

Mediational Role of Forgiveness in Humor Styles and Mental Health Among Adolescents

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Positive humor styles are the predictor of good mental health as several studies have shown this. Individuals during their adolescent phase interact with others and want to be part of a group. They also evaluate themselves as well as others, and their situations or events as good or bad. For this, they use humor during their interaction with others, evaluating their situations or events. The kind of humor adolescents use affects their mental health. This research conducted on adolescents investigated whether forgiveness mediates between humor styles and mental health. A total of 424 participants filled out the Humor Styles Questionnaire, Heartland forgiveness scale, and Mental health inventory. The sample includes 219 males and 205 females and their ages fall from 13 to 19 years. The data obtained were then analyzed by the bootstrapping method. The results of the current investigation indicate that positive humor styles correlate positively with forgiveness and mental health whereas negative humor styles correlate negatively with forgiveness and mental health. Moreover, forgiveness correlates positively with mental health. The mediational analyses show that forgiveness mediates association between (i) Affiliative humor style and mental health ($B = 0.16$, $BootSE = 0.07$, 95% CI [0.03, 0.32]); (ii) between Aggressive humor style and mental health ($B = -1.31$, $BootSE = 0.091$, 95% CI [-0.51, -0.15]); and (iii) between Self-enhancing humor style and mental health ($B = 0.16$, $BootSE = 0.072$, 95% CI [0.03, 0.31]). However, no substantial indirect effect of the forgiveness mediator was discovered between self-defeating humor style and mental health ($B = -0.109$, $BootSE = 0.073$, 95% CI [-0.26, 0.03]). Based on these outcomes, it is concluded that fostering positive humor in prevention and intervention programs will improve adolescents' ability to forgive and thereby enhance their good mental health..

Keywords: Humor styles; forgiveness; mental health; Mediation effect.

Historically, health meant the absence of physical discomfort, but nowadays health means a lack of psychological discomfort as well. Mental health encompasses all aspects of emotional well-being, cognitive, and behavioral. Mental health determines how people will act, think and feel. It also determines how people cope with stress, interact with others, recognize their abilities, study and work effectively, contribute back to their community and make decisions effectively. Mental health is defined as being free from mental illnesses like depression or anxiety. When we talk about our mental and emotional well-being, thoughts, and feelings, as well as our ability to deal with difficulties, maintain social connections, and comprehend our surroundings, we're talking about our mental and emotional

health. One in ten people worldwide suffers from a mental disease, while only 1% of healthcare professionals are qualified to manage these conditions (WHO, 2015). Throughout their lives, children, adolescents, and adults of all ages are influenced by their mental health. Globally, 10 to 20 percent of kids and teenagers suffer from mental diseases, with depression and anxiety being the most common; 50% of those affected are under the age of 14 and 75% are in their mid-20s. According to research, between 1990 and 2017, one in seven Indians experienced severe mental diseases, such as schizophrenia, anxiety, or depression. With 243 million adolescents, India has the highest percentage of teenagers in the entire globe (Patel et al., 2012). Since teenager is the phase of profound physical,

societal, and emotional change, it is a vulnerable stage for the emergence of mental illness.

