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EMOTION AND AGING

Mara Mather and Allison Ponzo

Emotions depend on a complex circuitry of brain regions interacting with neurotransmitter systems and stress and sex hormones. They are shaped by experience and current circumstances. Feedback loops and self-directed control mechanisms regulate emotions and help curtail how long they last and how intense they get. All of these basic mechanisms and contextual factors change in normal aging and so it is not surprising that emotional experience and processes change with age as well.

The changes are not what one might initially predict, however. With aging come health challenges, physical declines, and the loss of friends and family because of illness and death. Furthermore, prefrontal control processes that help regulate behavior, attention, and memory deteriorate, which makes it more difficult to regulate negative emotions. Despite these constraints and challenges, emotional well-being does not tend to decline in normal aging. Why do older adults not revert back to the emotional intelligence of teenagers, a time when their frontal lobes were not yet functioning at full capacity? The surprising lack of decline in emotional function makes aging a fascinating test case for understanding the mechanisms of emotional well-being. In this chapter, we review some key issues regarding emotion and aging: How emotional well-being is maintained across the lifespan, how aging affects specific emotions, how emotions predict longevity, the age-related positivity effect in attention and memory, which aspects of emotion regulation processes are influenced by aging, changes in arousal and stress response processes during aging, and the effects of age on stress response systems.
A similar age-related increase in rates of positive to negative affect was found in a survey of over 500,000 people in the United States (Stone, Schwartz, Broderick, & Danton, 2010). Respondents were asked, "Did you experience the following feelings during a lot of the day yesterday?" about enjoyment, happiness, stress, worry, anger, and sadness. From ages 50 to 70, positive emotions increased and negative emotions decreased with age. Before and after these ages, patterns differed across specific emotions, but the older cohorts overall had a higher positive relative to negative emotional experience than the younger ones. Other studies in the United States show similar increases in emotional well-being with age (Charles, Reynolds, & Gatz, 2001; Gross et al., 1997; Moock & Kolarz, 1998). Such increases in emotional well-being across adulthood are intriguing. Even with age-related hardships, older adults generally are satisfied with old age and experience relatively high levels of emotional well-being and decreases in negative affect (Grühn, Smith, & Baltes, 2005).

Specific Emotions

In the following sections, we move from general well-being to focus on the trajectories of some specific emotions—namely, happiness, anger, sadness, and regret.

Happiness

When he drafted the U.S. Declaration of Independence, Thomas Jefferson wrote that all men have the right to life, liberty, and the pursuit of happiness (Baldwin, 1950). After mostly neglecting the topic, in recent years both economists and psychologists developed a stronger appreciation of the importance of happiness (e.g., Frey & Stutzer, 2010; Seligman, 2012). Happiness predicts success in many domains (Lyubomirsky, King, & Diener, 2005) and can help people develop resilience to challenging and shifting circumstances (Sohn, Fredrickson, Brown, Mikels, & Conway, 2009).

A widespread belief is that people become less happy as they get older—but this belief conflates happiness with reports. For instance, in one study, both younger and older adults estimated a significant decline in happiness with age, although in fact the younger group was less happy than the older group (Figure 18.1: Lacey, Smith, & Ubel, 2006). In cross-sectional studies, happiness increases with age among cohorts in their mid-50s to mid-70s, then stabilizes or declines slightly in late life (Moock & Kolarz, 1998; Stone et al., 2010).

One question is how much happiness declines in very late life (after age 85). One perspective is that although things look good for the "young old" (in Western cultures, this often refers to those in their 60s and 70s), things are more bleak among the oldest old that "living longer seems to be a major risk factor for human dignity" (Baltes & Smith, 2003, p. 128). Baltes and Smith argue that aspects of emotion and well-being that show no decline at the young old show prominent decline among the oldest old. Part of their pessimism about this plausible life is that Alzheimer's disease is common among the oldest old. They state, "It may be a sad commentary, but dying before reaching the oldest old is currently the only way to avoid succumbing to Alzheimer-type dementia" (p. 129).

Indeed, in the face of physical dysfunction (e.g., dementia or other age-related chronic disease), it is natural to expect dramatic decreases in depression. Not surprisingly, to this expectation, a population-based sample of German centenarians indicated as much happiness as representative middle-age and older Germans (Jopp & Rott, 2006). This counters the notion that happiness declines precipitously in the oldest old and is a striking finding given that 8% of the centenarians surveyed needed nursing care.

