

## The Assessment of the Phenomenology of Sleep Paralysis: The Unusual Sleep Experiences Questionnaire (USEQ)

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### Keywords

Isolated sleep paralysis; Sleep disturbance; Sleep paralysis.

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Previous research has found a relationship between sleep paralysis (SP) and anxiety states and higher rates have been reported among certain ethnic groups. To advance the cross-cultural study of SP, we developed a brief assessment instrument (which can be self-administered), the Unusual Sleep Experiences Questionnaire (USEQ). In this article, we report on a pilot study with the USEQ in a sample of 208 college students. The instrument was easily understood by the participants, with one quarter reporting at least one lifetime episode of SP. As in previous studies, SP was associated with anxiety (in particular, panic attacks).

doi: 10.1111/j.1755-5949.2009.00098.x

## Introduction

Sleep paralysis (SP) may occur either when a person is falling asleep or awakening. During SP, the individual experiences full-body paralysis, often accompanied by vivid frightening auditory or visual hallucinations. The experience can last from a few seconds to several minutes. During SP, and immediately after its cessation, the person often experiences panic-like symptoms such as rapid heart beat, shortness of breath, and fear. This phenomenon is termed SP when it occurs in a person without a diagnosis of narcolepsy [1].

The reported lifetime prevalence rate of SP in the general population varies by country and ethnic background, ranging from 5% to 25% [2–15]. Among university student populations in various countries, reported SP prevalence rates have ranged from 21% to 42% [2,4,13, 15–17]. Some researchers have found higher rates in women [4,10,18], others have found higher rates in men [5,9], and others have found no sex differences [13,19]. However, studies have consistently indicated that SP usu-

ally first occurs during adolescence [8,15]. Most people experience fear during SP [2].

SP is especially common among anxiety-disordered members of certain ethnic minority and refugee groups. Paradis et al. [20] found that the rates of SP in African Americans were 59% among those diagnosed with panic disorder (PD), 11% among those with other anxiety disorders, and 23% among those without any disorder. Hinton et al. [6] found that 65% of Cambodian refugee patients with posttraumatic stress disorder (PTSD) had SP as compared with a rate of 15% among those without PTSD and reported that the severity of PTSD correlated significantly with the rate of current SP. Otto et al. [21] found that 21% of patients with PD, 16% of those with generalized anxiety disorder, and 22% of those with social phobia reported SP. Ohayan et al. [12] found that SP was associated with bipolar disorder and the use of anxiolytic medications.

Individuals with SP report significantly more stressful life experiences than those without SP [4,18]. Across different ethnic groups, the percentage of SP sufferers who

cite "stress" as a contributing factor in their SP episodes varies: 50% of African Americans [18], 30% of Nigerians [11], and 20% of Japanese [4]. Among Chinese SP sufferers, 68% cited "psychological reasons" as a cause [15]. Women who report a history of childhood sexual abuse are more likely to have experienced SP than women without abuse histories [22].

People experiencing stress or suffering from anxiety disorders are likely to experience disturbances in the sleep cycle and this, in turn, may partly explain the elevated rates of SP in these people. Indeed, disrupting sleep in laboratory can precipitate SP [23,24].

Hypnopompic (upon awakening) and hypnagogic (upon falling asleep) hallucinations often accompany SP. Among a group of English speakers, Spanos *et al.* [13] found that 63% of students with SP reported experiencing a "sensed presence." In another study of English speakers, Cheyne *et al.* [2] found that 75% of individuals with SP reported hallucinations and 51% sensed the presence of an intruder in the bedroom.

Cultural beliefs about the hallucinated intruders during SP may give rise to catastrophic cognitions. Cambodians tend to believe that they are being attacked by a ghost [6,30], Newfoundlanders tend to believe that they are being visited by the "old hag" [7], and African Americans in the southern United States tend to believe that they are being "ridden by the witch" [20,25]. In the United States, some English speakers interpret the hallucinated intruders to be space aliens [26]. In one explanation for the differences in the rates of SP across groups, it has been theorized that the more fear caused by SP, the more the rate of SP will be increased.

