

Exploring the Impact of Stress on Development: A Review of Adaptive and Maladaptive Coping Mechanisms in Adolescents

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ABSTRACT

Stress, in its most basic form, is the body's response to any demand, but when prolonged, it can lead to significant psychological and physiological consequences.

- American Psychological Association, (2017)

The present review focuses on the intersection of major stressors and their impact on adolescent development. By examining the literature on coping mechanisms, this review seeks to identify factors that mediate or moderate the relationship between these stressors and adolescent outcomes. This review aims to fill this gap by examining the current state of knowledge regarding the impact of stress on adolescent development, the range of coping strategies employed by adolescents, and the factors influencing the choice of adaptive or maladaptive coping mechanisms. Understanding how adolescents respond to these challenges is crucial for developing effective prevention and intervention programs aimed at promoting resilience and positive adjustment.

INTRODUCTION

Stress is a state of mental or emotional strain caused by unfavourable circumstances. Oftentimes, it has negative impacts not only on the mental health of the affected person but their physical health and performance as well (McEwen, 2007). Stress can develop a variety of physical symptoms ranging from headaches and fatigue to muscle tension and digestive problems (Schneiderman et al., 2005). Additionally, it can have a serious adverse impact on one's mental health leading to depression or anxiety (Hammen, 2004). Stress has been observed to have impaired the performance of the impacted individual in a variety of areas including work, school, and relationships because of its impact on both physical and mental health (Sonnentag & Fritz, 2014). This review argues that stress is fundamentally subjective in nature, and that adolescents' outcomes depend less on the objective stressor and more on how they perceive and interpret it.

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Coping mechanisms have traditionally been defined as an action-oriented and intrapsychic effort to manage the demands created by stressful events or in simpler words, a response by the body against stress (Lazarus, R. S., & Folkman, S. 1991). The application of coping mechanisms by individuals on a regular basis is a way of applying these strategies to navigate their experiences (Holahan, C. J., & Moos, R. H. 1987). Coping mechanisms play a significant role in an individual's ability to adapt during stressful events/crises (Heffer, T., & Willoughby, T. 2017). The presence of mental health indicators, such as the presence of adaptive coping strategies, can improve individuals' resilience and ability to adapt in changing circumstances throughout their lives (Skinner & Zimmer-Gembeck, 2007). On the other hand, it is highly common for maladaptive coping mechanisms to emerge in response to adversity, which include anxious behaviours (Daniels & Holtfreter, 2019), the development of escapism and avoidance behaviours (Melodia et al., 2020), and a dissociation from emotions and thoughts (Skinner et al., 2003).

Under extreme pressure, many individuals struggle to meet contextual demands, leading to the emergence of maladaptive coping mechanisms. If maladaptive coping becomes dominant, individuals tend to exhibit psychopathological indicators such as more stress, anxiety, and phobias (Orgilés et al., 2021). Conversely, if adaptive coping becomes the primary mechanism used to cope with stress, individuals tend to seek solutions to their problems (Barahmand et al., 2019), learn new skills (Sospeter et al., 2020), exercise self-control over actions and emotions and evaluate behavioral alternatives (Lenzen, 2017). Effective adaptive coping allows individuals to manage daily stress, reduce phobias, and alleviate personal anxieties (Orgilés et al., 2021).

This dynamic between adaptive and maladaptive coping is especially significant during adolescence. Adolescence is a crucial developmental period and defined by significant physical, cognitive and emotional transformation. This period often coincides with increased stress due to various challenges. Common stressors for adolescents include academic pressure, social relationships, family conflicts, body image issues and preparation to transition into adult life (Larson & Richards, 1994). For adolescents, the physiological effects of stress may become quite pronounced and children experiencing them are more apt to complain of headaches, stomachaches or sleep problems (McEwen, 2007). Chronic stress in adolescence can lead to long-term problems with immune response, cardiovascular health and mental health (Ehlert, 2013). The developmental path also may be altered by other stressors: in particular, the family-related challenges of parental illness and changes within families can exert a significant impact on adolescents' welfare and their prospects for their future (McLaughlin et al., 2014; Repetti et al., 2002 and LeMoult et al., 2019).

