

The Prevalence, Emotional Impact and Perceived Personal Significance of Music-Evoked Autobiographical Memories among Healthy Vietnamese Adults

Bao Minh Chu

Grade 12, Hanoi Amsterdam High School For The Gifted

Abstract

This study has examined the prevalence, emotional impact and perceived personal significance of music-evoked autobiographical memories (MEAMs) among healthy Vietnamese adults. By using an online quantitative survey with 61 participants (aged between 30 to 70 years), the research has investigated how frequently music triggers personal memories, the emotional outcomes of these memories, and their subjective importance to identity and self-continuity. Results revealed that MEAMs are highly prevalent, with 91.8% of participants experiencing them sometimes or often. Nostalgia emerged as the dominant emotional state (86.9%), accompanied by a mix of happiness and bittersweet feelings. Emotional intensity was moderately high and strongly correlated with perceived personal importance ($\rho = .57, p < .001$) and identity connection ($\rho = .68, p < .001$). No significant differences were found across preferences for traditional Vietnamese versus Western/contemporary music genres. These findings highlight MEAMs as a frequent, emotionally potent and personally meaningful phenomenon in Vietnamese adults, extending Western MEAM research to a Southeast Asian context. The study pinpoints music as an accessible, low-cost tool for emotional regulation and identity maintenance, with significant implications for mental health promotion and aging support in Vietnam and similar rapidly aging societies.

Keywords: Music-evoked autobiographical memory; MEAM; Autobiographical Memory; Reminiscence bump; Nostalgia; Emotional Regulation; Identity Coherence, Personal significance; Vietnamese adults; Southeast Asia; Cultural moderators; Music and memory; Aging; Mental well-being; Quantitative survey; Non-Western population

Introduction

The Role of Memory

Memory is fundamental to human cognition. As Squire noted, memory represents the capacity to encode, store and retrieve information (Squire, 2009). It serves as the foundation for learning, reasoning, decision-making and developing a sense of personal identity (Sridhar et al., 2023). Recent developments in Science and Technology have urged scholars and researchers to reconsider and extend the traditional definition of memory (Zlotnik & Vansintjan, 2019).

While molecular neurobiology has demonstrated that memory is largely a neurochemical process which encompasses conditioning and any form of stored experience, information technology has led people to

propose that cognition can be extended. In this new definition, Zlotnik & Vansintjan (2019) suggest that memory may be stored outside the brain. In light of this extended definition, research needs to consider the role of memory as more than simply being "the capacity to store and retrieve information". Memory still requires integration - this means a relationship where one biological or chemical process is incorporated into another, changing both permanently. This research paper will focus on the biological memory systems within the human brain. Memory serves as a critical adaptive function in people's daily lives. It enables us to learn and apply knowledge (Cleveland Clinic, 2024). This includes recalling the steps, solving a Math problem, performing a familiar skill, such as riding a bike, and using past experiences to make better decisions, such as avoiding a hot pan after getting burned once. Furthermore, beyond its practical utility, memory defines personal beliefs, preferences, worldviews and identity (Madan, 2023). The research indicates that memories of past experiences can greatly influence who we are and can become in the future, in terms of both self-perception and personal growth and development.

Types of Memory

Memory is classified into three main categories: sensory memory, short-term memory, and long-term memory (Raslau et al., 2014). Each functions on different timescales and serves distinct cognitive functions (Camina & Güell, 2017; Allen, 2024). Sensory memory represents the initial and fleeting stage, where raw sensory information is retained for fractions of a second. This is usually for 0.2 to 2 seconds (Cleveland Clinic, 2024). This unconscious process creates brief after-images of visual stimuli (known as iconic memory), or auditory echoes of sounds that people have just heard (named as echoic memory) (Cleveland Clinic, 2024). For example, when you can still 'see' the trail of a sparkler waved in the dark, or continue to 'hear' a doorbell's chime for a split second after it has stopped ringing.

Short-term memory temporarily holds and manipulates limited information. This is for about 7 ± 2 items (Kamiński et al., 2011). The periods range from several seconds to about a minute (Camina & Güell, 2017; Kamiński et al., 2011). This system enables immediate cognitive tasks, such as mentally calculating a restaurant tip, remembering a new acquaintance's name long enough to introduce them to someone else, and/or holding a phone number in mind while searching for a pen to write it down. On the other hand, long-term memory holds virtually unlimited capacity and can store information for extended periods - from hours to a lifetime (Camina & Güell, 2017). Raslau et al.'s overview divides it into two primary categories: explicit (declarative) and implicit (non-declarative) memory. Explicit memory involves conscious and intentional recollection of information. It is further subdivided into two types: Semantic memory and Episodic memory (Raslau et al., 2014).

Semantic memory stores general knowledge and facts about the world (Nastase & Haxby, 2017). For instance, knowing that Paris is the capital of France, understanding what a bicycle is, and recalling that Abraham Lincoln was the 16th president of the United States, without necessarily remembering when or where this information was learned. On another level, Episodic memory contains memories of personally experienced events with specific spatial and temporal contexts (Tulving, 1993). For example, remembering your high school graduation ceremony, what you ate for dinner last Tuesday, and the moment you first heard your favorite song.