According to this theory, fear results in greater anxiety, and anxiety, first, may cause more sleep disturbance and hence SP and, second, may directly activate certain brain-based arousal systems that then cause SP [6,30]. Having SP is thought to predispose to PD and PTSD, particularly panic attacks, because it results in conditioning of extreme fear to autonomic arousal and causes increased arousal. This occurs because SP often results in a panic attack during which symptoms such as asphyxia are prominent.

Owing to the need for a SP questionnaire to advance the cross-cultural study of the phenomenon, we developed a new version of earlier questionnaires on SP, drawing on previous studies [20,22,25,27,28]. The current study piloted this new questionnaire to examine its ability to assess a range of phenomenological experiences, cognitive beliefs, and interpretations surrounding the SP experience. Given previous studies of SP, we expected there to be a link between SP and anxiety symptoms.

## Methods

### Sample

The participants were 208 students at a small, liberal arts college. The participants included 169 women, 35 men, and 4 persons who did not indicate gender. They all read and spoke English. They all completed the questionnaires during class and provided written informed consent as approved by the college's institutional review board. We excluded those under the age of 18 from participation.

Research participants included 208 individuals (83% female: mean age = 22 years; age range = 18–59 years). Ethnic backgrounds were White (71%), African American (8%), Hispanic (10%), Asian (4%), and Other (6%).

### Measures

We assessed the phenomenology of the SP experience with the "Unusual Sleep Experiences Questionnaire" (USEQ), a self-report instrument designed by the authors (see the Appendix). Information about the SP experiences was elicited with the following written prompt: "Some people have had the experience upon going to sleep or awakening when they were unable to move their arms or legs or speak even though they wanted to do so. Have you ever had this experience?"

Participants who denied any history of SP were instructed to stop completing the questionnaire. Those who responded in the affirmative were instructed to continue. They were then asked to recall an SP episode with this prompt: "Please think about your most vivid experience and describe the experience in your own words (if you had only one episode of this experience, just describe that one)."

The questionnaire included nine open-ended questions about the frequency, duration, age of onset, and events surrounding the SP episode. Among the questions were: "During an [SP] episode, about how long are/were you usually unable to move or speak?" and "Do/did you usually have the [SP] experience when falling asleep or upon awakening?"

Seventeen items quantified the intensity of subjective distress, physical symptoms, and cognitive perceptions associated with SP episodes. Among these items were: "People feel as though they are being smothered. Has this happened to you?" and "People experience a feeling of presence in the room ("Feeling of presence" is an awareness of something in the room with you even though you may not actually be able to see or hear anything). Has this happened to you?"

Fifteen of these 17 items were organized on a 4-point Likert scale from 1, "Never," to 4, "Always." Two of these 17 items were organized on a 5-point Likert scale from 1, "Not at all," to 5, "A lot."

By including eleven additional "yes/no" items about SP interpretations, we eliminated unnecessary questions. If a participant responded "no" to the prompt, follow-up questions were not asked. The remaining items included three checklists that further explored the participants' interpretations of the SP experience. The checklist format streamlined the completion of the self-administered USEQ. To correct grammatical errors and to make the Likert scales uniform, we made small revisions to the original questionnaire. The revised version is included in the Appendix.

The participants also completed a self-report survey that included demographic, psychosocial, and anxiety symptom items. In addition, the survey asked whether the participants had ever received diagnoses of certain mental or physical illnesses. We used independent samples *t*-tests and  $\chi^2$  tests to determine group differences. SPSS version 16 (SPSS Inc., Chicago, IL, USA) was used to conduct all statistical analyses.

