

## Question in Project:

SHARE Wave 9 – New items on financial decision making, successful ageing, eating habits, sleep, long-term care insurance, and long-term care expectations (English Version)

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## Question Topic:

Public health/ Health impairments

## Construct:

Reasons for sleep-related issues

## General Information:

**\*Note: This item was tested in German. This is an English translation of the original German wording.\***

## Question Text:

Please look at card 5. Thinking back of the past month, do any of these descriptions apply to you with regard to your sleep?

*[Bitte sehen Sie sich Liste 5 an. Wenn Sie an den letzten Monat denken, trifft eine dieser Beschreibungen in Bezug auf Ihr Schlafverhalten auf Sie zu?]*

## Answer Categories:

I can't get to sleep within 30 minutes *[Ich kann nicht innerhalb von 30 Minuten einschlafen]*

I wake up in the middle of the night or early morning and am not able to fall asleep again *[Ich wache mitten in der Nacht oder am frühen Morgen auf und kann nicht wieder einschlafen]*

I have to get up to use the bathroom *[Ich muss aufstehen, um auf die Toilette zu gehen]*

I can't breathe comfortably *[Ich kann nicht gut atmen]*

I cough or snore loudly *[Ich huste oder schnarche laut]*

I feel cold *[Mir ist kalt]*

I feel too hot *[Mir ist zu heiß]*

I have bad dreams *[Ich habe Albträume]*

I have pain *[Ich habe Schmerzen]*

I have fears or concerns *[Ich habe Ängste oder Sorgen]*

I hear noises *[Ich höre Geräusche]*

## Cognitive Techniques:

General Probing, Confidence Rating, Difficulty Probing, Specific Probing

## Findings for Question:

### 1. How do the respondents interpret the question? How do they arrive at their answer?

The most frequently mentioned problems were having to go to the toilet at night ( $n = 6$ ), waking up in the middle of the night or early morning and not being able to go back to sleep ( $n = 5$ ) and loud coughing or snoring ( $n = 4$ ). Apart from having bad dreams and pain during the night, all response options were selected by at least one person.

The following explanations were given by the test persons for the most frequently selected options:

- *"I have very small and narrow nasal conches, which are often closed because I also have an allergy. Especially when I am lying flat in bed. [...] This also includes the fact that I snore louder because of this. And unfortunately, I go to the toilet often, not daily, but maybe three nights a week." (TP 01)*
- *"Well, I wake up in the middle of the night or early in the morning, around 5:00, can't go back to sleep." (TP 02)*
- *"I have to get up and go to the bathroom, that's right. Probably because I drink so much water in the evening. In the early morning I wake up and can't get back to sleep. Yeah, that's why I'm always up so early, 6:30 or 7:00." (TP 03)*
- *"One is the bladder, the other the snoring. But I don't hear it, I only get told in the morning." (TP 06)*

Other test persons explained their problems with not being able to sleep due to stress, fears or worries.

- *"And fears and worries, yes, well, I have such moments once in a while and they wake me up at night. That is, I'm awake and think about how you solve the problem. By worrying, especially by worrying." (TP 02)*
- *"I have fears and worries, yes. What will become of me, whether my daughter can take care of me." (TP 03)*
- *"I have a lot on my plate with the family, so it can happen that I think about it at night or wake up and don't go back to sleep." (TP 10)*

In summary, the test persons did not seem to have any problems in answering the question. When asked, all test persons described scenarios of their sleep behavior that well reflected the selected answer options.

## **2. How certain are the respondents that these issues have occurred during the past month?**

All test persons stated that they were "rather sure" ( $n = 2$ ) or "very sure" ( $n = 8$ ) that the sleep problems they mentioned had occurred in the last month.

## **3. How easy or difficult is it for the respondents to answer the question?**

All test persons found the question "rather easy" ( $n = 2$ ) or "very easy" ( $n = 8$ ) to answer.

