# What Memories Are Made Of

Aura Frames Mother's Day Memories Report





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Can reflecting on good memories make you feel happier? With Mother's Day near during a time when many of us are separated from and missing our moms, Aura has been thinking a lot about this question. It's why we partnered with professor and psychologist Tracy Alloway, PhD to go down memory lane, literally, and look at the science of memories, how they impact who we become, and our relationship with our mothers.

Through this original research report with insights from Dr. Alloway, we learned a lot, including that photos help us to relive good memories, increasing happiness and our sense of connection to others.

According to her, "Photos have a powerful way of evoking emotions connected to memory. And one of the most powerful emotions we feel is love for our mothers. In fact, one of the first hormones released between a mother and her child is oxytocin, a bonding hormone. In these incomparable times, looking at photos can provide comfort and fight loneliness."

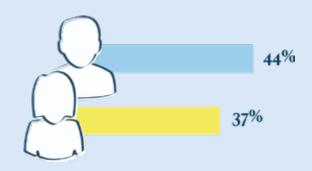
Read on to learn more about our report's findings. We hope these insights will inspire you to not only reflect on important memories with mom but to also share those special moments with her this Mother's Day to make her smile.

Human memory happens in many parts of the brain at once, and some types of memories stick around longer than others. Studies have shown that oxytocin actually makes men's memories of their mother's affections during childhood stronger. What's more, oxytocin actually not only helps intensify memories and a sense of connection, it helps make adults less anxious and more socially attached.

Looking at a happy memory activates the same positive emotion that was experienced at the time the photo was taken. This can result in the release of oxytocin (a bonding hormone), as well as dopamine (associated with the reward circuit in the brain/ feel-good hormone). Both of these are linked to a reduction in cortisol (it's well-documented that higher levels of cortisol are linked to negative physical and mental health outcomes).

#### Moms are our best friends

- Men are slightly more likely to say that their mom is their best friend (44%), with 18% saying she is second after their significant other or best friend
- 40% of Americans say that their mom is their best friend, and 19.2% report that she is second after their significant other or best friend.
- 37.5% of women say that their mom is their best friend, and 20% report that she is second after their significant other or best friend.

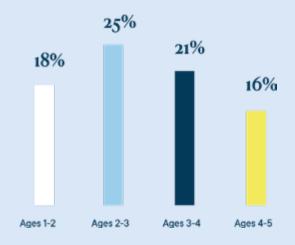




# Impactful memories begin sticking in early childhood

25% of people have their first memory of their mom from ages 2–3, more than any other age.

- 21.39% reported 3-4, the second most common response
- 9.11% reported 0-1
- 18.22% reported 1-2
- 15.84% reported 4-5
- 11.71% reported over 5



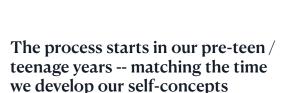
#### They continue to form and become more complex through adolescence

People are more likely to realize that their mom isn't perfect in the ages 10-15 (57.91%)

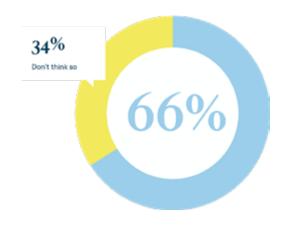
• Followed closely by 15-20 (21.39%)

By extension, memories are the basis of who we are. Our brains are made of memories, and memories constantly rewire our brains - memories can impact our sense of self. When we're hunting for the perfect Instagram backdrop, we're relinquishing a strong part of what makes us who we are.

Additionally - we encode memories from our own perspective - and autobiographical testimonies are the least reliable. That's why photos are so important to help provide visual cues of emotional moments.



 Nearly 40% (37.61%) of Americans realized that they were their "mother's child" through a habit, tendency, or quirk that could have only come from them by the time they were 10 years old.



# It's no surprise then that moms impact who we are...and who we become

- An overwhelming majority (66%) of Americans think they act like their moms.
- Nearly 70% (69.67%) of women think they act like their mom.
- Over 60% (61.61%) of men think they act like their mom.



Sense of self and language form our earliest memories, and family factors shape what the contents of the memories contain.

Certain cues spark most emotional memories - helping retrieve memories from words, smells, or sounds.

Hormones also provide content to experiences, signalling to our brains that a person might make you feel positive. All of this is combined with stimuli to form powerful, emotional memories and connections - including those with our moms.

Oxytocin creates a sense of trust, which makes it easier to form positive bonds (studies demonstrate this effect using games that involve empathy and altruistic acts, which are typically higher with higher levels of oxytocin).

