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So She May Thrive:

Psychological Flexibility As A Pathway To Flourishing For Teenage Girls

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Advisor: David Yaden

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Abstract

Adolescence is a heightened period of *storm and stress* due to the many developmental changes taking place during the teen years. For teenage girls, these challenges are often exacerbated by environmental stressors including impossible cultural standards of success, media overuse, and daily harassment by peers that threaten overall well-being. This capstone reviews research in positive psychology that promises to improve teenage girls' ability to navigate life stressors, and to embrace adolescence as a time of wonder—of curiosity and exploration, passion, novelty-seeking and building new relationships. Psychological flexibility is proposed as a cornerstone of adolescent health and well-being, and its presence may help girls navigate the challenges posed by the adolescent years with greater resilience, connection and courage. *Psychological flexibility* refers to the ability to connect to the present moment and to change or persist in behaviors that align with deeply held personal values (Hayes, Strosahl, & Wilson, 2012). Although a fluid construct, research suggests that emotion regulation flexibility, mindfulness, self-compassion, positivity, and valued action increase psychological flexibility and its many benefits. Targeted interventions including Mindful Self-Compassion and a modified Acceptance and Commitment Therapy training are discussed as promising strategies to help teenage girls cultivate psychological flexibility as they transition from girls into thriving adults.

Key words: Adolescents, Psychological Flexibility, Emotion Regulation, Self-Compassion, Mindfulness, Positivity, Valued Action, Interventions.

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Introduction

“Just wait until she’s a teenager!” Most parents, myself included, have been warned about the difficulty and perils of raising a teen girl (or three in my case¹): the spiral of emotions, the girl drama, the smart phone addiction, the toxic culture of comparison and competition, the rise in teen depression and anxiety and the concerning research on the self-esteem gender gap. The cultural dialogue in Western societies suggests a great deal of curiosity, ambivalence, and confusion about today’s teen girls and their role and place in the community. Media portrayals fuel negative tropes by overdramatizing problems that can be a normal part of adolescence (e.g., *Mean Girls*, a popular movie about female social cliques and their damaging effects) and often stereotype teenagers as impulsive, reckless, and emotionally unstable. In the scientific literature, adolescence is also often portrayed as a negative stage of life—a period of *storm and stress* to be survived or endured (Arnett, 1999).

Despite the deficit-based portrayals of adolescence—and the negative attitudes about adolescents that they support—to be a girl today is to enjoy historic promise. In the past thirty years, women have made dramatic progress in areas of leadership, economic security, science, sports and health. The picture is not perfect, certainly, and substantial inequalities remain: women are paid just over 80 cents for every dollar a man earns, and the gender wage gap is even larger for women of color (Institute for Women’s Policy Research, 2019). Still, today’s teens are stronger, smarter and more resistant to disease than ever before (Casey & Caudle, 2014), and teenage girls, in particular, continue to outperform boys in mathematics, science, and reading achievement (Stoet & Geary, 2015). For the first time in the United States, there are also more college-educated women in the work force than college-educated men (Voyer & Voyer, 2014).

¹ I have three daughters, Caleigh (13), Fianna (10) and Madeleine (8). I reference Caleigh occasionally in this paper; she is our first daughter to reach adolescence, and our test case for how to support a teenage girl during this period in her life. She feels “just kinda ok” about this.

In addition, recent research on adolescent brain development is helping to dispel myths about the teenage brain to reflect a more thoughtful, and optimistic, understanding of the teenage years. Neuroscientist Frances Jensen explains that adolescence is a time of true wonder when the brain is flexible, open and “capable of titanic stimulation and stunning feats of learning” (Jensen & Nutt, 2014, p. 6). Steinberg (2015) similarly refers to adolescence as the “age of opportunity” when the brain is highly malleable, making it a crucial time of life for determining future success and happiness (p. 207).

Despite the positive shift by researchers regarding the potential for adolescence to be a time of incredible health and well-being, teen girls (and their parents) seem to have missed the memo. Teens today feel more stressed than their parents and experience the emotional and physical symptoms of chronic tension at levels previously seen only in adults (Damour, 2019). Anxiety, depression and substance use are the most prevalent mood disorders experienced by adolescents, and suicide is now the third leading cause of death among 10–14-year-olds and the second leading cause of death among 15–34-year-olds (Black & Rofey, 2016). These mental health trends do not affect boys and girls equally; our girls suffer more.

The emerging epidemic of unhappy girls is problematic for at least two reasons. First, anxiety and depression impair normal adolescent development (which is bumpy already), and often lead to struggles in school, difficulty with relationships, decreased quality of life and substance abuse (Boynton, 2014). Second, that same brain flexibility and openness for growth that offers major advantages for healthy development also renders the teen brain highly vulnerable to stress, chemical substances, and other changes in the environment (Jensen & Nutt, 2015). For this reason, teens’ exposure to acute and chronic stressful events and adversity is a potent risk factor for psychological problems in adolescence and beyond (Steinberg, 2014).

Purposeful intervention to promote positive emotional growth in adolescence and to prevent long-term mental health challenges is therefore imperative.

This capstone reviews research in positive psychology and resilience that promises to improve teenage girls' ability to navigate life stressors, and embrace adolescence as a time of wonder, positive growth and opportunity. To set the context, part one provides an overview of the early studies of teen development and part two reviews the cognitive, social and emotional processes that characterize the middle adolescent years including common challenges to normal development. Part three addresses the thriving adolescent, reviewing research in positive psychology that conceptualizes adolescent well-being as including engagement, purpose, optimism, connectedness and happiness. Part four introduces psychological flexibility as a keystone of emotional health in teen girls, and discusses the core-interconnected processes that contribute to it: emotion regulation, mindfulness, self-compassion, positive emotion, and valued action. Finally, part five reviews two promising interventions that may boost skills related to psychological flexibility and makes research-based suggestions to maximize their efficacy. My hope for this capstone is to inspire and encourage teenage girls and their parents to view the adolescent years as a less punitive, and more promising time to thrive.

Part One

Early Studies in Teen Development and Defining Adolescence

Early Studies of Teen Development

The recognition of adolescence as a discrete developmental phase is a relatively new phenomenon (Jensen & Nutt, 2015). The first use of the term *adolescence*, a derivative of the Latin word *adolescere* meaning “to grow up or grow into maturity,” did not appear in Western philosophy until the 15th century, and then only emerged as an area of scientific study in the

early 1900s (Lerner & Steinberg, 2009, p. 3). In 1904, American psychologist G. Stanley Hall (1904) published a two-volume work on adolescence that framed this period of life from a biological, deficit-based viewpoint. According to Hall, adolescence represented a period of time when “human ancestors went from savagery to civilization” (Lerner & Steinberg, 2009, p. 4). This transition made adolescence a period of storm and stress, a time of wild exuberance and only *slightly* more controlled than the absolute anarchy of childhood. Hall identified three key aspects of adolescence that began with the initiation of puberty—mood disruptions, conflict with parents, and risky behavior—and suggested that parents and educators indoctrinate teens with ideals of public service, discipline, patriotism, and respect for authority (Hall, 1904).

Hall’s deficit view of adolescence shaped the thinking of many developmental theorists in the following decades. For example, in the mid-twentieth century, psychoanalyst Anna Freud (1958) viewed adolescence as a universal biological and developmental disturbance, and developmental psychologist Erik Erikson (1968) suggested that maturity resulted from an inescapable psychological crisis of identity versus role confusion. Some of their contemporaries did reject the nature-based ideas of development, but only to propose equally one-sided, nurture-orientated theories to explain the same problems of “developmental disturbance and crisis” (Lerner & Steinberg, 2009, p. 4). In the late 1960s, Swiss psychologist Jean Piaget (1969) proposed a slightly more integrated view of nature and nurture as sources of development but still viewed each as a separate or split source of development that just happened, on occasion, to interact. According to Lerner and Steinberg (2009), it was these false dichotomies—nature versus nurture, continuity versus discontinuity, stability versus instability—that limited the field’s intellectual development and ultimately caused these prominent theories to wane in popularity (p. 5).

Ironically, at the time of Hall's publication in 1904, adolescence had not yet emerged as a distinct stage of life qualitatively different from childhood or adulthood, and children were still considered mini-adults responsible for contributing financially to the family. The Industrial Revolution was in full swing, and more than two million children over the age of ten were employed in the United States (Jensen & Nutt, 2015). Two major events ushered in the era of the teenager: the great depression and the rise of high schools. Following the 1929 stock market crash and advent of Child Labor Laws, American youth suddenly had both time and freedom on their hands, so they went to school.

By the late 1930s, most fourteen-to seventeen-year-olds were enrolled in high school and they quickly became a "kind of class unto themselves" (Jensen & Nutt, 2015, p. 17). Teenagers looked different from adults, preferred different clothing and interests, and used different vocabulary. In short, they were a new culture that captured the interest of scholars in multiple scientific areas—developmental psychology, sociology, neurobiology, and organizational psychology. By the end of the 1970s, the study of adolescent development had come of age as a distinct and major field within the sciences focused on brain plasticity, diversity, and individual agency— or the view that all young people possessed the strength and capacity to influence their development for better, or for worse (Lerner & Steinberg, 2009).

Defining Adolescence

While the biological and environmental study of adolescent development has coalesced, and is even enjoying a third phase of research aimed at understanding and promoting positive, healthy development among all youth (Lerner & Steinberg, 2009), the demarcation between childhood and adulthood remains ambiguous. America still carries the vestiges of our centuries-old confusion about the onset of adulthood. Up until the 1970s (and in many non-western

societies still today), communities marked an individual's transformation from child to adult with rituals or rights of passage that lasted from a few hours to several weeks, often characterized by an initiatory wound or separation, transition rites, and incorporation (Turner, 1969; Frankel, 1998). For example, in the Northwest Amazon, Tukana girls are secluded in the family home following the onset of menstruation for 4-12 weeks to prepare for their safe passage to womanhood (Delaney, 1995). As part of the tradition, the girl paints her body with black dye to protect herself from the Noo, a demon from the underworld, and speaks only with her mother or aunt. The ritual is complete when the girl exits her home blindfolded by red macaw feathers, walks to the center of town and takes off her feathers to see the world as a fully-grown woman. The coming-of-age ritual marks the girls' move from a state of psychological ignorance to psychological savvy, or from child to adult (Frankel, 1998)

In Western societies, the transition from childhood to adulthood often takes years and with the exception of bat mitzvahs, confirmations, and celebrations around first periods or graduation, initiation rites have virtually disappeared (Frankel, 1998). Most experts now define adolescence as beginning in biology—the onset of puberty — and ending in culture—relative independence from caregivers (Steinberg, 2014). The cultural messaging around this phase of life remains mixed, however: a person must be sixteen to drive, eighteen to vote and twenty-one to drink alcohol. Teenagers can join the military, go to war and marry without the consent of their parents. Many girls are now beginning puberty as early as age nine, look physically like an adult by age thirteen, and are even able to become a parent as this age, but most do not consider a thirteen-year-old an *adult* (Steinberg, 2014). Conversely, society seems to be delaying transition into adult roles; large-scale surveys show that teenagers stay in school longer, rely on their parents for financial support and housing longer, and delay marriage and parenthood. For these

reasons, Steinberg (2014) predicts that by 2020, adolescence will take almost twenty years from start to finish.

