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The Sound of Susurrus: The Relationship between Autonomous Sensory Meridian Response (ASMR) Exposure and Well-Being

Chan Ko Wai[1*], Satu Uusiautti[1] and Satu-Maarit Korte[2]
[1]University of Lapland, Finland.
[2]University of Helsinki, Finland.
*Corresponding author email id: kchan@ulapland.fi

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***Abstract* – The study examines the relationship between Autonomous Sensory Meridian Response (ASMR) exposure and users' psychological well-being. Specifically, it tested predictions of well-being elements within the framework of the Differential Susceptibility to Media Effects model. An online survey of 341 adults indicated that viewing the ASMR was associated with various media responses. Moreover, ASMR was associated with beneficial effects on all three well-being outcomes (positive emotion, engagement, and relationships) via different combinations of indirect effects of the media responses: two positive (nostalgia and cognitive reappraisal) and two negative (positive affect and tingling sensations). Additionally, two indirect effects of ASMR were moderated by social influence. For social influence participants, ASMR showed substantial associations with positive affect through the interaction of social influence with ASMR content use but weaker associations with nostalgia through the interaction of social influence and prior ASMR experience.**

***Keywords* – Autonomous Sensory Meridian Response (ASMR), Differential Susceptibility to Media Effects Model, Media Use, Media Effects, Well-Being, PERMA.**

I. INTRODUCTION

Autonomous sensory meridian response (ASMR) is a complex experience-dependent sensational and emotio--nal phenomenon in which specific audiovisual triggers elicit tingling sensations on the scalp, neck, and arms [25] [27]. The creation and usage of ASMR video and sound content, which can trigger a change in affective state, producing feelings of euphoria and relaxation, has proliferated in popularity. These sensorimotor and relaxation experiences can help reduce stress and anxiety [25] [48].

The impact of ASMR has been studied to some extent. In psychological research, it has been noted that ASMR content also improves Quality of Life Scale abbreviated version (QOL-BREF) scores and well-being [25] [48] [44]. In addition, ASMR improved the perceived stress scale (PSS) and state-trait anxiety inventory-state anxiety (STAI-S) scores and generally experienced low levels of stress [8] [25]. Inagaki and Ohta (2022) also show that ASMR reduces mental stress by recovering the EEG alpha and gamma-band activation pattern to the level of the resting condition under the mental workload and activating brain regions associated with both reward and emotional arousal [19]. Moreover, ASMR stimulation can produce a pleasant state of relaxation and significantly increased activation of the medial prefrontal cortex (mPFC), marked by periods of decreased heart rate and increased alpha activity across the cortex [26] [41]. Furthermore, ASMR has been associated with increased connectedness and reduced loneliness because it enhances interpersonal connection [9] [34] [44].

There seem to be many benefits, but the relationship between ASMR and well-being remains not fully understood. The purpose of this research was to analyze this relationship through two underlying viewpoints. The first one shaping this study was by De Leeuw and Buijzen (2016), who requested researchers to shift from the

adverse effects of media use to more positive outcomes [11]. Second, Valkenburg and Peter (2013) mentioned being overfocused on finding generalization media effects and ignoring slight group variation and subgroup differences [46]. We capitalized on ASMR research to answer these arguments in the current study. We used the merged framework of Seligman's (2012) PERMA model and Valkenburg and Peter's (2013) Differential Susceptibility to Media Effects model (DSMM) to develop hypotheses about the types of short-term experiences associated with engaging ASMR videos that might contribute to psychological well-being and subgroup differences in uses of and responses to ASMR. Next, we introduce the theoretical basis of the research.

II. THEORY

This research can be located within the field of positive psychology. Positive psychology is a subfield that inspects how satisfied people are with their lives, and a key variable is well-being, a multidimensional concept that includes hedonic and eudaimonic components. Although psychologists have investigated predictors of well-being for decades [40], communication researchers have only recently focused on the potential of media contributing to well-being. In this research, we used the PERMA and DSMM theory to explore how short-term ASMR experiences might contribute to psychosocial well-being. Next, we introduce the models in detail.

2.1. *The PERMA Model*

The PERMA (Positive Emotion, Engagement, Relationship, Meaning, and Accomplishment) model [43] was used as the theoretical framework in this research for the investigation of well-being-related components among ASRM users. PERMA is a multidimensional framework that posits authentic well-being and combines the perspectives of hedonic and eudemonic elements (in other words, well-being stemming from both the optimization of pleasure and the fulfilment of personal meaning) [43] [50]. By definition, this model constitutes five aspects: positive emotion, encompassing life satisfaction experienced in people's feelings and happiness; engagement (also known as flow), referring to complete absorption and immersion in an activity; relationships, including meaningful interactions with family, friends, or colleagues; meaning, which is linked to people making their lives worthwhile and satisfying; accomplishment, which is about pursuing specific life goals to gain a sense of achievement [43]. By improving all five aspects of the PERMA model, Seligman (2012) intends to improve people's overall authentic well-being and emphasizes the meaning and a sense of achievement above the level of pleasure [43].

The PERMA model was considered suitable because it also uses objective and subjective approaches to measure each element of well-being, and the PERMA-Profiler has proven to have excellent reliability and acceptable levels of convergent and divergent validity [45]. Furthermore, it has proven useful in other research focusing on media-related behaviours. For example, the PERMA model was focused on identifying how video games generate positive affect and promote social functioning. The current study was chosen mainly on the three domains (positive emotions, engagement, and relationships) to focus on emotional and cognitive engagement in interpersonal relationships.

2.2. *Differential Susceptibility to Media Effects Model (DSMM)*

In addition to the measurement of well-being, we wanted to lean on a theory that helped us understand how media affects people. For this purpose, Valkenburg and Peter's (2013) Differential Susceptibility to Media Effects Model (DSMM) was utilized to explore both direct and indirect media effects on individual differences in media

uses and corresponding responses [6]. Thus, the current study extends this developing line of research, focusing on well-being as an outcome of media engagement of ASMR video.

The DSMM is a multidimensional, integrative, and comprehensive media effects model to improve understanding of the communication process through the roles of, and relationships between, media and nonmedia variables in the mediated experience [47]. It focuses on micro-level media effects, meaning effects on the observations of the individual media user [47]. The DSMM builds upon the earlier within-person level of previous media effects theories, such as social cognitive theory and the limited capacity model.

The DSMM is structured around three central propositions: (1) Media effects rely on dispositional, developmental, and social differential susceptibility variables that are conditional. (2) Media effects are cognitive, emotional, and excitative media response states and indirectly mediate the relationship between media use and media effects. (3) The differential susceptibility variables served as both predictors of media use and moderators of the effect of media use on media response states. The media effects are short- and long-term individual and conditional changes in cognitions, emotions, physiology, and behavior resulting from media use [47]. Moreover, the DSMM also recommends three essential tasks: 1) examine the factors to predict exposure to media content; 2) examine cognitive, emotional, and physiological responses; and 3) examine how the response is influenced by differential susceptibility factors. Part of the newness of the current study lies in examining all three tasks simultaneously and the corresponding research objectives.

For the purposes of this research, DSMM can focus more on group variation and subgroup differences and decrease over-generalization media effects [46]. Moreover, DSMM can also improve the conceptualization of the current study's roles and relationships between media and nonmedia variables of media effects. Hence, this model can help us understand how and why some people are more susceptible to media effects than others under certain conditions [47]. Thus, the benefits of the above coherence led us to choose this model in the current study.