So, people must build their strengths and learn how to cope with stressors in life. People can practice a variety of coping mechanisms to deal with difficult and stressful life circumstances. Humor is said to aid in stress management, interpersonal relationships, and maintaining better mental and even physical health. Humor can take many different forms and can be categorized into two groups: adaptive and maladaptive (Martin et al., 2003). Adaptive use of humor is linked with better mental well-being whereas Maladaptive use of humor is detrimental to mental well-being. Previous studies found a link between forgiveness and better mental health. Forgiveness therapy helps individuals regulate their interpersonal relationships by encouraging them not to hold grudges but to choose positivity against people who have hurt them and helps the individual's mental health in the process. It was examined how humor styles relate to forgiveness in a study conducted by Hampes (2016). A sample of 112 college students was taken and administered the measures of the Forgiveness likelihood scale (FLS), the Forgiveness scale (FS) which comprises Absence of negative (AN) and Presence of positive (PP) scales, and the Humor Styles Questionnaire. Findings revealed that self-enhancing humor predicts dimensions of the FLS, overall forgiveness, and both dimensions of the Forgiveness scale. Any of the scales or subscales of forgivingness were not substantially predicted by affiliative humor style. The FLS and the PP were significantly inversely predicted by aggressive humor, but neither the overall FS nor the AN was significantly predicted. Satici et al. (2019) performed research to investigate the mediational role of forgiveness between mental well-being and coping humor. A total of 336 college freshmen were selected. In light of the study's findings, the association between coping humor and mental health was partially mediated by forgiveness. Another study conducted by Mabilia et al. (2020), examined that forgiveness is predicted by different styles of humor among undergraduates. Results showed that all four different humor styles negatively predicted forgiveness. These results

are in contradiction with the results of the study conducted by Hampes (2016). In her study on the link between coping humor and subjective happiness, Satici (2020) looked at the mediating effects of belongingness and forgiveness. Findings show that Coping humor was linked to more belongingness, which was linked to more forgivingness, which was then linked to higher levels of subjective satisfaction. In addition to all of this, there is still a dearth of studies on the link between humor, forgiveness, and mental health, particularly among teens. Therefore, the current study's goal is to determine whether or not forgiveness mediates the link between teen humor styles and mental health.

Forgiveness

People frequently wonder, "Why should I forgive?" when they feel the hurt and rage that comes with being wronged by someone. Moving ahead after letting go of hurt and rage frequently appears difficult and illogical. In psychological terms, forgiving someone is the purposeful and willing process by which a person who may first feel wronged modifies their ideas and attitudes regarding an incident and gets past unpleasant emotions like resentment and retaliation. One of the comparatively few fundamental human virtues is forgiveness (Peterson & Seligman, 2000). Since it takes place in relationships with other people rather than inanimate objects, forgiveness is an intentional decision to replace negative with positivity. It involves substituting more good thoughts, actions, and feelings for negative thoughts, actions, and feelings (Enright & Coyle, 1998). Almost all major religions of the world view forgiveness as a virtue to which all people should aspire (McCullough & Worthington, 1999). In Buddhism, practicing forgiveness is seen as a way to keep negative thoughts from wrecking one's mental health. Buddhism acknowledges that negative emotions like anger and malice have an ongoing impact on our mind karma. Buddhism, on the other hand, promotes the development of thoughts that have a positive impact. Hindu Dharma's theological justification for forgiving is that a person who refuses to do so carries a burden of memories of the wrong, unfavorable emotions, rage, and of unresolved emotions that impact their present and future. The act of letting go of negative

affect, cognitions, and behavior toward the offender (Rye et al., 2001). Forgiveness relates to the victim giving the offender more positive explanations for their actions (Fincham, 2000; Hall & Fincham, 2006). Un-forgiveness has been said to as an unpleasant and persistent complex mental state that is removed through the process of forgiveness (Enright, 2001; Worthington, 2006). Unforgiveness is characterized by a range of unfavorable feelings, attitudes, and behaviors that are directed toward the offender and the offense.