So what does being a teenager mean today? The answer has both practical and serious implications for parents, educators, and the larger society (e.g., the criminal justice system). Ask a teenage girl and she will likely tell you that being teenager is a roller coaster of emotions between confidence, insecurity, invulnerability, anxiety, excitement, apathy, worry, and doubt — all before 9 a.m. For purpose of this paper, adolescence refers to teenage girls in middle adolescence (ages 13-17), and addresses the unique opportunities and challenges facing them as they transition into adulthood.

Recognizing Diversity

The population of adolescents in the United States is increasingly becoming racially and ethnically diverse, with 45 percent of adolescents ages 10 to 19 in 2014 identifying as Hispanic, Black, Asian or Multiracial. These numbers are predicted to increase to 58% by 2050 (Office of Population Affairs, 2019). Most studies on adolescent development reported in the scientific literature look only at White middle-class teens, and research on normal development for minority youth is lacking (Syed, Santos, Yoo, & Juang, 2018). This raises important questions including: “From whose vantage point is research conducted? What types of questions are valued? And who gets left out?” (Syed et al., 2018, p. 812). Moreover, because most studies lack a racially and ethnically diverse sample population, readers are cautioned to be careful when generalizing findings to all adolescent girls, particularly girls that belong to a racial or ethnic minority group experiencing social inequalities or systemic racism. I hope future research will unpack influences of race, ethnicity, education, culture, and income on specific aspects of adolescent development and, importantly, what it means to flourish as a teenage girl of color in

2019.

Part Two

Adolescent Development: Changes and Challenges

I take it that it is normal for adolescent to behave for a considerable length of time in an inconsistent and unpredictable manner; to fight her impulses and accept them; to love her parents and to hate them; to revolt against them and be dependent on them; to be deeply ashamed to acknowledge her mother before others and, unexpectedly, to desire heart-to-heart talks with her; to thrive on imitation of others while searching unceasingly for her own identity; to be more idealistic, artistic, generous, and unselfish than she will ever be again, but also the opposite: self-centered, self-centered, egoistic, calculating. Such fluctuations and extreme opposites would be deemed highly abnormal at any other time of life. At this time they may signify no more than that an adult structure of personality takes a long time to emerge, that the individual in question does not cease to experiment and is in no hurry to close down on possibilities.

- Anna Freud, *Psychological study of the child*.

Adolescent Development

There is a predictable pattern to teenage development, “a blue print for how girls grow” (Damour, 2016, p. xiv). To be sure, adolescence is a period of extraordinary change; children gain half of their adult weight, become capable of reproducing, and experience a complete reorganization of the brain’s neural network (Steinberg, 2014; McNeely & Blanchard, 2009). Healthy normal development is also uneven. There are periods of rapid physical growth intermixed with stagnant emotional growth that adds complexity to an already out-of-sync process. Still, adolescent development can generally be understood in terms of five developmental transitions — physical, emotional, cognitive, social, and behavioral development - that provide a framework for understanding the adolescent experience (McNeely & Blanchard, 2009). Although the changes in each area often intersect and overlap, this capstone reviews cognitive and social-emotional development specifically and identifies three common challenges

to normal development faced by adolescent girls today.

The Ever-Expanding Teenage Brain

The human brain is a complex puzzle composed of interconnected parts, each with its own functions and properties. Until recently, most researchers believed that brain plasticity—the brain’s ability to modify connections within and between its interdependent parts—peaked before adolescence began (Steinberg, 2014). However, recent brain research indicates that adolescence is the “new zero to three” in terms of developmental plasticity (Steinberg, 2014, p. 10). Following the onset of puberty, the adolescent brain undergoes rapid structural and functional changes impacted by hormones, other brain chemicals (e.g., dopamine) and life experience. These changes in brain structure steer the emotional and cognitive development discussed below.

There are several models of neurobiological brain development that attempt to explain the transformation of the adolescent brain, and why teenager may engage in certain behaviors during this phase (Casey, 2015). The most influential one is a dual-system model that suggests adolescent behavior results from a balance between a *cool* and a *hot* system. The cool system is an “emotionally neutral, strategic, and flexible cognitive system” located in the prefrontal cortex, whereas the hot, or limbic, system is highly emotional and driven by fears, desires, and reflexes (Casey, 2015, p. 298). The balance between the hot and cold systems varies depending on stress, the individual and developmental stage. This model may explain why adolescents are more easily aroused around the time of puberty—their hot system is *starting its engine* (Steinberg, 2014)—while the cold system is just getting organized. Brain maturation and the integration of the two systems does not occur until the early twenties, which explains the difference between

teenagers and adults in sensation seeking, risk taking and sensitivity to social evaluation (Casey, 2015).

While there are other neurobiological models of adolescence (Ernst, Pine, & Hardin, 2006), scientists agree the teenage brain is undergoing a major remodeling process that results in nonlinear changes in behavior as synaptic pruning fine-tunes the cortex (the cold system) and other areas that influence judgment, impulse control, planning, and emotion regulation (Sawni & Breuner, 2017). Put simply, learning to be a young woman is an uneven process that takes many years to unfold. Researchers also seem to agree that science no longer supports the misconception that to be a teenager is to be irrationally explosive or immature (Jensen & Nutt, 2015). Rather, adolescence is a heightened period of learning, social engagement and creative exploration that is necessary to prepare teens for adulthood, and it inevitably involves a certain degree of risk.

Cognitive Development

There are three main areas of development that occur during adolescence (McNeely & Blanchard, 2009). First, teenagers develop advanced reasoning skills, such as the ability to explore different possibilities, think hypothetically, and use inductive and deductive reasoning. Second, young people move from being concrete thinkers to abstract thinkers, able to imagine things not seen or experienced. This skill allows teenagers to have the capacity to love and to think about spirituality, among other things (McNeely & Blanchard, 2009). The emergence of abstract reasoning also coincides with an increase in levels of social anxiety as teens learn to construct an image of how they appear to others during social encounters (Rosso, Young, Femia, Yurgelun-Todd, 2004).

Last, teenagers learn to think about thinking, a process called meta-cognition (McNeely

& Blanchard, 2009). This skill allows teenagers to develop the capacity to think about their feelings and how others perceive them, and it helps to internalize social norms and acquire interpersonal skills. Meta-cognition may also explain the theory of imaginary audience proposed by developmental psychologist David Elkind, where adolescents believe they are the focus of attention from an imaginary audience that shares his/her preoccupations or concerns (Alberts, Elkind, & Ginsberg, 2007). Pubertal hormones may also contribute to this phenomenon. Hormones prompt an increase of receptors for oxytocin in the limbic area of the brain, the hot system, which increase feelings of self-consciousness. As a result, a teen may truly feel that everyone's attention is focused directly on her, causing heightened self-consciousness and a tendency toward conformity.

Psychosocial Development

There are several broad areas of psychosocial development in adolescence including the development of autonomy and the building of self-identity. These processes may lead to an increase in family turmoil and rebellion, but they are necessary to prepare teenage girls for adulthood.

Autonomy. Clinical psychologist Damour (2016) refers to the establishment of autonomy as a developmental strand marked by “parting with childhood” and “joining a new tribe” (pp. 3, 46). There are three types of autonomy: behavioral, emotional and cognitive (Lerner & Steinberg, 2004). Emotional autonomy relates to emotions, while cognitive autonomy refers to having independent attitudes and beliefs about spirituality, politics, and morals. A teenagers burgeoning ability to think in abstract ways helps them to consider and develop their personal value system. The development of autonomy is also uneven. For example, not all 13-year-olds are able to articulate their spiritual beliefs or values, but show remarkable control over

their behavior.

The move toward autonomy begins during early adolescence (ages 12-14 years), as teens lose interest in family activities and parental advice and instead rely on same-sex friendships or their new tribe (Damour, 2016). For teen girls, tribe membership is significant; teens aren't just looking to make friends, they are replacing their family-of-origin with a tribe they feel proud to call their own. As a result, teens often idealize their peer group, and are strongly influenced and shaped by their tribe's codes and values, attitudes, interests and behaviors in relation to school. And it feels good to belong. Research indicates that during adolescence the brain processes peer acceptance similarly to other pleasurable rewards, such as receiving money or eating candy (Casey, 2015). Conversely, teens experience perceived rejection as acutely painful² (Steinberg, 2014). Not surprisingly, girls often become extremely upset when they experience peer conflict, or when they struggle to find social acceptance.

During middle adolescence (ages 15-17 years), a girls' tribe often expands to include friends of the opposite sex, and some girls begin to enter the romantic world (McNeely & Blanchard, 2009). Dating helps teens to learn about other people, explore sexual feelings and identity, and expand emotional growth. Family conflict is likely to be at its highest during this time, as teens move toward independence and an identity outside the family. By late adolescence (ages 18-21 years), most teens have developed a separate identity from their parents, and have diversified their social network beyond a single tribe or clique (McNeely & Blanchard, 2009).

Building a sense of self. Adolescence is the first time when a person intensely contemplates the question, "Who am I?" (McNeely & Blanchard, 2009). Increases in cognitive

² According to Steinberg (2014), the pain of rejection resembles actual physical pain such that taking Tylenol will help to alleviate it.

development give teenagers the tools to start answering this question by developing a personal identity. Identity, as McNeely and Blanchard note, relates to one's sense of self and is divided into two areas: self-concept and self-esteem. Self-concept refers to a girls' perception of herself—her talents, qualities, goals, and life experiences. Self-concept may also include religious or political beliefs, sexual identity, or identification with an ethnic group and her experiences as a result of that connection (McNeely & Blanchard, 2009). For example, my daughter Caleigh's self-concept is based on her belief that she is funny, artistic, curious, *kinda* religious and is interested in becoming an environmental activist. In contrast, self-esteem relates to how girls feel about their self-concept and whether they have high regard for who they are. Self-esteem is directly affected by approval from parents, other adults, personal successes and failures, and the support they receive from friends and family.

During adolescence, girls also grapple with how others see them and how they fit into the world as they move through five developmental tasks: becoming independent, achieving mastery or a sense of competence, establishing social status, experiencing intimacy and determining sexual identity (McNeely & Blanchard, 2009). Identity formation is a creative process, meaning that adolescents will try on different ways of being to see what feels right in the different areas. As they form their identity, teens may question their personal values and beliefs and also examine relationships with parents, siblings, friends, romantic interests, and other adults. They may form a personal definition of success in school or society based on their intrinsic gifts and talents (McNeely & Blanchard, 2009). It is important to allow teens the opportunity to build their sense of self. Research suggests that adolescents are more likely to be depressed or to act out if parents or authority figures do not give them the freedom to think and feel autonomously (as cited in McNeely & Blanchard, 2009).