III. The Purpose and Hypotheses of this Study

ASMR content provides an excellent opportunity to test the PERMA model's propositions within the DSMM framework. There has been some increase in research regarding ASMR, but little research has focused on the detailed relationships between ASMR content use and its effect on psychosocial well-being. Hence, we proposed that ASMR could improve mental health via short-term responses. Because separate research has linked the effect of tingling sensations with enhanced well-being [9] [34], it seems plausible that ASMR might indirectly influence interpersonal relationships and well-being via these responses. There are few studies to assess these claims and we use the DSMM's structure and the PERMA model's predictions to pose hypotheses about the effects of viewing ASMR. Specifically, we investigated a) users' motivations for viewing/listening; b) the effects of ASMR on different media responses (i.e., positive affect, thoughts, memories, and tingling sensations); and c) how these responses relate to media effects (i.e., positive emotions, engagement, and relationships) (see Figure 1).

3.1. *Predictors of ASMR Content Use*

DSMM proposes that dispositional, developmental, and social factors influence media use. The current study conceptualizes three differential susceptibility variables: one dispositional (openness-to-experience), one developmental (prior ASMR experience), and one social (social influence from family and friends).

Dispositional susceptibility is the person-based characteristics that modulate their susceptibility to media effec-

-ts, including genetics, gender, personality, cognition, values, beliefs, and motivations [47]. Most dispositio--nal variables have been shown to predispose media use. Openness to Experience refers to a personal preference for novel and stimulating experiences [28]. Openness to Experience individuals high in the former preferred media genres focusing on complexity and aesthetics and functions as an intrinsic motivation to promote engagement [49]. Furthermore, it is associated with curiosity and a preference for novelty; thus, higher Openness to Experience increases exposure to cultural and media products [49]. Fredborg et al. (2017) revealed that higher scores on Openness to Experience could be considered critical to the experience of ASMR [13]. In the present study, we examine Openness to Experience as a dispositional susceptibility variable that may influence people's ASMR use. The following prediction was concluded:

H1a: Openness to Experience will positively predict ASMR content use.

Developmental susceptibility is the selection and response to media due to cognitive, emotional, and social development. Individuals prefer moderated-discrepant media content relevant to their age-related comprehensi- -on schemata and emotional experiences. Its influence is vital in childhood and early adulthood but becomes less in middle and older adulthood [47]. Prior experience encountering targets resulted in higher recognition accuracy than prior experience not encountering targets [30]. A prior encounter with a stimulus is said to result in more fluent perceptual and conceptual processing of that stimulus, and the fluent processing is often unconsciously attributed to past experience and labelled as "familiarity" [30]. The prior experience includes scripts and schemata, and those who experience ASMR can trace their first ASMR-like responses back to early childhood experiences; for instance, the art shows the Joy of Painting and listening to the soothing voice of the host, Bob Ross. If someone had a childhood experience where they felt pleasure or became sleepy when their mother stroked their hair, it would be safe to say that they have experienced ASMR. Given this research, it seems likely that people who were familiar with a prior ASMR experience would be more likely to engage with ASMR as adults. Accordingly, it was predicted that:

H1b: Prior exposure to an ASMR experience will positively predict ASMR content use.

The DSMM suggests that all *social-context factors*, such as parenting style, media-specific parenting, or preferences of friends and family members, may enhance or reduce media effects. Media effects are impacted by the social environment's values, norms, and opinions, either changing their cognitions about the media message or their social environment [47]. Thus, it is crucial to consider how parents' and peers' media use influence ASMR media use. For instance, adolescents seek peer validation regarding their thoughts and experiences and align their behaviour with the norms of their group or the group they want to belong to [1]. Given the popularity of ASMR, encouragement from family and friends to use ASMR might have influenced individuals' decisions to engage. It was predicted:

H1c: Social influence will positively predict ASMR media content use.

3.2. *Predictions of Media Responses*

Based on the DSMM theory, we posited three different media response states for ASMR: cognitive (nostalgia and reappraisal), emotional (activating and deactivating affect), and excitation (tingling sensation) (see Figure 1).

The cognitive response state refers to media users selectively attending to and investing cognitive effort to understand media content. This state operationalizes concepts such as reality perception and cognitive absorption

as self-report measurement [47].

One striking feature of ASMR is that users with ASMR-like experiences might associate with fond memories from childhood. Research suggests that ASMR could be a catalyst for generating nostalgia by providing familiar, pleasant sounds from our everyday life, which leads to a sensual and emotional experience, and those kinds of media content can induce nostalgia, particularly when the content holds autobiographical importance to the user [4]. We expected ASMR users to have positive memories of earlier experiences with ASMR content. Hence, it was predicted:

H2a: ASMR content use will positively predict participants' reports of nostalgia.

Cognitive reappraisal involves a cognitive reevaluation of the emotional impact of the emotionally arousing situation through reframing the meaning of an emotional situation to change its emotional impact. It may restore emotional and physiological equilibrium, particularly in the context of stress. Research has shown that ASMR users have high scores in the cognitive reappraisal subscale of the emotion regulation questionnaire and more frequent use of cognitive reappraisal strategy, suggesting the effectiveness and better regulation of emotions and social interactions [31]. We expected that ASMR users would use cognitive reappraisal with ASMR content. As a result, it was predicted:

H2b: ASMR content use will positively predict participants' reports of cognitive reappraisal.

Excitative response states operationalize the degree of physiological arousal in response to media content as self-reported and physiological arousal characterized by the DSMM. For example, ASMR is an arousing and exciting experience and might be a more direct effect of the tingling sensations observed in increased skin conductance levels and pupil dilation [34]. Given that these response states (tingling sensations) are expected to change in response to different ASMR content, it was predicted:

H2c: ASMR content use will be associated with increased tingling sensations.

Emotional response states include all affective reactions to media content, such as the message, storyline, and the vicarious affective reactions to characters [47]. As noted earlier, ASMR videos promoted calmness and excitement while diminishing heart rate and elevating skin conductance levels (SCLs). ASMR could involve a blending system of deactivating and activating positive affect to activate spontaneously multiple patterns, ranging from bi-dimensional affect reactions to different combinations of emotions [5] [34]. It was predicted:

H2d: ASMR content use will be associated with increased positive activating and deactivating affect.

3.3. *Prediction of Media Effects on Well-Being*

PERMA includes hedonic and eudemonic components in well-being that focus on feeling good, establishing good relationships, and fully engaging with life. ASMR might contribute to well-being via positive affect, engagement, and social connection; thus, the current study examines three core elements of well-being. The media response is included as a potential mediator. Thus, the DSMM posits that media effects are indirectly mediated by the media response states of the user that originate from media use [17] [47]. Thus, the current study extends this idea to investigate the indirect effects of ASMR on "PERMA" well-being via response states. It was predicted:

H3: ASMR content use will have indirect effects on enhancing well-being via users' media response states.

3.4. *Research Questions*

Media use is the mediator between an individual or social variable and the outcomes of media use, and conditional indirect effects involve those variables to moderate the direction or strength of a media effect [17]. Social variables can moderate media response states during shared media use because users are susceptible to others' attitudes, moods, and emotional reactions. Hence, their response can be intensified or dampened during shared media use [47]. Notably, the individual or social media use variables are both motivators and moderators of the relationship between media use and responses. Hence, different attitudes and experiences motivate people to use particular media types and modify their experiences. In addition to acting as moderators, these individual and social variables can also function as predictors of media use [17]. For example, individuals with prior exposure to ASMR (relative to those without) might not only be more likely to watch/listen to ASMR but also more likely to experience nostalgia. Relatedly, socially influenced individuals (relative to others) might be more likely to engage in ASMR and develop and maintain relationships with others.

The following research questions were posed: (RQ1): Will differential susceptibility variables moderate the relationship between media exposure and responses?; (RQ2): What is the nature of the moderation that stems from introducing differential susceptibility variables to an existing relationship between ASMR media exposure and media responses?

