Participant ID pid | D000000

Acrostic acrostic | ZZZZZ

Interviewer compby | V.C. vc | YYY

Date of Visit vis_dat | (mm/dd/yyyy)

PITTSBURGH SLEEP QUALITY INDEX (PSQI)

CRF 2.1

Pre-Interview Instructions to Participant:
"The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of the days and nights in the past month. Please answer all questions."

During the past month……….

1. At what hour have you usually gone to bed?   tobedhr_psqi [ ] (24 hour clock)

2. How long (in minutes) has it taken you to fall asleep each night?   fallasleep_psqi [ ] (minutes)

3. At what hour have you usually gotten up in the morning?   arisehr_psqi [ ] (24 hour clock)

4. How many hours of actual sleep did you get last night? (This may be different than the hours you spend in bed.)   sleephrs_psqi [ ] (hours)

During the past month, how often have you had trouble sleeping because you………

5. Cannot get to sleep with 30 minutes?

   insomnia_psqi
   -9 -
   1 Not during the past month
   2 LT once a week
   3 Once or twice a week
   4 3 or more times a week
   -6 Permanently Missing

   [- ▼]

6. Wake up in the middle of the night or early morning?

   wakeful_psqi
   -9 -
   1 Not during the past month
   2 LT once a week
   3 Once or twice a week
   4 3 or more times a week
   -6 Permanently Missing

   [- ▼]

7. Have to get up to use the bathroom?

   bathroom_psqi
   -9 -
   1 Not during the past month
   2 LT once a week
   3 Once or twice a week

4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

8. Cannot breathe comfortably?   breathing_psqi
        -9 -
        1 Not during the past month
        2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

9. Cough or snore loudly?   snoring_psqi
        -9 -
        1 Not during the past month
        2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

10. Feel too cold?   cold_psqi
        -9 -
        1 Not during the past month
        2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

11. Feel too hot?   hot_psqi
        -9 -
        1 Not during the past month
        2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

12. Have bad dreams?   nightmares_psqi
        -9 -
        1 Not during the past month
        2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

13. Have pain?   pain_psqi
        -9 -
        1 Not during the past month
        2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

14. Other reasons(s), please   other_psqi
describe, including how often   -9 -
you have had trouble sleeping   1 Not during the past month
because of this reason(s):   2 LT once a week
        3 Once or twice a week
        4 3 or more times a week
        -6 Permanently Missing

        [- ▼]

        otherspc_psqi [   ]

15. During the past month, how   medsleep_psqi
        -9 -

often have you taken medicine (prescribed or "over the counter") to help you sleep?

1	Not during the past month
2	LT once a week
3	Once or twice a week
4	3 or more times a week
-6	Permanently Missing

- ▼

16. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activities?

drowsy_psqi

-9	-
1	Not during the past month
2	LT once a week
3	Once or twice a week
4	3 or more times a week
-6	Permanently Missing

- ▼

17. During the past month, how much of a problem has it been for you to keep enthusiasm to get things done?

enthused_psqi

-9	-
1	Not during the past month
2	LT once a week
3	Once or twice a week
4	3 or more times a week
-6	Permanently Missing

- ▼

18. During the past month, how would you rate your sleep quality overall?

sleepqual_psqi

-9	-
1	Very good
2	Fairly good
3	Fairly bad
4	Very bad
-6	Permanently Missing

- ▼

Source Form Language: lang

-9	-
1	English
2	Spanish

- ▼

Participant ID	Acrostic	
(affix ID label here)		

Interviewer | | | | |

Visit Code | | |

Date of Visit | | | | | | | |
month | day | year

PITTSBURGH SLEEP QUALITY INDEX (PSQI)

Pre-Interview Instructions to Participant:
"The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of the days and nights in the past month. Please answer all questions."

During the past month……….

1. At what hour have you usually gone to bed?	☐☐	
2. How long (in minutes) has it taken you to fall asleep each night?	☐☐☐ Minutes	
3. At what hour have you usually gotten up in the morning?	☐☐	
4. How many hours of actual sleep did you get last night? (This may be different than the hours you spend in bed.)	☐☐	

During the past month, how often have you had trouble sleeping because you………	**Not during the past month(0)**	**Less than once a week (1)**	**Once or twice a week (2)**	**Three or more times a week (3)**
5. Cannot get to sleep with 30 minutes?	☐	☐	☐	☐
6. Wake up in the middle of the night or early morning?	☐	☐	☐	☐
7. Have to get up to use the bathroom?	☐	☐	☐	☐
8. Cannot breathe comfortably?	☐	☐	☐	☐
9. Cough or snore loudly?	☐	☐	☐	☐
10. Feel too cold?	☐	☐	☐	☐
11. Feel too hot?	☐	☐	☐	☐
12. Have bad dreams?	☐	☐	☐	☐
13. Have pain?	☐	☐	☐	☐
14. Other reasons(s), please describe, including how often you have had trouble sleeping because of this reason(s): _____	☐	☐	☐	☐

	Not during the past month(0)	Less than once a week (1)	Once or twice a week (2)	Three or more times a week (3)
15. During the past month, how often have you taken medicine (prescribed or "over the counter") to help you sleep?	☐	☐	☐	☐
16. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activities?	☐	☐	☐	☐
17. During the past month, how much of a problem has it been for you to keep enthusiasm to get things done?	☐	☐	☐	☐
	Very good (0)	Fairly good (1)	Fairly bad (2)	Very bad (3)
18. During the past month, how would you rate your sleep quality overall?	☐	☐	☐	☐

Pittsburgh Sleep Quality Index (PSQI)

<u>Form Administration Instructions, References, and Scoring</u>

<u>Form Administration Instructions</u>

The range of values for questions 5 through 10 are all 0 to 3.

