

# Salon de FréFré: A VR + ASMR Experience

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## ABSTRACT

We will build a multimedia experience which combines VR with ASMR and plan to compare users' experiences with the VR system against an audio-only system. We expect to see higher levels of relaxation as a result of the increased immersion/presence offered by VR.

## Author Keywords

Virtual Reality; VR; Virtual Environments; Autonomous Sensory Meridian Response; ASMR; Presence; Immersion; Head-Mounted Display; HMD; Flow State; Treatment; Therapy

## ACM Classification Keywords

H.5.1 Multimedia Information Systems: Artificial, augmented, and virtual realities

## INTRODUCTION

### Project Overview

The topic of interest for this project is Autonomous Sensory Meridian Response, commonly known as ASMR, which is a “*sensory phenomenon, in which individuals experience a tingling, static-like sensation across the scalp, back of the neck and at times further areas in response to specific triggering audio and visual stimuli*” [3]. Although ASMR can occur as a result of virtually any stimulus, there is an emerging trend of ASMR content uploaded to YouTube, with one of the most popular channels garnering nearly 200 million views since their first video was uploaded four years ago [2]. These videos are meant to lull viewers into relaxed states by incorporating specific audio stimuli, including whispering, tapping, brushing, and other sounds, ideally recorded using binaural microphones for increased immersion.

We plan to explore whether the immersion, presence, and/or interactivity of a virtual reality system affects viewers' experience with media designed to evoke ASMR. This exploration will be achieved through the use of a custom-developed ASMR

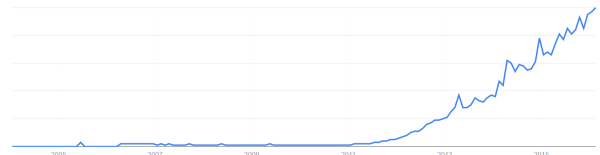


Figure 1. The popularity of ASMR searches has been rising steadily over the past four years. Data Source: Google Trends ([www.google.com/trends/](http://www.google.com/trends/)).

experience, an Oculus Rift<sup>1</sup>, and a pair of high quality headphones<sup>2</sup>.

The ASMR experience that we intend to create is one wherein the participant's avatar receives a virtual salon makeover. It will consist of a makeup artist, shown in proxy as a roughly animated character silhouette, applying makeup to the participant's avatar. True to the format of ASMR videos, the artist will move around and speak as they go about their tasks. The artist's speech will be a pre-recorded mono track and positional audio will be used to place it relative to the participant.

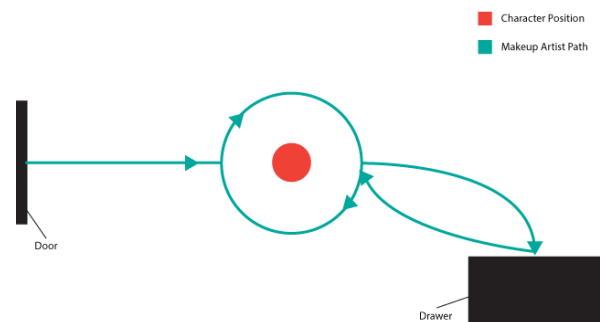


Figure 2. Mockup of the salon layout and the makeup artist's motion path.

At certain points, the artist will offer participants a selection of products. A selection can be made by through head-tracking: by maintaining eye contact with the choice for a set time (see Figure 3). Choices made will cosmetically affect the avatar displayed at the experience's conclusion.

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<sup>1</sup>DK2 headset

<sup>2</sup>Grado SR80e headphones



Figure 3. Mockup of the selection method which uses the center of the screen as a cursor position.

### User Study

To evaluate the experience, a comparative study will be performed in which participants are exposed to two variations of the experience: one will be the VR experience exactly as developed, and the other will lack visual stimuli and interaction in order to isolate audio, the component most closely associated with the YouTube ASMR format<sup>3</sup>. The test will use a within-subjects design, as individual differences would be a significant source of error for something as subjective as ASMR.

We hypothesize that the addition of visual stimuli and interaction with the system will further immerse the participant in the ASMR experience. As 98% of individuals searching for ASMR videos have indicated that they do so for relaxation [3], we will be evaluating the participant's sense of relaxation. This will be measured through surveys and possible physiological indicators (e.g. heart rate, respiratory rate) during or after the experience. We expect to observe higher satisfaction with the experience as a result of these factors than with passive audio alone. We believe this will open up the ASMR video-producing community to a new form of experience unlike those found on YouTube.

