

Humour styles as predictors of psychological and somatic health in under graduates of COMSATS University, Lahore

Shameem Fatima, Naima Gul, Muneeba Shakil

Abstract

Objective: To determine the predictability of humour styles on psychological and Somatic health of university students.

Methods: The study was carried out at COMSATS University Islamabad, Lahore Campus during the period of 1st September 2018 to 30th December, 2018.

Correlation research design was used to assess the study objectives. A sample of 199 (93 females & 106 males) university students falling in age range from 18 to 26 years with mean age = 21.02 ± 1.78 years were assessed on self-report measures to Humour styles questionnaire, Physical Health Questionnaire, and Depression, Anxiety and Stress Scale.

Results: It was found from simultaneous regression analyses that after controlling potential confounding effects due to demographic, affiliative humour was a negative predictor of stress, anxiety, and depression; while aggressive humour was a positive predictor of stress only. However, both negative humour styles, that are aggressive and self defeating humour styles, were negative predictors of somatic health.

Conclusion: It was concluded that relationship oriented positive humour style is a protective factor against psychological distress but negative humour styles are detrimental for physical health.

Keywords: Humour styles, Anxiety, Depression, Stress, Somatic Health

(JPMA 70: 2352; 2020) DOI: <https://doi.org/10.47391/JPMA.184>

Introduction

According to Martin (2007),¹ humour is a characteristic possessed by an individual with the ability to produce, appreciate and recognize it. It can be taken as an ability, attitude or coping strategy used as a defense mechanism. The process of humour has four components: (1) process in a social context, (2) a cognitive-perceptual process, (3) an emotional response, and (4) the vocal-behavioural expression of laughter. Humour frequently occurs in social situations and allows interpersonal interaction in a playful manner. The use of humour involves particular cognitions as one needs to process information from environment or own memory and use it creatively. This produces a verbal communication which is perceived by others as funny. Thus, humour is an emotion triggered by particular cognitions.²

There are four styles of humour reflecting its use in everyday life: i) Self-enhancing humour is the ability to maintain humorous state even when experiencing stress and adversity; ii) Aggressive humour style characterized by the use of sarcasm, put-downs, teasing remarks, and criticism; iii) Affiliative humour style which is used to amuse others and ease their tension; and iv) self-defeating humour which is putting oneself down in a humorous manner before others put you down.³

Literature is available on the relationship between humour

COMSATS University Islamabad, Lahore Campus, Lahore, Pakistan.

Correspondence: Shameem Fatima. e-mail: shameemfatima@cuilahore.edu.pk

and psychosocial adjustment. In this regard Cann and Collette, (2014)⁴, have examined the impact of different styles of humour on positive effect which in turn facilitates effective problem solving. Their findings have shown that self-enhancing humour was positively related to stable positive affect, negatively related to stable negative affect and was mediated through stable affect in influencing resilience, well-being and distress. Literature further suggested that there is moderating role of self-enhancing, affiliative, self-defeating, and aggressive humour styles on the relationship between perceived stress and physical health. Results from the study of Kirsten, Richard, and Gert Kruger, 2017⁵ have also shown that self-defeating humour style is a moderator of the relationship between stress and physical health and that the higher use of this style is associated with an increase in physical health symptoms. The finding suggested that a self-directed, detrimental humour style plays a role in the deterioration of physical health during the perceived experience of stress.

The present study was carried out to determine the relationship of humour styles with psychological and somatic health of university students. The main objective of the study was to determine the predictability of humour styles on psychological and physical health of University students.

For study purposes, humour is considered as a desirable personal trait which not only helps in coping with stress and making friendly relationships but also facilitates better

mental and physical health.⁶ Psychological health of a person is referred to as the healthy and mature state of emotional, behavioural and social development. Depression, anxiety, and stress can be used as indices of psychological health.⁷ The term somatic health represents one's physical health.⁸

For the said purpose it was hypothesized that:

- Affiliative and self-enhancing humour styles will negatively predict stress, anxiety, and depression and positively predict better somatic health.
- Aggressive and self-defeating humour styles will positively predict stress, anxiety, and depression, while negatively predicting better somatic health.

