoring (hard copy or REDCap versions available)

Stewart. G. Trost

Contact for information: [s.trost@uq.edu.au](mailto:s.trost@uq.edu.au)

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

## Movement Behaviour Questionnaire (MBQ-B)

### DIRECTIONS

This survey will ask you questions about your baby's movement behaviours (activity, screen time, and sleep) on a typical day.

A typical day is a day when your baby does things they normally do.

For questions about how much time your baby spends in these behaviours, please provide an answer to both hours and minutes, e.g., 2 hours 0 minutes, 0 hours 30 minutes.

Please respond to all the questions as best as you can.

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How old is your baby?

- 0 – 3 months [1]
- 4 – 11 months [2]
- 12 months or older [3]

This section is about your baby's tummy time and active play

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Does your baby roll?

- Yes [1] – skip Q1A and Q1B and answer question Q2.
- No [0] – answer Q1A and Q1B and skip Q2.

**Q1A.** This question is about the times when your baby is awake and placed on their tummy for playtime while you are watching them.

Thinking about the past week, how many times EACH DAY did you usually place your baby on their tummy for play?

times

**Q1B.** How long did each tummy time usually last?

minutes

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**Q2.** Thinking about the past week, on a TYPICAL DAY, how much time in total did you do some active play with your baby? *Active play could be crawling on the floor with your baby, rolling around the floor with your baby, playing at the park, dancing with your baby, chasing your baby.*

hours  minutes

This section is about your baby's restrained time (e.g., pram/stroller, highchair, or baby carrier)

**Q3A.** Thinking about the past week, on a TYPICAL DAY, how many times did you place your baby in a baby carrier or sling, car seat or capsule, stroller or pram, highchair, bouncer, jolly jumper or play pen?

times

**Q3B.** When your baby was in one of those devices, how long were they usually in it?

hours  minutes

This section is about your baby's screen time

**Q4.** Thinking about the past week, on a TYPICAL DAY, how much time did your baby spend watching television programs, videos/internet clips or movies on a television, computer or portable/mobile device such as iPad, tablet or smartphone?

hours  minutes

**Q5** Thinking about the past week, on a TYPICAL DAY, how much time did your baby spend playing games, looking at photos, or video chatting (e.g. FaceTime, Zoom, Skype) on a screen-based device such as a computer or laptop, video game console, iPad, tablet, or smartphone?

hours  minutes

This section is about your baby's sleep

**Q6.** Thinking about the past week, on a TYPICAL NIGHT, how much time did your baby sleep in total during the night?

hours  minutes

**Q7.** Thinking about the past week, on a TYPICAL DAY, how much time did your baby sleep in total during the day?

hours  minutes

--- Thank you for completing the MBQ ---

## Calculation of outcome variables

| Outcome variable                          | Calculation   |
|---|---|
| <b>TUMMY TIME</b>                         |   |
| Total tummy time (minutes/day)            | _____times (Q1A) x _____minutes per time (Q1B)        |
| <b>ACTIVE PLAY</b>                        |   |
| Total active play (minutes/day)           | Q2 (_____hours x 60) + _____minutes                   |
| <b>RESTRAINED TIME</b>                    |   |
| Usual restrained time (minutes/bout)      | Q3B (_____hours x 60) + _____minutes                  |
| Total restrained time (minutes/day)       | _____times (Q3A) x usual restrained time (Q3B)        |
| <b>SCREEN TIME</b>                        |   |
| Non-interactive screen time (minutes/day) | Q4 (_____hours x 60) + _____minutes                   |
| Interactive screen time (minutes/day)     | Q5 (_____hours x 60) + _____minutes                   |
| Total screen time (minutes/day)           | Non-interactive screen time + Interactive screen time |
| <b>SLEEP</b>                              |   |
| Night sleep (minutes)                     | Q6 (_____hours x 60) + _____minutes                   |
| Day sleep (minutes)                       | Q7 (_____hours x 60) + _____minutes                   |
| Total sleep (minutes per 24 hours)        | Night Sleep + Day Sleep                               |

## Truncation of extreme values

Implausible or extreme values for the following outcome variables are truncated (that is recoded) to the value equivalent of the 95th percentile from the validation study dataset.

| Outcome variable      | Truncated value     |
|-----------------------|---------------------|
| Total tummy time      | 180 minutes per day |
| Total active play     | 480 minutes per day |
| Total restrained time | 360 minutes per day |

# Adherence to Guidelines

## Physical Activity

Tummy time (for babies who are yet to roll) – at least 30 minutes of tummy time per day.

Active Play (for babies who can roll) – at least 30 minutes of active play per day.

## Restrained Time

Not more than 60 minutes (1 hour) at a time of restrained time (such as in a stroller, car seat or highchair).

## Screen time

No screen time for babies/children under 2 years.

## Sleep

Age = 0 – 3 months: At least 840 minutes (14 hours) per day.

Age = 4 – 11 months: At least 720 minutes (12 hours) per day.

Age = 12 months or older: At least 660 minutes (11 hours) per day.

## 24-hour movement guidelines

**For babies who are yet to roll:** meets all 3 guidelines for tummy time, screen time and sleep.

**For babies who can roll** meets all 3 guidelines for active play, screen time and sleep.