Anger

In contrast with happiness, anger can be hazardous to one's health (Sonnin, 2001; Williams, 2012). Anger is especially likely to trigger and exacerbate cardiovascular disease, the leading cause of death in the United States (Howes et al., 2011). People who generally have poor anger control are more likely to develop cardiovascular disease in the next 10–15 years (Kannel, 1987; Lusniak, 2010; Ueta, 2010) and outbreaks of anger increase the likelihood of an acute cardiovascular event in the next 2 hours (Moskowitz, Penne, & Mittelman, 2014).

The frequency of self-reported anger increases during young adulthood but then decreases steadily until old age (Kummeln, Richter, & Schmuckle, 2013; Kummeln & Thomas, 2014; Stone et al., 2010). When specifically asked about interpersonal tensions, older adults report experiencing less anger and using more strategies such as talking about the issue. Shoven and Ryan (2007) found that younger adults (Budzil & Fingerman, 2003, 2005; Budzil, Fingerman, & Almeida, 2005; Blanchard-Fields & Coats, 2008). More generally, in representative samples in both the United States and Japan, there was stability in positive interactions and decreases in negative interactions in close relationships (Akiyama, Antonucci, Takahashi, & Langfeld, 2003).

Older adults who report with less anger than younger adults in laboratory studi-
mourning his father's death (Tisi, Levenson, & Carstensen, 2000), but older adults felt more sadness than younger adults after watching other film clips involving themes of death or Alzheimer's disease (Kuncelmann & Gruhn, 2005; Seider, Shota, Whalen, & Levenson, 2011).

Thus, while some (but not all) studies suggest that sadness is a more accessible emotion for older adults, there is less of an increase in sadness than might be expected given the losses associated with aging. This discrepancy between circumstances and reactions is particularly striking in a longitudinal study in which German participants ages 58–81 estimated perceived deficits in performance and losses in abilities and also rated how contented they were with themselves and their present functional status in the respective domains (Rottermund & Brandstädter, 2003). Perceived losses and deficits increased significantly with age, but contentment with performance did not decline.

### Regret

Regret involves sadness or remorse over past acts. Having a longer life to look back on means that there are more things to regret and also potentially fewer opportunities to address the regrets via new behaviors. Surprisingly, given their longer lives and increased opportunities for regrets, older adults are less likely than younger adults to report regrets. For instance, nearly 4,000 Dutch and German adults 45–85 years old were asked to complete the measure of lifetime thinking back on my past life, I regret..." (Timmer, Westerhof, & Dittmann-Kohli, 2005); the likelihood of reporting nothing to regret increased with age. In addition, among 825 Swedish adults between 18 and 85 years old, self-reported frequency of regret decreased with age, along with the intensity and duration of everyday regrets (Vastfjall, Peters, & Bjälkebring, 2011; see also Bjälkebring, Vastfjall, & Johansson, 2013).

Even when regrets are induced in the laboratory as part of risky gamble choices and so younger and older adults have the same temporal distance from their choices, there are age differences in how much people focus on potential or past regrets. For instance, when asked why they made the choices they did in a risky gamble under uncertainty, older adults were more focused on receiving some positive reward and cared less about avoiding potential regret than younger adults (Mather, Mazur, Gorlick, Lighbricht, & Ariely, 2012). In another study, feedback about missed chances on one risky-choice trial predicted risk-taking behavior on the next trial in healthier younger and depressed older adults (suggesting their choices were modulated by regret), but not in healthy older adults (Beau, Gomer, Peters, Ghath, & Bichel, 2012). In addition, the healthier, snowdon, & Frei, 2003). Likewise, baseball players who smiled authentically (moving muscles both around the mouth and eyes) in their photos in the 1952 Baseball Register were half as likely to die in the subsequent year compared with nonsmilers (Figure 18.2).

In addition to predicting mortality, negative emotions are associated with physical health in late life. For instance, among older adults, higher levels of intense life regrets are associated with more control secretion and health problems (Wunsch, Bauer, & Luspen, 2007). One question the survival effects raise is how much the decrease in negative affect among older cohorts results from the happiest people surviving the longest. So far, no studies have tackled the longevity among those who are healthy, albeit with a weaker relationship with longevity among those suffering from a disease (Dener & Chan, 2011). For instance, positive emotional content in nuns’ early life autobiographies predicted longevity sixty decades later, the healthier Snowdon, & Frei, 2003). Likewise, baseball players who smiled authentically (moving muscles both around the mouth and eyes) in their photos in the 1952 Baseball Register were half as likely to die in the subsequent year compared with nonsmilers (Figure 18.2).