### Future Work

A possible extension of this experience would be to have the test administrator brush the participant's face with actual makeup brushes in-sync with the virtual brushes. As we intend to primarily evaluate the visual and interactive elements, this idea was excluded from this proposal. We hypothesize that this haptic stimuli on its own could be capable of eliciting sensations similar to ASMR (which would interfere with our study) [5], and so we leave this for future works to consider.

### Experience Outline

1. The participant is seated and puts on the equipment
2. A makeup artist enters the salon and introduces herself
3. The artist asks participants to select a colour for their makeup
  - VR: Participants are presented with a palette and make a selection
4. The artist circles participants, brushing their face and whispering quietly about what she's doing, occasionally complimenting the participant
5. Participants are informed that the makeup is complete

<sup>3</sup>During interactive elements in which a question is posed to the participant, the audio will continue without any user input. Both versions will include some questions in this format (e.g. "How was your day?") to avoid interference with study results.

6. The artist instructs participants to turn and look at their reflection in a mirror she's holding

- VR: Participants see their avatar in a mirror, re-textured based on earlier selections

### RELATED WORK

#### Introduction to Autonomous Sensory Meridian Response

Autonomous Sensory Meridian Response, or ASMR, is the tingling sensation across the scalp and back of the neck, caused by specific audio and visual stimuli [3]. To experience ASMR, many users watch videos, often involving personal attention or grooming role-play [1, 3] with a female host [1], designed to elicit the phenomenon. Various types of stimuli can be used within a video to evoke the desired response[3]. When surveying those that experienced ASMR in order to learn which stimuli was triggering, it was found that whispering, personal attention, crisp sounds, and slow movements could cause the response. Whispering was the most common among participants, affecting 75% [3]. To increase the sensation, users may change their environment by dimming the lights or using headphones [4]. For our project, we will be recording similar audio stimuli to those listed above, and utilizing high-fidelity headphones for the best experience. Since an HMD will be used, dimming the lights is unnecessary.

Apart from eliciting a tingling sensation, ASMR is able to put users into a state similar to flow state, "*the state of intense focus and diminished awareness of the passage of time that is often associated with optimal performance*" [3]. During their research, Barratt and Davis observed that this state of concentration was improved with more ASMR triggers [3]. ASMR is valued for its calming effects [3]. When polling users, 98% of people strongly agreed that they use ASMR videos for relaxation, and 70% use it for stress relief [3]. Some believe in its effects so much that they promote ASMR as a treatment for stress-related conditions such as anxiety[1, 4].

Unfortunately for those who use ASMR, these effects can be lost over long-time usage [1]. In this situation, users often turn to more immersive experiences that use binaural sound and 3D microphones [1]. It is believed that this adds to the experience's intimacy, encouraging the response [1]. For our project, we hope to determine whether the increased level of immersion of our choice of display will amplify the sensations provided by ASMR.

#### Virtual Reality Input Methods

There are various methods which developers can use to allow for interaction with virtual worlds. In a 2008 study, when comparing mouse and gaze pointing methods, participants perceived gaze as faster but less accurate than mouse pointing [7]. Discomfort is a drawback of gaze pointing, especially if users must keep their heads still for a long time [7]. We believe that the gaze method will work well for our project as users will not be asked to complete tasks requiring accuracy or holding a position for a long time.

#### The Effects of Virtual Reality

Like real life environments, virtual environments can cause emotional reactions in users. During a 2007 experiment, it was

found that when placed into a relaxation or anxiety inducing environment, participants showed signs of either relaxation or anxiety [10]. It was also shown that a relaxing VR experience can increase feelings of quietness and happiness while reducing anger, sadness and anxiety [10]. This suggests that virtual environments can be designed to arouse an emotional response, and that users are directly engaged with the effects of the experience [10, 13]. It was also found that the level of presence<sup>4</sup> felt by participants was greater in relaxing and anxious environments than in neutral ones, and that the greatest feeling of presence was achieved in the relaxing environment [10]. During a literature review relating to presence in virtual environments, it was found that a participant's sense of presence is influenced by the attributes of the VR platform the features of the environment itself, and the individual user's characteristics [9].