In one study, revenge-seeking was adversely linked with forgiveness, but techniques for resolving disputes and seeking counsel and support were significantly associated. Additionally, Flanagan et al. (2012) reported that forgiveness had a positive relationship with concurrent self-esteem and a negative relationship with social anxiety (Flanagan et al., 2012). In one research conducted by Park et al. (2013) forgiveness interventions were used to treat female adolescents (N=48) who have high intensity of aggressive behavior and are usually the victim of others' abuse. At the post-test and follow-up, individuals of the forgiving group reported significantly lower levels of rage, hostile attribution, aggression, and delinquency. At the follow-up and post-test, they also reported considerably higher levels of empathy and post-test grades. Filipino adolescent participants' (N=210) perceptions of their subjective well-being and life satisfaction are examined in relation to forgiveness and gratitude by Datu (2014). The findings showed a strong relationship between both life satisfaction and subjective well-being outcomes and gratitude, self-forgiveness, and situational forgiveness. Akhtar and Barlow (2016) conducted a systematic review and meta-analytic study to examine the effect of forgiveness-based interventions. Using a sample of teenagers and adults who have suffered from a range of harm or violence, this article reviews and analyses the efficacy of process-based forgiveness interventions. It has been shown that forgiveness interventions reduce depression, anger, hostility, stress, and distress, as well as promote positive moods. It has been shown that forgiveness interventions are beneficial in terms of reducing depression, anger, hostility, stress,

and distress, as well as enhancing psychological well-being. A study conducted by Quintana-Orts and Rey (2018) on adolescents (N=1044) reported the protecting role of forgiveness between two kinds of victimization (Traditional bullying and Cyberbullying) and mental health. Those who have a high attribute of forgiveness show high satisfaction and low suicidal risk when they experienced more traditional and cyberbullying compared to those who score low on forgiveness (Quintana-Orts et al., 2018). In one of their study, Coşkun and Arslan (2021) reported that internet addiction and social exclusion are mediated by self-forgiveness. They also reported that this mediational effect of forgiveness of self is moderated by mindfulness which means being mindful and forgiving oneself reduced the positive correlation between two risky phenomena i.e., social exclusion and Internet addiction.

Humor Styles

In personality psychology, humor styles are studied as a way to understand how individuals use humor differently. It is believed that people who have a good sense of humor are better at handling stress, getting along with others, and maintaining good mental and even physical health. Recently, it has become popular to believe that humor is linked with mental well-being. Martin et al. (2003) identify different forms of humor that have been categorized as either being beneficial or detrimental to wellbeing. Martin et al. (2003) construct the Humor Style Questionnaire which includes four different styles of humor: *Affiliative Humor Style*- People that score highly on this dimension frequently utilize humor, jokes, and witty banter to make other people laugh, build relationships, and ease tensions amongst people (Lefcourt, 2001). This is a largely tolerant and non-hostile use of humor that affirms oneself and others and ostensibly strengthens intergroup cohesion and attractiveness. *Self-enhancing Humor style*- This dimension enables a person to handle unpleasant events by viewing them humorously and entails a typically cheerful outlook on life, a propensity to frequently find humor in life's ironies, and the ability to keep a light mood even under pressure or misfortune (Kuiper, Martin, & Olinger, 1993). *Aggressive Humor*

Style- Sarcasm, taunting, mockery, scorn, “put-downs,” and disparaging humor are examples of Aggressive humor s (Zillman, 1983). By implying a danger of scorn, people who use aggressive humor style manipulate others (Janes & Olson, 2000). It frequently refers to the tendency to use comedy without taking into account how it can affect other people. It also includes compulsive humor, in which the individual finds it hard to refrain from saying things that make others disgust or offend. The *self-defeating humor style*-The dimension of humor involves excessive self-deprecation, laughing along with others when ridiculed, and trying to amuse others by defaming one’s self. Although the person who scores high on this subscale may be regarded as particularly amusing, their use of humor is often accompanied by low self-esteem, emotional insecurity, and avoidance (Fabrizi & Pollio, 1987). When employing the HSQ compared to prior research, far larger connections between humor and psychological adjustment were discovered. Martin et al. (2003) claimed that earlier research may have used scales that were not able to distinguish between maladaptive forms and ones that are adaptive. Affiliative and self-enhancing humor is usually observed to have a positive relationship with self-esteem and an inverse relationship with depression and anxiety. Conversely, low self-esteem and high intensity of anxiousness and depression are associated with self-defeating humor; also aggressive and self-defeating humor are both linked to hostility and aggressiveness (Kuiper et al., 2004; Martin et al., 2003).

