

The Magical Power of Positive/ Negative Emotions : A Study on Health of Young Adults

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Abstract

People in India are lagging behind as far as their status of health and level of happiness are concerned (i.e. 120th rank out of 169 countries, Health Index, 2019, 140/156, World happiness report, 2019). So it is a matter of serious concern to the health providers as well as psychologists to enhance their status of health, which can be nodoubt improved by adopting positive emotions with special reference to humorous style. A purposive sample of 100 postgraduate students both male and female, aged 21- 30 years, belonging to both rural and urban areas of Rohtak city (Haryana, India) was drawn from the various departments of Maharshi Dayanand University, Rohtak. Descriptive statistics, correlation and regression analyses were computed. Findings revealed that young adults were having more positive humorous styles than negative. Further it has been observed that maximum young adults adopted average level of both types of humor, whereas a very few exhibited high level of both positive as well as negative humor. Subsequently it has been observed that young adults are enjoying overall good health. Further correlational analysis revealed that positive humor enhanced overall health whereas negative humor failed to affect overall health. Positive humor emerged as significant predictor of overall health.

Keywords: Positive & Negative Emotions, Positive & Negative Humorous style, Health, Young Adults

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Introduction

During the journey of life one experiences a mixture of positive as well as negative emotions, No doubt emotions play a tremendous role in one's life, because without emotions, life is like a black and white movie, the colors come only after experiencing emotions. Since the experiences of positive emotions such as happiness, joy, cheerfulness, laughter, serenity and humor enrich the person to give a fullest life. They serve as resource of energy for physical, mental, emotional and social health. As earlier Darwin (1998) speculated that from evolutionary point of view social expression of happiness has a cohesive survival advantage. It has been empirically proved that emotions are the result of interaction between biopsychological components which ultimately affect our biopsychosocial well-being. The biochemistry of emotions suggests that emotional state i.e. positive or negative differentially affect the flow of hormones and neurotransmitters. As during the experience of positive emotions multiple physiological systems get stimulated and decrease the level of stress hormones such as "cortisol and epinephrine" and increase the activation of "mesolimbic dopaminergic" reward system. Positive emotions release endorphins which are the natural pain killer hence foster happiness. There is an increased evidence which clearly documents that our immune system is triggered by positive emotions therefore resulting in better general health through increasing T cells and NK cells which destroy or neutralize pathogens entry in the body and making us sick (Koenig and Cohen,2002). On the contrary there is wealth of evidences which have revealed that negative emotions leading to stress usually suppress immune system functioning (e.g. Friedman, Booth & Kewely, 1987; Cohen, 2002; Rabin, 2002). Further it has been strengthened by the evidence of strong associations among clinical depression, depressed mood and reduced immune-system responses (e.g. Herbert and Cohen,1993;Cohen and Rodriguez,1995).

On the surface level humor appears to be carrying positivity but latently it also carries negative valence. As it has been documented that there are mainly two types of humor styles (i.e. positive and negative humorous style). 'Positive humor' refers to adaptive humor, which is divided in two types such as (i) 'affiliative humor' (refers to enhanced level of relationship with others) and (ii) 'self-enhancing humor' (i.e. ability to laugh at one's own self) whereas 'negative humor' refers to maladaptive or detrimental humor, which is divided in two types (i) 'aggressive humor' (i.e. which is potentially detrimental towards others.) and (ii) 'self-defeating humor' (i.e. self-harming humor for showing compliance towards others). Thus the main function of positive humor is to improve health (Kuiper and Martin, 1996; Martin, 1996; Wooten, 1996; Abel,2002; Lebowitz, Suh, Diaz & Emery, 2010; Takeda, Hashimoto, Kudo, Okochi, Tagami, Morihara, Sadick & Tanaka2010; Colom, Alcover, Sanchez & Zarate, 2011; Ko and Youn, 2011; Szabo, 2013; Maiolino, 2017 and Kuiper,

2014; Bains, Berk, Lohman, Daher, Petrofsky, Schwab & Deshpande 2015; Rnic, Dozios and Martin , 2016; Yim, 2016; Padiapati and Livani 2017). On the contrary negative humor deteriorates health. But if it is used in small amount it led to reductions in aggression and tension and thereby improve health (e.g. Singer, 1987). Conversely negative humors such as self defeating and aggressive humors during stress resulted in physical symptoms (Richards & Kreuger,2017) dysphoria and depression (Martin, Puhlik, Larse, Gray & Weir, 2003; Kuiper, Grimshaw, Leite, Kirsh, 2004; Frewen, Brinker, Martin & Dozios, 2008; Yue, Lili, Jiang & Hiranandani, 2014). The beneficial and detrimental effects of humor has also neurochemical support. As stress hormone i.e. cortisol is released during stressful situation while a state of humor alters these changes and acts on neurotransmitters by releasing dopamine and serotonin (Berk,1989).