Emotional Development

Last, adolescence is characterized by the development of social and emotional competencies. In general, these competencies include the ability to understand, to reflect and to manage emotions and behaviors, solve problems successfully, feel and show empathy and compassion for others, and act appropriately in social situations (McNeely & Blanchard, 2009). In the professional literature, the term *emotional competencies* is used to represent various constructs including emotional understanding and emotional intelligence. Emotional understanding and intelligence start to emerge during middle childhood as children learn to interpret social rules and react to their own and other people's emotional cues across social and cultural contexts (Kuhnert, Begeer, Fink, & de Rosnay, 2017).

Adolescents often develop emotional and cognitive capacities at a different rate than physical maturation. This can result in emotional-cognitive or emotional-physical asynchrony where adolescents misinterpret other's feelings and emotions, and/or are treated as older than their emotional stage of development (McNeely & Blanchard, 2009). Not surprisingly, dysfunctional methods in regulating emotional states are associated with poor social, behavioral and academic outcomes (Schäfer, Naumann, Holmes, Tuschen-Caffier, & Samson, 2017). The opposite is also true; adaptive emotion regulation strategies are linked to academic success, better social functioning and well-being in adolescence and adulthood.

Challenges to Adolescent Development

Stress

Adolescence is a period of heightened stress due to the rapid and concomitant changes in physical growth and brain development. Some adolescents weather the storm with relative ease and/or view stress as positive, a concept referred to as *eustress*. Broadly, stress is defined as an

individual's response to a demanding stimulus or stressor and his or her appraisal of that demand (Branson, Dry, Palmer, & Turnbull, 2019). Teens that appraise stressors as beneficial or even advantageous are likely to experience positive growth, beneficial cognitive functioning (i.e., thinking clearly), increased motivation (i.e., feeling driven) and overall happiness. Stress is also a vital warning system that keeps us safe (e.g., jumping away from a moving car) and some research suggests that stress helps to fortify our immune system. Put simply, healthy stress is not all bad.

However, the benefits of stress are limited and this is particularly true for adolescents. Research suggests that teens are less protected against stress than adults due to neurological changes during development, and the effects are far reaching (Jensen & Nutt, 2014). Stress often leads to diminished executive functioning, such as the ability to pay attention and to problem solve, and can predispose teens to mental health problems, including depression, anxiety and post-traumatic stress disorder. Unfortunately, adolescent stressors are everywhere—from grades and test scores to peer rejection—and teens are struggling to cope. Since 2012, both anxiety and depression have started to rise after several years of stability, and girls suffer more than boys (Damour, 2019). For example, before puberty, girls and boys experience roughly equal rates of depression. This changes dramatically by age 13; by middle adolescence girls are twice as likely as boys to be diagnosed with a mood disorder (Nolen-Hoeksema & Girgus, 1994). It's a phenomenon that appears to cut across demographic groups regardless of race and income.

There is no consensus on the cause of the increase in overwhelmed and anxious girls. Experts point to a number of possible explanations. Girls spend more time on social media platforms than boys, which may lead to increased symptoms of depression (Simmons, 2018; Twenge, Spitzberg, & Campbell, 2018). Girls are also more concerned about body image, and

tend to worry more about academic performance than boys. There are also genetic and personality factors that may increase adolescent girls' vulnerability to stress (Hankin, 2006). Most likely, it is some combination of environmental and genetic factors that exacerbate teen girls' ability to navigate the storm and stress experienced in adolescence. However, in recent years, empirical and qualitative research has highlighted three common stress triggers for teen girls—media use, impossible cultural standards, and daily harassment by peers.

Media Use

Human beings are social animals and the quality of our social ties may be the best predictor of our well-being (Butler & Kern, 2016). This is no different for teens. In a 32-year longitudinal study, Olsson and colleagues (2013) found that adolescent social connectedness was a better predictor of adult well-being than academic achievement. The robust relationship between feeling like one belongs and well-being over a decade later illustrates the enduring significance of positive social relationships. Studies of extended social networks have also shown that adolescents' friendships strongly impact their health and development (Lamblin, Murawski, Whittle, & Fornito, 2017).

The rise of digital media use (e.g., video games, computers, tablets, smart phones) has ushered in an era of unprecedented connectivity. Social networking sites encourage constant connection to information, to endless entertainment, and to each other. A number of empirical studies exploring teens' use of social networking suggest that teens use these platforms for exactly this purpose—to find kindness and connection with friends (Weinstein & Selman, 2016). Teen girls, in particular, dominate the social media platforms. In 2016, 58% of Instagram's 400 million users were female and teen girls' usage exceeds boys' usage by double-digit margins (Simmons, 2018). Girls also send more texts, post more pictures and have more friends online

than boys. At its best, social media offers a place for girls to connect and communicate in healthy and productive ways. Social media can also open doors to a sense of purpose and political identity, and provide effective distraction and humor that may boost positive affect.

Unfortunately, an increasing body of evidence suggests that teens also experience significant stressors in their socio-digital lives. For example, Weinstein and Selman (2016) found that teens experience stress due to negative interactions and online bullying including impersonation (i.e., account hacking), receiving mean or harassing personal attacks and public shaming and humiliation. A 2013 meta-analysis of 131 studies found that adolescents who experience cyber bullying feel embarrassed, fearful, depressed and lonely, and are at increased risk for mental and physical health problems (Kowalski & Limber). Many teens also face pressure and anxiety related to their social media presence. Author Rachel Simmons (2018) writes “a girl’s social media brand is yet another highly demanding platform where she is expected to perform, achieve, and compare herself to others” (p. 28). Psychologist Damour (2019, p. 90) similarly explains “to be a teenager is to compare oneself to others” and social media’s omnipresence exacerbates negative social comparison and feedback seeking, behaviors linked to depressive symptoms and decreased life satisfaction (Nesi & Prinstein, 2015).

In addition, digital connectivity and roaming the digital world may (ironically) lead to social isolation and loneliness, leading risk factors for stress, anxiety, depression and suicidal ideation (Heinrich & Gullone, 2006; Twenge et al., 2019). Technology presents endless opportunities for distraction and novelty seeking, and for the teenage brain, this kicks off the reward circuitry delivering a rush of feel-good dopamine (Jensen and Nutt, 2014). For this reason, neuroscientist Frances Jensen argues that technology is a drug and while adolescents are the savviest of users, they are also the most vulnerable to addiction (Jensen & Nutt, 2014). The

compulsive need to be digitally connected is both time-consuming and potentially isolating as time spent online displaces in-person interactions.

For example, Twenge and colleagues (2019) recently found that iGens (adolescents of the mid-2010s) spend less time with their friends in person, including getting together, socializing, going to parties or movies, dating, or riding in cars for fun, than Boomer-era adolescents. These trends have not improved; in 2017, eighth graders hung out with friends 41 fewer times a year than in 2010, and the percentage of students attending social events also declined. Meanwhile, loneliness increased significantly between 2010 and 2017 among middle adolescents, with the increase in loneliness most pronounced among girls. These findings suggest the decline in in-person social interaction correlates with the rise of loneliness and digital media use (Twenge et al., 2019). Importantly, teens *low* in in-person social interaction but *high* in social media use reported the highest level of total loneliness.

Last, teen girls may use digital media to distract from difficult emotions, creating a reinforced avoidance of emotional experiences and stunted emotional regulation skills. Emotion regulation is a central component of mental health, and its imbalance is often a core factor in a variety of mental health disorders (Gross, 1998). Research suggests that internet overuse may lead to greater difficulties in emotion regulation and an increase in depressive symptoms (Gamez-Guadiz 2014). To alleviate the bump in uncomfortable feelings, teens increase their internet use for the short-term feel-good hit that it provides, which further stunts their emotional regulation skills. It's a vicious circle that is hard to break. Therefore, while smartphones enable constant connection with each other, the trend away from in-person interactions and increase in digital use may have far-reaching implications for adolescent well-being.

Impossible Cultural Standards

For many girls today, the drive to achieve is fueled by self-criticism and an acute fear of failure, explains Simmons (2019). Despite outward success, girls report feeling that they will never be enough: “smart enough, successful enough, pretty enough, thin enough, well liked enough, witty online enough, or sexy enough” (Simmons, 2019, p. ix). American culture may be to blame. Western ideals hold girls and young women to unfair and impossible standards: be agreeable, attractive, and successful. There has never been a more academically impressive generation of girls than the young women today. However, research shows that girls, more than boys, worry about school, even though girls outperform boys in every subject. To explain this paradox, experts point to cultural expectations to please (or to not disappoint) others and, for high-achieving girls, constant pressure to be extraordinary. This results in diminished self-worth and relentless stress (Simmons, 2019).

Contemporary American society also expects girls to be agreeable, and to do as asked. In general, adults are less inclined to excuse girls’ unwillingness to help because *girls will be girls*—and explanation often granted to boys who are disagreeable. Girls are expected to accommodate others at school, at home and in social relationships, or risk being called inconsiderate, rude, or a mean girl. This may be particularly problematic in romantic relationships where girls often lack the skills and confidence to regulate what happens in the relationship. Psychologist Damour (2019) writes that young women are sometimes unwilling to say *no* to romantic partners because they are worried about hurting their partner’s feelings, and they are afraid that doing so may provoke a hostile response. This leaves girls in an impossible position: agree to do what is asked or risk disappointment and nasty names. It is not surprising that girls feel stressed and anxious and “sorely out of step with their own wishes or interests” (Damour, 2019 p. 178).

In addition to agreeableness, Western culture constantly signals to girls and young women that their physical appearance *really* matters. Moreover, cultural bound definitions of what is desirable and attractive promote a beauty ideal that is impossible for most teen girls to replicate (i.e., “Bambi-eyed, pearly-toothed, smooth-and-lustrous-haired, flawless-skinned, fit-but-thin-but curvy,” Damour, 2019, p. 196). By adolescence, girls are more concerned with their looks than boys, and often perceive themselves to be less attractive than boys do. This is problematic for at least two reasons. First, it is fundamentally anxiety-provoking for girls to feel that their value is based on their outward appearance, and not on qualities they can control, such as how creative or kind they are. Second, appearance-related pressures contribute to the development of body dissatisfaction, a main predictor of low self-esteem and depressive mood in adolescent girls (Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006), and undermine cognitive performance. For example, in a recent study, investigators found that simply commenting on a young women’s appearance eroded her intellectual abilities as measured by a math test (Kahalon, Shnabel, & Becker, 2018). Remarkably, this was true even for participants that reported placing low priority on their looks. Appearance-related pressures contribute additional stress to teen girls’ efforts to live healthy and happy lives.