Questions 1 through 9 are not allowed to be missing except as noted below. If these questions are missing then any scores calculated using missing questions are also missing. Thus it is important to make sure that all questions 1 through 9 have been answered.

In the event that a range is given for an answer (for example, '30 to 60' is written as the answer to Q2, minutes to fall asleep), split the difference and enter 45.

<u>Reference</u>

Buysse DJ, Reynolds CF, Monk TH, Berman SR, Kupfer DJ: The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research* 28:193-213, 1989.

<u>Scores – reportable in publications</u>

On May 20, 2005, on the instruction of Dr. Daniel J. Buysse, the scoring of the PSQI was changed to set the score for Q5J to 0 if either the comment or the value was missing. This may reduce the DISTB score by 1 point and the PSQI Total Score by 1 point.

PSQIDURAT **DURATION OF SLEEP**
IF Q4 $\geq$ 7, THEN set value to 0
IF Q4 < 7 and $\geq$ 6, THEN set value to 1
IF Q4 < 6 and $\geq$ 5, THEN set value to 2
IF Q4 < 5, THEN set value to 3
Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQIDISTB **SLEEP DISTURBANCE**
IF Q5b + Q5c + Q5d + Q5e + Q5f + Q5g + Q5h + Q5i + Q5j (IF Q5JCOM is null or Q5j is null, set the value of Q5j to 0) = 0, THEN set value to 0

IF Q5b + Q5c + Q5d + Q5e + Q5f + Q5g + Q5h + Q5i + Q5j (IF Q5JCOM is null or Q5j is null, set the value of Q5j to 0) $\geq$ 1 and $\leq$ 9, THEN set value to 1

IF Q5b + Q5c + Q5d + Q5e + Q5f + Q5g + Q5h + Q5i + Q5j (IF Q5JCOM is null or Q5j is null, set the value of Q5j to 0) > 9 and $\leq$ 18, THEN set value to 2

IF Q5b + Q5c + Q5d + Q5e + Q5f + Q5g + Q5h + Q5i + Q5j (IF Q5JCOM is null or Q5j is null, set the value of Q5j to 0) > 18, THEN set value to 3

Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQILATEN **SLEEP LATENCY**
First, recode Q2 into Q2new thusly:
IF Q2 $\geq$ 0 and $\leq$ 15, THEN set value of Q2new to 0
IF Q2 > 15 and $\leq$ 30, THEN set value of Q2new to 1
IF Q2 > 30 and $\leq$ 60, THEN set value of Q2new to 2
IF Q2 > 60, THEN set value of Q2new to 3

Next
IF Q5a + Q2new = 0, THEN set value to 0
IF Q5a + Q2new $\geq$ 1 and $\leq$ 2, THEN set value to 1
IF Q5a + Q2new $\geq$ 3 and $\leq$ 4, THEN set value to 2
IF Q5a + Q2new $\geq$ 5 and $\leq$ 6, THEN set value to 3

Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQIDAYDYS   **DAY DYSFUNCTION DUE TO SLEEPINESS**
IF Q8 + Q9 = 0, THEN set value to 0
IF Q8 + Q9 $\geq$ 1 and $\leq$ 2, THEN set value to 1
IF Q8 + Q9 $\geq$ 3 and $\leq$ 4, THEN set value to 2
IF Q8 + Q9 $\geq$ 5 and $\leq$ 6, THEN set value to 3
Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQIHSE   **SLEEP EFFICIENCY**
Diffsec = Difference in seconds between day and time of day Q1 and day Q3
Diffhour = Absolute value of diffsec / 3600
newtib = IF diffhour > 24, then newtib = diffhour – 24
       IF diffhour $\leq$ 24, THEN newtib = diffhour
(NOTE, THE ABOVE JUST CALCULATES THE HOURS BETWEEN GNT (Q1)
AND GMT (Q3))
tmphse = (Q4 / newtib) * 100

IF tmphse $\geq$ 85, THEN set value to 0
IF tmphse < 85 and $\geq$ 75, THEN set value to 1
IF tmphse < 75 and $\geq$ 65, THEN set value to 2
IF tmphse < 65, THEN set value to 3
Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQISLPQUAL   **OVERALL SLEEP QUALITY**
Q6
Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQIMEDS   **NEED MEDS TO SLEEP**
Q7
Minimum Score = 0 (better); Maximum Score = 3 (worse)

PSQI   **TOTAL**
DURAT + DISTB + LATEN + DAYDYS + HSE + SLPQUAL + MEDS
Minimum Score = 0 (better); Maximum Score = 21 (worse)
Interpretation: TOTAL $\leq$ 5 associated with good sleep quality
                  TOTAL > 5 associated with poor sleep quality