Implicit memory operates unconsciously and includes procedural memory for motor and cognitive skills - such as riding a bicycle, typing on a keyboard and tying shoelaces (Raslau et al., 2014). These actions are performed automatically, without conscious awareness of the learning process. It is important to know

that while semantic memory remains relatively preserved in early-stage of Alzheimer's disease, episodic memory loss represents the primary concern when people address cognitive decline (Hodges & Patterson, 1994).

Autobiographical Memory

Autobiographical memories are personal recollections of specific life events that extend beyond the basic episodic framework (Berntsen, 2009). This is achieved by combining sensory details, emotion, and self-referential meaning into a coherent narrative of an individual's life (Conway & Pleydell-Pearce, 2000). For instance, recalling the moment you received your university acceptance letter might include the factual 'what' (opening the envelope), 'where' (at the kitchen table), and 'when' (a Tuesday afternoon in spring). Additionally, it includes the surge of excitement, the smell of the room, and the realisation that 'this changed my future path' (Pilmer, 1998). Thus, autobiographical memories are deeply connected with a sense of having a personal identity and emotional experiences. They serve as building blocks for self-continuity, personal growth and psychological well-being (Bluck & Alea, 2009; McAdams, 2001).

Autobiographical memories can be retrieved voluntarily through deliberate effort. For example, intentionally reminiscing about a past vacation to plan a new one, or involuntarily surfacing spontaneously without conscious intent (Berntsen, 1996; Mace, 2007). Involuntary retrieval is particularly common in everyday life. It can be triggered by subtle cues in the environment or through an individual's internal mental state (Berntsen, 2021, 1996). Some examples of this can include walking past a bakery and smelling fresh bread might instantly transport someone back to Sunday mornings with their grandparents. As a result, this would evoke warmth and nostalgia, without any prior intention to recall. Similarly, a fleeting thought about an old friend during a quiet moment can trigger a cascade of shared memories from years ago (Johannessen & Berntsen, 2010).

Involuntary autobiographical memories are frequently elicited by external stimuli, including sensory cues, such as smells, sights or sounds, and/or by internal states. For example, emotions or thoughts. Among these, research consistently pinpoints music as being one of the most powerful and effective triggers for evoking vivid, emotionally rich autobiographical memories (Janata et al., 2007; Belfi et al., 2016). For instance, a song played in a coffee shop might suddenly pull someone back to their first heartbreak. In addition, replaying not just the melody, but the dim lighting, the taste of bitter espresso, and the ache of loss with striking clarity and emotional force (Jakubowski et al., 2023). Studies portray that music-evoked memories are rated higher in vividness, emotional intensity and personal relevance compared to those triggered by other sensory modalities. This is likely due to music's unique ability to encode both temporal structure and affective tone during formative life experiences (Ford et al., 2012; Barrett et al., 2010).

Differentiating Episodic Memory and Autobiographical Memory

Autobiographical memory (AM) is not a separate memory system from episodic and semantic memory. Rather it is an integrative system that draws on both to construct a coherent sense of self across time (Prebble et al., 2013; Irish et al., 2010).

Episodic elements within AM enable vivid re-living of personally experienced events with rich sensory, emotional, and spatiotemporal detail (autonoetic consciousness) (Tulving, 1985). This 'mental time travel' allows one to re-experience the past as if it were happening again, fostering a subjective sense of continuity in the present moment and across the lifespan. On another side, semantic elements within AM include personal semantics (factual knowledge about oneself, e.g., "I studied in Hanoi") and semanticised events

(episodic memories that have lost vivid detail over time and become generalized facts). These provide stable self-knowledge and enduring traits, ensuring a coherent self-concept even when vivid re-experiencing fades (Prebble et al., 2013).

By combining the experiential depth of episodic memory with the abstract stability of semantic memory, AM supports both phenomenological (felt, “I was there”) and semantic (“I have always been this way”) forms of self-continuity (Prebble et al., 2013). This integrated structure explains why music is such a powerful trigger for autobiographical recollection: it simultaneously reactivates vivid episodic details while engaging self-relevant semantic knowledge. Thus, producing memories that feel both emotionally immersive and deeply personal (Janata, 2009; Belfi et al., 2016).

The Importance of the Study

Memory is fundamental to human functioning. It shapes our identity, personalities, emotional well-being and social relationships. Therefore, impairments in memory, particularly autobiographical memory, can carry significant physical, psychological, social and economic consequences. Memory loss can affect individuals, their families, caregivers, healthcare system, the government and society as a whole. For example, in dementia, the progressive loss of autobiographical recall can negatively impact an individual’s sense of personal identity, disrupt their daily independence and willpower to achieve tasks, and increase their dependency on other people. As a result, this contributes to elevated risks of depression and agitation. Additionally, it heightens the likelihood of social isolation, as diminished autobiographical recall impairs the ability to share personal stories. Thus, weakening interpersonal bonds, which can lead to further emotional distress for people (Addis & Tippett, 2004).

Literature Review

Investigating Music-evoked Autobiographical Memory

Music-evoked autobiographical memory refers to the phenomenon where music serves as being a significant cue to trigger the involuntary recall of personal and episodic memories that are tied to specific life events. Music-evoked autobiographical memory encompasses vivid recollections of past experiences, including contextual details, such as time, place, associated emotions and the sensory and affective qualities of the music itself. This may link to formative periods, such as adolescence or other significant life moments. They could involve widely shared milestones. For instance, high school graduation, first romance and a person’s wedding day. In addition, the life moments could be deeply personal moments that are known only to the individual, such as a late-night drive that was followed by a life-changing conversation (Janata et al., 2007).

