



Simple Physical Activity Questionnaire (SIMPAQ)

Instruction manual and scoring

Version 4.1

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Introduction

This manual describes the recommended method of administering and scoring the SIMPAQ via direct interview or telephone. For updates regarding the SIMPAQ please see www.simpaq.org.

SIMPAQ is a physical activity measurement tool designed to be used as a structured interview. SIMPAQ should take between 3-8 minutes to complete and can be administered by clinicians or researchers. SIMPAQ is structured to start with details about time in bed, structured exercise and progresses to incidental or non-structured physical activity. This manual describes each item in detail.

Summary characteristics

SIMPAQ assesses combined physical activity across all domains including leisure time, domestic, work and transport-related activities. SIMPAQ does not aim to specify or discriminate activities based on intensity, but rather groups activities into either walking, exercise /sport or incidental/other categories. SIMPAQ has been structured to provide a snapshot of a 24-hour period that is representative of the previous week and flows from sedentary time to walking, structured exercise/sport to incidental/other activities. Completion of SIMPAQ requires simple calculations allowing the interviewer to clarify and crosscheck responses.

Overview of variables

The following continuous variables can be calculated from SIMPAQ:

- Sedentary time (Box 2A) 'SedTime'
- Time spent napping (Box 2B) 'NapTime'
- Walking time per day (Box 3) 'WalkTime'
- Walking days (Question 3) 'WalkDays'
- Exercise and sport time (Table 4B) 'ExsportTime'
- Exercise and sports sessions (Table 4B) 'Exsportsessions'
- Other physical activity (Box 5) 'OtherTime'

Introductory statement

Interviewer: “I am going to talk to you about what you have been doing over the past seven days, including time spent in bed, sitting or lying down, walking, exercise, sport and other activities.”

The purpose of the introductory statement is to establish the time frame of interest i.e. the previous seven-day period.

Questions 1A and 1B: Time in bed

1A. Interviewer: “What time did you mostly go to bed over the past seven days?”

The purpose of questions 1A and 1B are to establish an estimate of how many hours the responder spends in bed per night. This question is not designed to capture daytime napping, but rather is to determine how many waking hours the responder spends outside of bed, which is to be used as an anchor for the remaining questions. Please note this does not include time spent napping, which is covered in Question 2B.

Should the responder have difficulty providing an estimate, the average of the times provided should be used, for example a response of “somewhere between 10pm and midnight” should be recorded as 11pm or 23:00.

Responses should be rounded to 15-minute intervals (00, 15, 30 or 45) to facilitate calculations.

1B. Interviewer: What time did you mostly get out of bed over the past seven days?

Q1B is used to establish an estimate of the overall time spent in bed over night. As in Question 1A, this is not designed to capture daytime napping or sleep time.

Should the responder have difficulty providing an estimate, the average of the times provided should be used, for example a response of “between 7am and 9am” should be recorded as 8am or 08:00. Responses should be rounded to 15-minute intervals (00, 15, 30 or 45).

Box 1: Overnight time in bed

The interviewer is required to manually calculate how long the responder spends overnight in bed. This is the elapsed time difference between Questions 1A and 1B.

The interviewer then subtracts the time spent in bed from 24:00 to determine how many waking hours the responder should account for with the answers to the subsequent questions. For example the responder may report going to bed at 22:30 and getting out of bed at 08:30 that equates to 10 hours in bed, leaving 14 hours for other activities. The interviewer performs this calculation and reports the answer back to the responder using the statement in Question 2A.

Questions 2A and 2B: Sedentary time

***2A. That leaves approximately ___ hours a day out of bed. Out of those ___ hours, how long did you spend sitting or lying down, such as when you are eating, reading, watching TV or using electronic devices?
Prompt: e.g. sitting at work, transport, leisure-time or at home.”***

The aim of this question is to estimate the total sedentary time per day. The Interviewer prompts the responders regarding how many hours are not spent in bed. The response should be in hours and minutes, rounded to 15-minute intervals.

Box 2A: Average hours sedentary per day

No calculations required.

2B. How much of this time is spent napping?

It is assumed that napping time is a component of total average hours sedentary per day as assessed in Question 2A. As such the time recorded in 2B cannot exceed time reported in question 2A. No calculations are required.

Question 3: Time spent walking

Q3. That leaves approximately ___ hours a day for other activities.

Which days in the past seven days did you walk for exercise or recreation or to get to or from places? How many minutes did you usually spend walking on those days?

If the responder is having difficulty answering the question, the interviewer can use yesterday as an example. The response should be in hours and minutes, rounded to 15-minute intervals and recorded in the box under the relevant day.

The average hours walking per day is recorded in Box 2A.

Question 4: Exercise

Q4A. Now think about any activity that you do for exercise and sport, such as jogging, running, swimming, bike riding, going to the gym, yoga, [e.g. 1] or [e.g. 2]. Which days in the past week did you do any of these, or similar activities?

Two blank spaces have been provided for the interviewer to insert culturally relevant examples of exercise or sports. For example, in Australia, 'football' and 'cricket' may be used. These examples are designed to trigger recall of any relevant exercise or sport activity that the responder has participated in and thus a comprehensive list has not been provided. This does not include structured walking (though it may be considered 'exercise'), which should be included in Q3.

Q4B. How many minutes did you spend on each activity on each day?

Table 4 is designed to assist responders with recall by providing prompts. For example if the responder simply says 'no exercise', the interviewer can conduct a brief check by specifically asking about each day. In some cases, the interviewer may have prior knowledge regarding the responder's exercise participation, for example attendance a weekly sports group, which the interviewer could then use to prompt the responder's recall.

The purpose of the table in Question 4 is to allow the interviewer to record greater detail regarding the mode of activity, the duration as well as the sessions. For people at high risk of sedentary behaviour, simply standing up and moving, for example performing body weight exercises such as sit-to-stands, or walking around the house is of considerable clinical interest. As such the number of sessions should be recorded in order for clinicians to monitor and assess total sessions of activity. In addition to recording the type of exercise, interviewers can record the intensity of each physical activity using a simple visual analogue scale (0-10) or Borg's Rating of Perceived Exertion (RPE 6-20).

Using the information in table 4B determine the average hours of sport/exercise per day and record this in Box 4.

Question 5: Other physical activities

Q5. Now think about any other physical activities that you did as part of your work, or activities you did while at home such as gardening or household chores. How many minutes did you spend on these activities on most days? Prompt: this does not include walking, sport or exercise.

Question 5 is designed to capture additional physical activities not captured by Questions 3 or 4. The structure of the question is similar to Questions 1 and 2 as it asks for an average time per day as opposed to number of days and minutes. Record in Box 5 the average hours per day.

Notes

Check

The sum of boxes 1, 2A, 3, 4 and 5 should account for approximately a 24 period.

If the total is significantly over or under 24 hours we recommend going back to the responder and clarifying whether any of the boxes have been over- or under-reported. Pay particular attention to Box 2A given the known limitations of self-reported estimates of sedentary behaviour in both the general population and in people living with mental illness.

Based on results of the extensive validation process, if the sum of all boxes remains significantly less than 24 hours, it is likely that sedentary time has been under-reported. In this case we recommend applying the following formula and adjusting Box 2A accordingly:

$$\text{Box 2A} = 24 \text{ minus the sum of boxes 1, 3, 4 and 5}$$

No Minimum Time

There is no minimum amount of time for any of the activities.

Intensity

No mention of intensity for any of the activities except in Q4B where there is the option to record intensity for individual sport/exercise activities.