IV. Method

4.1. *Participants*

To find answers to the research questions mentioned above, we recruited participants from around the world to answer an online survey focusing on their ASMR media preferences, ASMR perceptions, and well-being. The study utilized a quantitative survey research approach distributed openly via popular social media platforms. The survey, accessible to the general adult (≥ 18 years of age) public, was active between September 2023 and January 2024. The majority of the sample (n = 341) was recruited for this study on ASMR Reddit (e.g., https://www.reddit.com/r/asmr/), self-established ASMR subreddit (https://www.reddit.com/r/ASMRer/) and Facebook ASMR groups. A message on the website invited individuals with ASMR experience to complete a survey linked on the Webropol website, and the participants volunteered at their discretion. At the beginning of the study, participants provided informed consent that they had read and accepted the conditions. All questions assessing prior experiences, personality, and social variables were asked first, then questions about perceptions, cognition, and memories with ASMR, and finally, questions about well-being outcomes with ASMR. After completing all questionnaires, participants answered a series of standard demographic questions. The sociodemographic results are shown in Table 1. A total of 341 with a mean age of 33.8 participated in the study. Males comprised the larger part of the sample (50.1%), while 147 (43.1%) were females. They reported the following education levels and employment states: 4.1% high school, 1.2% training/apprenticeship, and 9.1% university education; 50.4% employees, 7.6% seeking employment, and 3.8% retired. Their locations are reported as follows: 5.6% Asia, 15% Europe, 12% United Kingdom, and 54.3% United States.

Table 1. A statistical description of participants' characteristics and media use (n = 341).

Variables	**Total (n = 341)**		**Variables**	**Total (n = 341)**	
Demographic characteristics	n (%)	mean (SD)	Media Use	n (%)	mean (SD)
Gender			Number of days per week ASMR use		3.89(2.21)

Variables	Total (n = 341)		Variables	Total (n = 341)	
Male	171(50.1)		Never	11(3.2)	
Female	147(43.1)		1 day per week	66(19.4)	
			2 days per week	37(10.9)	
Age at time of survey in years		33.8(11.2)	3 days per week	43(12.6)	
18-20	25(7.3)		4 days per week	39(11.4)	
21-30	124(36.4)		5 days per week	49(14.4)	
31-40	119(35)		6 days per week	25(7.3)	
41-50	40(11.9)		7 days per week	71(20.8)	
51-77	32(9.6)				
Education & Employment		4.77(1.86)	Number of minutes per day ASMR use		31.29(14.58)
High School	14(4.1)		Never	11(3.2)	
Training/apprenticeship	4(1.2)		15 mins or less	89(26.1)	
University student	31(9.1)		30 mins	146(42.8)	
Employee	172(50.4)		45 mins	51(15)	
Civil servant	21(6.2)		60+ mins	44(12.9)	
Self-employed	36(10.6)				
Unemployed/seeking employment	26(7.6)		ASMR media content use		4.16(1.55)
Retired	13(3.8)				
Others	24(7)				
Locations					
Africa	2(0.6)				
Asia	19(5.6)				
Australia	9(2.6)				
Brazil	4(1.2)				
Canada	21(6.2)				
Europe	51(15)				
Mexico	5(1.5)				
New Zealand	4(1.2)				
UK	41(12)				
USA	185(54.3)				

4.2. *Measures*

4.2.1. *ASMR Content Use*

According to the DSMM framework, media use refers to the intended use of media types and content, including a variety of factors, such as media content exposure, frequency, and length of media use [47]. ASMR videos usually show an ASMRtist producing sounds with their voices and different objects and transforming them into different scenarios. Some of the videos are the role-play narrative characters with the ASMRtist performing close to the camera and providing the viewer with personal attention. Examples include haircuts, doctor's appointments, and ear-cleaning role-play. Other types of videos involve only whispering, or only object sounds. Numerous videos reflect the subjective nature of ASMR, as different people prefer different triggers.

The intensity of ASMR use was measured using two items: asking them the number of days per week and the number of minutes per day they engaged in ASMR videos. They then rated four items about their engagement with ASMR content and trigger types (e.g., "whispering," "soft positive affirmation and kindness words," "personal attention and role-play," and "slow movements;" 1 = not at all to 7 = a lot).

4.2.2. *Individual Differences Variables*

Openness to Experience was assessed with a 3-item scale from the short-form HEXACO subscale of Openness to Experience personality [2]. A sample item was "I like people who have unconventional views" (7-point Likert scale, 1 = totally disagree; 7 = totally agree). Participants rated the extent of their prior experience with the television series, movie series, and past daily activities (e.g., school, clinic, etc.) (1 = not at all to 7 = a lot). Participants rated the extent of four items for social influence: 1) family and 3) friends who had watched ASMR videos, and 2) family and 4) friends who had encouraged them to watch (1 = not at all to 7 = a lot).

4.2.3. *Media Responses*

Nostalgia. Participants answered four items [42] and rated their agreement with statements about their experiences of nostalgic thoughts after watching ASMR videos, e.g., "ASMR gives me pleasure to think about my past," "I got nostalgic about my childhood" (1 = strongly disagree to 7 = strongly agree).

Cognitive Reappraisal. Cognitive reappraisal was assessed with a 3-item scale modified from the Emotion Regulation Questionnaire [31]. A sample item was "The ASMR videos make me feel/perceive more positive emotions (such as joy or amusement), and then I change my thoughts into more positive ones" (7-point Likert scale, 1 = totally disagree; 7 = totally agree).

Tingling sensations. Participants answered two items from Roberts's (2019) ASMR-15 score [51], e.g., the sensation feels "tingly" (7-point Likert scale, 1 = totally disagree; 7 = totally agree).

Activating and deactivating positive affect. Participants answered five items from Roberts's (2019) ASMR-15 score [51] and Russell's (1980) circumplex model of affect [39]. Activating positive affect was measured in 2-items (e.g., "euphoric, pleasurable"), while deactivating positive affect was measured in 3-items (e.g., "blissful, calm, and relaxed"). Participants rated all affect items on a 7-point scale from 1 = totally disagree; 7 = totally agree.

4.2.4. *Media Effects*

Well-Being

Although this was not an experiment, we conceptualized the following as possible media effects, given the PE-

-RMA model and the DSMM frameworks. The survey consisted of nine items adapted from the PERMA-Profiler, based on the work of Butler and Kern. (2016), who identified five factors using factor analysis: Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment [7]. The present study focuses mainly on the three factors in the PERMA model by Seligman (2012), including 3-items of each positive emotions, engagement, and relationships category [43]. A sample item was "I always feel joyful after watching or hearing ASMR videos." All items were asked about their experiences after watching ASMR videos and were rated on a 7-point scale (1 = strongly disagree to 7 = strongly agree).

4.2.5. *Covariates*

Two covariates were included: age and gender. Participants reported 1) their age in years and 2) whether they described themselves as male (coded as 1), female (coded as 2), or non-binary (coded as 3).

4.3. *Data Analysis*

Data were analyzed using SPSS 28.0 and AMOS 28.0 package programs. Moreover, with the inclusion of multiple mediators in the model during the investigation of media effects, the parameter biases due to omitted variables are reduced [35]. Such analyses have the further benefit of capturing the relative magnitudes of the specific indirect effects associated with all mediators that focus on the critical points in the DSMM's propositions [35] [47]. Hence, a structural equation model (SEM) was used to test hypotheses and research questions. SEM can test a theoretical model with multiple dependent and independent variables and effectively assess their interrelationships. The current analysis requires estimating the measurement and structural models. After testing statistical assumptions, we calculated descriptive statistics and examined measurement and structural models.