Harassment By Peers

In 2017, the #metoo social media campaign triggered a massive public examination of the sexual intimidation and victimization of women by men. The movement similarly highlighted a truth that research had previously confirmed: sexual harassment - and the bullying, teasing, and touching it entails—is pervasive among adolescents as well. To date, there have been two national studies of sexual harassment that provide the broadest statistics regarding harassment in schools. The American Association of University Women (AAUW) found in 1993 and 2001 that

four out of every five students experience harassment, and nearly half of the all eighth- through eleventh-grade girls had been touched, grabbed, pinched, or brushed up against in a sexual way while at school (Lipson, 2001). Not surprisingly, girls are more than twice as likely to be afraid of being sexually harassed in school. Moreover, the same survey found that girls chose not to share the harassment with others because they “didn’t want to make a mountain out of a mole hill,” be viewed as a tattletale and they hoped it would just go away (Lipson, 2001, p. 34). Girls who did share their experiences were often told that the harassment was not a big deal, it was just a joke, or that they deserved the attention because of their dress. The survey highlights numerous concerns, chiefly that harassment is commonplace in school, girls are made to feel that they should not complain about it (harassment is just part of school life), and that many girls feel ashamed or confused about their culpability for the harassment.

There are also adverse health outcomes to sexual harassment. According to the AAUW (1993, 2001) studies, girls who experienced harassment reported feeling self-conscious, embarrassed, afraid and less self-assured or confident. Students also reported losing interest in regular activities and school performance often suffered due to absenteeism, decreased quality of schoolwork and skipping or dropping classes. Simply put, sexual harassment is a pervasive source of stress for adolescent girls and this takes a “heavier toll on the health and well-being of girls and [sexual minority] students than on boys” (Gruber & Fineran, 2008, p. 23).

Adolescence is by definition a time of transition and change and all teens experience some degree of stress. However, confusing and destructive cultural messages, digital stress and daily harassment from peers have the potential to break even the most resilient soul. The following three sections examine possible sources of strength and resilience to help our girls successfully weather the “storm and stress” of adolescence.

Part Three

Positive Psychology and Adolescent Resilience

Adolescent Flourishing

Positive psychology is the scientific study of human flourishing (Seligman, 2008). Although the idea of a *positive psychology* has many distinguished ancestors (e.g., Maslow, 1954), a new era of positive psychology began in 1998 when psychologist Martin Seligman chose it as the theme for his term as president of the American Psychological Association (Seligman & Csikszentmihalyi, 2014). According to Seligman (2008), after World War II, psychology became a science devoted only to healing. Psychologists relied on a disease model of human functioning that focused largely on pathology, rather than the idea of a fulfilled individual and a thriving community. As a result, psychologists had “scant knowledge of what makes life worth living,” a question that has been pondered for millennia (Seligman & Csikszentmihalyi, 2000, p.5). As suffering and well-being are both part of the human condition, the aim of positive psychology is to redress this imbalance by restoring empirical focus on measuring and building human flourishing (Seligman, 2008). At a subjective level, the field is about positive emotions and experiences such as joy, happiness, optimism and hope. At the individual level, positive psychology is concerned with positive traits that are linked to greater well-being such as meaning in life, purpose, personal growth, self-acceptance and mindfulness. Finally, at the group level, the field is concerned with civic virtues and positive institutions that move people toward better citizenship (Seligman & Csikszentmihalyi, 2000).

There are numerous definitions and theories of well-being that fall under the rubric of positive psychology. Psychologist Ed Diener (1984) proposed a tripartite model of subjective well-being (SWB) that included three distinct but interrelated components: frequent positive

affect, infrequent negative affect, and cognitive evaluations such as life satisfaction. In this model, cognitive, affective, and contextual factors contribute to SWB, or the how and why people experience their lives in positive ways. Ryff and Keyes (1995) define well-being across six components of psychological wellness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. According to this model, psychological well-being requires more than feeling happy and satisfied with life, rather a life well-lived is a multidimensional endeavor that requires positive feeling, relationships and purpose.

In *Flourish: A Visionary New Understanding of Happiness and Well-being*, Seligman (2012) proposed a theory of well-being based on five elements that each contribute to flourishing — positive emotion, engagement, relationships, meaning, and accomplishment (referred to as PERMA). Positive emotion and engagement are subjective variables, defined by what a person thinks and feels (e.g., “Did time stop for you? Were you completely absorbed by the task?”; Seligman, 2012, p. 16). Relationships regard the importance of other people; meaning is characterized as belonging to or serving something bigger than the self; and accomplishment is the achieving life or winning for winning’s sake. According to Seligman (2012), no one element defines well-being, but each contributes to it; “it is a combination of feeling good as well as actually having meaning, good relationships, and accomplishment” (p. 25).

The benefits of well-being are demonstrable. Across the various theoretical models, studies show that many desirable outcomes correlate with high levels of well-being. For example, positive emotion and subjective well-being (feeling happy) bolster immune functioning and buffer the impact of stress (Howell, Kern, & Lyubormirsky, 2007). Social support and positive relationships have been linked to less depression, better physical health, lower mortality

risk and healthier behaviors (De Neve, Diener, Tay, & Xuereb, 2013). A sense of meaning is associated with better physical health and higher life satisfaction (Steger, 2012).

Most existing models were developed and tested with adults, however. So what does it mean to say an adolescent is thriving? Is it the absence of pathology (e.g., depression or anxiety) or something more — a vitality, happiness, optimism that allows adolescents to develop competence across multiple domains? While development is inevitable, thriving is not — just as the absence of mental illness is not the same as psychological health. Some teenagers find their tribe with ease; they make a few good friends or join a group of girls who share their interests, while others retreat into world of fantasy (often on their smartphone) and loneliness. Some find activities that are challenging and exciting, while others are easily frustrated or find everything boring.

A recent systematic review of adolescent flourishing found that researchers generally conceptualize flourishing as thriving and focus on positive aspects of well-being (Witten, Savahl, & Adams, 2019). For example, Huppert and So (2009) define flourishing as the experience of life going well, feeling good, and functioning effectively. For Orkibi and colleagues (2018), flourishing refers to optimal emotional and functional well-being and its pathway is strong self-control skills and a high positivity ratio, or the ability to experience a greater quantity of positive emotions such as joy and gratitude than negative emotions such as fear and anger. Perhaps most interesting, van Schalkwyk and Wissing (2010) explored adolescent understanding of flourishing and reported the following themes: purposeful living and meaning, positive relationships, role-models, self-confidence and self-regard, constructive life-styles, constructive coping, and positive emotions. Conversely, adolescents' understood languishing to include broken relationships, unsupportive family, conflict, and negative relationships.

Measurement also plays an important role in understanding and building well-being in young people. Towards that end, Scales, Benson, Leffert, and Blyth (2000) suggest that adolescent well-being is indicated by seven thriving behaviors—school success, leadership, helping others, maintenance of physical health, delay of gratification, valuing diversity, and overcoming adversity. Another measure, the Child and Adolescent Wellness Scale includes 10 domains—adaptability, connection, conscientiousness, emotion regulation, empathy, initiative, mindfulness, optimism, self-efficacy, and social competence — and was created to assess the positive attributes displayed in children, rather than deficits (Copeland, Nelson, & Traugher, 2004).

Most recently, Kern, Benson, Steinberg, & Steinberg (2016) developed the EPOCH model of adolescent well-being based on Seligman's (2011) PERMA theory of flourishing comprised of five factors: Engagement, Perseverance, Optimism, Connectedness and Happiness. Kern and colleagues found that these five factors were related to greater life satisfaction and less depression in adolescents, although optimism, connectedness, and happiness were more strongly related than engagement or perseverance. Interestingly, the connectedness, optimism, and happiness factors were very strongly correlated with one another suggesting a single domain of positive sociability as critical to adolescent well-being. While not prescriptive, these measures are helpful to characterize the different aspects of adolescent psychological function and the strengths and capacities that adolescents need to flourish—to develop friendship and romantic relationships, to savor experiences, to take on challenges, to care for oneself and to have a positive influence on their world.

In summary, adolescent well-being is a broad construct that encompasses multiple elements. It includes both the presence of positive indicators of well-being such as meaning in

life, hope, and optimism, and the absence of psychological maladjustment such as anxiety and depression. From the teen perspective, psychological well-being means living life with a purpose and having positive relationships (van Schalkwyk & Wissing, 2010), and teens with strong self-control skills are more likely to experience it (Steinberg, 2014). Caleigh thinks of *thriving* as feeling happy, having fun and being excited about the future. She does worry about starting a new school in September, but I am not (really) concerned; Caleigh is resilient.

Adolescent Resilience

Adolescent resilience is a related but distinct construct from human flourishing as conceptualized by positive psychology. Resilience is typically defined as a process or phenomenon reflecting positive adaptation despite experiences of significant adversity or trauma (Luthar, Lyman, & Grossman, 2014). The study of resilience thus presupposes exposure to *extreme adversity* and an individual's ability to overcome the adversity, whereas positive psychology has traditionally focused on all individuals, not just those who have experienced trauma, and focuses more on positive aspects of well-being (e.g., empathy and self-control). There is significant overlap between the fields as both are concerned with how to live and be well, with understanding how science can best benefit humanity and share a core belief that resilience *and* flourishing rest, fundamentally, on relationships (Luthar et al., 2014). Resilience research thus provides both helpful and necessary guidance on how to help teen girls thrive despite age-related challenges and obstacles.

The literature generally defines resilience as the capacity to adapt successfully to a changing environment, and portrays resilient individuals as having a healthy sense of self and able to find equanimity and meaningfulness in life (Luthar et al., 2014). It is not an either/or trait but exists on a continuum and research suggests we have four uses for it: to overcome

challenges, to steer through everyday adversities, to bounce back after a major setback, and to reach out and broaden one's life (Revich & Shatte, 2002). Resilience is a dynamic process, and while the first three uses are reactive in nature, the fourth use of resilience transcends our desire to defend and helps us to reach out and build a more enriching life—or in positive psychology parlance, to thrive.

Research on adolescent resilience indicates that children and young people are naturally resilient and show great recovery power (Masten & Reed, 2002). Resilience does not come from some rare and special qualities, rather it comes from ordinary human systems that arise in adolescents' minds and bodies (e.g., positive temperament, intelligence or emotional regulation), from their relationships with family and friends, and from the social environment that allow teens to weather adversity or to bounce back from negative experience. Importantly, all individuals can cultivate greater resilience including our vulnerable teen girls.