VR has also been seen as an alternative way to administer therapy, which could help people in overcoming anxiety and stress-related conditions. In various studies, it has been found that compared to traditional therapy, individuals enjoyed VR therapy more, leading to an increase in motivation to complete treatment [6, 8]. VR therapy also has the benefit of current equipment being affordable, allowing participants to engage in sessions in their own homes [8]. When researching the viability of VR therapy, a follow-up survey of those who suffered from anxiety found that there was no significant difference in the level of anxiety felt between participants of VR and traditional therapy [11].

VR and ASMR have the shared attribute of inducing relaxation and are both often used for therapeutic purposes. We hope that by combining these two relaxing mediums users will be able to achieve a higher level of presence, which will increase the perception of intimacy ASMR users desire, leading to an increase in its effects.

### Testing Methods

To collect data on subjective topics, questionnaires are a useful tool. During Riva's experiment on the link between presence and emotions in multiple virtual environments, questionnaires were used to evaluate mood before and after the experience including Visual Analogue Scale (VAS), Positive and Negative Affect Schedule (PANAS), and State Trait Anxiety Inventory (STAI). The VAS required participants to indicate how they feel at a specific moment in time regarding their level of happiness, anger, surprise, disgust, anxiety and quietness. The PANAS uses a list of 20 adjectives that describe 10 positive and 10 negative emotions which can be viewed in Appendix A. Participants must associate a magnitude on a scale of 1-5 for each emotion at a given moment. The STAI measures the level of anxiety participants feel on a scale of 0-3. The "State" version of this questionnaire asks participants how they feel at a given moment, while the "Trait" version asks for their general feelings. These questionnaires were provided to participants before and after testing to compare their baseline emotional state against the effects of the environment. Two additional questionnaires, the UCL Presence Questionnaire,

and the Independent Television Company Sense of Presence Inventory (ITC-SOPI) were also given to participants after each stage in order to assess their presence. For the UCL Presence Questionnaire, please see Appendix A. The ITC-SOPI was used to measure different dimensions of presence, such as sense of physical space, engagement, ecological validity, and negative effects. The questionnaire is divided into two parts. The first consists of six items used to measure a participant's experience after the test has concluded, and the second consists of 38 items used to measure the participants experience during the test. Each is scored using a 5-point Likert scale [10].

Riva and her team also asked participants questions rated using a 10-point scale, while they were within the virtual environment. To measure their emotional status, participants were asked to what extent they felt sad, happy, anxious, and relaxed at any given moment. To measure presence, participants were asked if they felt as if they were in the virtual environment and whether that environment was a real place they were visiting. To view these questions, please see Appendix A. To reduce errors as a result of their within-subjects design, every participant was required to test each environment, with the sequence of environments being randomized [10].

For objective measurements on the emotional state of participants, physiological measures, such as heart-rate, can be taken. During a 2006 study on the effects of relaxation techniques and heart rate variability, it was found that guided relaxation decreased the participant's heart rate [12]. This shows a correlation between an individual's level of relaxation, which cannot directly be measured, and their heart rate.

To gather information on "*the prevalence of particular features of ASMR, when and why individuals engage in ASMR, and the relation of ASMR to other known phenomenon*", Barratt and Davis collected information on a participant's viewing habits and various facets of their experience using a questionnaire [3]. Although this questionnaire is designed for use with those already familiar with ASMR, it could likely be used to assess the experiences of individuals new to the phenomenon. A version of the original questionnaire can be found in Appendix A.

### REFERENCES

1. Joceline Andersen. 2015. Now You've Got the Shiveries Affect, Intimacy, and the ASMR Whisper Community. *Television & New Media* 16, 8 (2015), 683–700.
2. Anonymous. 2016. YouTube Stats, Channel Statistics. (2 February 2016). <http://socialblade.com/youtube/user/gentlewhispering>
3. Emma L Barratt and Nick J Davis. 2015. Autonomous Sensory Meridian Response (ASMR): a flow-like mental state. *PeerJ* 3 (2015), e851.
4. Dave Bergmann. 2015. YouTube therapy: with ASMR, an unlikely sound-based treatment for stress and insomnia, a "brain orgasm" could be just a few clicks away. *Men's Fitness* 31, 5 (2015), 46.