Health may be defined "as a state of physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO,2001). It has four domains i.e. 'physical health' (refers to the biological condition of an organism), 'mental health' (refers to high psychosocial well-being), 'social health' (an capability of maintaining relation with other people through healthy interaction with them).and 'emotional health' (an ability to think and express emotions). Earlier health was defined exclusively on the basis of biomedical model which focused only upon the biological state of the person. Whereas recently health has been defined by biopsychosocial model as an output of interconnection among biological, psychological and socio-environmental factors.

There is a rich empirical evidence to strengthen the view that positive humor enhances health (Wooten, 1996; Abel, 2002; Takeda et al., 2010; Colom et al. , 2011; Ko and Youn, 2011; Szabo, 2013; Maiolino and Kuiper ,2014; Bains et al., 2015; Rnic et al., 2016; Yim, 2016; Padiapati and Livani 2017) .

On the basis of the above review the following objectives were formulated for the current research work

Objectives

1. To assess and explore the prevalence of positive humorous styles among young adults.
2. To assess and explore the prevalence of negative humorous styles among young adults.
3. To assess health (overall and its various domains) of young adults.
4. To explore the correlation between positive as well as negative humorous style with health (overall and its various domains) of young adults.
5. To explore the predicting potency of positive/negative humorous style with regard to health of young adults.

Method:

Design: A correlational design was used.

Sample:

A purposive sample of 100 postgraduate students both male (n=50) and female (n=50) aged 21-28 years was drawn from the various departments of M.D.U. Rohtak (Haryana, India).

Tools: The following tools were used in the current research work:

Humor Style Questionnaire (Martin & Doris; 2003): It is a self-report scale which consists of 32 items (8 for each subscale) to be responded on 7 point scale ranging from totally disagree to totally agree. The range of score is 8-56 for each subscale. The reliability of four scales is demonstrated by internal consistencies range from .77 to .81 and test-retest reliabilities range from .80-.85.

General Health Questionnaire-28 (Goldberg; 1981): It consists of 4 subscales measuring physical health (somatic symptoms), mental health (anxiety/insomania), social health (social-dysfunction) and emotional health(severe depression) with 28 statements, i.e. 7 statements in each subscale, to be responded on 4 point scale. The range of total score is 0 to 84. The test-retest reliability range from 0.78-.90 and Cronbach's alpha range from 0.90-0.95.

Procedure: First of all consent of the participants was sought and rapport was established with them. After giving the relevant instructions related to each questionnaire and scale, the participants filled each proforma as per instructions in a single seating. Scoring was done as per norms and raw scores were subjected to statistical analysis with the help of SPSS24 (Statistical package for social sciences).

Results and Discussion: In order to explore 1st and 2nd objectives of the current study i.e. "To assess and explore the prevalence of positive humorous styles among young adults" and "To assess and explore the prevalence of negative humorous styles among young adults" humorous style of young adults was measured and has been shown in Table 1, Table 2 & Figure.

Table 1. Descriptive statistics of scores obtained on humor

Types of Humor	Mean	SD	Range of Scores
Positive humor	76.37	11.570	16-112
Negative humor	58.91	11.204	16-112

From Table 1 it is quite apparent that young adults have more tendency of positive humor as compared to negative humor. The high values of standard deviation in both types of humor indicated that the group of young adults is not homogeneous as far as their humorous style is concerned.

Table 2. Frequency of young adults in various groups with different intensity of combination positive as well as negative humorous style

	Group 1 High positive & High negative humor	Group 2 High positive & Average negative humor	Group 3 Average positive humor & Average negative humor	Group 4 High positive humor & Low negative humor	Group 5 Average positive humor & Low negative humor
Frequency	3	27	50	7	13

While observing Table 2 it is found that maximum young adults (i.e. 50) adopted average level of positive as well as negative humorous styles followed by Group 2 which experienced high positive and average negative humor. Group 5 which showed a combination of average positive and low negative humorous styles. Group 4 which exhibited high positive humor and low negative humor. However the least number of participants (i.e. 3) used both high positive as well as high negative humor. It is worth mentioning here that none of the participants showed low level of positive humor. These findings have been beautifully captured in 3D chart as shown in Figure.