4.3.1. *Structural Model*

A mixed serial–parallel mediation with two mediating mechanisms (e.g., media content use and media responses) was used to analyze the structural model [16]. Moreover, we performed AMOS and user-defined estimands to assess the total and specific indirect effects of ASMR content use on the PERMA model domains (positive emotions, engagement, and relationships) as mediated via each ASMR response individually. A parallel mediator model is presented in the equations below:

$$M_i = i_{Mi} + a_iX + e_{Mi} \text{ for all } i = 1 \text{ to } 5 \quad (1)$$

$$Y = i_Y + c'X + \sum_{i=1}^{k} b_i M_i + e_Y \text{ for all } i = 1 \text{ to } 5 \quad (2)$$

Equation (2) indicates that the indirect effect of ASMR on a particular media effect (PERMA model domains) (Y) is regressed on random intercept (i_Y), ASMR content use (X), media response states (M_i), and error (e_Y). The specific indirect effect of X on Y through $M_i = a_i*b_i$ for five response states. In equations (1) and (2), a_i represents the effect of X on M_i, b_i represents the effect of M_i on Y, and c' represents the effect of X on Y holding on all k M variables constant. In addition, 2000 bootstrapping samples and 95% bias-corrected confidence intervals were used to test the significance of indirect effects. The model tested included all latent variables, as well as all the proposed direct, indirect, and interaction effects.

4.3.2. *Moderation Analyses*

In order to examine significant interactions, the AMOS user-defined estimands guided by Hayes (2015) were

used to investigate the differential susceptibility variables' moderating role [16]. A simple moderated mediator model is presented in the equations below.

$$M = i_M + a_1X + e_M \quad (1)$$

$$Y = i_Y + c'X + (b_1 + b_2X)\, M + e_Y \quad (2)$$

Equation (2) indicates that the moderating indirect effect of ASMR on a particular media response state (Y) is regressed on random intercept (i_Y), differential susceptibility variables (X), ASMR content use (M), the interaction between the two (X.M.), and error (e_Y). The conditional indirect effect of X interaction with M on Y = a_1*(b_1 + b_2*X). The coefficients a_1, b_1, and b_2 were represented by the effects of X on M, M on Y, and X.M. on Y.

Serial Multiple Mediator Model [16] is presented in the equations below.

$$Y = i_Y + c'_1X + c'_2W + c'_3XW + b_1M_1 + b_2M_2 + e_Y \quad (3)$$

Equation (3) indicates that the moderating indirect effect of ASMR on a particular PERMA domain (Y) is regressed on random intercept (i_Y), differential susceptibility variables (X), differential susceptibility variable assigned as a moderator (W), the interaction between the two differential susceptibility variables (X.W.), ASMR content use (M_1), media response state (M_2), and error (e_Y). The conditional indirect effect analysis was performed with 2000 bootstrap samples within 95% confidence intervals.

V. RESULTS

Means, standard deviations, and bivariate correlations among the research variables are presented in Table 2. Almost all variables were significantly and positively related to each other. Moreover, the analysis of the measurement model is not described in detail for simplicity. The factor loadings suggested an adequate fit for each latent factor (i.e., all items loaded > 0.40). Moreover, all variables were assessed for normality of distribution, indicating that the univariate normality assumption was satisfied [22]. The latent variables' composite reliability (C.R.), average variance extracted (AVE), and maximum shared variance (MSV) were calculated to establish and provide evidence of reliability, discriminant, and convergent validity. Model fit was tested using maximum likelihood estimation, and the final confirmatory factor analysis (CFA) results revealed an acceptable fit for the proposed model ($\chi2$ = 909.55; df = 491; p = 0.00; $\chi2$/ df = 1.85; CFI = 0.93, TLI = 0.91, GFI = 0.87, IFI = 0.93, RMSEA = 0.05; SRMR = 0.05). The results from the SEM analysis that was performed to test the research hypotheses showed that the proposed model had an acceptable fit ($\chi2$ = 1028.17; df = 523; p = 0.00; $\chi2$/df = 1.966; CFI = 0.914, TLI = 0.902, GFI = 0.847, IFI = 0.915, RMSEA = 0.053; SRMR = 0.073). Hypotheses and research questions were assessed using this model. Table 3 and Figure 2 show the hypotheses testing results.

Table 2. Mean, SD, and correlation between study variables.

		Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1	Openness-to-experience	4.99	1.12	*0.539*											
2	Prior ASMR experience	4.09	1.72	0.14	*0.663*										
3	Social influence	1.59	0.8	0.297**	0.18***	*0.548*									

4	Media Content Use	4.16	1.55	0.172***	0.284*	0.311*	*0.656*								
5	Nostalgia	3.28	1.67	0.237**	0.334*	0.284*	0.287*	*0.775*							
6	Cognitive Reappraisal	3.87	1.78	0.319*	0.22**	0.377*	0.507*	0.512***	*0.794*						
7	Tingling Sensation	4.8	1.6	0.275***	0.438*	0.204***	0.303*	0.162***	0.327*	*0.616*					
8	Deactivating Affect	6.17	1.26	0.207***	0.358*	0.109	0.373*	0.139*	0.35*	0.455*	*0.922*				
9	Activating Affect	4.59	1.67	0.354*	0.372*	0.289*	0.474*	0.344*	0.544*	0.788*	0.508*	*0.787*			
10	Positive Emotions	4.05	1.62	0.332*	0.209**	0.332*	0.442*	0.421*	0.819*	0.324*	0.382*	0.614*	*0.889*		
11	Engagement	3.06	1.62	0.352*	0.18***	0.352*	0.282*	0.529*	0.732*	0.359*	0.187**	0.44*	0.735*	*0.819*	
12	Relationships	2.99	1.28	0.387*	0.133***	0.387*	0.416*	0.47*	0.685*	0.365*	0.178**	0.472*	0.645*	0.745*	*0.831*

Note. The square roots of AVE values are the bold elements in the diagonal, Significant level; * $p < 0.001$; **$p < 0.01$; and***$p < 0.05$.

Table 3. Direct effects and indirect effects of the mixed serial-parallel mediation model.

Direct Effects	**Direct β**
Differential susceptibility variables-->Media content use	
Openness-to-experience-->Media content use	0.344**
Prior ASMR experience-->Media content use	0.382**
Social Influence--> Media content use	0.135
Media content use-->Media Response States	
Media content use-->Nostalgia	0.468**
Media content use-->Cognitive Reappraisal	0.745**
Media content use-->Tingling Sensation	0.758**
Media content use-->Deactivating Affect	0.585*
Media content use-->Activating Affect	0.904**
Media Response States-->Positive Emotions	
Nostalgia-->Positive Emotions	0.012
Cognitive Reappraisal-->Positive Emotions	0.919**
Tingling Sensation-->Positive Emotions	-0.268***
Deactivating Affect-->Positive Emotions	0.01
Activating Affect-->Positive Emotions	0.202***
Media Response States-->Engagement	
Nostalgia-->Engagement	0.227**

Cognitive Reappraisal-->Engagement	0.92*
Tingling Sensation-->Engagement	0.21
Deactivating Affect-->Engagement	-0.149***
Activating Affect-->Engagement	-0.332***
Media Response States-->Relationships	
Nostalgia-->Relationships	0.182***
Cognitive Reappraisal-->Relationships	0.759**
Tingling Sensation-->Relationships	0.262
Deactivating Affect-->Relationships	-0.176**
Activating Affect-->Relationships	-0.206

Indirect Effect	**Mediator**	**Outcome**	**Specific Indirect β**	**Boot LLCI**	**Boot ULCI**	**Total**	**Boot LLCI**	**Boot ULCI**
Media Content Use	Nostalgia	Positive Emotions	0.006 (0.010)	-0.114	0.126	0.675*	0.528	0.791
	Cognitive Reappraisal		0.681(1.226) **	0.761	1.926			
	Tingling Sensation		-0.205 (-0.364) ***	-3.029	-0.041			
	Deactivating Affect		0.006 (0.010)	-0.119	0.124			
	Activating Affect		0.183 (0.327)	-0.12	1.688			
Media Content Use	Nostalgia	Engagement	0.099 (0.191) **	0.077	0.349	0.564**	0.407	0.703
	Cognitive Reappraisal		0.681(1.229) **	0.828	1.957			
	Tingling Sensation		0.159 (0.286)	-0.143	1.26			
	Deactivating Affect		-0.088 (-0.156) **	-0.312	-0.047			
	Activating Affect		-0.3 (-0.538) ***	-1.621	-0.042			
Media Content Use	Nostalgia	Relationships	0.078 (0.115) ***	0.025	0.292	0.56**	0.41	0.697
	Cognitive Reappraisal		0.564 (0.768) **	0.457	1.313			
	Tingling Sensation		0.199 (0.270)	-0.006	1.844			
	Deactivating Affect		-0.106 (-0.140) **	-0.319	-0.046			
	Activating Affect		-0.186 (-0.253)	-1.282	0.103			

Note: * p < 0.001; **p < 0.01; and***p < 0.05. Abbreviations: BootLLCI & BootULCI Bootstrap lower and upper-level confidence interval. Unstandardized (in brackets) coefficients.