For instance, one particularly relevant stressor in adolescence is parental illness; whether sudden or long-term, it can have a huge impact on an adolescent's development by placing a significant emotional and practical burden. The responsibilities associated with caregiving, financial strains and the emotional impact of having a parent who becomes ill can interfere in the normal process of development that can lead to unfavourable outcomes (Zebrack & Isaacson, 2012). Similarly, family disruptions i.e.

divorce/separation can trigger heightened stress creating a more challenging environment for adolescents (Amato, P. R., & Keith, B. 1991 and Hetherington, E. M. (Ed.). 1999). In other words, several familial related stressors can be particularly pertinent to adolescent development, emphasizing the importance of looking at how coping mechanisms are employed in this period of adolescent development.

The primary goal of this review is to explore how stress impacts adolescent development. By analyzing the ways adolescents respond to stress, this review aims to highlight the factors that contribute to adaptive or maladaptive coping mechanisms. This understanding is crucial for identifying strategies to promote resilience and mitigate the long-term effects of maladaptive coping.

Because this is a review paper, the impacts and coping mechanisms discussed were drawn primarily from peer-reviewed studies and authoritative educational sources on stress in adolescence, with emphasis on those addressing key developmental outcomes (sleep, mental health, social functioning, and academic performance) and on coping strategies (problem-focused, emotion-focused, and maladaptive behaviours) that are consistently identified in the literature as central to adolescent adjustment.

It is important to understand how stress affects adolescent development, particularly through adaptive and maladaptive coping styles. Adolescence is one of the most important periods of psychological and emotional growth, the period in which people are more vulnerable to stress. Findings of studies show that if children are exposed to chronic stress they are likely to be affected in their cognitive and emotive growth causing them possible lifetime psychological disorders as pointed out by Compas et al., 2017.

The World Health Organization (WHO, 2021) estimates that 10–20% of adolescents experience mental health problems, many of which are linked to stress. Whether adolescents manage stress through constructive strategies (e.g., problem solving, seeking social support) or through destructive methods (e.g., avoidance, substance use) can substantially affect their development and well-being. (Herman et al., 2018 and Aldao et al., 2010)

Maladaptive coping styles are especially problematic because they are associated with various adverse effects including, reduced academic achievement, social problems, and epidemiological risk of mental disorders such as depression and anxiety (Grant et al., 2003 and McLaughlin et al., 2011). On the other hand, the enhancement of adaptive coping strategies can lead to increased resilience, better mental health, and overall functioning during adolescent years (Zimmer- Gembeck & Skinner, 2016).

Hence, it is crucial to investigate the effects of stress on development of adolescents and the strategies used in order to address the issue. It can be stipulated that these interventions may protect from the negative influence of stress and support healthier development during this stage in life (Compas et al., 2017 and Herman et al., 2018).

STRESS AND ADOLESCENT DEVELOPMENT

The transition to adolescence, a phase defined by physical, cognitive, and emotional growth, can be highly stressful. Young people face a variety of issues which, in one way or another, may put a pressure on their resources and negatively impact their growth. This section focuses on stress effects in adolescents, types of stressors in adolescence, and the application of the Person-Environment Fit (P-E Fit) theory for analyzing this relationship.

Impact of Stress on Adolescent Development

Stress, a condition of physiological and psychological activation in response to threats or perceived demands, may greatly affect the development of adolescents through a variety of mechanisms, discussed below. Thus, chronic stress can impair the healthy development of the child's emotions and cognitive abilities.

A) Stress and sleep; stress will affect the quality as well as the quantity of sleep that adolescents get, since they will find it hard to both fall asleep and wake up with full rejuvenation (Hirshkowitz et al., 2015). Lack of sleep can amplify stress levels and develop an unconstructive cycle of stress and sleep deprivation (Wolfson et al., 2020).