The results of the study which examined the link between mental well-being and humor among adolescents and young adults revealed that aggressive humor was used by males substantially more than females (Sirigatti et al., 2014). While self-defeating humor was inversely correlated with Ryff’s Psychological Well-Being scales (RPWB), all six RPWB subscales were positively linked with affiliative and self-enhancing humor. In a longitudinal study, the relations between different forms of humor and psychosocial adjustment were examined among adolescents (N=1,234) by Fox, Hunter, and Jones (2016). A decline in self-esteem and a rise in loneliness and symptoms of depression were

associated with self-defeating humor (SD). Bi-directional relationships exist between SD humor and depression, as SD predicts depression and depression predicts the rise in the utility of SD throughout time. Over the academic year, self-esteem increased along with the use of affiliative humor, but self-esteem was not predicted by the use of affiliative humor. Two exploratory studies conducted by Boerner, Joseph, and Murphy (2017), investigated the relationships between different forms of humor and trauma-related psychological health outcomes. The findings imply that self-enhancing humor may be beneficial for trauma coping.

The goal of the study carried out by Amjad and Dasti (2020) was to determine how young adults’ (N=350) humor styles, ability to control their emotions, and subjective well-being (SWB) relate to one another. Adaptive kind of humor had a substantial positive link with adaptive emotion regulation and SWB, according to the results, whereas maladaptive kind had a positive link with maladaptive emotion regulation and a negative relationship with subjective well-being. The link between rumination and mental health was found to be moderated by affiliative style, aggressive style, and self-enhancing style (Chuang et al., 2021).

Aim and Hypothesis of the Study

As we mentioned above, the Mental health of individuals can be influenced by many variables. The relationship between humor styles, forgiveness, and mental health has been examined by many researchers. Humor styles and forgiveness both are predictors of mental health. So, a multivariate model is required to examine how different forms of humor and forgiveness shape the mental health of adolescents. Therefore, in the current investigation, we intend to test a model that takes into account the relations between mental health, forgiveness, and all four humor styles. There are four humor styles that would have a link with mental health. So, we hypothesized four models which are mentioned in Figures 1, 2, 3, and 4.

Hypotheses

- Forgiveness mediates the link between Affiliative style and mental health.

- Forgiveness mediates the link between Aggressive style and mental health.
- Forgiveness mediates the link between Self-enhancing style and mental health.
- Forgiveness mediates the link between Self-defeating humor and mental health.

Method

Participants

The present study includes 424 participants of ages ranging from 13 to 19 years. The data was collected from different schools in the Kurukshetra district of Haryana. The current sample included 219 males and 205 females. Self-administered paper and pencil questionnaires were used to collect the data. Different schools in the Kurukshetra district were approached and few schools allowed us for data collection. Before beginning the data collection, subjects verbally consented. The participants received appropriate instructions and were made aware of the study's goals.

Measures

Child Humor Style Questionnaire (Child HSQ). Child Humor Style Questionnaire used to measure different forms of Humor was developed by Fox, Dean, and Lyford (2013). There are four subscales (Affiliative [AFF], self-enhancing [SEn], Aggressive [AGG], and self-defeating [SD] humor) and each subscale includes 6-items. Participants will respond to all 24 statements on a four-point alternative scale (1 = *Not at all like me* to 4 = *A lot like me*). This scale can be used for children of age 11 and above. An appropriate level of coefficients of alpha was reported for AFF = 0.87, for SEEn = 0.70, for AGG = 0.75, and for SD = 0.75 (Fox et al., 2013). A very distinct four-factor structure was discovered via confirmatory factor analysis. The child Humor style questionnaire provides scores on four particular humor styles and the higher score on a particular humor style represents the kind of