## Results

All research participants completed the USEQ. Of the 208 students, 52 (25%) reported at least one lifetime episode of SP. Of the 52 students who reported at least one episode of SP, the distribution of lifetime episodes was as follows: 19%, 1 episode; 38%, 2–4 episodes; 38%, 5–20 episodes; and 4%, more than 20 episodes. Of those reporting SP, 70% had experienced an episode during the previous 12 months. The number of SP episodes during the past year reported by those who had had at least one SP episode was as follows: 0 (29%), 1 (37%), 2–4 (25%), and 5–20 (8%). Men and women were equally likely to experience SP. The 52 respondents who were positive for SP included 40 women (24%), 9 men (26%), and 3 persons who did not indicate their gender. African-American participants reported a higher rate of SP (31%) than did other participants (24%), but given the sample size, this was not statistically significant ( $\chi^2 = 0.428$ ,  $P = 0.513$ ).

The participants reported their SP to occur while falling asleep (33%), upon awakening (54%), and at both times (4%). They reported being unable to move for a few seconds (9%), less than a minute (14%), 1–5 min (44%), and over 5 min (28%) (the percentages do not add to 100% due to missing data).

Most respondents estimated that they had their first SP episode during adolescence. The reported ages of the first

SP episode were as follows: (with 4% indicating that they did not know):  $\leq 10$  (11%), 11–20 (69%), 21–30 (7%), and over 30 (7%).

Respondents often identified stress and life changes (e.g., work schedule changes) as proximal antecedents to SP. When asked about the causes of their SP, the participants mentioned sleep pattern changes (9%), work schedule changes (9%), emotional experiences (9%), life changes (4%), and a combination (11%). Fifty-eight percent had "no idea" what caused the SP.

The participants reported hallucinations in several sensory modalities. Thirty-four percent had an out-of-body experience (i.e., saw their body from the viewpoint of an observer), 43% experienced spinning sensations, and 42% experienced erotic feelings. Seventy-six percent of those with SP reported a "sensed presence," and 14% reported perceiving a creature or person sitting on their chest.

The interpretations of the experience varied. Approximately one half (52%) regarded the SP as a dream, 22% thought they saw a ghost (or something spiritual), 8% thought something physical was wrong with them, and 12% thought the experience might signify mental illness. Four percent thought it was related to a history of either sexual or physical abuse, and 6% attributed it to alcohol ingestion. None interpreted the experience as an encounter with a space alien.

Most participants found the SP experience frightening. Of those reporting SP, many reported fears of injury, including fears of death (52%), feeling strangled (20%), and feeling smothered (29%). Of those who perceived a sensed presence or shape, many reported fears of harm, including the fear that the "sensed presence" might kill/hurt me (13%), touch me (2%), or take me away (2%). Few of the respondents found the experience non-threatening; only 8% did not perceive the sensed presence as harmful, and only 2% reported that they welcomed the SP experience. Participants who perceived a person or creature sitting on their chests were significantly more likely to conclude that the SP episode was caused by a ghost (or something spiritual) ( $\chi^2 = 11.25$ ,  $P = 0.001$ ). Physical and hallucinatory experiences during SP are presented in Table 1.

Many participants reported that they had been diagnosed with anxiety disorders, including PD (10%) and PTSD (6%). One hundred fifteen respondents (56%) reported experiencing one or more lifetime panic attacks. The data indicated a relationship between SP, anxiety, and panic. Those who reported having had at least one panic attack were significantly more likely to have experienced SP than those who never had a panic attack (32% vs. 15%;  $\chi^2 = 7.69$ ,  $P = 0.006$ ). Moreover, participants with self-reported anxiety disorders reported more

**Table 1** Percentages of selected phenomenological experiences during Sleep Paralysis (N = 208)

	Never	Occasionally	Frequently	Always
Feel pressure	54	36	4	6
Hear unusual sounds	74	16	8	2
Sense movement (such as footsteps)	85	15	0	0
Hear voices	83	17	0	0
Feel you might die	48	36	14	2
Feel numbness	34	46	12	8
Feel as if you left your body	50	32	12	6
See your own body	66	28	2	4
Smell unusual odors	92	4	4	0
Feel strangled	80	12	6	2
Feel as if you were spinning	57	37	6	0
Sense that you were touched	58	30	10	2
Unable to open eyes	41	37	10	12
Unable to speak	18	44	16	22
Feel a presence	24	38	26	12
Experience erotic feelings	56	34	6	2
Worry that something is wrong with your body	43	29	8	14
Afraid of going crazy	66	22	8	2

frequent SP episodes during the past year than did those without anxiety disorders, ( $t(45) = 2.07, P = 0.04$ ). There was a trend for those who perceived a person or creature sitting on their chests to report being diagnosed with PD ( $\chi^2 = 2.895, P = 0.089$ ).