As self-care is one of the most important components of adolescents' happiness, stress affects it to the greatest extent. Teenagers require between 8 and 10 hours of sleep every night; however, academic demands, other activities, and screen time consistently interfere with this vital need (Hirshkowitz et al., 2015). Neuroendocrine hormones like cortisol disrupt sleep by interrupting the onset and the consolidation of sleep thereby producing disrupted sleep (Buckley & Schatzberg, 2005). For this reason, anxiety also increases with low sleep and rest levels, which forms a vicious cycle between stress and sleep. Sleep deprivation affects the brain in ways that are counterproductive and lead to poor learning and academic achievement (Curcio et al., 2006).

Lack of sleep weakens the human body's natural defense system, making it easy to fall sick, and also affect the body's chemical production making one easily depressed (Irwin & Opp, 2016). Experts continually stress various detrimental effects of sleep deprivation on adolescent's health and wellbeing (Owens et al., 2014). Moreover, a CDC study revealed that only 8% of high school students achieve the recommended sleep duration, establishing a direct correlation between elevated stress levels and sleep disturbances in adolescents.

B) Stress and mental health; There is evidence that elevated stress increases the risk of anxiety, depression and other mental problems in adolescents (Beesdo et al., 2021). These conditions can affect the ability of an adolescent to perform tasks at school, social functions, and even routine activities. Stress experienced during the adolescence period is especially dangerous because stress can cause changes both in the structure and the function of the brain (Lupien et al., 2021). The regions that are

linked to the ability to overcome stress and manipulate emotional states, including the prefrontal cortex and the amygdala, seemingly remain the most sensitive to chronic stress.

- Prefrontal Cortex: The functions found in this region include the higher order cognitive functions such as planning, decision making and emotional regulation (Casey et al., 2010). Those enduring stressors affect the neuronal development of matter within the adolescent's prefrontal cortex, a deficit that hinders the regulation and effective coping with stress (Lupien et al., 2021).
- Amygdala: The amygdala is involved in the evaluation of emotions, especially the feeling of fear and anxiety (LeDoux, 2012). This is because chronic stress alters the neuroplasticity of the amygdala and increases its sensitivity to stimuli that are considered threats meaning that adolescents can easily experience anxiety and fear (Lupien et al., 2021).

These neurological changes can also be associated with various cascading effects which make the patient more vulnerable to mood disorders such as anxiety and depression.

Specifically, anxiety disorders are the most common mental health issue among the youths: they affect almost one in four teenagers in the United States (Beesdo et al., 2021). Published literature reveals positive relationship between stress and anxiety; stress is posited to act as a causative agent for anxiety disorders (McEvoy et al., 2010). In addition, it stated that chronic stress may lead to low levels of serotonin, which is responsible for regulating moods, and may bring about depressive symptoms (McEvoy et al., 2010).

C) Stress and social support; Stress also tends to affect people's ability to communicate and interact with other people and thus can prevent them from developing healthy social relationships. Rudolph et al., (2020) has stated that stress can lead to disruptions on the emotional capability of an adolescent to listen, comprehend and articulate his or her thoughts. It makes communication difficult, misunderstandings arise, conflicts, and no way of easily solving social problems. Adolescent stress dulls an adolescent's emotions and the way he or she deals with the other people's feelings (Compas et al., 2014). This results in challenges of developing friendly relationships, bonding with friendship circles emotionally, or supporting social relationships (Burklund et al., 2020). According to Liu et al., (2019), stress worsens social anxiety thus making adolescents feel nervous and awkward while interacting with other people. These negative outcomes will include social withdrawal, avoidance behaviours, and impaired ability to form close friendships. The outcome is social disgruntlement, which in a way triggers stress, compounding the original one in a vicious cycle. Being left out and rejected by fellow young people or feeling as if they do not belong to any group can be very stressful to the young people (Sandstrom & Cillessen, 2006). As a result, they may develop affiliative depression, loneliness, poor self-esteem, and inability to handle several other pressures that may come their way. It is therefore important to

disentangle the relationships between stress, social support and adolescents' well-being. Social support resources can protect from stress and help a child develop proper social skills and become more resilient (Luthar & Cicchetti, 2000).

D) Academic Struggles; Stress can hinder focus, motivation, and academic outcomes (Liu et al., 2019). Stressed students may sit back in class without listening to the teacher, fail to do assignments on time, as well as, have poor memory to retain crucial information (Vogel & Schwabe, 2016). Stress effects are not restricted to the immediate consequences of the stressors. It has been postulated that prolonged stress experienced during adolescence can impact on one's future health through aggravating disease risk factors such as cardiovascular diseases as well as substance use (Shonkoff & Garner, 2012).

Stressors in Adolescence

Adolescents face a unique constellation of stressors that contribute to their overall stress levels. Some of the most prevalent stressors include:

Academic demands: the need to excel academically, meet set schedules, and prepare for college or other careers becomes a big issue in the life of adolescents. Some of the factors that lead to the amplification of academic stress include standard test and assessment, competitive nature of learning, and fear of falling out (Liu et al., 2019).

Peer relationships: adolescence is a period of development when it may be difficult to manage different relationships. Apperception (meaning the process of understanding something perceived in terms of previous experience), teasing, dating, and other people's approval can be among the biggest causes of stress for an adolescent (Liu et al., 2019).

Family conflicts: this includes conflict with parents, conflict with siblings, or generally a conflicted family structure is very stressful for teenagers (Rudolph et al., 2020). Stressors in the family setting may include lack of consistency while punishing the children, poor communication between the parent and the children or parents experiencing mental health issues.

Pressure to conform to societal norms: adolescents are more conscious of their physique and any pressure they face regarding such issues might be stressful (Rastogi et al., 2020). There are factors related to societal pressure, impact of social media and physiological changes which contribute to body image dissatisfaction and stress.

The role transitions: The stress that comes with the process of moving from childhood to adulthood can be burdensome to adolescents (Liu et al., 2019). This brings changes such as gaining more responsibilities, stating one's opinions and becoming more responsible, factors that may be quite challenging for some teenagers.

Family pressures: issues like sickness of parents or other family members, divorce or poor economic status can greatly complicate the life of an adolescent (Duncan et al., 2017). These experiences can destabilize familial relationships, nurture insecurity, and shift the domestic burden on adolescents. As already mentioned, it is important to understand that stress is a subjective phenomenon. For instance, what one adolescent thinks is a significant factor threatening personal change may be something another adolescent can easily overcome. This goes a long way to highlight the reason why it is sometimes appropriate to discuss the effects of the stressors bearing in mind perceptions of the individual (Aldwin, 2007). For example, the pressure to complete academic assignments may not be very stressful to an academically motivated and disciplined student but could be very stressful to a weak student in academics.

Understanding Stress Through the Lens of P-E Fit Theory

The Person-Environment Fit (P-E Fit) theory delivers a framework of the relation between stress and adolescents. Luthans proposed this theory on arguing that stress levels depend on one's perceived self-efficacy of the demands of his or her environment. Fortunately when there is a match between skills and jobs, people are not stressed or strained most of the time. But when there is a mismatch or a 'P-E gap,' as it is called, this is where there is a disagreement or even differences between the perceived potential and the established potential, which means that the total stress level rises. For instance, extroverts who work in environments where there are high expectations from their employers and the general society would find that such a workplace has high levels of stress as compared to introverts who are placed in the same workplace.

In the context of adolescence, P-E Fit theory can help explain why some teenagers are more resilient to stress than others. Adolescents who perceive their abilities as matching or exceeding the demands of their environment are more likely to cope effectively with stressors (Edwards et al., 1998). In contrast, those who perceive their abilities as falling short of the demands are at greater risk of experiencing high levels of stress and its associated negative consequences (Edwards et al., 1998).

COPING MECHANISM IN ADOLESCENTS

Stress and coping are part of everyday experience. Stress management is the cognitive and behavioural processes used to control internal and external perceived stress.

These mechanisms are not inherently positive or negative, and their effectiveness depends on the situation and the individual.

Adaptive Coping Mechanisms

A) Problem-Focused Coping: The strategies targeted the inputs that directly caused stress in the organisation. This is about taking efforts to either modify the situation which is causing the stress or get ways to reduce stress. When adolescents use their own control with stress, then they are able to use problem-focused coping. This includes, 1. as a way of looking for information by getting facts as well as trying to understand the situation which can in turn help empower teenagers to do something about it. 2. that, developing a plan via creating a strategic approach to the problem under consideration can afford a sense of direction and control succeeded by the implementation of the solutions and actions in relation to the problem towards its active solving minimizes stress.

One of the most beneficial effects of problem-focused coping is that it directly addresses a stressor (reducing overall stress by a tremendous amount); as well as problem solving skills that are developed through this coping style; sense of mastery/self-confidence is developed while successfully solving a problem in one's life throughout adolescence and beyond.

B) Emotion-Focused Coping: The processes involve trying to deal with the feelings that occur when facing stress factors instead of the causes of stress. These are some of the necessary approaches for sustaining mood stability and averting stress to escalate to the next level. Here are some examples of emotion-focused coping mechanisms beneficial for adolescents:

- **Journaling:** This involves putting down on paper possible thoughts and emotions that may be related to stress hence helping in expression and therefore easing stressful thoughts. There is evidence that supports journaling can be helpful in the treatment of symptoms of anxiety, depression and trauma (Smyth, 2003).
- **Mindfulness Meditation:** This practice involves one having to learn how to pay attention to what is happening in the present moment without any criticism. There are a number of documented benefits of Mindfulness meditation among them are the regulation of emotions and reduction of symptoms of stress, anxiety, and depression (Hofmann et al., 2010).
- **Seeking Social Support:** This refers to sharing with a friend, a family member, a therapist or participating in a group, can help to feel that someone understands, and to get helpful tips on how to cope. Maintenance of relationships reduces sources of stress and has positive effects on the health of an individual (Uchino et al., 2011).

One of the most important aspects of defining coping in adolescents, according to the literature, is resilience, which refers to one's capacity for recovery after being under stress (Sin et al., 2020). People who are more resilient are able to use more adaptive coping styles, like the ones discussed above. Research has found out that mindfulness and adaptive coping partially

explain the positive relationship between resilience and well-being and the negative relationship with psychological distress (Sin, et al., 2020).

Maladaptive Coping Mechanisms

Maladaptive coping mechanisms are unhealthy strategies employed to manage stress or negative emotions. While they may offer temporary relief, they can often exacerbate underlying issues and lead to detrimental consequences.

A) *Addiction and mental health disorders are often intertwined.* Research carried out by the American Addiction Centers (2023) and the National Institute on Mental Health (NIMH) proves the existence of a close connection between the two. Addicts are most likely to have a mental disorder such as depression, anxiety, and other mental disorders. On the other hand, people that suffer from mental health disorders are more prone to developing addictions. This leads to a creation of a vicious cycle whereby one condition complicates the other.

B) *Eating Disorders as a form of control?* A promising strategy of utilising the illness in a cognitive behavioural manner is evaluated by Bodywhys (2023) and Seeds of Hope Support (2023) who pointed out that eating disorders serve as a coping mechanism. These disorders give a sense of security and strength in an environment where these aspects are lacking. They can be employed to damp down feelings, have feelings of control, or not have to deal with issues. The studies by Thompson (1999) indicate that since there is certain comfort that persons with the eating disorders get from the associated pain, they will be motivated to sustain the condition. This is quite hard to overcome since people feel like they must rely on their illness in order to survive.

C) *Risky Behaviours: Fitting In or Masking Pain?* As adolescence is a time of immense change and emotional turmoil. According to CDC (2021), risky behaviours such as self-harm, unsafe sexual practices, aggression, and the like are also ways of coping. Such behaviours can act as coping calls or stress relievers, meet the demand of peers especially due to peer pressure, or increase low self-esteem (AACAP, 2023). But these behaviours are self-destructive and can cause significant harm in the long run.

D) *Avoidance.* This consists of features such as avoiding or delaying a task, indirect aggression, dwelling on one's worry, fantasising, and avoidance, rejecting social interaction (Dictionary of Psychology, APA, 2023). Although these strategies can provide short time relief, they deny one the ability to solve his/her problems adequately. According to the findings of Eshel and Ferguson (2005) it was established that avoidance coping really leads to an increase of stress and anxiety. Avoidance methods include:

- i. **Procrastination:** When a person puts off doing something that needs to be done. It can be a way to avoid feeling overwhelmed or stressed. For example, a student might procrastinate on writing a paper by cleaning their room or watching TV instead.
- ii. **Passive-aggression:** When one expresses their anger or frustration in an indirect way. It can be a way to avoid conflict or confrontation. For example, a person might give someone the silent treatment or make sarcastic comments.
- iii. **Rumination:** When someone can't stop thinking about something negative that has happened. It can be a way to avoid feeling other emotions, such as sadness or anger.
- iv. **Escapism:** Where a person tries to escape their problems by focusing on something else. It can be a way to avoid dealing with difficult emotions or situations. For example, a person might spend hours playing video games or watching TV to avoid thinking about their work.
Social withdrawal: Isolating oneself from others. It can be a way to avoid feeling rejected or hurt.

FACTORS AFFECTING COPING MECHANISMS

Gender Roles

The gender factor accounts for a massive portion of the approaches that adolescents use to cope with their challenges. Several studies have demonstrated that males and females act differently as far as stress is concerned and this is attributed to both genetic and environmental factors (Hampel & Petermann, 2006).

Emotional regulation is another general category of coping, and females prefer talking to others, thinking over problems, or confiding in someone (Tamres et al., 2002). Such strategies imply a relational perspective on stress management, given that stress is coped with by regulating one's emotions rather than addressing the issue directly. The reasons why females often use these strategies are hormonal effects of oestrogen that increases anxiety and socialisation processes that foster expressive companionate social behaviours and preservation of relationships (Chaplin, 2015). That said, there are several negative consequences associated with using emotional regulation strategies, including increased levels of anxiety and depression if the strategies are not combined with problem-solving activities (Salk, Hyde, & Abramson, 2017).

Males, on the other hand, resort to more of the task-oriented coping styles which include taking some action to alter a situation, exercise, or spend time doing something else (Hampel and Petermann, 2005). These strategies fit well the societal male scripts where males are expected to be assertive, independent and problem-solving. The use of the problem-focused coping that characterises this model is associated with less rumination and emotional release and, therefore, decreased likelihood of internalising

disorders such as depression. But this could prove problematic when applied to stressors that are outside their direct control, which may lead to frustration and or aggression (Matud, 2004).

Age and Coping Choice

Types of coping strategies used by adolescents also differ with age in that period because of the different development phases. It is noteworthy that in early adolescence individuals tend to use less adaptive coping styles, like escape/avoidance as developmental cognitive and emotional competencies are not fully developed at that age (Compas et al., 2017). It showed that as adolescents grow, they gain more adaptive strategies like problem-solving and cognitive restructuring which entails perceiving an event in a different and positive way.

The change from early adolescence to early adulthood is accompanied by enhanced abstract thinking abilities, better control of the emotions, and improved perception of social processes. These developmental changes facilitate older adolescents to adapt coping styles, such as he adopts a more realistic appraisal of the situation and is better able to evaluate options and choose the best course of action (Skinner & Zimmer-Gembeck, 2016). Moreover, as boys and girls grow, they become more independent and accumulate experience that in turn helps them to cope with the stress at a young age in a more adaptive or constructive way.

Environmental Effect

External factors such as family, peers, as well as socio-economic status, play a critical role in shaping the coping strategies preferred by adolescents. Family structure and interaction can be viewed as a major protective factor in that a family environment that is characterized by communication, warmth and parental involvement is related to the use of relatively healthy coping styles including use of social support and problem solving as reported by Kliewer and colleagues (1996). Conversely, if they have grown up in a dysfunctional family environment where there is no support or conflict is lacking, they are more prone to unhealthy ways of coping which include avoiding or denying whatever is causing conflict.

Peer relationships are also important determinants of coping behaviours. These interactions may include positive support with the use of positive communication and advice, which can enhance individuals' use of adaptive coping mechanisms. On the other hand, negative peer pressure leading to either pressure or bullying results in the development of maladaptive coping strategies by the individuals in question, which may for instance entail acts of aggression, self-isolation or risky behaviours (Frydenberg & Lewis, 2000).

Socio-economic status (SES) is another critical environmental factor that affects coping mechanisms. Chronic stressors common with adolescents from a lower SES include the financial and job insecurity, violence in their neighbourhoods and lack of resources and that they can impose considerable stress on the adolescents' coping abilities. Such adolescents may use avoidance or escapism as the main coping tactics for they may assume that they have little control over their environment (Evans & Kim, 2013). On the other hand, adolescents from higher SES status may find more support resources available from Counseling, extracurricular activities in schools and other support facets that may lead to the development of appropriate coping strategies.

Cultural and Societal Influences

Cultural factors or more specifically, societal culture plays a critical role in influencing the kind of coping that the adolescent will use. Cognitive perceptions on mental health, stress and how emotions should be managed can be determinants of coping behaviours among adolescents. In collectivistic culture where the group priority is given over individual need, it is expected that the adolescents will use the coping strategies that uphold the social cohesion, for instance, get support or act in a manner that is acceptable to the group (Kuo, 2011). On the other hand, people, who grow in individualistic cultures The people in Individualistic culture prefer to use Problem solving strategies to cope up with the stress.

Societal factors, such as media exposure and public discourse, also shape adolescents' coping behaviours. For instance, through New York popular media youths are likely to develop perceptions concerning coping strategies and their functionality as being or not being appropriate. In this case, if the media portrays substance use or aggression as an appropriate behaviour in response to pressure, young people will be likely to use unhealthy ways of handling stress (Hawk et al., 2006). On the other hand, stress watching media that acts as a tool for encouraging healthy ways of overcoming stress like practising mindfulness or asking for help can help adolescents to change their behaviour for the better.

Psychological Reasoning

Psychological factors, including personality traits, self-esteem, and cognitive appraisals, play a significant role in determining the coping mechanisms used by adolescents. Adaptive coping strategies are related to personality characteristics including resiliency, optimism, and emotional self-efficacy. Those students who had higher resistance and optimism levels solve the problems, reframe the cognitions, and seek the social support because they refer to the stressors as the challenges (Connor-Smith & Flachsbart, 2007). On the other hand, adolescents with high neuroticism or low self-esteem may be at risk of using maladaptive coping styles, like rumination, disengagement or self-punishing cognitions, as they are more inclined to regard stressors as being more threatening in some way, hence, unmanageable (Garnefski et al., 2002). Cognitive appraisals, or the way adolescents interpret and evaluate stressors, also influence their choice of coping strategies. If the teenager perceives the stressor as being modifiable or amendable, they are likely going to use problem-focused coping while if the teenager views the stressor as being unchangeable, they are likely to use emotion-focused coping or avoidance (Lazarus & Folkman, 1984). Furthermore, highly efficacious adolescents or those with belief in their ability to cope with stress are likely to use adaptive coping styles because they believe that they have what it takes to deal with difficulties encountered (Bandura, 1997).

In conclusion, the coping mechanisms employed by adolescents are shaped by a complex interplay of gender, age, environmental, cultural, and psychological factors. Knowledge of these factors is thus important in order to assist adolescents effectively to build resilience and other positive psychosocial resources of coping. Thus, by addressing these factors, parents, educators, and mental health professionals can help adolescents navigate this period with fewer difficulties and become more resilient.

DISCUSSION

Implications

This review examines how stress influences adolescent development and identifies the coping strategies adolescents typically use. The findings of the current study have implications for many stakeholders that are interested in promoting adolescents' health and healthy development.

This leads to one major lesson learnt that stress is actually subjective in nature. Two adolescents are not likely to perceive a particular event as a stressor in the same way depending on their varying ability in handling stress. This clearly underlines the importance of understanding the existence of individual differences with regard to perception as well as coping capacity when it comes to stress. The paper focuses on the chronic aspect of the coping resources including problem solving, use of social support and positive re-appraisal coping styles.

These strategies help adolescents cope effectively and support their mental and emotional well-being. These results indicate that efforts to foster such competencies could play a major role in enhancing adolescents' psychological functioning and resources.

On the other hand, the paper examines the negative effects that come with maladaptive coping strategies such as avoiding situations or denying them, as well as substance abuse. These strategies only afford temporary respite in a stressful situation and only worsen the stress factor, and other underlying problems in the process. It is therefore important to identify the causes of maladaptive coping including family environment, peers and psychological factors so that specific ways of dealing with the problem can be extended.

In addition, the paper highlights the extent to which external factors influence coping strategies. Such factors as gender, age, family environment, socio-economic status, culture as well as the society influences the manner in which adolescents react to stress. This underscores the importance of the programs that have support mechanisms for coping with stress which take into consideration not only the stress coping strategies but the environment within which the adolescents experience stress. Such may require family-centered practices, school and community organizational activities that promote client/victim strength and a protective form of functioning.

LIMITATIONS

A limitation of this review was that the sources available emphasize solely on individual-level factors that influence coping mechanisms such as gender, age etc. While these are important considerations, they alone do not fully address the complicated interaction between personal experiences and wider societal contexts. To gain a more detailed understanding of stress and coping in adolescents, it is important to examine systemic factors as well. Without considering these wider influences, the understanding will remain incomplete and limited to individual differences. Exploring this intersection would provide a more holistic perspective, highlighting the need for policies and interventions addressing both individual and societal factors. Thus introducing these dimensions would foster a more nuanced approach to support adolescents.

FUTURE DIRECTIONS AND RESEARCH

Building upon the knowledge present in the sources mentioned, future comprehensive research could explore diverse avenues to deepen the understanding of stress and coping mechanisms in adolescents. The sources do acknowledge the influence of factors like gender and age on coping mechanisms but at the same time emphasize the need for more nuanced research. Further studies in this field could explore the long-term effects of varying coping mechanisms on adolescents' mental and physical health, moving beyond simply identifying the mechanisms. Lastly, investigating the effectiveness of interventions designed to strengthen coping mechanisms is essential. This research could involve evaluating

school-based programs and community initiatives that equip adolescents with practical tools during their transition to adulthood.

Future research could focus on studying the effectiveness of programs that may be involved in strengthening the coping mechanisms of adolescents in school environments. Stress in a structured environment could be managed through such programs which might comprise of resilience activities, stress management working, and peer-support programs. Significantly, these interventions would have to address the social and environmental factors potentially affecting adolescent realities: be it financial strains, or family dynamics, for example. By integrating psychological education with real-world skill-building, schools could equip adolescents with tools for managing stressors they face both academically and socially. More longitudinal studies relating to the functioning of such programs and their effects on mental health could be useful for building the recommended interventions' effectiveness.

CONCLUSION

Stress plays a significant role in adolescent development, as this stage involves substantial physical, cognitive, and social challenges. This review examined how stress affects adolescents' growth and development and the strategies they use to cope with it. It is pointed out by the sources that adolescents engage certain stressors in use of diverse coping methods; adaptive and maladaptive. This coping mechanism proved that the choice of coping mechanism depends on several factors which include gender, age, environmental influence, cultural beliefs and psychological factors that are present in any given society.

Adopting positive coping mechanisms which include problem solving and support seeking as showcased in the paper should be encouraged to help decrease the adverse effects of stress to adolescents' health. Understandably, identifying negative consequences of avoiding and substance abuse is also important as well. In addition, external factors, which include family and socio economic status, have to be incorporated in the designing of interventions. That is why, by considering these factors, parents, educators and other mental health related specialists can assist adolescents to cope with the crucial developmental period by building their resilience.

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