<sup>4</sup> "the *"sense of being there"* or the *"feeling of being in a world that exists outside the self."*" [10]

5. G Stanley Hall and Arthur Allin. 1897. The psychology of tickling, laughing, and the comic. *The American Journal of Psychology* 9, 1 (1897), 1–41.
6. Rachel Kizony, Noomi Katz, and others. 2003. Adapting an immersive virtual reality system for rehabilitation. *The Journal of Visualization and Computer Animation* 14, 5 (2003), 261–268.
7. Julio C Mateo, Javier San Agustin, and John Paulin Hansen. 2008. Gaze beats mouse: hands-free selection by combining gaze and emg. In *CHI'08 extended abstracts on Human factors in computing systems*. ACM, 3039–3044.
8. M Morel, B Bideau, J Lardy, and R Kulpa. 2015. Advantages and limitations of virtual reality for balance assessment and rehabilitation. *Neurophysiologie Clinique/Clinical Neurophysiology* 45, 4 (2015), 315–326.
9. Eric B Nash, Gregory W Edwards, Jennifer A Thompson, and Woodrow Barfield. 2000. A review of presence and performance in virtual environments. *International Journal of human-computer Interaction* 12, 1 (2000), 1–41.
10. Giuseppe Riva, Fabrizia Mantovani, Claret Samantha Capideville, Alessandra Preziosa, Francesca Morganti, Daniela Villani, Andrea Gaggioli, Cristina Botella, and Mariano Alcañiz. 2007. Affective interactions using virtual reality: the link between presence and emotions. *CyberPsychology & Behavior* 10, 1 (2007), 45–56.
11. Marilyn P Safir, Helene S Wallach, and Margalit Bar-Zvi. 2011. Virtual reality cognitive-behavior therapy for public speaking anxiety: one-year follow-up. *Behavior Modification* (2011), 0145445511429999.
12. Patil Sarang and Shirley Telles. 2006. Effects of two yoga based relaxation techniques on heart rate variability (HRV). *International Journal of Stress Management* 13, 4 (2006), 460.
13. Brenda K Wiederhold and Mark D Wiederhold. 2006. Evaluation of virtual reality therapy in augmenting the physical and cognitive rehabilitation of war veterans. *International Journal on Disability and Human Development* 5, 3 (2006), 211–216.

## APPENDIX

### APPENDIX A - TEST MATERIALS

#### UCL Presence Questionnaire

For the UCL Presence Questionnaire, subjects were asked to answer using a 1-7 point Likert scale for the following questions:

1. “Rate your sense of being in the virtual environment.”
2. “To what extent were there times during the experience when the virtual environment was reality for you?.”
3. “When you think back to the experience, do you think of the virtual environment more as images that you saw or more as somewhere that you visited?”

#### Affective Interactions Using Virtual Reality - Emotional Status and Presence Questionnaire

To measure their emotional status, the following questions were asked:

1. “To what extent do you feel sad at this moment?”
2. “To what extent do you feel happy at this moment?”
3. “To what extent do you feel anxious at this moment?”
4. “To what extent do you feel relaxed at this moment?”

To measure presence, the following questions were asked:

1. “Do you feel you are here, in [the environment portrayed with virtual reality]?”
2. “Do you feel this [virtual environment] is real, is it a place you are visiting?”

#### Positive and Negative Affect Schedule

The PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent [INSERT APPROPRIATE TIME INSTRUCTIONS HERE]. Use the following scale to record your answers.

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
	_____ interested		_____ irritable	
	_____ distressed		_____ alert	
	_____ excited		_____ ashamed	
	_____ upset		_____ inspired	
	_____ strong		_____ nervous	
	_____ guilty		_____ determined	
	_____ scared		_____ attentive	
	_____ hostile		_____ jittery	
	_____ enthusiastic		_____ active	
	_____ proud		_____ afraid	

We have used PANAS with the following time instructions:

Moment	(you feel this way right now, that is, at the present moment)
Today	(you have felt this way today)
Past few days	(you have felt this way during the past few days)
Week	(you have felt this way during the past week)
Past few weeks	(you have felt this way during the past few weeks)
Year	(you have felt this way during the past year)
General	(you generally feel this way, that is, how you feel on the average)