## Discussion

This study piloted a new self-report measure to assess the phenomenology of SP. The questionnaire assessed both quantitative and qualitative data on the physical and cognitive symptoms of SP. Approximately one quarter of the participants reported at least one lifetime episode of SP. Consistent with previous studies [2,8,15,20], somewhat greater rates of SP were found in the African-American participants; SP tended to begin during adolescence and was associated with anxiety.

Those respondents who reported having had at least one lifetime panic attack were significantly more likely to have experienced SP than those who never had a panic attack. In addition, participants with self-reported anxiety disorders reported more frequent SP episodes during the past year than did those without such disorders. This is in keeping with previous research [20,29] suggesting that SP is increased by anxiety and with the theory that SP may cause conditioning to fear and increase rates of panic attacks [6,30]. Episodes of sleep paralysis may cause increased anxiety which leads to increased frequency of panic attacks which then interferes with sleep. Sleep problems or disturbance can then lead to increased frequency of SP in a reinforcing circular process.

Consistent with previous research [6,30], the participants reported hallucinations in several sensory modalities. Many of their experiences were consistent with Cheyne [27] three-factor structure of SP. Cheyne describes a vestibular motor factor associated with the feelings of floating, flying, falling, and rising sensations; an intruder factor associated with sensory hallucinations and a perception of a sensed presence; and an incubus factor associated with the difficulty in breathing and a sensation of pressure, usually on the chest.

Those participants who perceived a person or creature sitting on their chests (incubus) were more likely to report being diagnosed with PD. Perhaps, the combination of suffering from PD and experiencing the frightening perception of a creature or person influenced the participant to consider paranormal, unscientific, and less "logical" or mainstream thinking. And too, if a person imagines seeing such a creature during shortness of breath and chest tightness, this may cause a greater conditioning of fear to those very sensations.

A limitation of our study is that we did not conduct diagnostic interviews and relied on the participants' self-reports of diagnosed anxiety disorders. The USEQ alone cannot definitively rule out the possibility that some respondents were unable to distinguish between SP episodes and dreams. We propose that researchers who use the USEQ interview respondents positive for SP to better assess whether they have confused SP with dreams. In future research, it would be useful to administer the USEQ to a more diverse group of research participants from a wider range of cultures and to participants who were carefully assessed through structured

interviews and diagnosed with different psychiatric disorders. We encourage researchers interested in the phenomenon to use our SP questionnaire so that study results can be compared more easily and reliably.

The USEQ measure provided detailed information of the individuals' perceptions and interpretations of the SP experience. It effectively tapped into many of the SP interpretations reported in the cross-cultural literature. The inclusion of items that assess cultural beliefs, including paranormal beliefs, potentially makes the USEQ a useful instrument (translated appropriately) in cross-cultural settings and studies.

## Conflict of Interest

The authors have no conflict of interest.