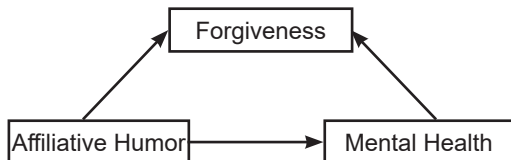


Fig. 1. First Hypothesized Model

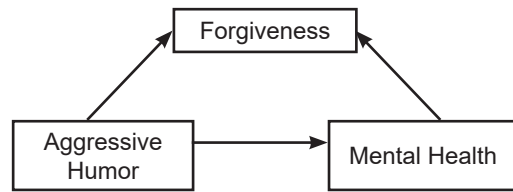


Fig. 2. Second Hypothesized Model

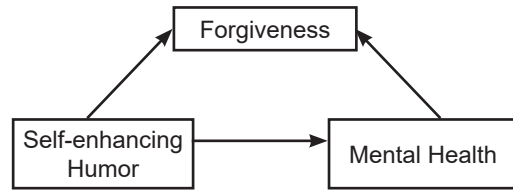


Fig. 3. Third Hypothesized Model

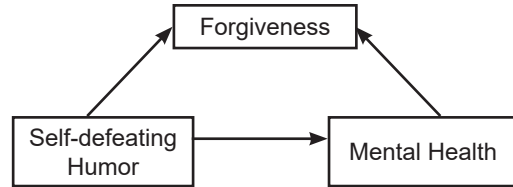


Fig. 4. Fourth Hypothesized Model

humor style used by the participant most of the time. We have translated this test into the Hindi language and the reliability coefficient for the test was $\alpha = 0.667$ for the whole test.

Heartland Forgiveness Scale (HFS). This scale measures the dispositional forgiveness of the person. This scale consists of three subscales (Self- forgiveness, Situational forgiveness, and forgiveness of others), and each subscale includes 6-items. This scale is constructed by Thompson et al. in 2003. All 18 statements are scored, using a 5-point Likert scale, between 1-5 from strongly disagree to strongly agree. Greater forgivingness in each domain is reflected in higher scores on each subscale. The reliability Coefficient of alpha for the whole test was $\alpha = 0.86$ (Thompson et al., 2005).

Mental Health Inventory (MHI). This test was created to measure the mental health of normal individuals. This inventory contains six positive dimensions named. It has four-point response alternatives for all 56 items of all six dimensions. This test is available in Hindi and English

language. Higher scores obtained by individuals will be reflected the good mental health of the individual or vice-versa. The reliability coefficient for each dimension varies between 0.71 to 0.75 and the reliability coefficient for the overall test is $\alpha=0.73$ (Jagdish & Srivastava, 1996).

Data Analysis

Model 4 from PROCESS v.4.1, created as an SPSS macro by Andrew F. Hayes (2022), was used to investigate the link between mental health and humor in terms of the mediation of forgiveness. Because of a single investigation in complex models using a regression-based bootstrapping method with macros, which are often examined and continually evolving, Hayes produced data concerning more than one parameter. The 5000 bootstrap sample and bootstrap coefficient were eliminated for this study, and a 95 percent confidence interval was created in association with this. For the results of these analyses to be considered significant, the confidence interval must not include zero between the lower and upper limits.

Heartland forgiveness scale has three dimensions i.e., self-forgiveness, other forgiveness, and situational forgiveness. The total forgiveness score of the person can be obtained by adding the score of each dimension of the scale i.e., the score of self-, other- and situational forgiveness. We are taking only the total forgiveness score for representing forgiveness as a mediator. Also, the Mental health inventory gives the score on six dimensions and overall mental health score. According to our objectives and convenience,

we prefer to consider the overall mental health score for the analysis.

Results

Before proceeding with the mediation method means, standard deviations, skewness, and kurtosis were looked out. The correlation coefficients among the variables were also examined. Results from the preliminary analyses are shown in Table 1.