## They're also often our lifelong cheerleaders

- Nearly 14% (13.88%) said their mom was the first call after a professional achievement
- Nearly 10% (9.68%) said their mom was the first call after an engagement
- Nearly 9% (8.64%) said their mom was the first call after getting into college

Humor has an additional benefit of having a positive effect on memory - people show greater memory for positive and humorous events. Laughter and the positive emotions it brings - through actual experiences or visual cues like photos - decreases cortisol and stress.

#### We think our moms are funny

74% of Americans think their mom is funny, with:

- 37% saying unintentionally
- 37% saying intentionally





Photos help us to relive positive memories and moments with our mom and families- strengthening our sense of belonging, self, and confidence.

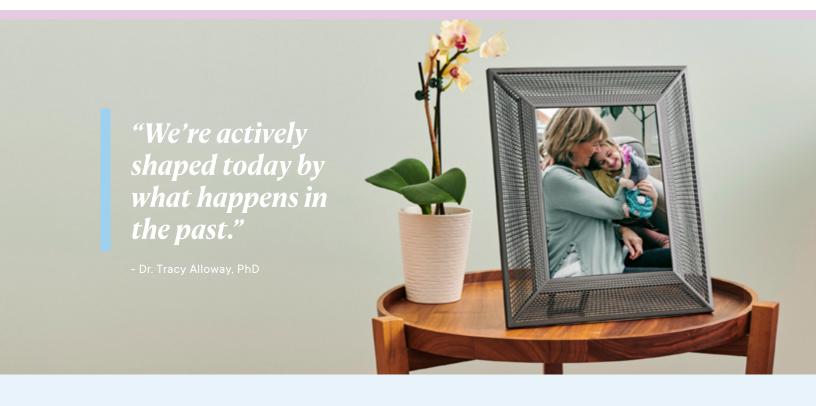
Nostalgia, in particular, increases a sense of social connectedness and infuses continuity over time - and re-living positive experiences from the past feels great. It has also been shown to counteract anxiety, loneliness, and boredom - things we're all experiencing quite acutely in the current moment.

Attention Restorative Theory suggests that even 10 minutes looking at nature reduces stress as much as physically being in nature. In the same way, looking at photos with our moms can also improve our well being.

We're actively shaped today by what happens in

the past. Memories construct our life stories - even helping craft experiences and relationships that we haven't created yet. When we savor a positive memory, research has shown that we "re-experience" the event itself.

77 percent of Americans now own smartphones, and many rely on them to support memories. A transactive memory is the distinction between internal and external coding of our memories - when we take photos, we may not remember the specific details of an event, but we immediately know how to access it, and thus bringing back positive emotions. Research has shown that people who take photos at an event report higher levels of enjoyment than those who do not - meaning there is an intentionality of capturing memories that makes us appreciate them more.



#### Many of us treasure family photos

- Nearly 30% (29.75% of Americans say they have a favorite, awkward family photograph.
- 33.53% reported having a favorite family photo
  just not an awkward one.

#### Many of us treasure family photos. And we have our moms to thank for these preserved memories

Over half (51.54%) of Americans said their mom was the chief family photographer growing up.



And now...COVID-19 quarantine has changed the way we think about, interact with, and remember our mothers. Memories aren't always completely reliable, that's why photos are so important to ground us. The concept of collective effervescence is at play - in which a shared emotional experience actually reinforces emotions. We're all dealing with loneliness, and looking at photos is an important way to counteract that.

Notably, while nostalgia typically results in a positive emotion, it's activated when we feel low (possibly as a why to lift our mood). Since the first stay at home orders started in mid-March, on average there was a 15% increase in Aura users adding photos to frames during the work week.

#### We remember them more acutely

- 22% have remembered advice from their moms more intensely in the past month.
- 13% have cooked their mom's favorite recipe in the past month.

#### We talk to them more

- Nearly 30% (29%) have spoken to their moms more frequently than they would have otherwise.
- Nearly 17% (16.75) have taught their moms some form of video communication (Zoom, FaceTime, etc) in the past month.

#### There must be a reason we turn to our moms in crisis -- many of us already do

- 14% said their mom was the first call after the death of a family member or a friend.
- Nearly 13% (12.79%) said their mom was the first call after a breakup or divorce.
- Nearly 11% (10.77%) said their mom was the first call after a job loss.
- Nearly 9% (8.7%) said their mom was the first call after doing something embarrassing.

Right now - one thing is clear. Loneliness is being felt acutely and universally. In times like these, it's important to seek out both moments of comfort and connection.

If we outsource memories to our devices and constantly scroll, we're missing out on important benefits to psychological well-being -especially nostalgia which is directly connected to self-esteem and happiness. It counteracts loneliness and makes us feel close to people in our past. Studies have shown that visualization is a powerful tool in combating not only loneliness but also boredom and anxiety. This points to the importance of using photos to relive positive memories.