## References

- American Sleep Disorders Association. *International classification of sleep disorders, revised: Diagnostic and coding manual*. Rochester, MN: American Academy of Sleep Medicine, 1990.
- Cheyne JA, Newby-Clark IR, Rueffer SD. Sleep paralysis and associated hypnagogic and hypnopompic experiences. *J Sleep Res* 1999;**8**:313–317.
- Everett HC. Sleep paralysis in medical students. *J Nerv Ment Dis* 1963;**3**:283–287.
- Fukuda K, Miyasita A, Inugami M, Ishihara K. High prevalence of isolated sleep paralysis: Kanashibari phenomena in Japan. *Sleep* 1987;**10**:279–286.
- Goode GB. Sleep paralysis. *Arch Neurol* 1962;**6**:228–234.
- Hinton DE, Pich V, Chhuan D, Pollack MH, McNally RJ. Sleep paralysis among Cambodian refugees: Association with PTSD diagnosis and severity. *Depress Anxiety* 2005;**22**:47–51.
- Hufford DJ. *The terror that comes in the night: An experience-centered study of supernatural assault tradition*. Philadelphia, PA: University of Pennsylvania Press, 1982.
- Kotorii T, Kotorii T, Uchimura N, et al. Questionnaire relating to sleep paralysis. *Psychiatry Clin Neurosci* 2001;**55**:265–266.
- Ness RC. "The Old Hag" phenomenon as sleep paralysis: A biocultural interpretation. *Cult Med Psychiatry* 1978;**2**:15–39.
- Ohaeri JU, Odejide AO, Ikusan BA, Adeyemi JO. The pattern of isolated sleep paralysis among Nigerian medical students. *J Natl Med Assoc* 1989;**81**:805–808.
- Ohaeri JU, Awadalla A, Makanjuola VA, Ohaeri BM. Features of isolated sleep paralysis among Nigerians. *East Afr Med J* 2004;**81**:509–519.
- Ohayon MM, Priest RG, Zulley J, Smirne S, Paiva T. Prevalence of narcolepsy symptomatology and diagnosis in the European general population. *Neurology* 2002;**58**:1826–1833.
- Spanos NP, McNulty SA, DuBreuil SC, Pires M, Burgess MF. The frequency and correlates of sleep paralysis in a university sample. *J Res Pers* 1995;**29**:285–305.
- Vela-Bueno A, DeIceta M, Fernandez C. Prevalence of sleep disorders in Madrid, Spain. *Gac Sanit/ SEPAS* 1999;**13**:441–448.
- Wing Y, Lee S, Chen C. Sleep paralysis in Chinese: Ghost oppression phenomenon in Hong Kong. *Sleep* 1994;**17**:609–613.
- Awadalla A, Al-Fayez G, Harville M, Arikawa H, Tomeo M, Templer D, Underwood R. Comparative prevalence of isolated sleep paralysis in Kuwaiti, Sudanese, and American college students. *Psychol Rep* 2004;**95**:317–322.
- Fukuda K, Ogilvie RD, Chilcott L, Vendittelli A-M, Takeuchi T. The prevalence of sleep paralysis among Canadian and Japanese college students. *Dreaming* 1998;**8**:59–66.
- Bell CC, Shakoor B, Thompson B, Dew D, Hughley E, Mays R, Shorter-Gooden K. Prevalence of isolated sleep paralysis in black subjects. *J Natl Med Assoc* 1984;**76**:501–508.
- Penn NE, Kripke DF, Sharff J. Sleep paralysis among medical students. *J Psychol* 1981;**107**:247–252.
- Paradis CM, Friedman S, Hatch MJ. Isolated sleep paralysis in African Americans with panic disorder. *Cult Divers Ment Health* 1997;**3**:69–76.
- Otto MW, Simon NM, Powers M, Hinton DH, Zalta AK, Pollack MH. Rates of isolated sleep paralysis in outpatients with anxiety disorders. *J Anxiety Disord* 2006;**20**:687–693.
- McNally RJ, Clancy SA. Sleep paralysis in adults reporting repressed, recovered, or continuous memories of childhood sexual abuse. *J Anxiety Disord* 2005b;**19**:595–602.
- Takeuchi T, Miyasita A, Sasaki Y, Inugami M, Fukuda K. Isolated sleep paralysis elicited by sleep interruption. *Sleep* 1992;**15**:217–225.
- Takeuchi T, Fukuda K, Sasaki Y, Inugami M, Murphy TI. Factors related to the occurrence of isolated sleep paralysis elicited during a multi-phasic sleep-wake schedule. *Sleep* 2002;**25**:89–96.
- Paradis CM, Friedman S. Sleep paralysis in African Americans with panic disorder. *Transcult Psychiatry* 2005;**42**:123–134.
- McNally RJ, Clancy SA. Sleep paralysis, sexual abuse, and space alien abduction. *Transcult Psychiatry* 2005a;**42**:113–122.
- Cheyne JA. Sleep paralysis and the structure of waking-nightmare hallucinations. *Dreaming* 2003;**13**:163–179.
- Cheyne JA. Sleep paralysis episode frequency and number, types and structure of associated hallucinations. *J Sleep Res* 2005;**14**:319–324.
- Ramsawh HJ, Raffa SD, White KS, Barlow DW. Risk factors for isolated sleep paralysis in an African American sample: A preliminary study. *Behav Ther* 2008;**3**:386–397.