Table 4. Conditional indirect effects of ASMR on response and well-being.

Conditional indirect effect of ASMR on response (Nostalgia)				
Indirect effect ASMR (Social influence x prior ASMR experience)		β	95% bias-corrected bootstrap CI	
Moderator: Social influence			Boot LLCI	Boot ULCI

S (-1SD)		-0.285**	-0.523	-0.134
S (mean)		-0.237**	-0.456	-0.1
S (+1SD)		-0.189**	-0.384	-0.063
Conditional indirect effect of ASMR on response (Deactivating Affect)				
Indirect effect of ASMR (Social influence x media content use)		β	95% bias-corrected bootstrap CI	
Moderator: Social influence			Boot LLCI	Boot ULCI
S (-1SD)		0.519***	0.044	2.009
S (mean)		0.46***	0.032	1.65
S (+1SD)		0.401***	0.023	1.375
Conditional indirect effect ASMR of Social influence x Prior ASMR experience on media effect				
Indirect effect ASMR of social influence x prior experience on well-being via nostalgia	Outcome variables	β	95% bias-corrected bootstrap CI	
			Boot LLCI	Boot ULCI
S (-1SD)	Positive Emotions	-0.003	-0.041	0.035
S (mean)		-0.002	-0.034	0.028
S (+1SD)		-0.002	-0.028	0.022
S (-1SD)	Engagement	-0.066**	-0.149	-0.028
S (mean)		-0.055**	-0.13	-0.021
S (+1SD)		-0.043**	-0.107	-0.014
S (-1SD)	Relationships	-0.040**	-0.109	-0.011
S (mean)		-0.033**	-0.094	-0.009
S (+1SD)		-0.026***	-0.076	-0.006

Note: * p < 0.001, ** p < 0.01, *** p < 0.05. Abbreviations: Boot LLCI & Boot ULCI Bootstrap lower and upper-level confidence interval.

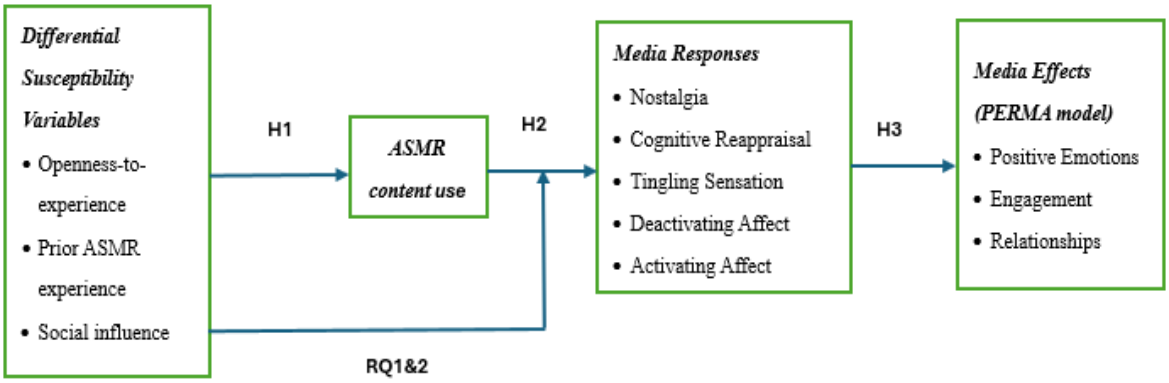


Fig. 1. Conceptual diagram of hypotheses and research questions. Note: Differential susceptibility variables were expected to predict exposure to ASMR content use (Hypothesis 1). In addition, exposure to ASMR content use was expected to lead to media responses

(Hypothesis 2) and to indirectly lead to media effects (Hypothesis 3). Two research questions were asked: Will differential susceptibility variables moderate the relationship between ASMR media exposure and responses (Research Question 1)? What is the nature of the moderation that stems from introducing differential susceptibility variables to an existing relationship between ASMR media exposure and media responses (Research Question 2)?

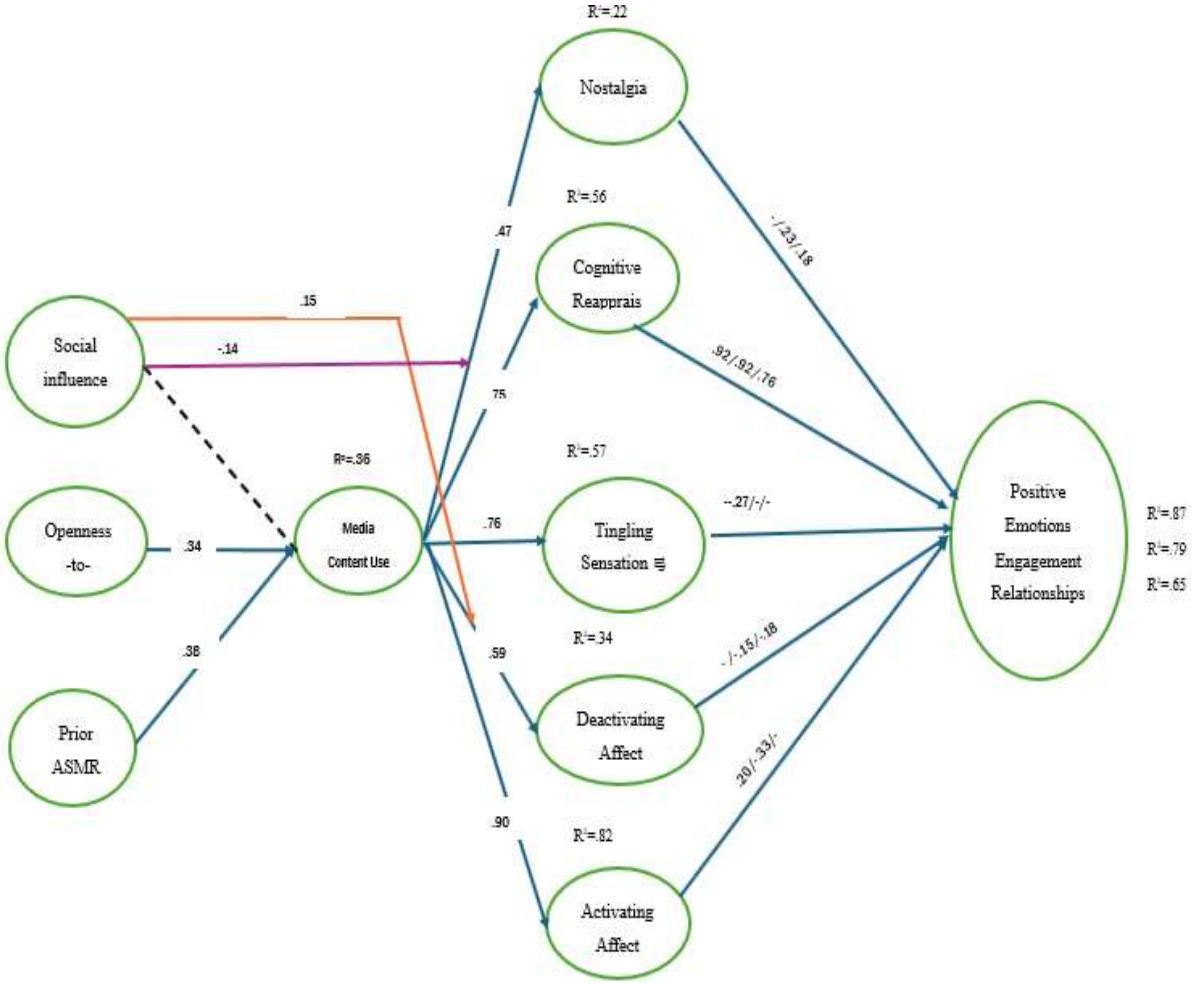
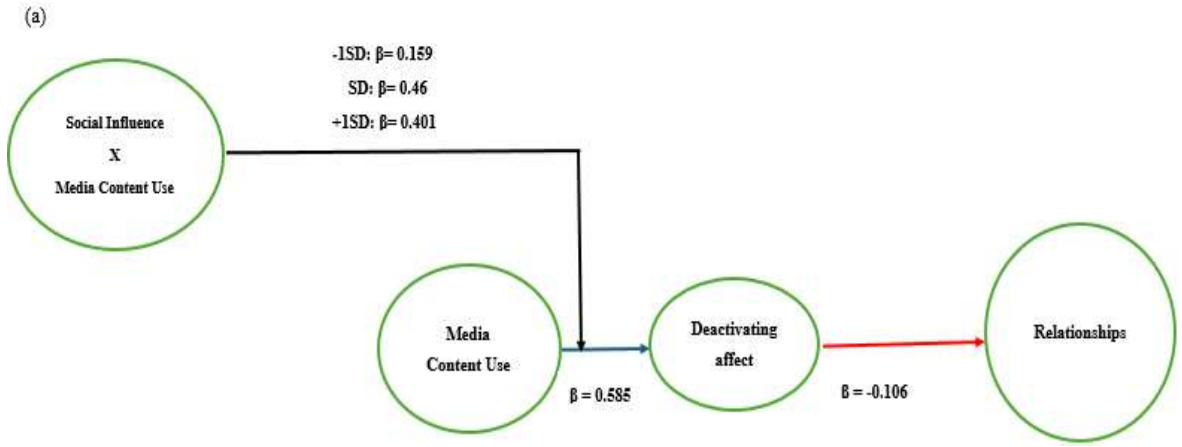