A question that these findings raise is if negative emotions are associated with shorter and less healthy lives, why do we even have them? According to functionalist theories of emotion, all emotions have some adaptive benefits (Bar, Chapman, & Anderson, 2013; Kelnner & Haab, 1999; Levenson, 1999). For instance, sadness and depression can focus and enhance analysis of social problems and allow to partners the need to help or make concessions (Watson & Andree, 2002). Depression also facilitates disengagement from unattainable goals (Wrosch & Miller, 2009). Anger, in contrast, promotes readiness to take action and persistence (Frija, Ruspo, & ter Schure, 1999; Leach & Stevens, 2008).

The adaptations of specific emotions may change with age. For instance, goal disengagement may play a more important role for older adults as they perceive diminishing opportunities to undo the consequences of their regrets (Wrosch, Bauer, & Scheer, 2005). Consistent with the idea that certain negative emotions may promote well-being most at certain life phases, the relationship between participants’ negative emotions in response to a thematically ambiguous film and their subjective well-being depended on age, with anger responses associated with higher well-being for middle-aged or older adults, and sadness responses associated with higher well-being for older but not the other groups (Haase, Seider, Shota, & Levenson, 2012).

### Emotions Predict Longevity

People who experience relatively more positive than negative emotions in their everyday lives live longer (Carstensen et al., 2011; Dener & Chan, 2011). Subjective well-being consistently predicted longevity among those who are healthy, albeit with a weaker relationship with longevity among those suffering from a disease (Dener & Chan, 2011). For instance, positive emotional content in nuns’ early life autobiographies predicted longevity sixty decades later, the healthier Snowdon, & Frei, 2003). Likewise, baseball players who smiled authentically (moving muscles both around the mouth and eyes) in their photos in the 1952 Baseball Register were half as likely to die in the subsequent year compared with nonsmilers (Figure 18.2).

### Age-Related Positivity Effect

In the research reviewed thus far, a picture emerges of late life as a time of surprising emotional resilience, with well-maintained positive emotions and somewhat decreased negative emotions. It turns out that there is also an age-related positivity effect in attention and memory (Mather & Carstensen, 2005). For example, in one study where younger, middle-age, and older adults completed a recall test of positive negative and neutral pictures, the
Contrary to this aging-brain model, however, older adults show intact threat detection advantages in visual search (Leclerc & Kensinger, 2006, Mather & Knight, 2006) and less structural decline in the amygdala than in most of the rest of the brain (Mather, in press; Nashmi, Sakaki, & Mather, 2012). And although older adults show less amygdala activity in response to negative stimuli than do younger adults, this does not seem to be due to decline but instead to what they are more attuned to, as they show more amygdala response to positive than to negative stimuli (Leclerc & Kensinger, 2011; Mather et al., 2004; Widinger, Kensinger, & Schulte, 2011). Another problem for the decline story is that the positivity effect is stronger in older adults who do well on tests of cognitive control than in those who do poorly (Mather & Knight, 2005; Petrik, Moscovitch, & Schumack, 2008) and emerges in visual search tasks that require controlled attentional processes, but not in those that require only automatic processes (Hahn, Carlson, Singer, & Grossmann, 2009). When presented with stimuli while engaged in a task that taps cognitive control resources, older adults no longer show a positivity effect (Knight et al., 2007; Mather & Knight, 2005). Thus, cognitive control mechanisms seem to promote older adults’ positivity in attention and memory. Indeed, the effect size of the positivity effect is larger when participants are free to process stimuli as they choose rather than being constrained by specific task instructions. Furthermore, in functional magnetic resonance imaging studies older adults show more prefrontal activity while processing emotional than neutral stimuli, compared with younger adults (Mather, 2012), suggesting that they are engaging prefrontal control processes to help guide the way they process emotional information. In particular, for older adults with strong positivity biases in attention, prefrontal control processes appear to downregulate amygdala responses to negative stimuli (Sakaki, Nigam, & Mather, 2013). Likewise, anterior cingulate activation is related to a positivity bias and emotional stability in successful aging (Brand, Gaser, & Kochel, 2011).