Positive psychology and resiliency researchers have identified various protective factors that increase adolescents' ability to overcome obstacles, navigate challenges and connect more deeply with others. These include a stable and supportive family (Orkibi et al., 2014), self-regulation skills (Steinberg, 2014), academic buoyancy (i.e., a person's capacity to overcome everyday academic life setbacks and challenges successfully; Martin & Marsh, 2009; Puolakanaho et al., 2019), and other inner resources such as gratitude for the positive aspects of life (Bluth & Eisenlohr-Moul, 2017). In recent years, psychological flexibility has emerged as a major contributor to daily well-being and lasting psychological health in adults (Kashdan & Rottenberg, 2010). This is because stress and other negative emotions are an inevitable part of the human experience (as any teen will tell you), and psychological flexibility targets various processes that directly contribute to resilience and healthy functioning, such as mindfulness and

self-compassion. Given the heightened emotionality, stress, and developmental changes frequently experienced by teen girls (e.g., “a single day can bring forth strong and opposing states: love and loneliness, freedom and constraint, excitement and fear, confidence and self-doubt;” Hayes & Ciarrochi, 2015, p. 1), psychological flexibility is a particularly salient construct for helping girls to flourish.

Part Four

Psychological Flexibility

Just here trying to remain soft, trying to remain strong, trying to remain grounded, trying to remain flexible, trying to remain light, trying to remain whole

—Rachel

Psychological Flexibility Defined

Psychological flexibility refers to the ability to connect to the present moment as a conscious human being and to change or persist in behavior that is in line with identified values (Hayes, Strosahl, & Wilson, 2012). It is the theoretical model underlying Acceptance and Commitment Therapy (ACT), a cognitive behavioral therapy that aims to help people disengage from negative emotions and move toward goals based on self-identified values (Hayes et al., 2012). According to ACT, six processes underlie psychological flexibility: acceptance, cognitive defusion (detachment from thoughts), mindfulness, self-as-context (observing self), committed action and valued living. In more simple terms, psychological flexibility reflects being open and curious to experiences in order to increase behavioral repertoires and allow for action that is in line with personal values. Conversely, psychological inflexibility refers to rigid thinking and unhelpful strategies to avoid difficult thoughts, feelings, or experiences that may cause people to act inconsistent with their values (Greco, Lambert, & Baer, 2008).

Although psychological flexibility is linked to ACT, the literature also recognize it as

broad construct that refers to a wide range of human abilities to respond flexibly to changing contexts (Kashdan & Rottenberg, 2010; Gloster, Klotsche, Chaker, Hummel, & Hoyer, 2011). These include the ability to adapt to situational demands, shift mindsets or behavioral repertoires when these strategies compromise healthy functioning, maintain balance among different areas in life (e.g., spiritual, family, community) and remain open and committed to behaviors that are aligned with deeply held values. As these skills flourish, people become more versatile and adept at reducing stress, building positive emotions and moving toward valued goals (Kashdan & Rottenberg, 2010).

The health benefits of psychological flexibility are well-supported in the literature. Psychological flexibility allows for a functional approach to emotions, which research suggests is associated with greater real-world adjustment and less anxiety (Cheng & Cheung, 2005). For example, negative emotions such as anger or guilt can provide vital clues that a health issue, relationship or other important matter needs attention. Caleigh recently became angry when a male in her class used an inappropriate sexual gesture to make other kids laugh, upsetting her best friend. Although she was (exceptionally) nervous, Caleigh's anger fueled her decision to talk with the boy and the teacher about the situation. In this case, the experience and outward expression of anger was more productive than positive emotions in pointing her toward valued living. And as a result, she felt strong, proud and more connected to her friend.

Psychological flexibility also helps to develop maturity and wisdom in adolescents (Westenberg & Block, 1993), and flexible adolescents have been described (by parents and teachers) as curious, self-reliant, confident, creative, able to master challenges, and able to recover quickly from stressful events (Kashdan & Rottenberg, 2010). Psychological flexibility is linked to self-compassion or extending kindness and acceptance toward our internal experiences,

which is associated with greater well-being in adolescents (Bluth & Blanton, 2013).

Psychological flexibility also encourages teens to clarify and connect with personally meaningful values during a time when the develop of autonomy is critical to future well-being (Steinberg, 1999). Moreover, psychological flexibility appears to shift people's motivation from extrinsic motivation to self-determined behaviors and its benefits (Deci & Ryan, 2000). In short, when we accept difficult emotions and thoughts with courage and compassion and act in line with personal values, a host of positive outcomes follow (Bond, Hayes, & Barnes-Holmes, 2006).

Conversely, psychological inflexibility falls on the opposite end of the well-being spectrum. Research suggests that psychologically inflexible youth use experiential avoidance (i.e., suppress unwanted thoughts even when doing so is problematic) and cognitive rigidities (e.g., rumination and worry) to manage difficult feelings, at significant personal cost (Greco et al., 2008). For example, a teenager may avoid meeting up with a new friend because it triggers feelings of anxiety, which may provide short-term relief, but ultimately increases emotional pain as she misses the chance to build social resources or experience positive emotions. Not surprisingly, a growing body of evidence suggests that psychological inflexibility is associated with numerous problems such as depression, anxiety, drug and alcohol addiction and general psychological distress (Bond et al., 2011).

Building Blocks of Psychological Flexibility

The building blocks of psychological flexibility as conceptualized by ACT (Hayes et al., 2012) and Kashdan and Rottenberg (2019) include many interconnected processes that research suggests may cultivate resilience and healthy functioning. This Capstone does not aim to capture an exhaustive list of all possible processes that contribute to psychological flexibility. Rather, the objective is to identify the processes that are particularly effective in building psychological

flexibility in teenage girls, and/or are currently underutilized by existing interventions that target adolescent well-being. These processes include emotional regulation flexibility, mindfulness, self-compassion, positivity, and valued action. The following section looks at each of these factors in effort to provide further insight into how psychological flexibility works and the benefits of the processes as stand-alone constructs and as contributors to psychological flexibility.

Emotion Regulation Flexibility

Psychological flexibility starts with adopting an agile emotion regulation strategy (Beshai, Prentice, & Huang, 2018). Emotion regulation refers to both the conscious and unconscious strategies we use to increase, maintain, or decrease one or more components of an emotional response (Gross, 1998). It is a set of skills that enables us to direct our own behavior towards a goal despite the unpredictability of the world and our own feelings. These strategies include avoidance, rumination, suppression, problem-solving, cognitive reappraisal and acceptance.

Cognitive reappraisal refers to changing thoughts and beliefs about the meaning of a stimulus or situation and is considered an adaptive emotion regulation strategy (Schäfer et al., 2017). Similarly, problems solving—using cognitive and behavioral strategies to change the circumstances that cause the emotion—and acceptance—“allowing one’s reactions to proceed without resisting them in any way” (Schäfer et al., 2017, p. 30) are also considered adaptive strategies. In teens, a higher level of acceptance is generally associated with lower levels of depression and anxiety (Schäfer et al., 2017). Conversely, avoidance and suppression are considered maladaptive strategies that may reduce or dampen negative emotions in the short-term, but the long-term costs often outweigh their benefits. Rumination or repetitively focusing

on emotional experiences is similarly considered maladaptive and is linked to both depressive and anxiety symptoms in youth.

People regulate emotions in many ways. However, research suggests that successful emotional regulation is determined by the contextual demands of the situation, rather than the type of strategy used (e.g., good or bad, adaptive or maladaptive; Gross & John, 2003). For example, a student responding to a low-test score could use reappraisal to tell herself that she “tried her hardest” which may be beneficial in the short term. However, a problem-solving strategy (e.g., “let me think of new ways to study”) may be more beneficial in the long term. Similarly, a mostly maladaptive strategy, such as avoidance, may be helpful in some situations (e.g., declining an invitation to spend time with a “frenemy”), but not in others (e.g., putting off preparing for an important exam). The ability to modulate behavior as required by the situation is a key component of psychological flexibility, and contributes to real-world adjustment over and above any particular regulatory strategy (Kashdan & Rottenberg, 2010).

Mindfulness

To be flexible, a person also needs robust executive functioning skills including attentional control, awareness and acceptance of feelings, even the unpleasant ones (Kashdan & Rottenberg, 2010). The first skill relates to a person’s ability to show an awareness of what a situation requires and the capacity to select strategies that fit the situation rather than relying on old habits or rigid ways of thinking. The second skill refers to a person’s ability to tolerate distress and develop an open and curious attitude toward emotions, thoughts, and sensations. When a person is unable to accept frustration or unwanted negative feelings, attentional control and decision-making capacities are compromised, as is the ability to respond flexibly to the situation (Kashdan & Rottenberg, 2010). Taken together, these cognitive skills allow people to

be more open and accepting of emotional experiences and to respond flexibly to changing circumstances. Mindfulness is a pathway to these beneficial skills.

Mindfulness has its origin in the Buddhist psychological tradition and is a way of paying attention. Mainstream western psychology typically defines mindfulness as a non-judgmental and non-reactive attention to the present moment (Kabat-Zinn, 1994). Internal and external sensations (e.g., physical sensations, thoughts) are noticed without judgment or elaboration. It is has also been conceptualized as *enhanced* awareness and attention of the present reality or current activity (Brown & Ryan, 2003). For example, when an individual is doing the dishes, that person can attune to the moment-to-moment sensory experience of the warm water, the scratchy sponge and the scents of the soap. In contrast, mindlessness is when our consciousness is pulled away from the present experience, such as we when we ruminate on past events or operate on *auto-pilot*.

Within ACT, mindfulness is described in terms of four processes: cognitive defusion or observing thoughts and feelings without assuming them to be true; expansion or making room for unpleasant feelings and sensations, present-focused attention; and self-as-context or recognizing the self as separate from thoughts and feelings that pass through awareness (e.g., “I am an idiot” is reframed to “I am having the thought that I am an idiot”; Hayes et al., 2012). The benefits of mindfulness for adolescents is receiving increasing empirical support, including reductions in stress, rumination, negative affect, and emotional reactivity, while increasing self-regulatory behaviors, emotion regulation and overall well-being (Bluth & Blanton, 2013)

Mindfulness can be developed through meditation practice or the intentional self-regulation of attention from moment to moment (Kabat-Zinn, 1994), and there are two primary types: shamatha (in Pali) and vipassana (in Pali). Shamatha refers to focused attention on a

chosen object, such as the breath, and can occur through sitting meditation, walking meditation, certain forms of yoga and martial arts (Gunaratana, 2002). Vipassana is the application of this concentration to gain insight into the three marks of existence: impermanence, unsatisfactoriness, and selflessness (Gunaratana, 2002).