Fig. 2. A mixed serial–parallel mediation model on the association between differential susceptibility variables (openness-to experience, prior ASMR experience, and social influence) and media effects (PERMA model-positive emotions, engagement, and relationships), including the mediators' media content use and media response states (nostalgia, cognitive reappraisal, tingling sensation, deactivating affect and activating affect). Numbers indicate path coefficients. Dashed lines indicate non-significant paths; continuous lines indicate significant paths. The orange line indicates the path of the deactivating affect through social influence on the ASMR content use. The purple line indicates the path of nostalgia through the interaction of social influence and prior ASMR experience on the ASMR content use.



(b)

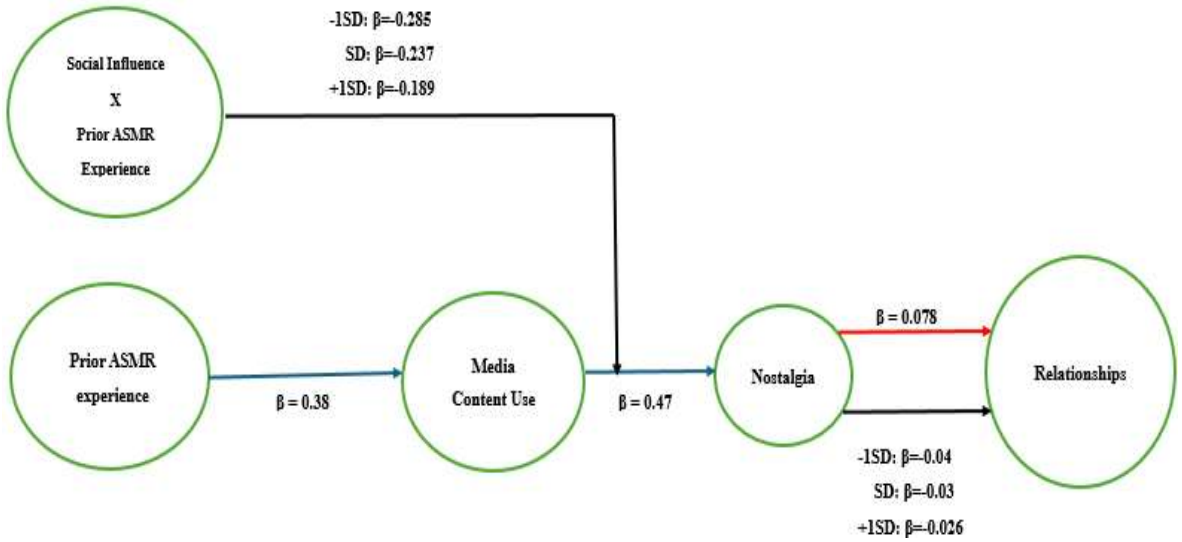


Fig. 3. The moderating role of social influence on the mixed serial-parallel mediation model (a) the moderation of social influence interacted with ASMR content use on the deactivating affect; (b) the moderation of social influence interacted with prior ASMR experience on nostalgia via ASMR content use. Blue lines indicate the direct effects of the path among differential susceptibility variables (social influence and prior ASMR experience, ASMR content use, and media response states (deactivating affect and nostalgia. Red lines indicate the indirect effects of ASMR on media effects (relationships) via media response states (deactivating affect and nostalgia). Black lines indicate the conditional indirect effects of social influence interacted with differential susceptibility variables (prior ASMR experience) or ASMR content use on media response states (deactivating affect and nostalgia) and media effects (relationships).

5.1. *Hypothesis 1: Predicting Media Use*

Hypothesis 1 stated that ASMR media content use would be a) positively related to Openness to Experience, b) positively related to prior ASMR experience, and c) positively related to social influence from family and peers. As shown in Figure 3, ASMR media content use was positively predicted by Openness to Experience ($\beta = 0.334$, $p < 0.01$) and prior exposure ($\beta = 0.382$, $p < 0.01$) but exhibited no relationship with social influence from family and peers. Hypotheses 1a and 1b were supported, while Hypothesis 1c was not. For the individual variables and ASMR content use, the result shows a significant link between the dispositional variable of Openness to Experience and ASMR and is consistent with previous research [13] [28]. Concerning developmen--tal variables, the participants who had experienced previous ASMR-like events (e.g., past activities in school and clinics) and consumed previous ASMR-like television programs were more prone to ASMR media use later. These findings are linked with the previous experiences of the childhood period of ASMR [34].

5.2. *Hypothesis 2: Predicting Media Responses*

Hypothesis 2 stated that ASMR content use would be a) positively associated with nostalgia, b) positively associated with cognitive reappraisal, c) positively associated with tingling sensations, and d) positively associated with positive activating and deactivating affect. Results revealed that ASMR media content use was positively associated with nostalgia ($\beta = 0.468$, $p < 0.01$), cognitive reappraisal ($\beta = 0.745$, $p < 0.01$), tingling sensations ($\beta = 0.758$, $p < 0.01$), positive activating affect ($\beta = 0.585$, $p < 0.05$), and deactivating affect ($\beta = 0.904$, $p < 0.01$). Hypothesis 2a, 2b, 2c, and 2d were supported.