All values fit the assumptions of the normal distribution in terms of skewness and kurtosis. The findings showed that affiliative humor positively correlated with a total score of forgiveness ($r=.118$, $p<.05$) and with an overall mental health score ($r=.195$, $p<.01$). Aggressive humor style negatively correlates with total forgiveness ($r=-.230$, $p<.01$) and overall mental health ($r=-.258$, $p<.01$). Self-enhancing humor style correlates positively with total forgiveness ($r=.131$, $p<.01$) and overall mental health ($r=.211$, $p<.01$). Self-defeating humor uncorrelated with total forgiveness but negatively correlated with mental health ($r=-.198$, $p<.01$). Total forgiveness positively correlated with overall mental health ($r=.309$, $p<.01$).

Mediation Analyses

The path coefficients for the effect of all four styles of humor on mental health along the path of forgiveness were shown in Figures 5, 6, 7, and 8 from the bootstrapped regression and mediation analyses. For first hypothesized model, results show affiliative humor style significantly predicted forgiveness ($B=.21$, $SE=.085$, 95% CI [.041, .37], $\beta=.12$, $p<.01$),

Table 1. Descriptive statistics and correlations among concerned variables.

Variables	N	M	SD	Skewness	Kurtosis	AF	AG	SE	SD	FTOT
AF	424	17.3561	3.37184	-.533	.114	1				
AG	424	13.1321	3.06301	-.086	-.341	.067	1			
SE	424	16.1321	3.64066	-.133	-.716	.278**	.047	1		
SD	424	12.8278	3.35469	.262	-.156	.126**	.205**	.135**	1	
FTOT	424	59.5024	5.91188	-.070	.399	.118*	-.230**	.131**	-.079	1
MHTOT	424	150.8726	15.65233	.276	.269	.195**	-.258**	.211**	-.198**	.309**

** Significant at the 0.01 level, * Significant at the 0.05 level.

Note. AF affiliative humor; AG aggressive humor; SE self-enhancing humor; SD self-defeating humor; FTOT total score of forgiveness scale; MHTOT overall mental health.

and forgiveness significantly predicted mental health ($B = .77$, $SE = .12$, 95% CI [.53, 1.01], $\beta = .29$, $p < .001$). Affiliative humor significantly predicted mental health in the presence of forgiveness ($B = .75$, $SE = .21$, 95% CI [.33, 1.67], $\beta = .16$, $p < .001$) as shown in Figure 5. For second hypothesized model, results show aggressive humor style significantly predicted forgiveness ($B = -.44$, $SE = .09$, 95% CI [-.62, -.26], $\beta = -.23$, $p < .001$), and forgiveness significantly predicted mental health ($B = .70$, $SE = .12$, 95% CI [.46, .94], $\beta = .26$, $p < .001$). Aggressive humor significantly predicted mental health in the presence of forgiveness ($B = -1.01$, $SE = .24$, 95% CI [-1.47, -.54], $\beta = -.20$, $p < .001$) as shown in Figure 6. For third hypothesized model, results show self-enhancing humor style significantly predicted forgiveness ($B = .21$, $SE = .078$, 95% CI [.06, .37], $\beta = .13$, $p < .01$), and forgiveness significantly predicted mental health ($B = .76$, $SE = .12$, 95% CI [.52, 1.00], $\beta = .29$, $p < .001$).

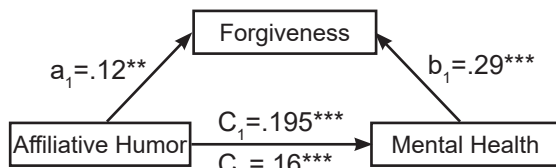


Fig. 5. Mediation analyses with standardized β values and p-value.

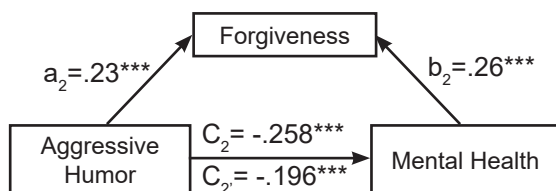


Fig. 6. Mediation analyses with standardized β values and p-value.