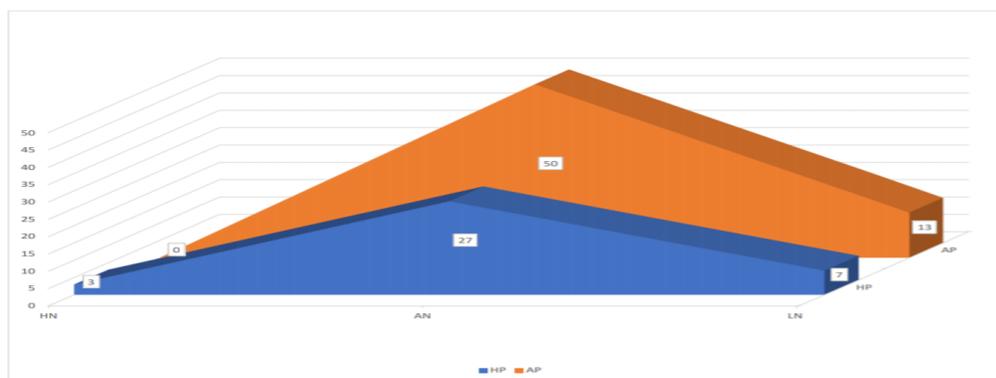


Figure: Groups with various combination of positive and negative humorous style

It is clearly evident from Figure that on an average young adults generally adopted moderate tendency of both positive as well as negative humor in their lives, which indicates their average way of seeking joy through adopting self-enhancing and affiliative humorous style, and also via self-defeating and aggressive humorous style respectively. Subsequently in order to meet the 3rd objective i.e. "To assess health (overall and its various domains) of young adults", the descriptive statistics was used on obtained scores on health among young adults has been shown in Table 3.

Table 3. Descriptive Statistics of scores obtained on health among young adults

	MEANs	SD	RANGE OF SCORES
Physical Health	1.74	1.845	0-7
Emotional Health	2.22	1.867	0-7
Social Health	1.82	1.754	0-7
Mental Health	1.74	1.796	0-7
Overall Health	7.51	5.780	0-28

Low the scores, better the health.

Table 3 depicts that young adults are having good physical as well as mental health followed by social and emotional health which means they are facing a little bit problems with social relationship and are not able to express or manage their emotions. Overall health is good which shows they are having a healthy life.

Further in order to meet the 4th objective i.e. "To explore the correlation between positive as well as negative humorous style with health (overall and its various domains) of young adults", the correlational matrix has been shown in Table 4, depicting the correlation of overall health and its various domains with different types of humorous style.

Table 4. Correlation between humorous style and health

	Physical Health	Emotional Health	Social Health	Mental Health	Overall Health
Positive Humor	-.134	-.233*	-.246*	-.288**	-.284**
Negative Humor	.195	.175	.090	.163	.198

Low the scores, better the health.

*p<0.05

**p<0.01

Table 4 depicts a significant negative relationship of positive humor with overall health and its various domains except physical health which reveals that positive humor boosts overall, emotional, social and mental health whereas though humor has positive (otherwise indicating negative correlation: as lower the β scores, better the health) get insignificant relationship with overall health and its various domains.

Further in order to meet the 5th objective i.e. "To explore the predicting potency of positive/negative humorous style with regard to health of young adults" regression analyses were carried out which have been shown in Table 5.