5.3. *Hypothesis 3: Predicting Media Effects*

Hypothesis 3 stated that ASMR media content use would indirectly affect media effects via media response states. Results revealed that there were significant total indirect relationships between ASMR media content use and all three well-being outcomes (Positive emotions: $\beta = 0.657$, $p < 0.001$, 95% CI [0.528, 0.791]; engagement: $\beta = 0.564$, $p < 0.01$, 95% CI [0.407, 0.703]; and relationships: $\beta = 0.560$, $p < 0.01$, 95% CI [0.410, 0.697]). The specific indirect effects are shown below. There was a significant indirect relationship between ASMR media content use and positive emotions via cognitive reappraisal ($\beta = 1.226$, $p < 0.01$, 95% CI [0.761, 1.926]) and tingling sensations ($\beta = - 0.364$, $p < 0.05$, 95% CI [-3.029, - 0.041]). As such, ASMR media content use was associated with more cognitive reappraisal and less tingling sensations, which was associated with higher positive emotions. Moreover, there was a significant indirect relationship between ASMR media content use and engagement via nostalgia ($\beta = 0.191$, $p < 0.01$, 95% CI [0.761, 0.349]), cognitive reappraisal ($\beta = 1.229$, $p < 0.01$, 95% CI [0.828, 1.957]), deactivating affect ($\beta = - 0.156$, $p < 0.01$, 95% CI [- 0.312, - 0.047]), and activating affect ($\beta = - 0.538$, $p < 0.05$, 95% CI [-1.621, - 0.042]). Hence, ASMR media use was associated with more frequent reflection on happy memories (nostalgia) and cognitive reappraisal and less deactivating and activating affect, which was associated with higher engagement. Furthermore, there was a significant indirect relationship between ASMR media content use and relationships via nostalgia ($\beta = 0.115$, $p < 0.05$, 95% CI [0.025, 0.292]), cognitive reappraisal ($\beta = 0.768$, $p < 0.01$, 95% CI [0.457, 1.313]), and deactivating affect ($\beta = - 0.140$, $p < 0.01$, 95% CI [- 0.319, - 0.046]). Thus, ASMR media use was associated with less deactivating affect, more nostalgia, and cognitive reappraisal, which was associated with better relationships. Hypothesis 3 was partially supported.

5.4. *The Interaction between Social Influence and ASMR*

In line with Research Question 1, social influence interacted with ASMR content to predict positive deactivating affect but this indirect effect reduced by increasing the social influence (–1 S.D., $\beta = 0.519$, $p < 0.05$, confidence interval [0.044, 2.009]; mean, $\beta = .46$, $p < .05$, confidence interval [0.032, 1.65]; +1 S.D., $\beta = 0.401$, $p < 0.05$, confidence interval [0.023, 1.375]). This moderated relationship between ASMR content use and positive deactivating affect suggests that social influence promotes their experience of positive affect in ASMR, and the individuals with high social influence have more affective reactions than those with low social influence. However, the negative indirect effect of the positive affect on engagement and relationships prevents the overly positive response to the abovementioned interactions (Table 4 and Figure 3a). No other differential susceptibility variables interacted with ASMR content.

Moreover, social influence interacted with prior ASMR experience to predict nostalgia through ASMR content use. The strength of the positive relationship between ASMR content and nostalgia was weakened by social influence but the indirect effect reduced by increasing the social influence (–1 S.D., $\beta = -0.285$, $p < 0.01$, confidence interval [-0.523, -0.134]; mean, $\beta = -0.237$, $p < 0.01$, confidence interval [-0.456, -0.1]; +1 S.D., $\beta = -0.189$, $p < 0.01$, confidence interval [-0.384, -0.063]). There were also significant indirect relationships between ASMR content use and two well-being outcomes via nostalgia, moderated by the interaction between social influence and prior ASMR experience. ASMR content use was negatively associated with engagement and relationship well-being outcomes via a reduction in nostalgia, suggesting that socially influenced individuals competed with prior ASMR experiences to recall positive memories about themselves.

However, the magnitude of the negative indirect effect of nostalgia on two well-being outcomes was weaker among people higher in social influence (ranging from -0.026 to -0.04) than it was among people low in social

influence (ranging from -0.04 to -0.066) (see Table 4). This difference suggests that high social influence improved the consistency between prior ASMR experiences and ASMR content and more readily recalled autobiographical memories. This finding is important: Although the positive indirect effect of nostalgia on two well-being outcomes through ASMR content use was relatively equivalent across all users, the prevention of overly positive engagement and relationships was achieved via the negative conditional indirect effect of nostalgia at different levels of social influence interacted with prior experience (see Figure 3b). The social influence is now shown to act as a fine-tuning moderator to adjust both the direct and indirect effects of nostalgia for ASMR content use through interaction with prior ASMR experiences. In line with Research Question 2, the moderator of social influence has two roles, acting antagonistically in nature (see Figure 3). On the one hand, it acts as an enhancer to up-regulate the deactivating positive affect via interacting with ASMR content use. On the other hand, it acts as a repressor to down-regulate nostalgia and well-being (engagement and relationships) via interacting with prior ASMR experience.

VI. Discussion

The current study used Valkenburg and Peter's (2013) DSMM and PERMA model to investigate predictors, processes, and boundary conditions of the effects of ASMR responses on well-being [46]. We also used theorizing and research from positive psychology to positive media effects to form predictions within that framework. It is the first study to unite the DSMM with the PERMA model and the first to link the distinguishing characteristics of ASMR videos with well-being outcomes. First, the results provide evidence that dispositional and developmental factors differentially relate to aspects of ASMR. Consistent with previous research, Openness to Experience predicts individuals' media use, and engaging ASMR was shaped by prior ASMR experience.

Contrary to our predictions, participants' social influence from family and friends did not predict ASMR use. Second, we considered an array of possible media responses to ASMR content use. In sum, we tested five possible responses: nostalgia, cognitive reappraisal, tingling sensations, deactivating, and activating positive affect. We found significant associations between ASMR content use and these media responses, even after controlling for demographic variables. The more individuals engaged in ASMR, the more likely they reported experiencing nostalgia, cognitive reappraisal, tingling sensations, deactivating, and activating positive affect. Moreover, we tested the indirect effects of ASMR content on well-being in the PERMA model via our proposed response states. For the positive emotion, ASMR content use was associated with higher positive emotion via increases in cognitive reappraisal but reduced positive emotion via increases in tingling sensations. For the engagement, ASMR was associated with increasing engagement via increases in nostalgia and cognitive reappraisal but reduced engagement via increases in positive activating and deactivating affect. For the relationships, ASMR was associated with improved relationships via increases in nostalgia and cognitive reappraisal but opposite effects via increases in positive deactivating affect. Furthermore, we investigated how individual difference variables conditionally modify ASMR and well-being relationships. The current findings show that social influence acts as the moderator to up- and down-regulate response states (deactivating positive affect and nostalgia) and further regulate the well-being (only by nostalgia) via interacting with a mediator (ASMR content use) or individual variable (prior ASMR experience).

In the DSMM, the mutual inclusiveness among cognitive, emotional, and excitative response states was described as the mixing console, and three console sliders have different combinations of levels depending on

different media content use [47]. The current study showed that the three sliders are high in the level corresponding to the direct effect of ASMR content use. However, ASMR content use was associated with beneficial effects on all three well-being outcomes via different combinations of indirect effects for the three sliders. Hence, the three slides have two aspects in response to the ASMR content use: one for the direct response to ASMR and the other for the media effects through the indirect regulation of responses. For the positive emotion, the result shows that positive affect is insignificantly associated with positive emotions. The semantic space of positive emotional experience is rich and highly dimensional, each with its patterned profile of associated responses. The boundaries between emotion categories are fuzzy and bridged by smooth gradients of affective meaning following gradients of emotion [10]. Moreover, the tingling sensations generally increased arousal and low-grade euphoric experience, and the current result is opposite to the previous research about the beneficial effects of tingling sensations and hedonic euphoria induced by ASMR. Some ASMR users reported mood improvement in the absence of tingling sensations, and some even felt tingling as aversive in the previous research [12]. Furthermore, a significant and positive indirect relationship existed between ASMR and positive emotions via cognitive reappraisal. Hence, ASMR was associated with higher positive emotions through the meaningful and cognitive aspects. Overall, ASMR videos are related to inducing more meaningful emotional experiences rather than solely the hedonic aspects of emotions because the positive affect dimensions capture only 30% of the variance in emotional experience [36]. Furthermore, ASMR is now shown to have a positive indirect association with positive nostalgia emotion induced by cognitively reframing negative experiences of the specific ASMR content [38]. In addition, ASMR is positively and indirectly associated with engagement and relationships via both cognitive reappraisal and nostalgia. ASMR video content enhances perceptual reappraisal fluency to elicit a high level of flow experience in daily life and maintain perceived social support [24]. Individuals with prior weak tie ASMR experience were more likely to experience nostalgia and positively related to both engagement and relationships through indirect effects of nostalgia. However, this indirect effect of ASMR nostalgia was conditionally reduced by strong tie social influence to stabilize the relationships.