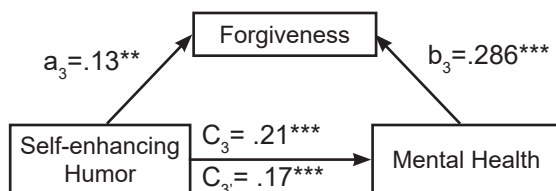


Fig. 7. Mediation analyses with standardized β values and p-value

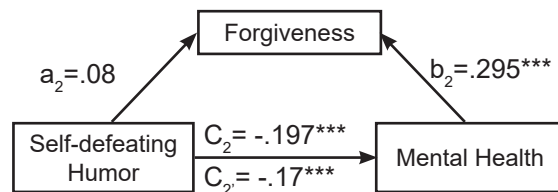


Fig. 8. Mediation analyses with standardized β values and p-value.

Note. ***. Indicates $p < .001$, **. Indicates $p < .01$

Self-enhancing humor significantly predicted mental health in the presence of forgiveness ($B = .74$, $SE = .198$, 95% CI [.36, 1.13], $\beta = .17$, $p < .001$) as shown in Figure 7. For fourth hypothesized model, results show self-defeating humor style does not predict forgiveness ($B = -.14$, $SE = .085$, 95% CI [-.31, .03], $\beta = -.08$, $p < .10$), and forgiveness significantly predicted mental health ($B = .78$, $SE = .12$, 95% CI [.54, 1.02], $\beta = .30$, $p < .001$). Self-defeating humor significantly predicted mental health in the presence of forgiveness ($B = -.81$, $SE = .21$, 95% CI [-1.23, -.40], $\beta = -.17$, $p < .001$) as shown in Figure 8.

Using forgiveness as the mediator between different forms of humor (Independent variable) and mental health (dependent variable), Table 2 shows the findings of mediation analyses.

The bootstrap procedure for the first hypothesized model analysis revealed a significant indirect effect between affiliative humor (AFF) and mental health (MH) with the mediating effect of forgiveness ($B = .16$, $BootSE = .07$, 95% CI [.03, .32]). Here B indicates the Unstandardized coefficient, S.E. indicates Standard error, CI refers to Class interval; and β represents the Standardized coefficient. In the presence of forgiveness, the direct effect of AFF on MH was also found significant ($B = .747$, $SE = .21$, 95% CI [.33, 1.17], $p < .001$). So, partial mediation of forgiveness was found between AFF and MH. Forgiveness accounted for approximately 18% of the total effect on mental health. For the second hypothesized model results show a significant indirect effect between aggressive humor (AGG) and mental health (MH) with the mediating effect of forgiveness ($B = -1.31$, $BootSE = .091$, 95% CI [-.51, -.15]). When

Table 2. Mediation analyses summary (Unstandardized coefficients)

Relationship	Total effect	Direct effect	Indirect effect	Confidence Lower Bound	Interval Upper bound	t-statistics	Conclusion
Affiliative humor-> Forgiveness-> Mental health	.906 (p<.001)	.747 (p<.001)	.159	.006	.068	2.199	Partial Mediation
Aggressive humor-> Forgiveness-> Mental health	-1.316 (p<.001)	-1.006 (p<.001)	-.310	-.509	-.151	-3.397	Partial Mediation
Self-enhancing humor-> Forgiveness-> Mental health	.906 (p<.001)	.745 (p<.001)	.161	.033	.315	2.237	Partial Mediation
Self-defeating humor-> Forgiveness-> Mental health	-.923 (p<.001)	-.814 (p<.001)	-.109	-.264	.0297	-1.474	Non-significant

there was a mediator the direct effect of AGG on MH was also found significant ($B = -1.01$, $SE = .24$, 95% CI $[-1.47, -.54]$, $p < 0.001$).