#### ASMR Questionnaire

*Autonomous Sensory Meridian Response (ASMR) questionnaire*

**Are you...**

☐ Male      ☐ Female      ☐ Non-binary/other

**What is your age?**

*[drop list of numbers]*

**Where are you located?**

*[drop list of locations]*

**Do you suffer from any chronic pain or illness?**

☐ Yes   ☐ No

**Please specify.**

*Synaesthesia is defined as perception in one sense triggering sensation in another, unstimulated sense. For example, you may 'see' the letters as having colours, or sense shapes from music. For further elaboration, see here: <http://www.uksynaesthesia.com/whatis.html>*

**Do you have any type of synaesthesia?**

☐ Yes   ☐ No

**If so, please elaborate.**

**Do you take any medications?**

☐ Yes   ☐ No

**Please specify which medications you take.**

**Do you watch ASMR videos?**

☐ Yes   ☐ No

**How many ASMR videos do you typically watch in a single session?**

[drop list of numbers]

**What time of day do you usually watch ASMR videos?**

- ☐ Upon Waking
- ☐ Mid-morning
- ☐ Mid-day
- ☐ Afternoon
- ☐ Evening
- ☐ Before sleeping
- ☐ Whenever I have spare time

**Do you require specific conditions to achieve ASMR?**

- ☐ Yes   ☐ No

**Please briefly describe the conditions you require to achieve ASMR sensations (e.g. busy room, bright lighting, etc.)**

**Do you feel a tingling sensation when watching ASMR videos?**

- ☐ Yes   ☐ No

**Are these tingling sensations triggered by specific stimuli?**

- ☐ Yes   ☐ No

**Please tick all the items that trigger your tingling sensations while viewing ASMR videos.**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Crisp sounds (e.g. tapping, crinkling plastic) | <input type="checkbox"/> Aeroplane noise   | <input type="checkbox"/> Slow movements  |
| <input type="checkbox"/> Whispering                                     | <input type="checkbox"/> Laughing a lot and doing all the things that make you happy | <input type="checkbox"/> A specific combination of two or more of these options (please elaborate) |
| <input type="checkbox"/> Water pouring                                  | <input type="checkbox"/> Smiling   | <input type="checkbox"/> Other (please elaborate)  |
| <input type="checkbox"/> Personal attention (e.g. face touching)        | <input type="checkbox"/> Watching repetitive tasks (e.g. towel folding)              |  |
| <input type="checkbox"/> Vacuuming                                      |  |  |

**Please briefly elaborate on your selection of 'A specific combination of two or more of these options'.**

**Please briefly describe any 'other' triggers. Please separate triggers by commas (e.g. tickling, dog walking, trainspotting...).**

**Do any stimuli stop or prevent this tingling sensation from continuing?**

☐ Yes   ☐ No

**What stimuli will stop any tingling sensation you are feeling? Please be brief and use as few words as possible.**

**Does this tingling sensation always originate in one area of your body?**

☐ Yes   ☐ No

**Where can your tingles originate?**

- |                                    |  |                               |
|------------------------------------|--|-------------------------------|
| <input type="checkbox"/> Head      | <input type="checkbox"/> Arms                  | <input type="checkbox"/> Legs |
| <input type="checkbox"/> Shoulders | <input type="checkbox"/> Stomach/lower abdomen | <input type="checkbox"/> Feet |
| <input type="checkbox"/> Chest     | <input type="checkbox"/> Genitals              |                               |
| <input type="checkbox"/> Back      | <input type="checkbox"/> Hips                  |                               |

**Do you feel this tingling sensation more on one side of your body than the other?**

☐ Yes, left   ☐ Yes, right.   ☐ No, both sides are the same.

**Does the intensity of these tingles vary from session to session of ASMR video viewing?**

☐ Yes   ☐ No

**Does the intensity of these tingles vary at different times during a session of ASMR video viewing?**

☐ Yes ☐ No

**What increases the intensity of the tingling sensation?**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Sounds that I like   | <input type="checkbox"/> Visuals I don't expect | <input type="checkbox"/> Sounds I don't expect |
| <input type="checkbox"/> Visuals that I like  | <input type="checkbox"/> Sounds I don't like    | <input type="checkbox"/> Other                 |
| <input type="checkbox"/> Visuals I don't like |   |  |