There are hundreds of meditations available in the professional literature, within ACT, and in the popular press. These practices teach people to continually bring their attention back to present moment experience, and to notice current thoughts, emotions, or body sensation. Once a person is focused on present moment, the next step is to hold that experience with a stance of curiosity and openness, rather than as a reflection of the self (i.e., thoughts are *just* thoughts), a process called *decentering* (Zoogman, Goldberg, Hoyt & Miller, 2014). Decentering allows people to take a self-reflective stance toward their experience, observing rather than judging the experience. Learning to sit with and notice emotions also encourages engagement with the experience, rather than avoidance, which may decrease rumination and its associated outcomes (e.g., cycles of depressive thinking—“I’m worthless” or anxious thinking —“everything is going to fall apart”). More germane to psychological flexibility, the ability to notice emotions without reacting instinctively creates a moment of choice about the best way to act and/or what regulation strategy to employ. For example, a teen girl that pays attention to her anger, rather than suppress it, can observe her feelings with greater sensitivity, focus, and emotional clarity. She may discover her anger is really sadness or fear and it is in the space—between awareness and action—that she can choose how to respond.

In the past twenty-five years, researchers have developed various mindfulness-based interventions (MBIs) to cultivate the skills associated with psychological flexibility. For example, the mindfulness-based stress reduction (MBSR) program is a widely used, nonreligious

MBI for both healthy and clinical populations that uses mindfulness and compassion-based elements such as body scan, sitting meditation, mindfulness of movement, and hatha yoga (Kabat-Zinn, 1990). The approach assumes that greater moment-to-moment awareness will reduce negative affect and improve vitality and coping (Kabat-Zinn, 1990). Numerous meta-analyses have demonstrated the effectiveness of MBI's for alleviating stress and improving flexible emotion regulation in youth (e.g., Kallapiran, Koo, Kirubakaran, & Hancock, 2015).

Davidson et al. (2012) suggests that one reason MBIs like MBSR improve health outcomes is that moment-to-moment attention strengthens neural systems related to emotion regulation and other complex skills. With sustained practice, these skills may become routinized at neural levels, allowing a person to engage and disengage from helpful (or unhelpful) thoughts and feelings in a relatively automatic way. This is good news for teenagers, whose hot and cold systems have yet to reach maturation and may be positively influenced by neural changes that promote psychological flexibility and its benefits.

Self-Compassion

The construct of self-compassion similarly has its origin in Buddhist psychology (Neff & Germer, 2013). Compassion is broadly defined as an affective response to the perception of another's suffering that motivates the desire to relieve that suffering (Goetz, Keltner, & Simon-Thomas, 2010). "Self-compassion refers to how we relate to *ourselves* in instances of perceived failure, inadequacy, or personal suffering," and is rooted in caring motives that requires a range of competencies including empathy, generosity, distress tolerance and courage (Yarnell, Neff, Davidson & Mullarkey, 2018, p. 1136). Importantly, self-compassion has both *yin* and *yang* qualities. In Chinese philosophy, yin and yang refer to interdependent qualities of male-female, hard-soft, and active-passive (Neff & Germer, 2018). Self-compassion similarly embodies

seemingly opposite qualities; it is soothing, comforting, and validating but also protecting, providing, and motivating. It is a “mother soothing her crying child” *and* “a mother bear protecting her cubs from danger” (Yarnell, Neff, Davidson, & Mullarkey, 2018, p. 1137).

Self-compassion is also closely related to *loving-kindness* or *metta* (in Pali), a core principle in Buddhist psychology considered to be critical for human development. Hofman, Grossman and Hinton (2011) describe the importance of loving-kindness as follows: “only when we are able to confront difficult sensations, emotions and thoughts with a degree of kindness, compassion, and composure, can we attend to the variety and textures of the present-moment experiences in a mindful way” (p. 1128). The apparent paradox of self-compassion is that by compassionately opening our hearts and minds to the full human experience—vulnerability, adversity, and suffering — we also open to the possibility of joy, social connection, and wellness (Neff, 2009 Kabat-Zinn, 1990). Research suggests that self-compassion is specifically beneficial to women; it increases empowerment, sense of self-worth, positive body image and resilience, while decreasing negative self-talk, stress, unhealthy interpersonal problems, and body dissatisfaction (Allen & Leary, 2010; Bluth & Blanton, 2014; Bluth & Eisenlohr-Moul, 2017; Neff, 2003).

Self-compassion, as defined by Neff (2003), encompasses three interactive components: self-kindness, common humanity and mindfulness. Some authors have suggested that these components overlap with psychological flexibility (Neff & Tirsch, 2013), and several studies have confirmed a relationship between the two concepts. For example, Marshall and Brockman (2016) found that self-compassion was significantly and positively related to psychological flexibility and its processes including nonjudgmental acceptance, defusion and valued living. In another study, researchers found that psychological flexibility was a significant mediator of

changes in self-compassion (Yadavaia, Hayes & Vilaradaga, 2014). At the very least, the parallels and similarities between the concepts, as discussed below, suggest that cultivating self-compassion is both beneficial in its own right and may improve girls' ability to navigate life's challenges with increased flexibility.

First, the concept of self-kindness is linked to acceptance, a major component of psychological flexibility. Self-kindness refers to offering oneself kindness, care, and acceptance in the face of difficulty, rather than being harshly critical. People often speak more harshly to themselves than they would to a close friend, or even someone they dislike (Neff & McGehee, 2010). However, when people extend kindness to themselves and others, they are more able to admit mistakes, shift mindsets or modify unproductive behaviors and take on new challenges, key markers of psychological flexibility. Teen girls are no stranger to the self-critical inner dialogue. Adolescence is a time when girls specifically grapple with how they are seen by others and how they fit into the world and becoming consumed with self-judgment or questioning one's self-worth is common. However, when challenging experiences are met with self-kindness rather than criticism, teens may be more likely to move toward their goals with greater emotional maturity and wisdom.

Second, the element of common humanity is related to perspective taking, or "stepping into another's shoes," which contributes to psychological flexibility (Yadavaia et al., 2014). Common humanity involves recognizing that all humans are imperfect and life's difficulties are part of the human experience. Unfortunately, people often feel isolated or cut off from others when in the midst of personal struggles and may feel that their perceived shortcomings are an aberration not shared by the rest of human-kind. Common humanity connects one's flawed condition to the shared human experience, promoting feelings of connection through the

awareness that *we are all in this together* (Neff, Kirkpatrick & Rude, 2007). Accessing feelings of common humanity may cultivate the ability to see the self as more than one's evaluations or judgments, allowing people to shift mindsets or behavioral repertoires as necessary for healthy functioning. This component may be particularly relevant to teenage girls who often believe their challenges and difficulties are unique to them, a phenomena called *personal fable*, which can feel isolating and depressing (Elkind, 1978).

The final component of self-compassion—mindfulness—is similarly related to psychological flexibility. Self-compassion and mindfulness are related constructs, but not synonymous. The mindfulness component of self-compassion is narrower in scope because it requires the balanced awareness of the personal suffering and the feelings involved in the suffering, while mindfulness generally focuses on the range of one's experiences without judgment (i.e., positive, neutral, or negative; Neff & Germer, 2012). Second, self-compassion and mindfulness have different intended targets; mindfulness is a “way of relating to internal experiences,” while self-compassion is “a way of relating to the experiencer who is suffering” (Neff & Dahm 2015, p. 21). In addition, recent research suggests that mindfulness and compassion trainings impact neurobiology differently (Kirby & Gilbert, 2019).

Setting these differences aside, Neff's definition of mindfulness encourages cognitive defusion, or allowing self-criticism to pass through the mind without having to be believed, proven wrong, or otherwise engaged (Yadavaia et al., 2014). This skill may be particularly beneficial for teenage girls who are frequently self-judgmental because it separates the emotions (e.g., I don't matter) from the lived experience (e.g, I am having the thought that I don't matter). Through mindfulness, adolescents may also learn to be more accepting and open of themselves. For example, a low-test grade may be seen flexibly as a learning experience and an opportunity

to problem solve different ways to study, rather than a time to berate oneself for poor performance.

Positivity and Personality

Psychological flexibility also depends upon personality traits. (Kashdan & Rottenberg, 2010). Specifically, research suggests that positive affect and openness to experience are associated with greater flexibility than neuroticism, a personality trait that predisposes people to experience negative emotional states more frequently and for a more enduring period of time. Positivity is an orientation or lens through which individuals view the world and their life, and is considered stable over time (Miloni, Alessandri, Eisenberg, & Caprara, 2016). Research suggests that trait-positivity is associated with psychosocial well-being, health, and quality of friendships and promotes effective coping when faced with adversities. A recent longitudinal study found that positivity predicated ego-resiliency in middle adolescents, a construct similar to psychological flexibility that reflects a general capacity to be flexible and resourceful in response to varying external and internal experiences (Miloni et al., 2016). Therefore, a positive orientation is likely a contributing factor to psychological flexibility.

However, positivity also refers to the experience of positive emotions, which Kashden and Rottenberg (2010) posit is related to psychological flexibility. According to Fredrickson's (1998) broaden and build theory, positivity broadens our momentary thought-action repertoires and builds enduring personal resources, which catalyze upward spirals of future well-being (Fredrickson, 1998, 2001). In more simple terms, positive emotions such as love and joy open our hearts and our minds to a wider range of thoughts and actions, making us more receptive and open to new resources, new connections, new knowledge and new ways of being. Fredrickson (2009) refers to joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe and

love as the “ten forms of positivity” (p. 39).

The literature examining the benefits of positive emotions in adults is extensive (Sin & Lyubomirsky, 2009). However, there is a growing body of evidence that fostering positive emotions (e.g., joy, hope, love) benefits teenagers as well. For example, gratitude induced by counting one’s blessing was related to enhanced well-being, optimism, less negative affect and overall life satisfaction in school-aged children (Froh, Sefick, & Emmons, 2008). Eighth-grade students that were complimented and given small gifts to induce positive emotions showed increased creativity and ingenuity to solve difficult tasks (Greene & Noice, 1988). Adolescents who experience more daily positive emotion also show more critical thinking, cognitive flexibility, and active planning compared with adolescents who experience less daily positive emotions (Pekrum, Goetz, Titz, & Perry, 2002). Taken together, these studies suggest that the experience of positive emotions facilitates flexible thinking and behavior, markers of psychological flexibility.

Last, to be flexible, a person needs to be open, receptive and curious about what personal experiences and external events offer (Kashdan & Rottenberg, 2010). By being open to new experiences, people create space for new knowledge, and demonstrate a willingness to accept positive and negative emotions that may arise when faced with a challenge or unpredictable event (e.g., a new-student orientation that was, according to Caleigh, *epically awkward*). Research suggests that openness to opportunities also leads to greater positivity and social connection in daily life (Kok & Fredrickson, 2010), markers of flourishing in adolescents. Finally, when people feel curious and open, they capitalize on opportunities to clarify personal values and strengths by finding meaning in their activities.