Hence, partial mediation between AGG and MH was found through forgiveness. Approximately 24% of the total effect accounted for forgiveness on mental health. For the third hypothesized model findings revealed a significant indirect effect between self-enhancing humor (SEn) and mental health (MH) with the mediating effect of forgiveness ($B = .16$, $BootSE = .072$, 95% CI $[.03, .31]$). When forgiveness was present the direct effect of SEn on MH was found significant ($B = .745$, $SE = .20$, 95% CI $[.36, 1.13]$, $p < 0.001$). Hence, the link between SEn and MH is partially mediated by forgiveness. Forgiveness accounted for approximately 18% of the total effect on mental health. For fourth hypothesized model, a non-significant indirect relationship was found between self-defeating style (SD) and mental health (MH) with the mediating effect of forgiveness ($B = -.109$, $BootSE = .073$, 95% CI $[-.26, .03]$). The direct effect of SD on MH in the company with forgiveness was found significant ($B = -.814$, $SE = .21$, 95% CI $[-1.23, -.40]$, $p < 0.001$). Hence, the association between SD and MH is not mediated by forgiveness.

Discussion

The people of today must keep up their quality of life despite increasingly negative

circumstances to be successful. This study presents the importance of humor styles and forgiveness in mental health. According to the findings of the study, different forms of humor styles were determined to have a path directly to mental health.

The current study identified indirect effects of forgiveness between different forms of humor styles and mental health; 1) Affiliative style and mental health are mediated through forgiveness, 2) Aggressive style and mental health are mediated through forgiveness., 3) Self-enhancing style and mental health are mediated through forgiveness., 4) Self-defeating style and mental health are not mediated by forgiveness. After reviewing the existing literature, it was seen that Affiliative, Self-enhancing humor and forgiveness are linked significantly positively with mental health. The findings of the present study replicate the previous findings. As shown in table 2, forgiveness mediates the association between mental health and affiliative humor style. The individuals who use affiliative humor style are generally engaged in enhancing their relationships with others. It has to do with using affiliative humor in a relationship to improve the other person's mood, lessen conflict, strengthen bonds between people, and make one more desirable to the other (Martin et al., 2003). By increasing one's forgiveness, the usage of affiliative humor improves one's mental health.

Forgiveness also mediates the path between self-enhancing style and mental health which indicates that the individual who engages in self-enhancing humor show increased forgiveness which also improves mental health. Individuals with a high score on self-enhancing humor style use humor as an emotional regulation mechanism which means they are engaging to overcome negative feelings (Guilt, anger, sadness, etc.) and for regulating emotions forgiveness may play a greater role which further improves mental health. As the results suggest, the path between aggressive humor style and mental health mediates through forgiveness. But the indirect effect of aggressive humor on mental health when forgiveness as a mediator is found negative ($B = -.3105$, 95% of CI $[-.507, -.153]$). This means that the use of aggressive humor decreases forgiveness which further damages mental health. Forgiveness does not mediate the path between self-defeating style and mental health. Self-defeating humor includes using humor to win people over, making jokes about oneself to amuse others, being overly critical of oneself during jokes, and joining in on other people's laughter when they are being mocked or disparaged. The individual who engages in using self-defeating humor does not attempt to use forgiveness in either self-forgiving or forgiving others. Self-humor directly impacts the mental health of the person by reducing it.

Some limitations should be considered before evaluating current results. First off, because the study is correlational, it is challenging to pinpoint the causes of the relationships between the variables. The study's use of effect words only shows a statistical correlation. Longitudinal or experimental investigations are required to demonstrate effects between variables that have been observed in a real-world setting. The limits of data provided via self-report scale instruments are the second limitation.

Conclusion

In addition to these limitations, the study's significance should not be discounted. The current inquiry addresses the mediating effect between humor styles and mental health among Indian adolescents for the first time. This study sheds light on what happens when

humor is employed in response to stress during adolescent age when stress can arise from a variety of diverse sources. It will be beneficial to promote humor styles and forgiveness as potential and helpful variables in mental health programs.

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