30. Hinton DE, Pich V, Chhean D, Pollack MH. "The ghost pushes you down": Sleep paralysis-type panic attacks in a Khmer refugee population. *Transcult Psychiatry* 2005;**42**:46–78.

## UNUSUAL SLEEP EXPERIENCES QUESTIONNAIRE

GENERAL INSTRUCTIONS: This form asks about common symptoms that you may have experienced. Please read each question carefully and answer as honestly as possible. Be assured that your answers are strictly confidential.

*Some people have had the experience upon going to sleep or awakening when they were unable to move their arms or legs or speak even though they wanted to do so ?*

1. Have you ever had this experience? \_\_\_Yes \_\_\_No  
If No, stop here
2. Please think about and describe your most vivid experience (if you had only one episode, just describe that one):
3. How many times in your life have you experienced this ? \_\_\_\_
4. How many times in the last year? \_\_\_\_
5. How many times in the last month? \_\_\_\_
6. At what age did you first have this experience? \_\_\_\_
7. When was the last time you had this experience? \_\_\_\_
8. a) Are there any particular conditions that precede these experiences (e.g., changes in life style, sleep patterns, work schedule, emotional experiences, etc.)?  
Yes \_\_\_ No \_\_\_
8. b) If so, please describe:.
- 9 a) Does the experience happen mostly when:  
You sleep on my back: \_\_\_\_  
You sleep on my stomach: \_\_\_\_  
Your sleep position makes no difference: \_\_\_\_
10. During an episode, about how long are/were you usually unable to move or speak?  
\_\_\_\_
11. Do you usually this when falling asleep or upon awakening? \_\_\_\_

### SOMETIMES DURING THESE EPISODES:

12. a) Some people feel pressure on their chests or other parts of their body. Have you experienced this?  
Never Occasionally Frequently Always
12. b) If so, did it feel like:  
A weight pressing down \_\_\_\_  
A person or creature sitting on my chest \_\_\_\_  
Other \_\_\_ (Explain)
13. Some people feel that they are being smothered. Did you feel that way?

- Never Occasionally Frequently Always
14. a) Some people hear unusual sounds. Did you have this experience?  
Never Occasionally Frequently Always
  14. b) If so, would you describe the sound as:.  
Hard to specify background noises \_\_\_\_  
Sounds of movement such as footsteps \_\_\_\_  
Voices \_\_\_\_  
Other \_\_\_\_ (Explain)
  15. Some people feel that they might die. Did you feel this way?  
Never Occasionally Frequently Always
  16. Some people feel numbness, vibrations or tingling sensations. Did you feel sensations of that kind?  
Never Occasionally Frequently Always
  17. Some people feel that they have temporarily left their body. Did you feel that way?  
Never Occasionally Frequently Always
  18. Some people have the sensation that they are looking at their own body from outside it. Did this happen to you?  
Never Occasionally Frequently Always
  19. Some people sense unusual odors. Has this happened to you?  
Never Occasionally Frequently Always
  20. Some people feel like they are being strangled. Has this happened to you?  
Never Occasionally Frequently Always
  21. Some people feel that their body is spinning or turning rapidly. Has this happened to you?  
Never Occasionally Frequently Always
  22. Some people feel like they are being physically touched. Has this happened to you?  
Never Occasionally Frequently Always
  23. Some people are unable to open their eyes. Has this happened to you?  
Never Occasionally Frequently Always
  24. Some people try to speak or call out but are unable to. Has this happened to you?  
Never Occasionally Frequently Always
  25. Some people feel a presence in the room, i.e. a sense that there is something in the room with them even though they may not actually be able to see or hear anything. Has this happened to you?  
Never Occasionally Frequently Always
  26. Some people have erotic feelings. Has this happened to you?  
Never Occasionally Frequently Always
  27. a) Where you ever afraid there was something seriously wrong with your body?  
Not at all A little Some A fair amount A lot
  27. b) If so, what were you afraid was wrong with your body?