Music-evoked autobiographical memories primarily engage long-term episodic memory by reactivating stored personal narratives. While short-term memory may facilitate immediate processing of musical cues that trigger these recollections, with neural mechanisms. For example, medial prefrontal cortex can integrate emotional and contextual information to enhance memory vividness and self-relevance (Janata, 2009). As a result, individuals frequently report feeling momentarily ‘transported back’ in time, re-experiencing the original emotions of the event with striking immediacy. At the same time, the act of reliving often generates new or transformed emotions that were not necessarily present (or dominant) during the original experience (Janata et al., 2007). For instance, a memory of an exciting first concert may now be accompanied by the current feeling of bittersweet nostalgia.

The study of music-evoked autobiographical memory is significant because it illuminates how music, a universal and accessible stimulus, can profoundly influence individuals emotional well-being and identity formation. This is by triggering vivid personal recollections and experiences (Salakka et al., 2021).

1. Prevalence and Frequency of Music-Evoked Autobiographical Memories

Music-evoked autobiographical memories (MEAMs) are among the most prevalent forms of involuntary autobiographical recall in people's daily life. Empirical studies which have utilised diverse methodologies, have consistently reported high occurrence rates of MEAMs across age groups and contexts. Large-scale surveys and diary studies highlight that music is the single most common environmental trigger for involuntary memories. For instance, Jakubowski et al., (2021) found that 53% of all involuntarily recalled autobiographical memories in a sample of 124 young adults were cued by music. This significantly outranked verbal cues, odors or visual stimuli. Additionally, in a broader online survey of 1,442 participants aged 18 to 82, 77% reported experiencing MEAMs at least weekly, with nearly one-third (30%) indicating daily or near-daily occurrences (Jakubowski et al., 2023).

On a similar note, laboratory-based exposure studies mirror these findings. When presented with 30 personally familiar songs, undergraduate participants experienced an average of 5.7 strong autobiographical memories per session, with over 85% of participants reporting at least one vivid recall (Janata, 2009). Similar patterns persist across the lifespan in healthy older adults (with a mean age of 71). 66% experienced MEAMs weekly. Thus, outperforming photographs and odors as retrieval cues (El Haj et al., 2012). Furthermore, preliminary evidence from non-Western samples, such as a study of 312 Chinese adolescents and young adults highlighted comparable prevalence, with 83% affirming regular music-triggered recall (Liu, 2023). Collectively, these results establish MEAM as a routine cognitive phenomenon which can occur multiple times per week, for the majority of individuals (Juslin & Västfjäll, 2008).

2. Emotional Impact of MEAM and Effects on Mood and Mental Well-Being

MEAMs are characterised by exceptional emotional intensity and a predominantly positive or bittersweet valence, distinguishing them from memories evoked by other sensory cues (Jakubowski et al., 2021). This attribute of MEAM is clearly demonstrated in Belfi et al., (2016), where music-evoked memories were rated significantly higher in vividness ($M = 5.92$ vs. 4.71), emotional intensity ($M = 5.76$ vs. 4.62), and personal significance ($M = 5.20$ vs. 4.10). This was compared to memories triggered by famous faces (all $ps < .001$). Barrett et al. (2010) reported that 67% of MEAMs were positively valenced, 20% mixed (bittersweet), and only 13% negative. This distribution is replicated across subsequent studies (Janata, 2009; Jakubowski et al., 2023).

MEAMs derive much of their nostalgic power from the reminiscence bump (that means from age 10 to 30). This is a developmental period when the brain is highly plastic, identity is forming and many emotionally charged 'firsts' occur. Thus, causing experiences and their associated music to be encoded with exceptional vividness and self-relevance (Janssen, 2015; Koppel & Berntsen, 2015). Years later, these songs act as uniquely potent cues that effortlessly retrieve detailed memories and evoke intense emotions that serve adaptive psychological functions (Sedikides & Wildschut, 2016). Experimental induction of nostalgic MEAMs reliably increases self-esteem, optimism, perceived social support and sense of meaning in life (Sedikides & Wildschut, 2016; Batcho & Shikh, 2022). Individuals who experience frequent MEAMs in daily life have reported greater use of music for emotion regulation and higher overall mood benefits (Jakubowski et al., 2023).

Clinically, MEAMs retain accessibility when voluntary autobiographical memory is severely impaired. Patients with Alzheimer's disease and mild cognitive impairment, personally meaningful music reliably reduces agitation, enhances momentary identity coherence. This means that patients can 'light up', recognise themselves and engage as their former selves. Additionally, music can improve affective state by evoking positive or bittersweet emotions that can improve mood (Cuddy et al., 2017; Baird & Thompson, 2018). In non-clinical populations, regular engagement with music that evokes autobiographical memories is associated with enhanced resilience and psychological well-being (Garrido & Schubert, 2019). Thus, MEAMs can function beyond mere recollection. It is a natural and accessible mechanism for mood enhancement and emotional self-regulation across healthy and clinical groups. As a conclusion, these two bodies of evidence highlight high prevalence and strong positive emotional impact. Additionally, the studies provide robust justification for further quantitative investigation into how MEAMs operate in understudied populations. This includes healthy Southeast Asian adults.