**Does more intense tingling result in the sensation moving to other areas of your body?**

☐ Yes ☐ No

**Please tick the body areas that experience tingles when the sensation is most intense.**

- |                                    |  |                               |
|------------------------------------|--|-------------------------------|
| <input type="checkbox"/> Head      | <input type="checkbox"/> Arms                  | <input type="checkbox"/> Legs |
| <input type="checkbox"/> Shoulders | <input type="checkbox"/> Stomach/lower abdomen | <input type="checkbox"/> Feet |
| <input type="checkbox"/> Chest     | <input type="checkbox"/> Genitals              |                               |
| <input type="checkbox"/> Back      | <input type="checkbox"/> Hips                  |                               |

**How long does the tingling sensation normally last?**

**Is the tingling sensation triggered more easily by hearing in one ear than the other?**

☐ Yes, my left ear. ☐ Yes, my right ear. ☐ No, both ears are the same.

**Does your medication affect your experience of tingling at all?**

☐ Yes ☐ No

**At what age did you first experience this tingling sensation?**

**Do you have any family members that experience ASMR?**

☐ Yes ☐ No ☐ Unsure/I've never asked

**Are your tingling sensations/ASMR triggered by anything other than online videos?**

☐ Yes ☐ No

**What other stimuli trigger your tingling sensations/ASMR? Please describe briefly.**



**Please rate the following statements in terms of how true they are for you while experiencing tingles.**

- My attention is focused entirely on what I am watching.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- My attention is focused entirely on what I am feeling.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Time seems to alter (slow down or speed up).

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Things seem to happen automatically.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- It is no effort to keep my mind on what is happening.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I feel totally in control.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Time seems to stop.

Not my experience at all				Completely representative of my experience
1	2	3	4	

5

☐ ☐ ☐ ☐ ☐

- I am not worried about what people think of me.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐

**Do you feel that watching ASMR videos has an effect on your mood?**

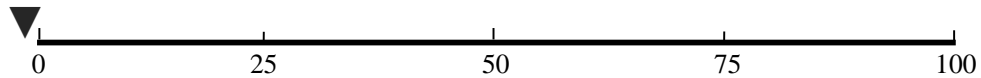
☐ Yes ☐ No

**Please select the statement that most applies to you.**

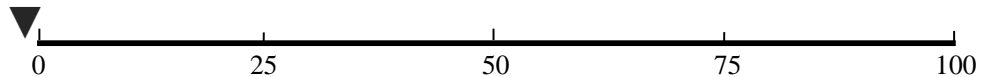
- ☐ I feel a change in my mood only when I experience tingling.
- ☐ I feel a change in my mood whether or not I experience tingling.
- ☐ I feel no change in my mood during ASMR.

**How would you rate your mood in these instances? (0 = terrible, the / worst I've ever felt, 100 = Euphoric, the best I've ever felt)**

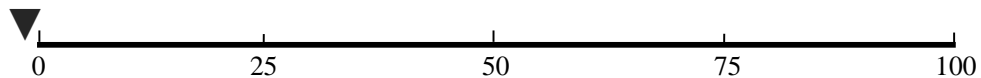
- My mood just before I watch ASMR videos



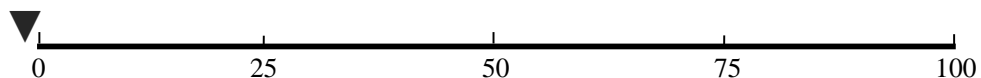
- My mood during a successful ASMR video session



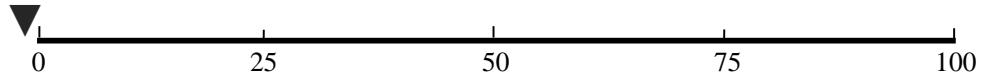
- My mood when I finish a successful ASMR video session



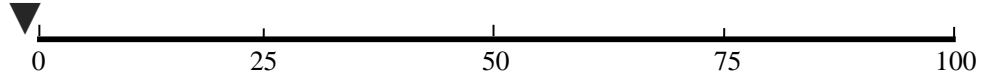
- My mood 30 minutes after a successful ASMR session



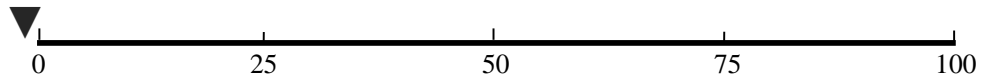
- My mood an hour after a successful ASMR video session