Finally, ASMR is negatively and indirectly associated with engagement and relationships via deactivating and activating positive affect. The positive deactivating affect, such as calm and content, is associated with the low-approach (liking) system, whereas the positive activating affect, such as excitement, refers to the high-approach (wanting) and reward acquisition [29]. The amplification of both “liking” and “wanting” leads to exacerbated hedonic reactivity and consequently relates to overconsumption of food and substance use, and addicted people tend to confuse pleasure with happiness when linking emotional states to their addictive activities [15]. Hence, the negative association of the indirect ASMR effect with engagement by both activating and deactivating positive affect would be one of the beneficial mechanisms for addiction abstinence. In fact, ASMR has been shown to reduce psychological drug cravings, state anxiety, and attentional bias for drug-related cues among women for detoxification [18].

These findings suggest that ASMR use can lead to an array and regulation of positive, short-term outcomes through the mixed serial-parallel direct and indirect effects of various responses modulated by individual factors related to well-being, demonstrating that the unique features of ASMR can contribute to various positive social and emotional outcomes in everyday life.

6.1. *Limitations*

The most obvious limitation is the cross-sectional nature of the research; thus, we need help to draw causality conclusions. Moreover, the cross-sectional correlational studies cannot establish within-person changes, and minor average media effects can have important implications for some media users. Hence, future research may use the dynamic structural equation modelling combined with multilevel analysis and (N = 1) time series analysis to investigate the longitudinal effects of multiple persons while at the same time allowing for group-differential and person-specific differences between media use and time series of well-being and assess the causality of the directions. Second, we only gathered data from adults aged 18 or older (18-77), given the need for parental consent for any participants under 18. The failure to include younger adolescents is undoubtedly a limitation, given ASMR engagement with teenagers. Hence, future research could expand on the current findings by investigating teens' reactions to ASMR and assessing whether they obtain benefits like those of adult users. Despite these limitations, as the variables were selected based on theoretical frameworks, the results support some of the DSMM and PERMA Model propositions and their relevance for ASMR media use. Moreover, ASMR seems easy to attain calmness and positive affect, but how long can both states be sustained? It would be necessary to research the long-term sustainability of ASMR's calmness and positive affect in the future, which could not be answered by our current data.

VII. Conclusion

7.1. *Theoretical Implications*

Our study represents one of the pioneering attempts at proposing and empirically testing the underlying mechanisms of how individuals process ASMR contexts and react to well-being based on the PERMA and DSMM framework. There are few studies that analyzed how ASMR affects psychosocial well-being [28]. Our study confirms the significance of the eudaimonic component, not the hedonic and excitatory tingling sensations of ASMR, captures and enhances the positive emotions of well-being, thereby supporting the ASMR responses and well-being relationship in the framework. Our results do not align with previous studies [12] [34] highlighting the critical role of hedonic and excitatory response in ASMR and well-being but reveal the influencing mechanisms of eudaimonic responses (cognitive reappraisal and nostalgia) to well-being connection.

Hedonic and eudaimonic components are very similar at the phenomenological level but not identical and have different and opposite indirect effects. Eudaimonic orientation was linked with a balance of broad (prosocial behaviours/values and future time perspective) and narrow concerns (specific egoistic values, e.g., influence/ ambition). However, hedonic orientation was primarily linked with a narrow focus of concern, including specific egoistic values (power/wealth) and present hedonistic time perspective [33]. Our study expands the scope of the current framework of how people (through viewing ASMR) represent different kinds of positive experiences in their cognitive life script structure. It also enhances the literature on well-being by shedding light on the ASMR effect processing.

7.2. *Practical and Societal Implication*

Our findings regarding the possible intervention avenues using ASMR videos and ASMR intervention can directly target public mental health. First, ASMR might help people deal with everyday stressful societal experiences, such as negative memory biases and conflicts in interpersonal relationships. Second, ASMR has been preliminarily proven to reduce psychological cravings for abstinence drug use [18]. Addiction is shown as a

vicious cycle in three dysfunctional domains/stages: incentive salience/habits, withdrawal/negative emotional states, and executive function deficits. The hedonic effect and stress act as reinforcers to be associated with the incentive salience/habits intoxication and withdrawal stage but persist throughout the addiction cycle. Both reinforcers can coexist and be perpetuated by protracted abstinence and rejoin the cue-, drug-, and stress-induced triggers in the addiction cycle [23]. The current findings are also compromised with previous intervention suggestions, including the improvement of attentional bias through cognitive reappraisal [32], "rescript" drug memory reconsolidation and extinction [3] (Barak & Goltseker, 2021), and reward retraining [20]. ASMR could be developed as an idiosyncratic content-based video aimed at changing individual interactions of situational stimulus interpretations, memories, habitual or current emotional states, and behaviors. The results now show ASMR to be associated with increased cognitive reappraisal and nostalgia (for all users), decreased nostalgia (for socially influenced and prior ASMR-experienced users), and decreased positive affect (for all users). Hence, future research should examine the specific features of ASMR that promote these beneficial outcomes, examine the conditions under which media evokes or reduces reaction, and examine the implications of these dual processes for well-being. Apart from broader direct interventions to address mental health and functioning, ASMR can also be addressed indirectly through the initiatives to promote and strengthen these additional psychosocial resources in education and health settings.

7.3. *Future Research*

We aimed to capitalize on the opportunity afforded by ASMR to examine whether there was evidence that ASMR was associated with well-being and to provide a new account of how and for whom well-being might occur. Our results show that at a moment in time when engaging ASMR video provoked people more meaningful positive emotions, regulated nostalgia, and motivated ASMR users to reappraise their stressful life situations, these experiences also have enhanced users to create or deepen their relational well-being. We hope that future research can build on this work and continue to expand our understanding of ASMR and its positive media effects.

VIII. Statements and Declarations

The authors declare no conflicts of interest. The research complied with the ethical standards. All participants were adults who gave their informed consent and participated voluntarily in this research. The first author was su-
-pported by stipends from the Otto A. Malm Foundation.

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AUTHOR'S PROFILE

First Author
Chan Ko Wai, MA, is a doctoral candidate at the Faculty of Education, University of Lapland, Finland. His research interests are on well-being and social media, especially research on aunonomous sensory meridian response. ORCID: https://orcid.org/0000-0002-3189-5447

Second Author
Satu Uusiautti, PhD, is the professor of educational psychology at the University of Lapland, Finland. Her research interests are positive psychology and development, well-being, and human flourishing, as well as positive leadership. ORCID: https://orcid.org/0000-0002-2409-6460

Third Author
Satu-Maarit Korte, PhD, is Docent of Learning Environments and Technology and a University Lecturer of Changing Education from the University of Helsinki, Finland. Her key research interests are learning environments and, within them, particularly technology-mediated communication and learning, human-computer/AI interaction, media use and psychosoci--al well-being, embodied cognition, intercultural and international comparative education, and neural foundations of learning and memory. ORCID: https://orcid.org/0000-0001-9768-3431