Table 5. Stepwise Multiple Regressions of health on humorous style (positive as well as negative) among young adults

Model	Dependent Variable Health and its various domains	Independent Variables	R	R ²	Std. Errors of Estimates	β	F	Significant Level
1	Overall Health							
		Positive Humor	.284	.81	5.570	-.284	8.605	.004
2	Physical Health							
		Positive Humor	.233	.054	1.813	-.127	2.785	.067
3	Emotional Health							
		Positive Humor	.233	.054	1.825	-.233	5.645	.019
4	Social Health							
		Positive Humor	.246	.060	1.748	-.246	6.305	.014
5	Mental Health							
		Positive Humor	.288	.083	1.735	-.288	8.842	.004

*** Negative humor emerged as excluded variable in overall as well as various domains of health**

From Table 5 it is clearly evident that positive humor emerged as robust predictor of overall health and its various domains except one i.e. physical health. The significant value of F (i.e. 8.605, $P < .004$) indicated that positive humor has the potential to predict overall health. In other words, it may be stated that in model 1 where the value of R^2 (i.e. .81) indicates that 81 percent variance in overall health is accounted by positive humor. Whereas β value i.e. -.284 indicated that one unit increase in positive humor will lead to 28.4 percent decrease in the scores of health (less the scores, better the health). Thus it may be inferred here that almost 1/4th of overall health is determined by positive emotional state such as positive humor. The present findings supported the previous findings of Kuiper and Martin, (1993); Wooten, (1996); Takeda et al., (2010); Colom., (2011); Ko and Youn, (2011); Szabo, (2013); Maiolino and Kuiper, (2014); Abel, (2015); Bains et al., (2015); Rnic et al., (2016); Yim, (2016); Padiapati and Livani (2017).

Table 5 also highlighted the role of both types of humor in predicting various domains of health separately. A view of Table 5, clearly shows that in model 2, the insignificant value of F (i.e. 2.785, $P < .067$) indicates the failure of positive humor in predicting physical health, which may be due to the fact that while adopting excess positive emotions that may lead to ignore symptoms or have unrealistic expectations causing them to avoid getting the

medical attention which they badly need (Salvoey et al., 2000). Hence there are some studies suggesting that for fatal diseases such as certain forms of cancer and HIV, positive emotions proved fatal (Salovey et al., 2000). To sum up it may be stated that positive emotions are obviously not a magic bullet to cure all types of physical illness. Further it has been observed from Table 5 that negative humor again failed to anticipate physical health.

As far as emotional health of young adults is concerned (model 3) the significant value of F (i.e. $F = 5.645$, $P < .019$) indicated that positive humor again emerged as a predictor of emotional health, whereas negative humor did not predict such health. As far as positive humor is concerned the value of R^2 (i.e. $.054$) indicated that only 5.4 percent variance in emotional health is accounted by positive humorous style, whereas β value (i.e. $-.233$) indicated that per unit increase in positive humor led to 23.3 percent decrease in the scores of emotional health (less the scores better the emotional health). Here the enhancing effect of positive humor on emotional health may be attributed to the healing as well as buffering power of positive humor against stressors of life. As positive humor has the potential to detoxify tensions and worries of day-to-day life. The present findings corroborate the earlier findings of Colom et al., (2011); Szabo, (2013).

Further models 4 and 5 depicted the same trends of emergence of positive humorous style as predictor of both social and mental health of young adults (as revealed by significant values of F 6.305 and 8.842 respectively). In both domains of humorous styles negative humor again failed to predict both types of health. The values of R^2 in social and mental health (i.e. $.060$ and $.083$ respectively) evidenced that 6 and 8 percent variance in both health respectively is accounted by positive humor. Whereas values of β (i.e. $-.246$ and $-.288$) in both types of health indicated that per unit increase in positive humor led to 24.6 and 28.8 decrease in the scores of both types of health respectively. These findings clearly highlighted that mental health is more positively affected than social health by positive humor. In other words it may be stated that affiliative humor in a domain of positive humor may be having boosting effect on social health, which may be exerted via detoxifying conflict and relieve stress in relationships. Further enhanced mental health due to positive humor may be attributed to the healing power of positive humor as well as acting as an effective coping strategy to handle the stressors of life successfully. In this way positive humor enables the person to lead a tension free life by bolstering depleted psychological resources by promoting optimism, hope and confidence.

To sum up it may be stated that positive emotions specifically positive humorous style proves as a boon for keeping oneself healthy. It serves as a preventive measure for developing further illness in life. On the contrary to avoid negative humorous style which is no doubt a maladaptive behavior pattern, therefore has not proved effective in handling health issues

may be physical, emotional, social and mental. The current findings endorsed the suggestion to provide interventions related to nurturing of positive humorous style and people to keep themselves hale and hearty.

Conclusion

In a nutshell, it may be stated that positive emotions are part and parcel in enhancing one's health .

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