Values and Committed Action

Personal values are a final contributor to psychological flexibility. Within ACT, values are considered crucial to good psychological health because they intrinsically motivate behaviors that lead to a deep sense of meaning, vitality, and engagement (Hayes et al., 2012). The personal-values construct builds on self-affirmation theory, which suggests that affirmation of personal values protects against stressors because it expands people's view of themselves and their resources and helps to gain perspectives of what is most important (Steele, 1988). Research suggests this is true for adolescents as well. For example, a value affirmation intervention given to students in a college-level introductory physics class reduced the gender achievement gap in test scores (Miyake et al., 2010). Importantly, the intervention, which asked students to write about their most important values twice at the beginning of the course, was most beneficial for females that endorsed the belief that males are better than females in physics. Working with personal values may also improve cortisol levels, the stress hormone that often stirs up anxiety in teenagers. In one study, students who focused on a personal value showed lower cortisol responses to a laboratory stressor than a control group (Creswell et al., 2005).

Of course, not just any values will do. Studies show that self-chosen values (i.e., highly ranked personal values) are an important contributor to the beneficial outcomes of values-based interventions (Baer, 2015). This is consistent with theories of optimal human functioning that emphasize the role of autonomy. For example, Ryff's (1989) theory of psychological well-being includes autonomy as a critical element of healthy functioning. Similarly, self-determination theory identifies autonomy as one of three basic needs that are necessary for psychological health and life satisfaction (Ryan & Deci, 2000).

In adolescence, the development of personal values is an iterative process that is part of identity formation. As their capacity for critical thinking increases, their ability to formulate

their own beliefs and values increases as well (Marcia, 1980). For this reason, teens may question their attitudes and beliefs regarding spirituality or politics, and try out different identities in varying life domains (e.g., Caleigh is the funny girl on her gymnastics team, and the thoughtful thespian in drama class). They may want to learn about their family's origins and ask for stories about their ancestors' history, or instead may question what it means to be part of their culture and question the choices made by earlier generations. In this way, teens arrive at independent conclusions about their values, rather than accepting the values of their friends or the values that they were raised to follow.

Within ACT, researchers have developed several tools such as guided meditations and writing prompts to help adolescents explore their values. For example, Hayes & Ciarrochi (2015) identify six patterns of valued activity that are associated with vitality and well-being in adolescents. These include connecting with others, giving to others and having a positive influence, being active, embracing the moment, taking on challenges, and caring for oneself. These values are not prescriptive; rather, they are starting points to help young people identify their values and the qualities or characteristics they would like to embody in the domains that are most important to them (e.g., in family, in relationships, at school).

Finally, for some teenagers, behaving in alignment with values can be stressful and difficult. For example, Caleigh values adventure and new experiences but like most adolescents, is highly attuned to her peer's expressions and opinions of her. At times, she will forgo an activity or school event based on perceived fear that she will fail in front of her friends. This often leads to unpleasant thoughts and feelings of disappointment, sadness or rumination that she is a wimp. By connecting to her personal values and practicing mindfulness, acceptance and self-compassion, skills linked to psychological flexibility, Caleigh may be better equipped to

navigate the stress associated with trying new things and act in alignment with her values. In doing so, Caleigh creates a life that is *fun* and she feels *happy*, her personal definition of thriving.

Since Hall's famous statements in 1904, adolescence has been understood as a time of storm and stress to be survived by teens and parents alike. It is "that awkward period between sexual maturation and the attainment of adult roles and responsibilities" (Dahl, 2004, p. 9). For teenage girls, stress has become an accepted part of daily life whether from media overuse, cultural expectations or harassment by peers, in addition to normal developmental challenges. Psychological flexibility and its related processes may curb this tide of anxious girl by helping them to accept awkward and difficult experiences, extend self-compassion to oneself, increase positive emotions and make decisions that are consistent with personal values. Contrast this with the philosophy of waiting until the day when life is *all unicorns and rainbows* (to quote Caleigh) in order to live with purpose, vitality and connection. Better to start now than wait for a day that will never come.

Part Five

Intervention to Build Psychological Flexibility

Can Teen Girls Cultivate Flexibility?

Within ACT, there are numerous interventions that target psychological flexibility as a treatment aim for people suffering from various disorders and to increase health and well-being in nonclinical populations, as well as studies evaluating their efficacy (Hayes et al., 2004). In these studies, psychological flexibility is measured by a self-report measure of psychological flexibility, the Acceptance and Action Questionnaire (AAQ), which is designed to evaluate whether an individual shows psychological flexibility as defined by ACT (Strosahl, Hayes, Wilson, & Gifford, 2010). Overall, this body of research provides mixed evidence that increases

in psychological flexibility is directly responsible for the positive outcomes of the intervention (Strosahl et al., 2010). However, there is strong support that interventions that specifically target psychological flexibility lead to increases in flexibility (as measured by the AAQ), which is linked to increased well-being, and lower levels of depression, anxiety, and overall distress (Ciarrochi et al., 2010). There is also fairly robust evidence that ACT interventions work as preventatives in alleviating diverse symptoms (e.g., stress) and promoting well-being (e.g., optimism).

Moreover, because psychological flexibility is an integral part of everyday functioning, and overlaps with other psychological constructs (e.g., self-compassion, mindfulness), Kashdan and Rottenberg (2010) argue that most interventions will inevitably impact psychological flexibility in some capacity regardless of the treatment goal. For example, researchers Lillis and Hayes (2007) designed a short 75-minute course for college students to decrease prejudice toward racial and ethnic groups. Some students were given only educational material about three ethnic minority groups, emphasizing group strengths and common stereotypes. Other students were given information about stigma in a format that directly addressed flexibility using an ACT approach. Discussion and exercises were used to increase awareness of prejudicial thoughts toward minority groups, to accept those thoughts as the natural result of learning and using language in a prejudicial society, to notice any automatic evaluations, and to orient toward positive actions consistent with personal values about how to treat other human beings. Compared to the instructional group, students that practiced living with prejudicial thoughts and feelings while still committing to value-aligned behaviors showed less stigma or greater flexibility about people from different racial or ethnic groups. This study, and others like it (Matsuda et al., 2007), suggests that various forms of psychological flexibility can be

successfully enhanced in clinical and healthy populations.

However, despite the extensive evidence of the efficacy of interventions to cultivate psychological flexibility in adults, there is significantly less empirical evidence evaluating interventions that target psychological flexibility as a treatment goal in adolescents. The majority of ACT therapeutic trials have been with adults, and ACT programs have been rarely used as preventive tools for alleviating stress or enhancing coping skills among adolescents (Puolakanaho et al., 2019). Still, ACT interventions may be especially well-suited for adolescents as they focus on rapport building and personal learning rather than direct instruction. This approach supports autonomously-driven behavior, a key motivator for teenagers as they gain independence and are less responsive to adult direction (Hayes & Ciarrochi, 2015). ACT's emphasis on personal values is also particularly relevant given teenagers increasing capacity for abstract thinking and interest in exploring new and novel ideas, experiences and different approaches to life. Moreover, a recent systematic review of 21 studies that used ACT in the treatment of adolescents reported encouraging results for the utility of ACT to increase psychological flexibility and other quality of life outcomes in adolescents, especially in teens dealing with pain, depression and sexualized behavior (Swain, Hancock, Dixon, & Bowman, 2015). Taken together, these studies demonstrate there is reason to be optimistic that flexibility can be increased using ACT based interventions with adolescent girls.

There is, of course, flexibility in how to target flexibility and its related constructs. While the research on ACT based interventions in adolescents is still fairly nascent, there is a vast body of research on mindfulness-based trainings that demonstrate the potential power of contemplative practices to cultivate psychological flexibility in teenage girls (Zenner, Solveig, & Walach, 2014). Contemplative practices refer to a wide variety of strategies and methods rooted

in contemplative traditions such as Buddhism that enlist the mind in improving well-being. In the broadest sense, contemplative practices encourage first-person reflection upon or cultivation of specific modes of experience, and focus on interoceptive awareness, i.e., the awareness of signals from inside the body, such as the breath, and higher-order top-down processes including beliefs, attitudes, and emotions regarding those perceptions (Barrett, 2017). For example, the feeling of hunger or your heart beating each produce a spectrum of feelings from pleasant to unpleasant, from calm to jittery, that contribute to broader mood states. Emotions, in turn, strongly influence our thoughts, words and actions. Research suggests that as we increase interoceptive awareness, two senses emerge: *presence*, our connection to the present moment, and *agency*, our ability to effect change (Bornemann, Herbert, Mehling, & Singer, 2015). Both presence and agency contribute significantly to a person's sense of well-being and health.

Mindfulness-based meditations that focus attention on body sensations and areas of the body, guided imagery, yoga, and tai chi are all examples of contemplative practices. Body-oriented psychotherapy methods are also considered contemplative practices, such as ACT, Sensory Awareness, Hypnosis and Holotropic Breathwork (Farb et al., 2015). Of these practices, mindfulness-based interventions have received the most attention and empirical focus, with findings supporting the beneficial effects of mindfulness interventions with youth (i.e., improved well-being, attention, cognitive performance and resilience; Zenner et al., 2014).

However, contemplative practices that specifically target self-compassion may be especially beneficial for teenage girls as high-school females generally have lower self-compassion than males or middle school adolescents (Bluth & Blanton, 2014). Neff and McGehee (2010) suggests that this is because girls tend toward negative self-judgments during identity formation due to stress over academic performance, the need to be popular, concerns

about body image and sexual attractiveness. As teenage girls ask themselves, “Am I good enough?” and “What do other people think of me?,” they arrive at negative self-judgments, which are strongly implicated in the high rates of anxiety and depression found during adolescents. Additionally, according to Gilligan, Lyons, and Hanmer (1990), adolescents’ burgeoning ability to think abstractly often leads to the realization that female-specific values of being nurturing and relational are not valued in our male dominated culture, leading to increased vulnerability and decreased self-compassion. Hill & Lynch (1983) suggest that gender-role intensification, or the pressure to conform to stereotypical sex roles during adolescence, may also lead to decreased self-compassion, as does the higher prevalence of negative life events such as sexual harassment from peers.

Two Promising Interventions: Making Friends With Yourself and ACT + Self-Compassion

Fortunately, two recently developed interventions specifically aimed at self-compassion show promising results for increasing psychological flexibility and other markers in adolescents. The first intervention, “*Making Friends with Yourself: A Mindful Self-Compassion Program for Teens* (MFY),” was developed based on Mindful Self-Compassion, an 8 week course for adults designed to cultivate self-compassion through guided meditations, experiential exercises, and discussions (Neff & Germer, 2013). The intervention consists of 8 weekly 1.5-hour sessions that include art and movement exercises. Bluth and Eisenlohr-Moul (2017) describe the sessions as follows:

Session 1: Discovering Mindful Self-Compassion: Definitions of mindfulness and self-compassion are introduced, and a hands-on activity is incorporated that familiarizes students with the concept that we treat ourselves more harshly than we treat our friends in times of difficulty. A guided meditation promotes the understanding that we all have

within us the capacity to be kinder to ourselves.