In summary, these findings reveal a surprising answer to the question of the mechanisms leading to older adults’ positivity effect. Instead of being associated with age-related decline in brain regions that detect and respond to negative information, older adults’ positivity effect is associated with prefrontal control mechanisms that help people direct their own attention and memory processes. This is not yet a complete answer, however. Cognitive control processes decline more than almost all other cognitive processes in normal aging, so why would older adults use these resources more than younger adults to guide their processing of emotional stimuli?

One potential answer is offered by a lifespan theory of how time perspective can influence emotion (Carstensen, Isaacowitz, & Charles, 1999). According to socioemotional selectivity theory, time horizons shape the ways in which people prioritize and set goals. When people view their time as expansive, they spend more time investing in their future, acquiring new knowledge, looking for novelty, and expanding their time horizons. Alternatively, when people view their time as limited, they often direct their attention to more emotionally meaningful endeavors, including the decision to have emotionally fulfilling relationships and feeling socially connected (Carstensen, 2006). This more limited time perspective among older adults may account for their greater focus on regulating emotions, a better emotional well-being profile, and their positivity effect (Bolte, Ochs, Marini, Sakaki, & Mather, in press; Carstensen, Mikels, & Mather, 2006; Reed & Carstensen, 2004; Reed & Carstensen, 2006a). In addition, in terms of the question of how older adults rely more than younger adults on cognitive control resources to direct attention and memory when processing emotional stimuli, older adults increasingly focus on emotion regulation goals than younger adults do. Older adults should also retain cognitive control processes more in the service of emotional goals than do younger adults, even if they have diminished cognitive control resources overall (Kyes, Lightbail, & Mather, 2009).

Emotion Regulation

Given the findings covered so far about how the balance of positive to negative affect improves with age, an obvious assumption is that older adults get better at regulating their emotions. Consistent with this possibility, older adults give themselves higher ratings than younger adults in response to the question, “Overall, how much control would you say you have over your emotions?” (Gross et al., 1997). In addition, older adults are less likely to ruminate on negative emotions (McCrae & Huba, 1999). Life experience might also help people become better at emotion regulation tasks (e.g., Blanchard-Fields, 2007) as it increases their social expertise (Hess & Kottenbrun, 2011). Yet laboratory studies that compare younger and older adults’ performance when they are instructed to regulate their emotions reveal no consistent age advantages for either younger or older adults (see Mather, 2012, for a review). Instead, where age differences are more likely to emerge is in which regulation strategies people tend to use. Older people are more likely to report using suppression and less likely to report using reappraisal, rumination, and active coping than younger adults (Nolen-Hoeksema & Ackerman, 2001; Muguio-General, & Troconiz, Cerrato, & Bell, 2008; but see John & Gross, 2004). Older adults also report prioritizing avoiding emotional situations more than do younger adults (Lawton, Klink, Rajagopalan, & Dean, 1992). This pattern of age differences is more challenging to investigate using laboratory methods, as what needs to be measured are people’s habitual modes of processing rather than their skill at any one type of processing.

A recent framework explains why younger and older adults spontaneously select different strategies to regulate their emotions. The framework—selection, optimization, and compensation with emotion regulation (Urry & Gross, 2012)—follows previous theoretical thinking (Baltes & Baltes, 1990) that by seeking to three core tenets (selection, optimization, and compensation), soc-
Emotion and Physiology

Arousal

Common aging ailments like peripheral neuropathy and constipation can impact arousal responses, including skin conductance and pupil dilation. As people age, their arteries become less plastic and muscular, muscles become weaker, resulting in a decrease in peripheral resistance and poorer blood circulation efficiency (Lakatik, 1990). These changes in the cardiovascular system influence some psychological measures of arousal, like blood pressure and heart rate. Aging also causes changes in the autonomic nervous system, resulting in a decrease in the quantity of sweat glands, the amount of sweat produced (Forges & Fox, 1996), and the accuracy with which we may be able to measure skin conductance. Thus, not surprisingly, age-related decreases on measures such as heart rate, skin conductance, respiration rate, eye pupil transmission, and sympathetic blood pressure have been found in people's responses to emotional cues (Krantzmann, Kupperbusch, & Levenson, 2005; Levenson, Friesen, Ekman, & Cattie, 1991; Tsai et al., 2001, but see Denburg, Buchanan, Tranel, & Adolphs, 2003; Neis, Leigland, Carlson, & Janowsky, 2009, for studies with no significant age differences for skin conductance).