3. Importance and Significance of MEAM

Beyond their high prevalence and emotional intensity, MEAMs could be distinguished by their perceived personal significance and wide-ranging psychological and clinical applications. Participants have consistently rated MEAMs as personally significant and self-defining compared to memories that are triggered by any other cues. In controlled studies, self-ratings of autobiographical salience or personal relevance can range from 5.2 to 6.1 on 7-point scales. This is significantly higher than for faces, words, or odors (Belfi et al., 2016). The heightened subjective importance stems from music's unique ability to reactivate memories from the reminiscence bump (this means ages 10 to 30) (Jakubowski et al., 2023, 2025).

Unlike odor cues, which primarily trigger an earlier olfactory bump, music can selectively reactivate the self-defining memories of adolescence and early adulthood (Larsson et al., 2014; Willander & Larsson, 2006). Olfactory bump is a parallel phenomenon where memories peak in the first decade of life. This is typically before age 10 due to the early maturation of the olfactory system and strong childhood scent associations. In addition, individuals who perceive their MEAMs as highly self-relevant have reported strong feelings of continuity between their past and present selves, increased self-esteem and greater meaning towards life (Lamont & Loveday, 2020; Sedikides & Wildschut, 2016).

Clinically, this perceived significance can translate into powerful therapeutic applications. For example, in Alzheimer's disease and mild cognitive impairment, personally meaningful music is still one of the last effective routes to autobiographical retrieval, when voluntary recall is severely compromised. Patients rate music-evoked memories as more vivid and identity-defining compared to those elicited by photographs or conversation. MEAM can lead to reduced agitation, enhanced self-coherence, and improved caregiver interactions (Cuddy et al., 2017; El Haj et al., 2012; Kaiser, 2023).

In non-clinical populations, the self-perceived importance of MEAMs supports everyday psychological resilience. Frequent experiencers who rate their memories as highly significant use music more effectively for emotion regulation, report higher optimism and social connectedness and exhibit greater psychological well-being (Jakubowski et al., 2023; Mehl et al., 2024). Thus, MEAMs function not merely as nostalgic episodes but as an accessible, self-administered resource for identity maintenance and mood enhancement across the adult lifespan.

Therefore, given their combination of universal prevalence, intense perceived personal significance and proven clinical efficacy, MEAMs can represent a uniquely powerful, low-cost tool for promoting mental health and preserving personhood. This is particularly in aging or memory-impaired populations.

Systematic investigation of how adults subjectively appraise the personal significance of their MEAMs holds both theoretical and practical value.

The Aims and Goals of the Research Paper

While extensive research has explored music-evoked autobiographical memories (MEAMs) in Western populations, focusing on their cognitive characteristics, involuntary retrieval mechanisms and therapeutic applications in clinical settings, there are significant gaps persisting in understanding their prevalence, emotional impact, and cultural specificity among non-Western, particularly Southeast Asian, groups (Janata et al., 2007; Belfi et al., 2022). For instance, though a recent quantitative study conducted by Kangshuai Liu

in Beijing examined musical and personal factors which influence MEAM vividness among Chinese youth, there were no comparable investigations that have targeted adult populations in Vietnam or broader Southeast Asia (Liu, 2023). This is where a dynamic blend of traditional music, for example folk, bolero and ballads, and contemporary and Western influences may uniquely shape memory evocation and have personal significance.

To address this gap in literature, the present study refines the research question to: “What is the prevalence, emotional impact, and perceived personal significance of music-evoked autobiographical memories among healthy Vietnamese adults?”

The primary aim is to quantitatively assess MEAM experiences in a sample of Vietnamese adults. Thus, providing foundational data about their role in daily emotional regulation and identity maintenance. Specific objectives include: (1) quantifying the frequency and intensity of MEAM triggers through self-reported daily encounters; (2) evaluating the emotional outcomes of MEAMs, such as nostalgia, calmness, happiness, and bittersweetness; and (3) identifying cultural moderators, such as preferences for traditional versus contemporary music, that may influence MEAM potency. By utilising an online survey that was distributed through social media and community networks to 200 to 300 healthy adults in Vietnam, this study ensures accessibility and scalability. It differs from prior youth-focused work, and prioritises mid-life perspectives where life-events density may amplify MEAM effects.

Ultimately, this research seeks to highlight MEAM as a culturally attuned and low-cost tool for mental health promotion. The paper advocates for its integration into Vietnamese wellness practices, and informing region-specific interventions to support people’s emotional well-being and cognitive resilience (Baird & Thompson, 2018; Pek et al., 2021).

Methodology

Design

This study was conducted by using primary research in the format of an online quantitative survey. The format was chosen for its practicality and accessibility. Therefore, enabling data collection from a relatively large, age-diverse group of participants within a limited timeframe (15 days).