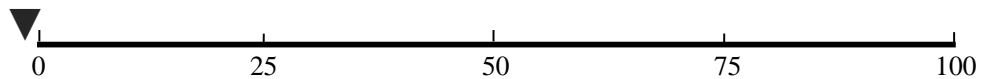
- My mood 3 hours after a successful ASMR session



- My mood the day after a successful ASMR video session



- My mood generally during day to day life



**Do you feel that watching ASMR videos had an effect on your symptoms of chronic illness or pain?**

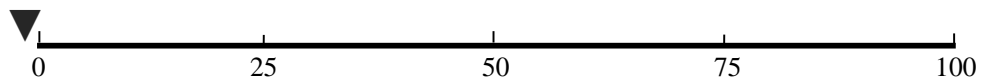
☐ Yes ☐ No

**Please select the statement that most applies to you.**

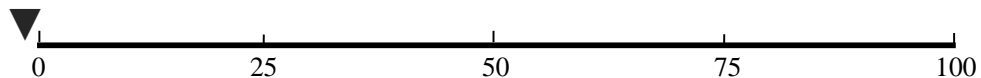
- ☐ I feel a change in my symptoms only when I experience tingling.
- ☐ I feel a change in my symptoms whether or not I experience tingling.
- ☐ I feel no change in my symptoms during ASMR.

**PLEASE ANSWER ONLY IF YOU SUFFER FROM SYMPTOMS OF CHRONIC ILLNESS OR PAIN. How would you rate the intensity of your symptoms of chronic illness or pain at these times? 0 = No pain, I wouldn't know I had a condition, 100 = The worst I have ever felt my symptoms.**

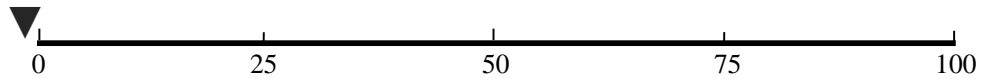
- Intensity of chronic illness/pain just before I watch ASMR videos.



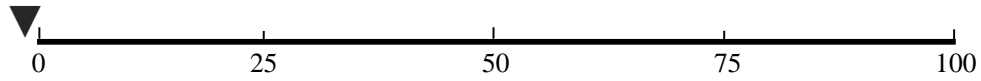
- Intensity of chronic illness/pain during an ASMR video session.



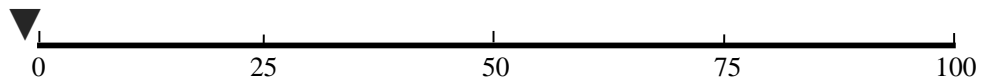
- Intensity of chronic illness/pain just after a successful ASMR video session.



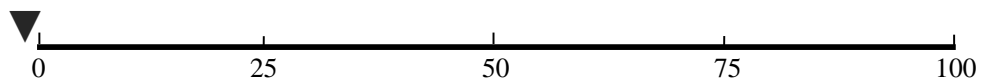
- Intensity of chronic illness/pain an hour after a successful ASMR video session.



- Intensity of chronic illness/pain the day after a successful ASMR video session.



- Intensity of chronic illness/pain during day to day life.



**Do you feel that watching ASMR videos helps with your sleeping issues?**

☐ Yes ☐ No

**Please select the statement that most applies to you.**

- ☐ I feel a change in my symptoms only when I experience tingling.
- ☐ I feel a change in my symptoms whether or not I experience tingling.
- ☐ I feel no change in my symptoms during ASMR.

**Please rate the following statements in terms of how well you feel they apply to you and your experience of watching ASMR videos.**

- I watch ASMR videos to relieve negative mood.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I don't know why I watch ASMR videos.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I enjoy ASMR videos.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I know what triggers my ASMR.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I enjoy the content of ASMR videos even without tingles.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I watch ASMR videos to relax.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I watch ASMR videos to deal with anxiety.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I watch ASMR videos to deal with stress.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I watch ASMR videos to help me sleep.

Not my experience at all				Completely representative of my experience
1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I watch ASMR videos as a hobby.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐

- I watch ASMR videos to help me focus.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐

- I watch ASMR videos to ease chronic physical pain.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐

- I watch ASMR videos for sexual stimulation.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐

- I watch ASMR videos to help with a mental health issue other than depression or anxiety.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐

- I watch ASMR videos to help with depression.

Not my  
experience at all

1

☐

2

☐

3

☐

4

☐

Completely  
representative of  
my experience

5

☐