In a longitudinal clinicopathologic cohort study, researchers found that a higher density of noradrenergic neurons in the locus coeruleus, a structure in the pons important for physiological responses to arousal, was predictive of a slower rate of cognitive decline (Wilson et al., 2013). This suggests that there is a relationship between the integrity of emotional arousal processes and cognitive performance during late life (Watson et al., 2006). One intriguing possibility is that, via coregulated, arousing events throughout life by having an engaging career and social life maintains brain health (and builds "cognitive reserve") even as neuropathology increases (Robertson, 2013).

Stress

Cortisol, a hormone responsible for stress regulation, on average shows a different diurnal rhythm in younger and older people. Although both younger and older people experience a peak (and subsequent slow decline) in the hormone after waking, older people never reach the same level as younger adults (van Cauter et al., 1996; also Nicolson, Storms, Ponds, & Salon, 1997). In another study that examined subgroups, 50% of older adults in the sample maintained the cyclical cycle of cortisol, while 50% of the rest of the sample had different patterns that varied with body mass index, sex, and day (see Katz-Stein, Hines, & Koren, 2004). This indicates that while day-to-day variation may increase, normal diurnal rhythms of cortisol can be maintained in late life.

Younger and older adults show similar cortisol responses to acute physical stressors such as holding a hand in ice water (Matther, Gorlick, & Light, 2009; Light, Gorlick, Schoeke, Frank, & Matther, 2013) and to the Trier Social Stress Test (an acute social stressor test) (Slick, Kischbaum, Hellhammer, & Kirschbaum, 2004; Rohleder, Kudielka, Hellhammer, Wolk, & Kirschbaum, 2002). Younger adults looking at a stressful video are more likely to show increases in cortisol than students who watch the video without a stressful component (Ludlow, Kudielka, & Kudielka, 2002). On the other hand, older adults who are less reactive to stressful stimuli maintain lower levels of cortisol than younger adults, even during high-stress conditions (Lauber, Bautier, & Dugas, 1981). A meta-analysis that included studies using pharmacological challenges found that, on average, older adults (and especially women) showed greater cortisol response to challenge (Orent et al., 2009). So, in general, older adults' cortisol response to acute stress is as strong or stronger than that of younger adults.

According to strength and vulnerability integration (SAVI) theory, in order to understand goals such as cooperating, forming a new relationship, showing affection, helping others, and fighting. Emotions are conveyed in many ways, but faces are often the most specific and clear signal of emotions.

A recognition of some emotions is more impaired by aging than others (see Isaacowitz & Stanley, 2011; Ruffman, Henry, Livingstone, & Phillips, 2008, for review). Older adults are typically worse at recognizing fear and sadness. They also sometimes are worse at recognizing angry expressions. They typically are as good as or better than younger adults, however, at recognizing disgusted expressions. Older adults also show age equivalence, smaller deficits, or even advantages in recognizing happy and surprised facial expressions.

Older adults' diminished ability to identify facial expressions of disgust is particularly striking because disgust is one of the few emotions younger adults find most difficult to identify (Ruffman et al., 2008). Disgust recognition seems to depend in particular on the insula (Adolphs, Tranel, & Damasio, 2003; Calder, Keane, Manes, Antom, & Young, 2000). The insula maintains its influence over face-processing networks more effectively with age than other brain regions that are more important for other types of facial emotions, such as the ventral striatum or amygdala (Adolphs, 2007; Calder, Keane, Lawrence, & Manes, 2004). For instance, while encoding fearful faces, younger adults showed more amygdala and hippocampal activation than older adults, while older adults showed more insula activity (Kahlea, Radnauf, & Tranel, 1999; Oster et al., 1999; Leitz, Costell, & Castell, 1997; Ramon, Machtios, Chapman, & Horowitz, 2000). The yet-unanswered question in the field is how these changes influence emotional experience and general well-being. Even past the simple question of whether these age-related changes affect correlational with emotional experience has not been assessed and is an important question for future research.

Recognizing Others' Emotional Facial Expressions

Other people are the most likely trigger as well as object of emotions for almost all humans (Oatley, 2004). What would life be like if we could not detect the emotions of others? Without this skill, it would be much more challenging to fulfill social
already been seen recently (Heise & Ruan, 2011). In addition, older adults are less likely than younger adults to follow the eye gaze cues of younger adults (Slessor, Phillips, & Bull, 2008).