Participants

A sample of 65 participants took part in the online survey. Participants were found through word-of-mouth and social media posts and all gave their consent to taking the survey. In line with the aim of the study to examine healthy Vietnamese adults, responses were excluded if participants reported a diagnosed cognitive or neurological condition. For example, dementia and epilepsy. This resulted in an analytic

sample of 61 participants who self-reported as having no history of cognitive or neurological conditions and they were selected for data analysis. Furthermore, 4 people did not report that they had any history of cognitive or neurological conditions.

Participants were adults across midlife and older age groups (age categories): 30 – 35 (n = 19), 36 – 40 (n = 9), 41 – 45 (n = 12), 46 – 50 (n = 7), 51–55 (n = 1), 56 – 60 (n = 2), 61 – 65 (n = 4) and 66 – 70 (n = 7). Gender was approximately evenly split (Female: n = 31; Male: n = 30). Education levels were: Bachelor degree (n = 26), graduate degree (n = 21), associate degree (n = 6), high school or equivalent (n = 5), and some in college and without a degree (n = 3).

Questionnaire

The questionnaire completed by participants consisted of 3 sections: General Information, Music Background Information and Music-Evoked Autobiographical Memories Experience. The General Information section included questions regarding participants' demographic background, such as age, gender, level of education and health condition. The Music Background Information section explored participants' music-listening habits and their engagement with music in general. This included from receiving musical training to the perceived significance of music in everyday life.

The third section was titled as 'Music-evoked Autobiographical Memories Experience'. It focused on participants' personal experiences with music as a trigger for autobiographical memories. This included the origins of early musical memories, the frequency and contexts in which music evokes specific memories of events/people from the past, the emotional valence and intensity of those memories, common triggering situations and music genres, associated emotions (for instance, nostalgia, happiness, sadness, and bittersweetness), links to lyrics/emotional content or external contextual factors, and the overall personal importance of such memories for identity and connection to one's past self.

All 28 questions were closed-ended, in the form of multiple-choice questions (single or multiple selection), yes/no questions and rating scales. These question types were chosen to ensure clarity, consistency and ease of response for participants across a wide age range. Closed-ended questions provide standardized response options that enhance clarity and consistency across participants of varying ages and educational backgrounds, while minimizing ambiguity and interpretation bias. This approach also enabled efficient data aggregation, descriptive statistical analysis, and the examination of relationships (e.g., correlations between emotional intensity and personal significance), which were essential for directly addressing the three main research objectives.

Data analysis

Data analysis was conducted using Python, employing descriptive statistics (frequencies, percentages, means, and standard deviations) to summarize prevalence, emotional outcomes, and perceived significance. Multi-select responses (e.g., situations, emotions, emotional states, genres) were split and aggregated for endorsement rates. Associations between ordinal variables (emotional intensity and personal significance/identity connection) were examined with Spearman's rank-order correlation (ρ), suitable for non-parametric ordinal data and potential non-normality. Cultural moderation by music preference groups (Western/contemporary-leaning, Traditional-leaning, Mixed) was tested using the Kruskal–Wallis H test for group differences in emotional intensity, personal importance, and identity connection, with pairwise Mann–Whitney U tests and Holm adjustment if significant. All tests were two-tailed at $\alpha = .05$.

Findings

Objective 1: Prevalence and Frequency of MEAMs

All 61 healthy Vietnamese adults reported that music evoked autobiographical memories at least rarely. Therefore, confirming high prevalence consistent with global literature, where MEAMs occur weekly or more for most individuals. Frequency distribution showed the majority experiencing MEAMs Sometimes ($n = 34$, 55.7%) or Often ($n = 22$, 36.1%), with only a small minority Rarely ($n = 5$, 8.2%). This highlights that MEAMs are a regular occurrence in daily life for Vietnamese adults. Therefore, aligning with diary studies reporting MEAMs approximately once per day on average in Western samples.

Memories were most frequently triggered when alone ($n = 53$, 86.9%), while driving ($n = 17$, 27.9%), during special events ($n = 13$, 21.3%), or in social settings ($n = 12$, 19.7%). The predominance of solitary contexts indicate that MEAMs can often serve introspective or reflective functions in Vietnamese adults, potentially linked to cultural emphasis on personal reminiscence amid busy urban lifestyles in Hanoi and surrounding areas.

Objective 2: Emotional Impact of MEAMs

MEAMs exhibited a predominantly positive or mixed emotional profile. Typical valence was most often Positive ($n = 20$, 32.8%) or Somewhat positive ($n = 18$, 29.5%), with Neutral common ($n = 13$, 21.3%) and fewer Somewhat negative ($n = 5$, 8.2%) or Very positive ($n = 5$, 8.2%) reports. This means that strongly negative patterns were absent. This supports the positivity bias in MEAMs observed cross-culturally, where music reframes memories toward uplifting or bittersweet tones.

Emotional intensity was moderate on average ($M = 2.98$, $SD = 0.94$ on a 1–5 scale), indicating reliable but not overwhelming affective arousal. Discrete emotions most endorsed were Happiness ($n = 47$, 77.0%) and Sadness ($n = 34$, 55.7%), reflecting the bittersweet nature common in MEAMs (Fig. 1). Broader states were dominated by Nostalgia ($n = 53$, 86.9%), followed by Bittersweetness ($n = 26$, 42.6%), Calmness ($n = 25$, 41.0%), and Excitement/energised ($n = 23$, 37.7%); challenging states included Loneliness ($n = 16$, 26.2%) and Homesickness ($n = 15$, 24.6%) (Fig. 2). These findings pinpoint nostalgia as the core emotional outcome, with a mix of positive uplift and poignant reflection, consistent with MEAMs' role in emotional regulation.