Methods

The study was carried out at COMSATS University Islamabad, Lahore Campus during the period of 1st September 2018 to 30th December, 2018. Correlation research design was used to assess the study objectives. A sample of 199 (93 females, 106 males) young adults, selected from COMSATS University Islamabad, Lahore Campus through convenient sampling, were respondents of this study. An online sample size calculator was used to calculate sample size for this correlational study.⁹ According to the effect size formula, the sample size was calculated to be 194. They were falling in age range from 18 to 26 years with the mean age= 21.02 ± 1.78 years. Inclusion criteria were both genders in age range from 18 to 26. Exclusion criteria were belonging to broken families, and having some psychiatric or physical illness.

A demographic form was prepared to obtain information about the participant's demographic characteristics including age, education, number of siblings, parent's education and socio-economic status.

Humour style questionnaire¹⁰ was used, which is a self-reported measure to assess different humour styles. The scale assessed four different humour styles including two positive styles: Affiliative humour and self enhancing humour; and two negative humour styles including aggressive humour and self-defeating humour. The items were scored on a 7-point response format from 1 (not agree) to 7 (fully agree). The scale comprised of 32 items with 8 items assessing each of the four domains. Negative items were reverse scored before calculating the sub-scale scores. A composite score for each sub-scale was calculated by adding the item ratings comprising each sub-scale with a likely range of scores from 7 to 56 with a higher score indicating the more frequent use of that particular humour style.

The DASS-21 (a short version)¹¹ has been used in the current study to assess the mental health of respondents. These items were measured on a 4-point rating scale from 0 (Never) to 3 (always). Each of three sub-scales (depression, anxiety, and stress) was assessed from 7 items. Composite score on each sub scale was obtained by adding the item ratings on seven items comprising each sub-scale with a higher score indicative of higher level of specific mental health symptoms. Reliabilities of sub-scales in the current study have been found to be good, 0.78, 0.64, and 0.73 for depression, anxiety and stress, respectively.

A 14 item Physical Health Questionnaire (PHQ)⁸ questionnaire has been used to assess somatic health of the respondents. Items 1-11 were rated on a 7-point rating scale. Before computing a composite score of 14 items, all items except item 4 were reverse scored so that a higher score on the scale represents better somatic health of the respondents. Alpha reliability of the scale in the current study is good (i.e., 0.74).

Before initiating the study, its Ethical approval was obtained from the Departmental Research Review Committee.

After obtaining ethical approval, the university students were approached from COMSATS University Islamabad, Lahore Campus. They were clearly appraised about the nature and purpose of the study as well as about estimated response time on the measures. They were assured of confidentiality of their responses and were informed of their right to withdraw from the study anytime if they chose to do so. After providing informed consent, student's verbal as well as written consent was obtained for their voluntary participation in the study. They were requested to provide the information on the given scales. The order of scale was counterbalanced across participants. Descriptive Statistics (means, standard deviation, and alpha reliability coefficients) were calculated for the study variables. Then, correlations of demographics were calculated with study variables. Also, Pearson correlation coefficients were calculated to assess correlation of different humour styles with psychological and somatic health. Finally, hierarchical regression analyses were calculated to predict psychological and somatic health from four different humour styles in model 2 after controlling the possible confounding effects of demographics in model 1.

Results

The results from correlation analyses indicated that affiliative humour style was significantly and negatively correlated with three indicators of psychological health including stress, anxiety, and depression, while, aggressive humour style was positively correlated with stress, anxiety,

Table-1: Correlation between Demographics, Humour Styles, and Psychological and Somatic Health.

Variables	5	6	7	8	9	10	11	12
M	35.77	26.60	31.29	26.08	24.18	23.35	23.51	60.64
SD	3.36	9.89	3.61	8.88	8.81	9.31	9.69	11.09
Alpha	0.74	0.77	0.85	0.89	0.81	0.81	0.82	0.74
1. Age	-0.09	0.12	0.02	0.08	0.00	0.02	-0.01	0.12
2. Semester	-0.05	0.14	-0.06	0.12	-0.31***	0.17*	-0.12	-0.05
3. Siblings	-0.06	-0.22**	0.17*	-0.20**	0.24**	0.33**	0.32***	-0.019**
4. Birth order	0.17*	0.01	0.10	-0.01	0.09	0.06	0.01	0.18*
5. Affiliative Humour -		0.21**	0.03	0.29***	-0.24**	-0.25***	-0.18*	0.16*
6. Self Enhancing Humour		-	-0.12	0.74***	-0.04	-0.11	-0.07	0.22**
7. Aggressive Humour			-	0.23***	0.25***	0.20**	0.17*	-0.23**
8. Self Defeating Humour				-	-0.02	-0.05	-0.04	-0.31***
9. Stress					-	0.72***	0.77**	0.13
10. Anxiety						-	0.70**	-0.02
11. Depression							-	-0.07
12. Somatic Health								-

Note. * = p < .05, ** = p < .01, *** = p < .001;

Table-2: Regression Analyses to Predict Psychological and Somatic Health from Humour Styles.