**Clinical Issues**

**Depression**

Contrary to common perception, rates of depression in older adults are lower than in younger adults (Blazer, 2003; Hainin, Goodwin, Stinson, & Grant, 2005). But older adults’ symptoms of depression may be more harmful than younger adults’ symptoms (Frake, Wetherell, & Ott, 2009). Depression at older ages is associated with decreased cognitive, physical, and social functioning; increased risk of morbidity; increased risk of suicide; increased self-neglect; and increased mortality (Blazer, 2003). Clinical presentation at old age is the sum of a lifetime of social, environmental, and physiological risk and protective factors (Frake et al., 2009). Depression is also associated with increased frailty (Menek, Edwards, Lohman, Choi, & Lapane, 2012). Stressful life events have been associated with an increased risk of depression at all ages (Nolen-Hoeksema & Albers, 2002). The types of events would likely differ for younger and older people. Precipitating events in later life include financial difficulties, a new illness or disability, a family member with a new illness or disability, and changes in living situation (Frake et al., 2009). Older adults who experience socioeconomic disadvantage are more likely to have higher rates of depression (Mojtaba & Olivo, and lived experiences (Frake et al., 2009). There are some important differences between early and late onset. Those with early onset of depression are more likely to have a family history of depression, suggestive of possible genetic influence (Heun, Papassotiropoulos, Jessen, Maier, & Breintner, 2001). Older adults with late-onset depression are more likely to have vascular risk factors, experience disruption in cognitive functioning, and are more likely to develop dementia (Hickie et al., 2005; Schweitzer, Tuckwell, O’Brien, & Ames, 2002).

Depressed older adults often present with more physical than emotional symptoms (Buchanan, Irrug, Branjes, & Kugel, 2012). Older adults with depression are less likely to endorse dysphoria (a state of unease or general dissatisfaction with life) and feelings of worthlessness or guilt. Older adults with late-onset depression display sleep disturbances, fatigue, psychomotor retardation, loss of interest in living, and hopelessness about the future, more so than younger adults or older adults who had early-onset depression (Frake et al., 2009). Depressed older adults are also more likely to complain about poor memory and concentration (Christensen, Dorm, MacKinnon, Korten, Jacobb, et al., 1999).

**Anxiety**

Anxiety symptoms are likely twice as prevalent as depression symptoms in older people (Singleton, Bumpstead, O’Brien, Lee, & Meltzer, 2002). Anxiety and depression are common (Wetherell, Maser, & Baskom, 2005). Depression and anxiety often present together and have similar risk profiles (Vink, Aarstorp, & Schoeven, 2020). Though anxiety and depression are common psychiatric symptoms at any age, it has several age-specific facets (Wölitzky-Taylor, Christensen, Lenz, Stanley, & Craske, 2010). Anxiety related to fear of falling (e.g., preparing for a fall) is common in older adults (Kott et al., 1999; Assal & Cummins, 2002).

**Cultural Cavities in How Age Relates to Emotion**

One limitation of this review is that the majority of studies comparing emotion and associated processes have been conducted in English-speaking countries. It is unclear if there are similar age associations elsewhere or if there are cultural differences. One study suggests that culture can have a significant impact on how emotional well-being differs across age cohorts (Steptoe, Deaton, & Stone, 2015). While English-speaking wealthy countries showed the general pattern of increasing well-being with age, regions such as the former Soviet Union and Eastern European countries showed a decreasing ratio of positive-to-negative emotional ratings, and other regions such as Africa and Latin American regions showed few age differences in emotional patterns. Differences in these cross-sectional trends in these regions suggest that the future of emotional well-being may be better in regions that are more wealth and have lower levels of wealth, and that there are better strategies to support well-being in regions with lower levels of well-being.
III. DEVELOPMENTAL PERSPECTIVES

An unusual study showed results between younger and older people. Depression is less frequent in late adulthood. Depression tends to affect older adults more than younger adults. The presence of older and younger adults is associated with lifelong stress of social problems, including chronic illness, and changes that affect the development of mental health. Older people are often anxious about developing and chronic illnesses—things that people worry about in general. Emotional arousal is a domain in which older adults are perceived to be more sensitive to emotional stress and to be more likely to experience depression. Current theoretical models have helped explain some of the differences in emotional processes, but more research is needed to see if (if any) of the theoretical frameworks outlined above can be ruled out or further supported.

References