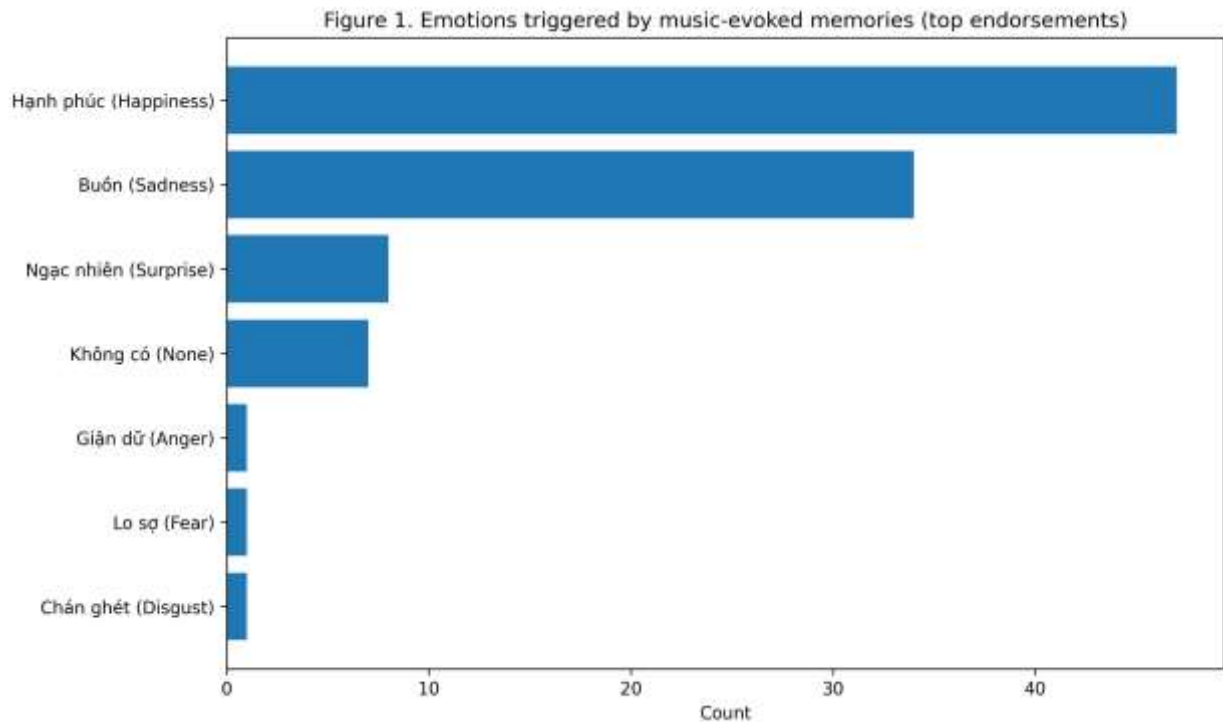


Figure. 1. The frequency of discrete emotions endorsed by participants when recalling music-evoked autobiographical memories.