## **4. What time period do the respondents think about?**

Half of the test persons ( $n = 5$ ) thought of the last four weeks when answering the question, one test person thought of the last calendar month (TP 01) and the others thought of a longer period, which however included the last four weeks. Depending on how long the problem had already existed, the latter test persons spoke of months or even years:

- *"[I thought] about the last months. Actually, since the problem is known to me or I notice it. I am dead tired in the morning when I wake up. That's not normal."* (TP 05)

- *"This has been going on for a long time, for a couple of years now."* (TP 08)

## **5. How often did these issues occur: once or regularly?**

All test persons stated that the problems they mentioned occur with a certain regularity. Five test persons stated that they had these problems daily (TP 03, 05, 06, 08, 09). The other five test persons referred to periods of time between one and four times a week:

- *"Quite frequently. Three to four times a week."* (TP 01)

- *"So several times a week. Sometimes every other night, because if I wake up one night and can't get back to sleep, I sleep through the next night because I'm so knocked out."* (TP 02)

- *"Actually, both things happen daily, so every night."* (TP 06)

## **6. Are the descriptions comprehensible?**

The probe whether the individual answer options were understandable was answered in the affirmative by the majority of the test persons ( $n = 7$ ). Only three subjects criticized individual descriptions in the list as double stimuli (TP 01) or as too imprecise (TP 02, 06):

- *"It is understandable. But I think it is bad that coughing and snoring are mentioned together. As I said, I snore, but I do not cough. And also fears and worries: fear is more massive, worries are perhaps a little smaller. I'd rather discriminate between these two." (TP 01)*
- *"There's just something that puzzled me a bit, 'I have bad dreams,' and then I thought, huh, what do they mean, do they mean nightmares? That's something different for me. [...] I have bad dreams, that's, yes, that's more my dreams are perhaps not very tingling, yes, and that's what wakes me up, but they are not nightmares. Nightmares are much worse." (TP 02)*
- *"This 'breathing comfortably' is a little too imprecise for me. This could be changed to 'I have breathing problems' or something like that. And the 'I hear noises'. Sure, if my neighbour has children, then I hear noises too. You have to differentiate if they are special, abnormal sounds that you hear or not." (TP 06)*

## **7. Is a description regarding the sleeping behavior missing?**

None of the test persons stated that they had suffered from a sleep problem in the last month that was not already mentioned in the answer options.

## **8. What do respondents understand by "I hear noises"?**

When asked to understand the response option "hearing noises", the test persons named different types of sounds ranging from external environmental sounds, sounds in the house and imaginary sounds to waking up from snoring and tinnitus:

- *"Either any noise in the room, such as the heat crackling... Or when the wind blows outside, a branch cracks, a cat meows. That's what I mean by hearing noises." (TP 01)*
- *"That you might hear something and think, 'What was that noise?' Like someone's in the house or something. When people are afraid, they hear noises loud, so they think they're being robbed or something." (TP 02)*
- *"Maybe if it's loud somewhere at night. But it's pretty quiet around here." (TP 04)*
- *"Because sometimes I wake up from hearing myself. Not outside sounds, only when I hear myself." (TP 05)*
- *"This can be everything to me. Sounds of neighborhood children. You should define that, like 'sounds I'm not used to, that don't fit into the normal sleeping pattern'.*

*But the other sounds are just there for me and I won't register them anymore."*  
(TP 06)

■ *"We sometimes hear the sound of flight. It's always at certain times. Or environmental sounds from large industrial plants or companies."* (TP 09)

■ *"Tinnitus or the neighbors, maybe. But I think tinnitus is more likely. That you have some sort of limitation in your old age."* (TP 10)

The high fragmentation of definitions suggests that this option (as noted by TP 06) should be specified.

## Recommendations:

Question: In order to make the reference periods as concrete as possible and to standardize them across questions 14 to 16, we recommend asking for the "last four weeks" ["letzten vier Wochen"] in the question.

Since this is a question with multiple answers, we recommend that this is already made clear in the question:

"If you think about the last four weeks, which of these descriptions apply to you with regard to your sleep?" [*"Wenn Sie an die letzten vier Wochen denken, welche dieser Beschreibungen treffen auf Ihr Schlafverhalten zu?"*]

Response Options: We recommend specifying the answer option "I hear noises" ("I hear noises, such as ..." [*"Ich höre Geräusche, wie z. B. ..."*]) and either adding "too" to the answer option "I feel cold" ("I feel too cold" [*"Mir ist oft zu kalt"*]) or removing "too" from the answer option "I feel too warm" [*"Mir ist oft zu warm"*] to make the two answer options match.