	Stress		Anxiety		Depression		Somatic health	
	M1	M2	M1	M2	M1	M2	M1	M2
Semester	-0.28***	-0.30***	-0.10	-0.11	-0.08	-0.09	-0.05	-0.07
Siblings	0.20**	0.17**	0.31***	0.29***	0.31***	0.30***	-0.21**	-0.10
Birth order	-0.02	0.002	0.01	0.04	-0.03	-0.01	0.18*	0.19**
Affiliative Humour		-0.28***		-0.27***		-0.18*		0.02
Self Enhancing Humour		0.10		-0.05		0.01		-0.18
Aggressive Humour		0.21**		0.11		0.10		-0.29***
Self Defeating Humour		0.03		0.13		0.06		-0.47***
R2	0.13	0.24	0.12	0.20	0.11	0.15	0.07	0.23
Incremental R2		0.11		0.08		0.04		0.16
Model fit (F)	9.57***	8.61***	8.74***	6.86***	7.75***	4.66***	5.27**	8.23***

Note. * = p < .05, * = p < .01, *** = p < .001; M1 = Model 1; M2 = Model 2; df in model 1 was (3,197) and in model 2 was (7,197) for all outcome variables.

and depression. Furthermore, affiliative, self-enhancing, and self-defeating humour styles were positively correlated with better somatic health; and only aggressive humour was negatively correlated with somatic health.

The results from Table 2 indicated that after controlling the demographics, affiliative humour significantly negatively predicted depression, anxiety, and stress, while aggressive humour positively predicted only stress. When physical health was predicted from humour styles, it was found that both negative forms of humour were significant negative predictors of somatic health.

Discussion

When four humour styles were entered simultaneously in a regression analyses after controlling potential demographics, the current findings demonstrated that: i) only affiliative humour was the significant negative predictor of stress, anxiety, and depression, ii) aggressive

humour was the positive predictor of stress only, and iii) aggressive humour and self-defeating humour styles were the negative predictors of better somatic health.

When predicting psychological health, the current findings are in line with the assumptions fundamental to the four humour styles and with previous literature that positive humour usage is negatively associated with poor psychological health and negative humour usage is positively associated with poor psychological health.⁴ However, importantly, the current findings are different from the earlier studies using samples from the individualistic cultures in that the relationship-oriented humour styles compared to self-oriented styles are significant predictors of psychological health in the collectivist culture of Pakistan.

While predicting somatic health, it appeared that avoidance of both negative forms of humour predicted better somatic health. The result explained that using negative humour styles, either relationship oriented or self-directed, may adversely affect somatic health. The current findings extended the previous knowledge of association between humour and physical health from individualistic cultures to a collectivist culture.¹² Additionally, the finding could be justified in many other ways. First, living in a collectivist culture, overcrowding places strain in relationships leading towards more frequent use of aggressive humour styles, this might lead to overreaction of bodily systems turning into poor physical health. The same was evident from the descriptive statistics that the current sample uses self-defeating styles less frequently compared to aggressive styles. Also, using self-defeating humour styles by teasing oneself to please others and to maintain group cohesiveness at the expense of self may also lead to poor somatic health by affecting emotional reactions of the body in a negative way.

The findings are noteworthy in several other ways. First, alpha reliabilities of the humour styles show that the measures are quite unitary and relevant set of items in the cultural context of Pakistan. Additionally, descriptive statistics showed that Pakistani young adults use more consistently and frequently relationship directed humour styles (affiliative and aggressive) compared to self-directed humour styles (self-enhancing and self-defeating). Furthermore, the current findings demonstrated that in the cultural context of Pakistan relationship oriented humour styles are better predictor of psychological health than are the self-directed humour styles. Also, correlation analyses showed that the students having more siblings are more likely to use negative relationship directed humour style (i.e., aggressive humour) and less likely to use self-oriented

humour styles as well as more likely to suffer from poor psychological and somatic health. All of these findings fit well in the collectivist cultural context of Pakistan, where living in bigger families with more siblings, individuals need to learn positive interactive forms of humour to be psychologically healthy and to avoid negative interactive forms of humour such as aggressive humour in order to keep himself free of relational stress. Thus, the findings suggested that relationship directed humour styles are important in the collectivist cultures in understanding the humour-health associations. The self-directed humour styles might likely be considered as significant personal qualities in individualistic cultures and particularly, when working toward intrapersonal rather than interpersonal goals, but relationship directed humour styles were more important in collectivist cultures and in actions directed at achieving interpersonal goals.¹³ Moreover, given the previous findings that positive and negative effect are related to physical health, immune response, psychological resistance, and better health in general,¹⁴ the role of these variables promise humour health link.

To the best of our knowledge, this is a prior study on humour styles and health in the collectivist culture of Pakistan. Though we have had a number of interesting findings in this area, the current study extended the previous finding in that the relationship-oriented humour styles are also important determinants of health, particularly in collectivist cultures.

Limitations and Recommendation

Some of the limitations of the study include cross sectional study design and a lack of inclusion of samples from other contexts (e.g., working and non-working, married and unmarried young adults etc.). Additionally, the moderating roles of variables such as individualistic and collectivist cultures, gender, and joint and nuclear family systems could also be examined to assess differences in relationship at different levels of the moderator.

The present research provided guidance to psychologists, psychiatrists, and school counsellors in understanding the humour related risk and protective factors affecting psychological and physical health. The strong correlations of specific humour styles with indices of psychological and somatic health highlight the need of incorporating different techniques and trainings in counselling sessions for better psychological and physical health of young adults and university students, which in turn might aid in their better academic and professional career.

Conclusion

It is concluded that affiliative humour as a positive relationship directed style is an important determinant of psychological health in the collectivist culture of Pakistan. While, aggressive humour and self-defeating humour styles as negative emotional styles are detrimental to somatic health.

Disclaimer: None.

Conflict of Interest: "The Head of the Ethical Review Board is also corresponding author of the study".

Sources of Funding: None.

References

1. Martin RA. The psychology of humor: An integrative approach. Burlington, MA: Academic Press; 2007.
2. Martin RA. Sense of humor. In: Lopez SJ, editors. Positive psychological assessment. 2nd ed. Washington DC, USA: American Psychological Association; 2016. p. 350-3.
3. Fox CL, Dean S, Lyford K. Development of a Humor Styles Questionnaire for children. *HUMOR* 2013; 26: 0018.
4. Cann A, Collette C. Sense of Humor, Stable Affect, and Psychological Well-Being. *Eur J Psychol* 2014; 10.
5. Richards K, Kruger G. Humor Styles as Moderators in the Relationship Between Perceived Stress and Physical Health. *Sage Open* 2017; 1-8.
6. Martin RA. Sense of Humor. In: Lopez SJ, Snyder CR, Editors. Handbook of Positive Psychological Assessment [Internet] [cited 2019 Aug 17]. Available from: <http://www.humoursummerschool.org/01/articlesNhandouts/PosPsych.pdf>.
7. Shiovitz-Ezra S, Leitsch S, Graber J, Karraker A. Quality of Life and Psychological Health Indicators in the National Social Life, Health, and Aging Project. *J Gerontol B Psychol Sci Soc Sci* 2009; 64B(Suppl 1): i30-7.
8. Schat ACH, Kelloway EK, Desmarais S. The Physical Health Questionnaire (PHQ): Construct Validation of a Self-Report Scale of Somatic Symptoms. *J Occup Health Psychol* 2005; 10: 363-81.
9. UCSF Clinical and translational science Institute. Correlation sample size calculator. [Online] 2018 [Cited 2018 Dec 19]: Available from: URL: <http://www.sample-size.net/correlation-sample-size/>
10. Martin RA, Puhlik DP, Larsen G, Gray J, Weir K. Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *J Res Personality* 2003; 37: 48-75.
11. Lovibond SH, Lovibond PF. Manual for the Depression Anxiety Stress Scales. 2nd Ed; Sydney: Psychology Foundation of Australia; 1995.
12. Cann A, Stilwell K, Taku K. Humour styles, positive personality, and health. *Eur J Psychol* 2010; 3: 213-35.
13. Yue X, Jiang F, Lu S, Hiranandani N. To Be or Not to Be Humorous? Cross Cultural Perspectives on Humor. *Front Psychol* 2016; 7: 1495.
14. Gremigni P. Is humour the best medicine? In: Gremigni P, Editors. Humour and health promotion. New York, NY: Nova Science Publishers, 2012; p. 149-188.