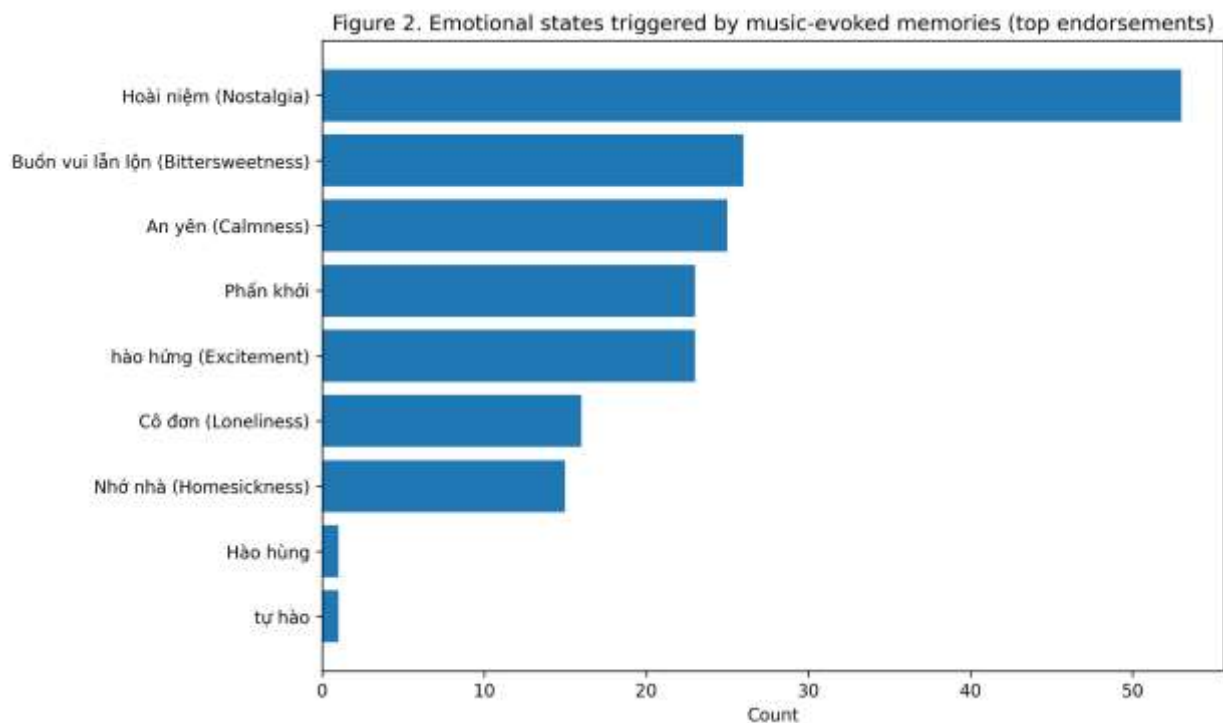


Figure. 2. The frequency of broader emotional states associated with music-evoked autobiographical memories.

Objective 3: Perceived Personal Significance of MEAMs

Participants rated MEAMs as moderately to highly meaningful: personal importance averaged $M = 3.07$ ($SD = 0.81$) and identity connection $M = 3.28$ ($SD = 0.90$) on 5-point scales. Emotional intensity strongly correlated with perceived significance—Spearman's $\rho = .57$ ($p < .001$) for importance and $\rho = .68$ ($p < .001$) for identity connection. Thus, indicating more intense MEAMs are perceived as more personally valuable and identity-affirming. This association underscores that emotional vividness enhances subjective meaning in Vietnamese adults.

There were no significant differences that emerged across music preference groups (Western/contemporary-leaning $n = 31$, Traditional-leaning $n = 23$, Mixed $n = 4$) for emotional intensity ($H(2) = 2.33$, $p = .312$), personal importance ($H(2) = 0.65$, $p = .724$), or identity connection ($H(2) = 0.66$, $p = .720$). Thus, MEAM impact appears robust across genre preferences in this sample, illustrating that cultural blending of traditional Vietnamese (for example, bolero and folk) and Western/contemporary styles does not differentially moderate emotional or identity outcomes.

Additional findings relevant to the aims

A majority of participants reported that specific genres consistently trigger memories (Yes: $n = 40$; No: $n = 21$). Among those endorsing consistent genre triggers, the most frequently selected memory-triggering genres included Western pop (US/UK pop, K-pop, C-pop; $n = 23$) and Romantic ballads ($n = 23$), alongside culturally anchored genres such as Vietnamese folk genres ($n = 13$) and bolero ($n = 11$). This pattern supports the idea that both culturally traditional music and globally influenced contemporary music can serve as reliable autobiographical cues in Vietnamese adults.

Discussion

The present study provides the first quantitative insights into music-evoked autobiographical memories (MEAMs) among healthy Vietnamese adults. Overall, the findings demonstrate that MEAMs are highly prevalent, emotionally rich, and personally meaningful in this population, largely mirroring patterns observed in Western samples while offering new evidence from a Southeast Asian context.

Consistent with international literature (Jakubowski et al., 2021, 2023; Janata, 2009), MEAMs were reported by 100% of participants, with the majority experiencing them “Sometimes” (55.7%) or “Often” (36.1%). This high prevalence confirms that music functions as one of the most reliable everyday cues for autobiographical recall, even in a non-Western cultural setting. The strong preference for solitary contexts (86.9%) further suggests that MEAMs frequently serve introspective and reflective functions, possibly amplified by the fast-paced urban lifestyle common in contemporary Vietnam.

In terms of emotional impact, the results align closely with previous research showing a positivity bias in MEAMs (Barrett et al., 2010; Belfi et al., 2016). Nostalgia emerged as the dominant emotional state (86.9%), accompanied by high rates of happiness and bittersweetness. The moderate average emotional intensity ($M = 2.98/5$) combined with the frequent co-occurrence of positive and poignant emotions supports the view that MEAMs allow individuals to re-experience past events while simultaneously generating new reflective emotions, such as nostalgia, that were not necessarily present at the time of the original event (Jakubowski et al., 2023).

A particularly noteworthy finding is the strong positive correlation between emotional intensity and perceived personal significance ($\rho = .57$ for importance and $\rho = .68$ for identity connection, both $p < .001$). This indicates that more emotionally vivid MEAMs are experienced as more meaningful and more closely

tied to one's sense of self. Such a relationship extends previous Western findings (Belfi et al., 2016; Nawaz & Omigie, 2025) and suggests that the self-referential value of MEAMs operates similarly in Vietnamese adults.

Importantly, no significant differences were found across music preference groups (traditional Vietnamese-leaning vs. Western/contemporary-leaning). This implies that the emotional and identity-related benefits of MEAMs transcend specific genre preferences in Vietnam's culturally hybrid music environment. The robustness of MEAM effects across blended musical tastes highlights music's universal accessibility as a memory and emotion regulator, rather than being limited to culturally "authentic" or Western styles.

Gaps and Limitations

One limitation in assessing the ability of different music genres to evoke MEAM at a personal level stems from the ambiguous definitions and distinctions of genres. Whether a song that borders on Jazz and Pop is considered in either category is a matter of interpretation, which differs from person to person. This can lead to misclassification or overlap across genres. Thus, potentially obscuring genre-specific patterns in MEAM elicitation.