28. Were you afraid of going crazy, insane or losing your mind?

Not at all a little some a fair amount a lot

29. What, if any, other emotions did you experience?

30. a) During the episode, did you see something like a shadow or shape move toward you? Yes No

30. b) If so, what shape did you see? \_\_\_\_\_

30. c) What, if anything, did you fear the shape might do to you? \_\_\_\_\_

30. d) Is there a name for what you saw? \_\_\_\_\_

31. Immediately after the *first* experience, what did you think had happened? How did you explain it? Check all that apply.

It was a dream \_\_\_\_\_

It was an alien abduction \_\_\_\_\_

It was a ghost (or something spiritual) \_\_\_\_\_

Something was physically wrong with me \_\_\_\_\_

Something was mentally wrong with me \_\_\_\_\_

It was related to sexual abuse \_\_\_\_\_

It was related to physical abuse \_\_\_\_\_

It was related to drugs/alcohol \_\_\_\_\_

I had no idea \_\_\_\_\_

I didn't think about it at all \_\_\_\_\_

Other: Describe what you thought had happened?

32. How do you explain this experience **today**? Check all that apply

It was a dream \_\_\_\_\_

It was an alien abduction \_\_\_\_\_

It was a ghost (or something spiritual) \_\_\_\_\_

Something was physically wrong with me \_\_\_\_\_

Something was mentally wrong with me \_\_\_\_\_

It was related to sexual abuse \_\_\_\_\_

It was related to physical abuse \_\_\_\_\_

It was related to drugs/alcohol \_\_\_\_\_

I have no idea \_\_\_\_\_

I don't really think about it at all \_\_\_\_\_

Other: (please describe what you thought had happened?)

33. Did you do anything to try to prevent future episodes?

Yes \_\_\_ No \_\_\_ (Explain)

34. a) Did you consult a traditional healer to make sense of this experience?

Yes \_\_\_ No \_\_\_

34. b) If so, what kind of healer? \_\_\_\_\_

35. c) If so, what did they say was the cause? \_\_\_\_\_

35. d) If so, what kind of treatment did they suggest?

\_\_\_\_\_

35. a) Did you speak to anyone else about this experience?

Yes\_\_\_ No\_\_\_

35. b) If so, Explain:

36. a) To the best of your knowledge, has anyone in your community or family talked about these kinds of experiences?

Yes\_\_\_ No\_\_\_

36. b) If so, Explain:

37. a) At the time of your first episode, had you ever heard anyone describe a similar experience?

Yes\_\_\_ No \_\_\_

37. b) If so, who?

37. c) If so, what did they say about the experience?

38. a) Have you ever heard of a name for the experience?

Yes\_\_\_ No\_\_\_

38. b) If so, what name did you hear?

39. If you have had any episodes in the last six months, list any medications you were taking at the time of your recent experiences.

40. Do you think an alien caused this experience?

Yes\_\_\_ No\_\_\_

If No, stop here

If Yes, please continue.

41. a) Did you think it was an alien at the time of your *first* episode?

Yes\_\_\_ No\_\_\_

41. b) If so, did you speak to anyone or read anything that confirmed your belief that it was caused by an alien?

Yes \_\_\_ No \_\_\_

41. c) If Yes, explain:

41. d) If no, did you speak to anyone or read anything that made you decide that the experience was not due to an alien?

41. e) If No, explain:

42. Did you hear that this kind of experience might be caused by an alien?

Yes \_\_\_ No \_\_\_

42. a) If yes, please describe

43. a) Have you ever undergone hypnosis or some other special procedure or treatment to explore your memory of this experience?

Yes \_\_\_ No \_\_\_

43. b) If yes, please describe: