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ADOLESCENT EMOTIONS: RELATIONSHIP BETWEEN POSITIVE AND NEGATIVE EMOTIONS AND THE MEDIATING ROLE OF GENDER

Psychology

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ABSTRACT

Adolescence, often perceived as an important stage on the developmental continuum, is considered a crucial age for emotional growth. Paradoxically, adolescence is also a time of emotional upheavals and volatile mood states. Since emotions play a vital role in determining the health and wellbeing of people, the present study investigated the incidents of positive and negative emotions during adolescence and examined the relationship between them. The study also focused on understanding the role of gender in mediating these emotions to see if there was an inherent difference in the experience of positive-negative emotions among male and female adolescents. 658 adolescent students (male n=336; female n=322) with a mean age of 16.44 years were included in the study. The Positive and Negative Affect Schedule (PANAS) was used to measure positive-negative emotions in the sample and the obtained data was analyzed using descriptive statistics, independent sample t-test, and Pearson's product movement correlation. The results revealed that adolescents experienced higher negative emotions than positive ones and gender had an imperative role in defining them. Also, a significant negative correlation was found between positive and negative emotions, indicating an inverse relationship between them in the adolescent group.

KEYWORDS

Adolescence, Emotions, Positive Emotion, Negative Emotion

INTRODUCTION

The centrality of emotions in determining events of life is far beyond what can be reported. Of the array of emotions experienced and ways of categorizing them, positive-negative dimensions are taken to be the single most powerful way of separating emotional schemas. The differentiation is usually done based on the valence, outcome, and hedonic tone of the emotion (Solomon and Stone, 2002). Typically, emotions that are pleasant and provide pleasurable subjective feel are defined as positive while those that produce unpleasant results are stated as aversive and negative to the one experiencing it. Joy, love, gratitude, serenity, interest, hope, pride, amusement, inspiration, and awe are said to be the most frequently experienced positive emotions; they emerge when people appraise good prospects in their situation (Fredrickson, 2013). On the other hand, when circumstances seem dire to the self, negative emotions crop up. Anger, disgust, hate, sadness, fear, envy, and jealousy are some examples here (MacIntyre & Vincze, 2017). While referring to these emotions, it is important to remember that rather than being considered as the opposite ends of a continuum, they are professed to be independent constructs. They are universal, can coexist, serve an adaptive function or give rise to adverse consequences depending upon the severity, intensity, duration, and direction of the felt emotion (Bailen et al., 2019; Díaz-García et al., 2020). They colour the thoughts, actions, attitudes, and choices of individuals, continually affecting them for the better or worse.

Retrospective research on emotions has pondered much upon understanding how emotions influence one's health, performance and behavior. And most of them have gravitated toward exploring negative emotions rather than positive ones. This is because negative emotions are powerful in triggering dysfunctional coping responses, leading to severe psychophysiological imbalances in the long run. They are implicated in many human anomalies across age groups, including addictions (Kassel, 2010), self-injurious behaviors (Gratz et al., 2016), aggression, reckless conduct (Mesurado et al., 2018), procrastination, apathy, inferiority, and insecurity (Curhan, 2014; Djamahar et al., 2020; MacIntyre & Vincze, 2017). Serious mental health issues like anxiety, stress (Du et al., 2018), depression (Vanderlind et al., 2020), mood syndromes (Watson et al., 2011), psychosomatic conditions, eating disorders, behavioral problems, thought disorders, schizophrenia, are fundamentally caused by extreme negative emotionality (Pandey & Choubey, 2010; Pascual et al., 2012). Interpersonal relationships (Costa et al., 2018), scholastic achievements (Bahmani et al., 2018), occupational productivity (Pervez, 2010) are all in some way affected by the emotional status of an individual. Emotions are likewise connected to cognitive functions and seen to cause variations in mental abilities such as problem-solving, decision-making, attention and concentration, memory, rational thinking, creativity, and so on (Harle et al., 2013; Yates et al., 2017).

Though there is a bulk of literature on the impact of negative emotions, dynamic research on positive emotions was lacking until the advent of positive psychology. Fredrickson's Broaden-and-build theory played a decisive role in identifying the strengths of positive emotions in mediating beneficial life outcomes. Fredrickson argued that, while negative emotions narrowed behavior to specific thought-action repertoires, positive emotions led to expansive thinking that broadened awareness and built personal resources. This in turn triggered an upward spiral, combining positive emotions with positive outcomes and flourishing life (Fredrickson, 2013). Research that followed confirmed that positive emotions enhance people's physical, psychological, and social well-being. By restraining the impact of stressful events on coping, positive emotions reduce the risk of developing diseases, apprehend disease progression, and enhance immune system functioning (Armenta et al., 2017). Frequent experiences of positive emotions are linked to happiness, resilience, emotional regulation, self-efficacy, and increased risk-avoidance/gain-focused behaviors. Growing evidence has led to a conscious agreement that positive emotions facilitate adjustment, prompt attitudinal change, and endorse a healthy mindset in people towards themselves and others (Fredrickson, 2013). They make people resourceful, improve competences and even aid in building better financial positions (Rana & Nandinee, 2016). High positive emotions are taken to be suggestive of high energy, full concentration, and pleasurable engagements with the environment (Watson et al., 1988). So, the manifestation of positive emotions signal optimal functioning, finest subjective wellbeing, and total life satisfaction (Silton et al., 2020). Since emotions impinge on the thinking and behavior of people in a variety of personal and social context, it is important that one learns to identify and manage his or her emotions in an effective manner so that they experience a productive interaction with the world.

Compared to all the stages of life where emotions exert a heavy influence on the individual, adolescence is seen as a critical age for emotional development. Being a time of emotional awakening and novel emotional experiences, adolescence is marked by heightened emotionality and volatile mood states. The inconsistencies felt during this era are attributed to developmental changes that place a huge adjustmental demand on the emerging individual (Curits, 2015). The inevitable emotional flux can thwart the socio-emotional development of the growing adolescent and inflict long-term consequences when left unchecked. Emotional upheavals of teen years can be extremely difficult to handle for a relatively inexperienced adolescent, causing significant distress to them (Bailen et al., 2019). Emotional distress that signifies negative emotional states is linked to a variety of maladaptive behaviors and functional difficulties during teen years. Academic failure, interpersonal complications, adjustment troubles, risk behaviors, poor physical health, and proneness to mental illness result from emotional obscurity and poor emotional regulation during adolescence (Knopf et al., 2008; Pekrun, 2017; Young et al., 2019).

Numerous studies have explored the significance of emotions during adolescence, finding pathways to poor emotional health and detailing factors that modulate them (Guyer et al., 2016; Knopf et al., 2008;

Sanchis-Sanchis et al., 2020; Young et al, 2019). But very few have sought to understand the prevalence of positive-negative emotions during adolescence and inspect the role of gender in defining them. The conceptual framework on adolescent emotions is so constricted that the presence of emotional distress is automatically equated to states of anxiety and depression without actually inquiring into the load of negative emotions that lie beneath them. The present study intends to bridge gaps in research and empirically establish the pervasiveness of positive-negative emotions in the adolescent group. The study also aims to find out whether a relationship exists between these two emotions and clarify if gender persistently affects the experience of positive-negative emotions during adolescence.

Methodology

Participants & Procedure

The study sample consisted of 658 adolescent students, of which 336 were male and 322 were female participants with a mean age of 16.44 years. A random sampling technique was used for sample selection and data was collected from the sample by administering the Positive and Negative Affect Schedule (PANAS). Participants were informed that their participation was voluntary, and all information shared would remain confidential. Individuals with impaired abilities and those already exposed to similar studies were excluded from the research.

Instrument

The original *Positive and Negative Affect Schedule* (PANAS) developed by Watson, Clark, and Tellegan (1988) was used to assess positive-negative emotions in the participants. The schedule is a 20-item self-report measure with half of it measuring positive affect (PA), and the other half measuring negative affect (NA). The items are rated on a 5-point Likert scale ranging from 1 (very slightly/not at all) to 5 (extremely). As reported, the scale has good validity and reliability. For the PA subscale, the Cronbach alpha is reported at 0.86 to 0.90; for the NA subscale, it is 0.84 to 0.87. Over 8 weeks, the test-retest correlations remained 0.47-0.68 and 0.39-0.71 for PA and NA respectively. PANAS has strong reported validity with such measures as general distress and dysfunction, depression, and state anxiety.

RESULTS

Table 1 shows the overall mean scores of adolescent students on positive and negative emotions and the t-test results.

Emotions	N	Mean	SD	Test Statistics
Positive	658	27.18	8.51	T= -7.964
Negative	658	30.84	8.12	P= .001

The participants had an overall mean score of 27.18 with an SD of 8.51 on positive emotions and an overall mean score of 30.84 with an SD of 8.12 on negative emotions. The difference between scores was confirmed by independent sample t-test which showed a highly significant result (t= -7.964; p= .001). This indicates that negative emotions were significantly more than positive emotions among the adolescent group.

Table 2 shows the mean scores of male and female adolescent students on positive and negative emotions and the t-test results.

Emotions	Gender	N	Mean	SD	Test Statistics
Positive	Male	336	22.99	6.095	T= -14.943
	Female	322	31.56	8.481	P= .001
Negative	Male	336	34.09	6.220	T= 11.495
	Female	322	27.44	8.485	P= .001

Positive emotion and gender:

It is noted that male students had a mean score of 22.99 (SD 6.095), while female students had a mean score of 31.56 (SD 8.481). t-test results revealed a statistically significant difference between the groups (t= -14.943; p= .001) demonstrating that female students experienced more positive emotions than their male counterparts.

Negative emotion and gender:

It is also evident that male adolescent students had a higher mean score of 34.09 on negative emotions (SD 6.220), while female adolescent students had 27.44 as their mean score (SD 8.485). t-test results confirmed a highly significant difference between the groups (t= 11.495; p= .001) indicating that male students experienced more negative emotions than their female counterparts.

Table 3 shows Pearson's Correlation coefficient for positive and negative emotions.

Analysis of results using Person's r to test the relationship between positive-negative emotions demonstrated a highly significant negative correlation between them (r= -.540; p= .001).

DISCUSSION

The purpose of the present research was to investigate incidents of positive and negative emotions during adolescence and understand the moderating effect of gender on them. Results of the study showed that adolescents, in general, experienced significantly higher negative emotions than positive ones. The findings substantiate previous claims on adolescence as an era of emotional distress that unswervingly relates to negative emotions. (Guyer et al., 2016; Knopf et al., 2008; Sanchis-Sanchis et al., 2020; Valverde et al., 2012; Young et al, 2019). Low frequency of positive emotions and high frequency of negative emotions are anticipated risks to emotionally triggered mental and behavioral problems during adolescence (Pascual et al., 2012). It is well established that poor psychosocial outcomes are consequences of negative emotions, while positive emotions serve as protective factors that improve adaptation and reduce conduct problems across life span (Bailen et al., 2019; Valverde et al., 2012). Thus, the study emphasizes on the need for early identification and remedy of negative emotions during adolescence. Similarly, developing strategic approaches to improve experience of positive emotions during adolescence is necessary so as to regulate their effects on the health and wellbeing of the adolescent group.

A gender-wise comparison of results in the study revealed that female adolescents reported higher positive emotions compared to male adolescents who expressed elevated levels of negative emotions. Past inquiries have confirmed that emotional experiences are a function of gender (Chaplin, 2015). Females are described to be intrinsically more expressive and easily stirred by emotions than their male equivalents who convey difficulties in identifying and communicating emotions (Bailen et al., 2019; Pascual et al., 2012; Young et al., 2019). This allows girls to be emotionally complacent and have greater emotional self-regulation when compared to boys. Since they effortlessly receive support and acceptance for their emotional states in their surrounding, they have better opportunities for resolving their negative feelings. On the contrary, societal stereotypes on male emotionality contribute to emotional suppression, accounting for emotional complexities and distress in them (Sallquist et al., 2009; Sanchis-Sanchis et al., 2020). Nevertheless, the higher frequency of positive emotions in female adolescents is just a distinguishing feature in the study while inclusively, the results indicate that adolescents, irrespective of gender, experience higher negative than positive emotions. Since research ascertains the undisputed role of gender in influencing emotional experiences, escalating gender-sensitive techniques that differentially build the emotional competencies of teen boys and girls are required.

To fully appreciate the nature of emotional experiences, one must understand the connection between them. Therefore, the study explored the relationship between positive-negative emotions and found that there is a highly significant negative correlation between these emotions in the adolescent group. This finding is consistent with previous research stating an inverse relationship between positive-negative emotions. Though considered as independent constructs, positive-negative emotions can co-occur (as mixed emotions) and correlate (having a contrasting influence on each other). Many factors determine their relationship, including inner disposition, time frame, and situational components that contour their existence (Larsen et al., 2017; Schmukle et al., 2002). Since positive-negative emotions can contrast and contradict each other, the findings further substantiates the reason for higher scores on negative emotions and lower scores on positive emotions among male participants, and vice versa for female participants in the study.

Though the present study sheds light on the path of adolescent emotions, it does not account for temperamental factors and time trajectories in tracing the emotional experiences of adolescents. Future investigations can examine personality factors, demographic influence, and cultural variants in determining adolescent emotionality. There remains much to be discovered about the effect of positive emotions on human functioning, of which the period of adolescence maintains an unprecedented niche.

CONCLUSION

Adolescence is a period of manifold events that account for all the happenings of later years of life. It marks the dawn of emotional

growth and awareness that can stabilize and become patterns of favorable or unfavorable emotional responses over time. Once stable, it is an enormous task to rewire the person's habitual ways of feeling and behaving. Positive-negative emotions which are experienced throughout one's existence are hallmarks of adolescence, influencing their general psychosocial development. There is indispensable evidence that positive emotions are valuable assets and yet they have not been systematically examined during adolescence where emotional states are particularly salient. It is hoped that the present research stimulates prospective investigations on positive-negative emotions during adolescence, guiding mental health professionals, primary caregivers, and policymakers to develop interventions that promote positive emotional experiences in the adolescent group. Increased engagement in felt positivity can spill over to other aspects of living and allow adolescents to wade through developmental challenges without being marred by them.

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REFERENCES

1. Armenta, C. N., Fritz, M. M., & Lyubomirsky, S. (2017). Functions of positive emotions: gratitude as a motivator of self-improvement and positive change. *Emotion Review*, 9(3), 183-190. https://doi.org/10.1177/1754073916669596
2. Bahmani, D. S., Faraji, P., Faraji, R., Lang, U. E., Holsboer-Trachsler, E., & Brand, S. (2018). Is emotional functioning related to academic achievement among university students? Results from a cross-sectional Iranian sample. *Brazilian Journal of Psychiatry*, *40*(3), 290-295. https://doi.org/10.1590/1516-4446-2017-2434
3. Bailen, N. H., Green, L. M., & Thompson, R. J. (2019). Understanding emotion in adolescents: a review of emotional frequency, intensity, instability, and clarity. *Emotion Review*, *11*(1), 63-73. https://doi.org/10.1177/1754073918768878
4. Chaplin, T. M. (2015). Gender and emotion expression: a developmental contextual perspective. *Emotion Review: Journal of the International Society for Research on Emotion*, *7*(1), 14-21. https://doi.org/10.1177/1754073914544408
5. Costa, J., Jung, M. F., Czerwinski, M., Guimbretiere, F., Le, T., & Choudhury, T. (2018). Regulating feelings during interpersonal conflicts by changing voice self-perception. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. https://doi.org/10.1145/3173574.3174205
6. Curhan, K. B., Sims, T., Markus, H. R., Kitayama, S., Karasawa, M., Kawakami, N., Love, G. D., Coe, C. L., Miyamoto, Y., & Ryff, C. D. (2014). Just how bad negative affect is for your health depends on culture. *Psychological Science*, *25*(12), 2277-2280. https://doi.org/10.1177/0956797614543802
7. Curtis, C. A. (2015). Defining Adolescence. *Journal of Adolescent and Family Health*, *7*(2), 2. https://scholar.utc.edu/jafh/vol7/iss2/2
8. Díaz-García, A., González-Robles, A., Mor, S., Mira, A., Quero, S., García-Palacios, A., Baños, R. M., & Botella, C. (2020). Positive and Negative Affect Schedule (PANAS): psychometric properties of the online Spanish version in a clinical sample with emotional disorders. *BMC Psychiatry*, *20*(1), 56. https://doi.org/10.1186/s12888-020-2472-1
9. Djamahar, R., Dewahrani, Y. R., & Octaviani, R. (2020). Relationship between self-esteem and negative emotional state with academic procrastination in final level students. *Indonesian Journal of Biology Education*, *3*(1), 6-12.
10. Du, J., Huang, J., An, Y., & Xu, W. (2018). The Relationship between stress and negative emotion: The Mediating role of rumination. *Clinical Research and Trials*, *4*(1), 1-5. https://doi.org/10.15761/CRT.1000208
11. Fredrickson, B. L. (2013). Positive emotions broaden and build. *Advances in Experimental Social Psychology*, *47*, 1-53. https://doi.org/10.1016/B978-0-12-407236-7.00001-2
12. Gratz, K. L., Chapman, A. L., Dixon-Gordon, K. L., & Tull, M. T. (2016). Exploring the association of deliberate self-harm with emotional relief using a novel Implicit Association Test. *Personality disorders*, *7*(1), 91-102. https://doi.org/10.1037/per0000138
13. Guyer, E., A., Silk, S., J., & Nelson, E., E. (2016). The neurobiology of the emotional adolescent: From the inside out. *Neuroscience & Biobehavioral Reviews, 70,* 74-85. https://doi.org/10.1016/j.neubiorev.2016.07.037
14. Harle, K. M., Shenoy, P., & Paulus, M. P. (2013). The influence of emotions on cognitive control: feelings and beliefs - where do they meet? *Frontiers in Human Neuroscience*, *7* , 508. https://doi.org/10.3389/fnhum.2013.00508
15. Kassel, J. (Ed.). (2010). *Substance Abuse and Emotion*. Washington, DC: American Psychological Association. http://www.jstor.org/stable/j.ctv1chs0zr
16. Knopf, D., Park, M. J., & Mulye, T. P. (2008). *The Mental Health of Adolescents: A National Profile, 2008*. San Francisco, CA: National Adolescent Health Information Center, University of California, San Francisco.
17. Larsen, J. T., Hershfield, H. E., Stastny, B. J., & Hester, N. (2017). On the relationship between positive and negative affect: their correlation and their co-occurrence. *Emotion (Washington, D.C.)*, *17*(2), 323-336. https://doi.org/10.1037/emo0000231
18. Lima Valverde, B. S. C., de Souza Vitalle, M. S., de Pádua Cintra Sampaio, I., & Schoen, T. H. (2012). Survey of behavioral/emotional problems in an adolescent outpatient service. *Paidéia, 22*(53), 315-323. https://doi.org/10.1590/S0103-863X212000300003
19. MacIntyre, P. D., & Vincze, L. (2017). Positive and negative emotions underlie motivation for L2 learning. *Studies in Second Language Learning and Teaching*, *7*(1), 61-88. https://doi.org/10.14746/ssllt.2017.7.1.4
20. Mesurado, B., Malonda, E., & Mestre, A. L. (2018). Negative emotions and behavior: the role of regulatory emotional self-efficacy. *Journal of Adolescence*, *64*, 62-71. https://doi.org/10.1016/j.adolescence.2018.01.007
21. Pandey, R., & Choubey, A. (2010). Emotion and health: an overview. *SIS Journal of Projective Psychology and Mental Health***,** *17*, 135-152.
22. Pascual, A., Etxebarria, I., Ortega, I., & Ripalda, A. (2012). Gender differences in adolescence in emotional variables relevant to eating disorders. *International Journal of Psychology and Psychological Therapy*, *12*(1) 59-68.
23. Pekrun, R. (2017), Emotion and achievement during adolescence. *Child Development Perspective*, *11*(3) 215-221. https://doi.org/10.1111/cdep.12237
24. Pervez, M. A. (2010). Impact of emotions on employee's job performance: an evidence from organizations of Pakistan. *OIDA International Journal of Sustainable Development*, *1*(5), 11-16.
25. Rana, S., & Nandinee, D. (2016). Profile of adolescents' positive emotions: an indicator of their psychological well-being. *Psychological Studies*, *61*(1), 32-39. https://doi.org/10.1007/s12646-015-0347-1
26. Sallquist, J., DiDonato, M. D., Hanish, L. D., Martin, C. L., & Fabes, R. A. (2012). The importance of mutual positive expressivity in social adjustment: understanding the role of peers and gender. *Emotion, 12*, 304-313. https://doi.org/10.1037/a0025238
27. Sanchis-Sanchis, A., Grau, M. D., Moliner A., & Morales-Murillo, C. P. (2020). Effects of age and gender in emotion regulation of children and adolescents. *Frontiers in Psychology*, *11*, 946 https://doi.org/10.3389/fpsyg.2020.00946
28. Schmukle, S. C., Egloff, B., & Burns, L. R. (2002). The relationship between positive and negative affect in the Positive and Negative Affect Schedule. *Journal of Research in Personality*, *36* (5), 463–475. https://doi.org/10.1016/S0092-6566(02)00007-7
29. Silton, R. L., Kahrilas, I. J., Skymba, H. V., Smith, J., Bryant, F. B., Heller, W. (2020). Regulating positive emotions: implications for promoting well-being in individuals with depression. *Emotion (Washington, D.C.), 20*(1), 93-97. https://doi.org/10.1037/emo0000675
30. Solomon, R. C., & Stone, L. D. (2002). On "Positive" and "Negative" emotions. *Journal for the Theory of Social Behaviour*, *32*(4), 417-435. https://doi.org/10.1111/1468-5914.00196
31. Vanderlind, W. M., Millgram, Y., Baskin-Sommers, A. R., Clark, M. S., & Joormann, J. (2020). Understanding positive emotion deficits in depression: from emotion preferences to emotion regulation. *Clinical Psychology Review*, *76*, 101826. https://doi.org/10.1016/j.cpr.2020.101826
32. Watson, D., Clark, I. A., & Tellegen, A. (1988). Development and validation of the brief measure of positive and negative affect: The PANAS scale. *Journal of Personality and Social Psychology*, *47*, 1063-1070.
33. Watson, D., Clark, L., & Stasik-O'Brien, S. (2011). Emotions and the emotional disorders: a quantitative hierarchical perspective. *International Journal of Clinical and Health Psychology*, *11*(3), 429-442.
34. Yates, J. A., Clare, L., & Woods, R. T. (2017). What is the relationship between health, mood, and mild cognitive impairment? *Journal of Alzheimer's disease*, *55*(3), 1183-1193. https://doi.org/10.3233/JAD-160611
35. Young, K. S., Sandman, C. F., & Craske, M. G. (2019). Positive and negative emotion regulation in adolescence: links to anxiety and depression. *Brain Sciences*, *9*(4), 76. https://doi.org/10.3390/brainsci9040076