Additionally, genre boundaries are often fluid and can evolve over time. They are influenced by hybrid styles, subgenres and personal taste. This can further complicate reliable aggregation and comparison of responses in a quantitative online survey format. While the study has relied on broad, participant-provided genre labels to capture real-world diversity in music experiences, this approach limits the precision of genre-based analyses and generalisability compared to studies that have used experimenter-defined or acoustically extracted musical features. For example, timbre, tempo, or rhythm extracted via methods known as Music Information Retrieval.

Another limitation includes the wide age range of participants (30–70 years). Although this diversity aligns with the study's aim to examine MEAM experiences across midlife and older adulthood, it introduces potential variability in autobiographical memory processes, such as differences in memory specificity, emotional intensity, retrieval fluency and/or the types of life events recalled. Older participants may experience more overgeneral or positively biased autobiographical memories compared to younger ones. Alternatively, they may differ in how frequently or vividly music serves as a memory cue due to cohort-specific musical exposure and life-stage factors. Therefore, the broad age span, while ecologically valid, may obscure age-specific patterns in MEAM and reduce the ability to draw fine-grained conclusions. This is about how music-evoked autobiographical remembering unfolds within narrower developmental periods.

Finally, the bilingual nature of the sample (Vietnamese-English) presents another constraint. The questionnaire was administered in English (or bilingually), and participants varied in their proficiency and comfort with the language(s). Autobiographical memory retrieval and emotional expression can be influenced by language. Memories are often retrieved more vividly or with greater emotional detail in the native language (Vietnamese) than in a second language (English). This may have led to underreporting or muted descriptions of certain MEAM qualities, such as emotional valence, intensity and/or personal significance. This is among participants for whom English is not the dominant language for autobiographical reflection. Consequently, the findings may not fully capture the nuances of MEAM experiences in a primarily Vietnamese-speaking context and limit direct comparability to monolingual studies.

Conclusion

Summary of Findings

This study has provided the first quantitative investigation of music-evoked autobiographical memories (MEAMs) among healthy Vietnamese adults. The evidence has clearly demonstrated that MEAMs are highly prevalent in this population: all 61 participants reported experiencing MEAMs at least rarely, with over 91% experiencing them sometimes or often. The memories were most frequently triggered when alone and were characterised by moderate emotional intensity ($M = 2.98/5$), a predominantly positive or bittersweet valence, and an overwhelming dominance of nostalgia (86.9%). Participants rated these memories as moderately to highly personally significant, with strong positive correlations between emotional intensity and both personal importance ($p = .57$, $p < .001$) and identity connection ($p = .68$, $p < .001$). Notably, the emotional and identity-related impact of MEAMs did not differ significantly between those who prefer traditional Vietnamese music and those who prefer Western/contemporary genres.

These results strongly support the central claim that MEAMs are a common, emotionally rich and personally meaningful experience among healthy Vietnamese adults. The research has proven that music functions as a powerful everyday cue for autobiographical recall in a Southeast Asian context, producing effects that are largely consistent with Western findings while operating within Vietnam's unique cultural blend of traditional and modern music.

Bigger Picture and Implications

The bigger message emerging from this study is that music serves as a readily available, low-cost and culturally resonant resource for emotional regulation and identity maintenance in everyday life. In the context of Vietnam's rapidly aging population, MEAMs offer a promising pathway to support mental well-being, reduce loneliness and preserve a sense of self without requiring expensive clinical interventions.

Policy implications and recommendations for the government sector include integrating simple music-based reminiscence activities into existing community health and elderly care programs. Local authorities and the Ministry of Health could consider piloting 'music memory groups' in cultural houses or senior centres, developing smartphone-based music reminiscence tools in Vietnamese, and incorporating music listening into national mental health and active aging strategies.

Directions for Future Research

Future studies should employ larger, nationally representative samples that include both urban and rural participants across a wider socioeconomic spectrum. Longitudinal designs would be particularly valuable to examine whether frequent engagement with MEAMs predicts better long-term psychological outcomes in aging Vietnamese adults. Mixed-methods approaches combining surveys with in-depth interviews could provide richer insights into why nostalgia dominates and how specific songs shape memory content. Another promising direction is to investigate MEAMs in clinical populations, particularly older adults with mild cognitive impairment or early dementia, to evaluate the protective or therapeutic potential of culturally familiar music.

A connected but distinct area of research is the development and evaluation of culturally tailored music reminiscence interventions for dementia care in Vietnam. Given the cultural stigma surrounding mental health and limited access to specialist services, such interventions could offer a meaningful, family-friendly, and cost-effective way to maintain personhood and improve caregiver-patient interactions. An

important follow-up research question can be: “To what extent can regular, self-selected music listening interventions reduce loneliness and improve quality of life among community-dwelling older Vietnamese adults over a 6–12 month period?”

In conclusion, this study has demonstrated that music-evoked autobiographical memories are common and deeply meaningful to Vietnamese adults. By illustrating music’s power to evoke nostalgia, strengthen identity and support emotional well-being, the findings enable promising avenues for both everyday psychological resilience and public health applications in an aging Southeast Asian society.

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