Session 2: Paying Attention on Purpose. Mindfulness practice is the focus of this session and is introduced through a sound meditation, eating meditation, and attention to physical sensation meditation (i.e., body scan).

Session 3: Lovingkindness: A lesson on the changes which take place in the adolescent brain is presented, and lovingkindness meditation is introduced as a way to give oneself kindness for the multitude of changes taking place during adolescence.

Session 4: Self-Compassion: Definition of self-compassion is presented in detail through guided meditations and exercises; music meditation is introduced.

Session 5: Self-Esteem/Self-Compassion: The similarity and differences of these two ways of relating to oneself are presented; the concept of common humanity is emphasized.

Session 6: Living Deeply: Articulating one's core values through an art and writing activity is introduced, as well as how to treat oneself when one strays from their core values.

Session 7: Working with Difficult Emotions: Guided meditations and informal practices specifically tailored to deal with particularly emotionally challenging situations are presented.

Session 8: Embracing Your Life with Gratitude: Gratitude and self-appreciation are the focus of this session, and informal practices are introduced that facilitate awareness of that which we can be grateful (Bluth & Eisenlohr-Moul, 2017, pp.111-112).

Bluth and colleagues (2015) conducted a mixed-method pilot study of the intervention to determine the feasibility, acceptability, and psychosocial outcomes of MFY with thirty-four

students age 14-17. Results suggest that adolescents find MFY a feasible and acceptable program and, compared with the waitlist control, the intervention groups had significantly greater self-compassion and life satisfaction and significantly less anxiety, depression, perceived stress, and negative affect.

Bluth and Eisenlohr-Moul (2017) piloted an updated MFY intervention with forty-seven adolescents to determine if the intervention would decrease stress, depressive symptoms, and anxiety and increase resilience, gratitude, and curiosity or exploration. Results from the study were again promising. Students' levels of perceived stress decreased significantly and resilience, gratitude, and positive risk taking increased significantly during and after the intervention, with female students demonstrating greater increases in self-compassion than males. Notably, there was not a significant decrease in depression and anxiety from pre-to post-interventions suggesting that adolescents need a stronger or longer *dose* of mindfulness or self-compassion to build their inner resources enough to offset feelings of depression or anxiety, which can be more intractable. Nonetheless, these studies indicate that interventions that target self-compassion may help adolescents to build skills associated with psychological flexibility including mindfulness (e.g., awareness and acceptance of worries and letting go), self-compassion, and openness to new experiences. In real life terms, as a girl begins to treat herself with greater kindness and compassion, she fears failure less as she will not be berated, and is likely to remain open to new and challenging tasks.

A second promising intervention to build psychological flexibility in adolescent girls is based on a 6-hour ACT workshop that was adapted to target self-compassion (Yadavaia et al., 2014). The intervention aimed at weakening fusion with self-criticism and self-conceptualizations in order to create more flexible behavior choices, i.e., free people from

perfectionism but still allow one to recognize areas of weaknesses in order to empower personal growth. The intervention also aimed to increase feelings of common humanity and to help people to embrace personal suffering with love and acceptance rather than avoidance of thoughts or feelings linked to them. The intervention used experiential exercises to cultivate self-compassion, mindfulness, values and committed action, but unlike MFY, it was tested on an older population (seventy-three undergraduates 18 years of age and older).

The study showed that the intervention led to large increases in self-compassion, and moderate to large reduction in general psychological distress as compared to the waitlist control at post-treatment and two months after the intervention (Yadavaia et al., 2014). Anxiety and depression symptoms also showed improvement as compared to the control group, although the intervention did not lead to a significant reduction in stress. Finally, psychological flexibility mediated the effect of the intervention on all outcomes suggesting that improvements in self-compassion and symptoms of depression and anxiety are mediated by increased mindfulness, values and committed action (the processes the underlie ACT's conceptualization of psychological flexibility). Although the study did not include adolescent participants, the findings again show that psychological flexibility and its related processes can be cultivated through contemplative practices that target self-compassion specifically (Yadavaia et al., 2014).

There are several limitations to these studies that are worth noting. First, the participant groups were relatively small and homogenous. The sample used in the MFY study was largely White and middle class and the sample used in the ACT intervention was younger and higher in intellectual ability, socioeconomic status, and psychological mindedness than the general population (Bluth & Eisenlohr-Moul, 2017; Yadavaia et al., 2014). Thus, there was a clear lack of diversity in race, ethnicity and socioeconomic status in both studies, which is problematic in

generalizing the findings to a more diverse group.

Second, although the ACT intervention included a measure for psychological flexibility (i.e., the AAQ), some have questioned the validity of the AAQ suggesting that it is simply a measure of psychological distress (Wolgast, 2014). Moreover, neither intervention targeted psychological flexibility as a treatment aim in adolescents, although the broad nature of psychological flexibility suggests that most interventions will inevitably impact flexibility in some capacity. Third, although mindfulness and self-compassion stem from a Zen Buddhist practice, the interventions seem to be devoid of any aspects of spirituality, which research suggests is a source of resilience and meaning for youth (Kim & Esquivel, 2011). Spirituality may also be a source of wisdom for teenagers as they develop their self-identity and personal values.

Finally, other than gratitude in the MFY intervention, the interventions do not include exercises or strategies to increase positivity and openness to experiences, which facilitate flexible thinking and behavior (Kashdan & Rottenberg, 2010). Joy and play have the potential to build lasting social bonds and attachment between girls through shared smiles, excitement and amusement. Interest, contentment and love similarly build personal resources such as cultivating an open and curious mindset, close relationships and the ability to bounce back from hardship (Fredrickson, 2009). A sparkle of joy, a moment of love, or a dose of hope and laughter may go a long way to broaden and build girls' ability to think flexibly, to connect with others and to enjoy the dreaded teen years. As the World Health Organization astutely observes, "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity," just as flourishing is more than the absence of mental illness; it includes "pleasure, rapture, ecstasy, warmth, comfort, and the like" (Seligman, 2011, p. 12).

The studies also have several strengths; chiefly they provide support for the efficacy of interventions that teach mindfulness and self-compassion skills to adolescents during a vulnerable period in their life. Although only preliminary evidence, the interventions suggest we can give teenage girls the tools they need to decrease stress, increase resilience, foster ways to experience joy and heartfelt appreciation for themselves and their lives and remain open to new experiences and behaviors that are aligned with their values. As a parent of three girls, this is heartening news.

Recommendations for Successful Interventions with Teen Girls

In order to maximize the impact of these trainings, I offer three research-based suggestions for future interventions:

Provide all-female intervention programs. There are several benefits of all-girl intervention groups for adolescent girls. First, educational research shows that female students receive less attention from teachers when there are male students present (Bailey, 1993). All-female settings may help to address this issue. Notably, Watson, Ouatman, & Elder (2002) reported that females in all-girls schools have higher academic goals and achievement than those in mixed-sex schools. More importantly, Chaplin et al. (2006) point out that girls experience different stressors than boys during early adolescence and may “feel more comfortable discussing these in an all-girl setting than a co-ed setting” (p. 115). Caleigh confirms this is *absolutely the case*. For example, girls enter puberty earlier than boys and stressors associated with puberty such as hormonal changes or how others perceive them are more strongly associated with depressive symptoms in girls than in boys. For this reason, girl groups are often more effective than co-ed groups in reducing feelings of hopelessness, and increasing self-compassion and kindness (Chaplin et al., 2006).

Facilitators matter. Research suggests that the type of facilitator can impact the program's outcome. Carsley and colleagues (2018) examined 24 school-based mindfulness studies in which mental health or well-being was a primary outcome. Notably, the effects were only significant when a trained teacher versus an outside facilitator delivered the intervention. Similarly, the effects of the Penn Resiliency Program, a cognitive-behavioral intervention, are strongest when group leaders are the intervention developers, members of their research team, and graduate students who receive extensive training and supervision from the intervention developers (Gillham et al., 2007). PRP's effects on depression are often smaller or nonsignificant when group leaders are schoolteachers, clinicians, or other researchers not affiliated with the PRP program. This suggests that having a well-trained facilitator in ACT, self-compassion or mindfulness is critical to the success of any intervention.

Retreats. There is some promising research that mindfulness retreats may be an effective option for mildly distressed individuals who are unable or unwilling to seek help in traditional settings (McClintock, Rodriguez & Zerubavel, 2019). In contrast to school-based or clinic-based programs, mindfulness retreats typically entail more intensive practice over days or even weeks and are often lead by a trained meditation teacher or health care professional in a residential setting. Mindfulness retreats are generally marketed to healthy populations, as retreats can exacerbate psychological problems in some vulnerable people (Lustyk, Chawla, Nolan & Marlatt, 2009). A recent meta-analysis on the effects of mindfulness retreats suggests that retreats enhance mindfulness abilities, reduce mental health symptoms, and improve well-being in healthy adults (McClintock et al., 2019).

The modern teenage girl typically has a full academic and social schedule; paradoxically leaving little room to attend multi-week interventions such as mindfulness or self-compassion

trainings that may offset the stress associated with the busy schedule. Teenagers may also feel stigma associated with mental health trainings, and schools often lack instructional minutes, funding and/or qualified instructors to implement mindfulness-based interventions. Short self-care retreats for teenage girls may reduce these and other barriers to access, help to prevent or head off emotional problems *before* they arise, and some research suggests they may actually be more cost-effective than conventional forms of treatment in health care settings (McClintock et al., 2019). Moreover, mindfulness retreats are also an ideal time to offer other self-care strategies such as expressive writing, art, yoga and physical activity that similarly bolster body awareness, positive emotions such as creativity and joy, and potential connection with other girls.

Conclusion

Teenage girls face unique developmental and cultural challenges such as impossible standards of success, loneliness, and harassment from peers that can derail positive growth and self-confidence. However, adolescence is a time to *thrive*, not just survive and their open, curious and malleable brains are primed for new connections, “stunning feats of learning” and positive risk taking (Jensen & Nutt, 2014, p. 6). Positive psychology and empirically based interventions grounded in mindfulness and self-compassion offer one strategy to help teenage girls navigate their age of opportunity with flexibility, awareness, compassion and courage. There are challenges to this approach, certainly. Skills related to psychological flexibility require deep introspection and willingness to explore push-button adversities, unhelpful thoughts and less-than-ideal outcomes. In other words, it asks teenage girls to expose their vulnerabilities and to trust the benefits of exploring painful or awkward thoughts or feelings. Still, happiness should be available and achievable for girls during this developmental stage. Psychological flexibility

and its related processes provide a conceptual framework for teenage girls to transition into adulthood as healthy, flourishing and emotionally whole individuals.

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