

THE IMPACT OF HUMOR STYLES ON PERCEIVED STRESS AMONG YOUNG ADULTS IN PAKISTAN

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ABSTRACT

The current paper analyzed the correlation between humor styles and perceived stress in Pakistani students participating in university education, where academic and social stress is extremely high. The study employed a quantitative and cross-sectional research design in which 350 respondents aged between 16 and 33 years ($M = 23.7$, $SD = 2.9$) completed the Humor Styles Questionnaire and the Perceived Stress Scale. Pearson correlation showed that affiliative humor ($r = -.39$, $p < .001$) and self-enhancing humor ($r = -.39$, $p < .001$) were associated with lower perceived stress. Aggressive humor had a low negative correlation with stress ($r = -.18$, $p = .001$), and self-defeating humor showed no significant correlation with perceived stress ($r = .04$, $p = .446$). Hierarchical multiple regression showed that affiliative humor ($\beta = -.21$, $p < .001$), self-enhancing humor ($\beta = -.33$, $p < .001$), and self-defeating humor ($\beta = .14$, $p = .005$) significantly predicted perceived stress after demographic factors were statistically controlled. The aggressive humor did not contribute a lot as a predictor in the regression model. This evidence suggests that adaptive humor might be viewed as a defense mechanism, and self-defeating humor might be a factor in stress given the appropriate conditions (controlling other variables). The results propose that humor-based interventions can be effective in campus wellness programs as an economical, culturally intuitively influential intervention in achieving student mental health.

I. INTRODUCTION

Pakistani youth have humor in their everyday life. Humor is a bonding and de-stressing mechanism within college campuses due to banter in group discussions, social media as well as in classrooms. Informal jokes and laughs are used to apply academic pressure, negative experiences are commuted and laugh at, and funny things are shared among learners as a means of temporarily avoiding academic and social pressure. Although the jokes and exchanges are not formal, psychological research has revealed that humor has been at the middle stage of emotion control and organization of stress. Humor aids in cognitive reframing, psychological distance from stressful circumstances, and interpersonal relationships (Kokkinos & Koutsospyros, 2023; Martin, 2007; Samson & Gross, 2012; van der Wal & Kok, 2019). Joking is not a unitary and consistent action. Instead, it is composed of different styles which indicate the way people use humor in social and intra-personal manner. Martin et al. (2003) found in their Humor Styles Questionnaire that four humor styles emerge, including: affiliative, self-enhancing, aggressive and self-defeating

humor (Altmann, 2024). The purpose of swapping jokes and stories with the view of entertaining others to achieve social unity is Affiliative humor. Self-enhancing humor is describing how people have a humorous perception towards life despite experiencing stressful situations together with how humor is used personally to help deal with emotions. Comparatively, aggressive humor is characterized by sarcasm and mocking other people, whereas self-defeating humor has a person become the focus of jokes to attract attention or conceal emotional discomfort (Fritz, 2020; Wang et al., 2022; Ruch & Heintz, 2016; Jiang et al., 2019; Altan-Atalay & Fatih Boluvat, 2024; Dionigi et al., 2023; Čekrljija et al., 2024).

One of the significant psychological problems of young adulthood, particularly in students studying in universities or colleges is stress. The stage of young adulthood is an exploratory stage of transition and college students are under academic, social, financial and career pressures (Arnett, 2000). Recent research on student mental health demonstrates that university students often exhibit high levels of stress levels, anxiety, and emotional strain, in case of academic disruption, isolation, uncertainty, and performance pressure (Graves et al., 2021; Pascoe et al., 2020; Copeland et al., 2021; Fruehwirth et al., 2021; Odriozola-González et al., 2020). The explanation of stress factors, rather than the mere presence of unfavorable situations in themselves, explain perceived stress. The same situation can be presented to two individuals and they can interpret it differently, which depends upon their coping skills and cognitive appraisals. To gauge such subjective appraisals, the Perceived Stress Scale was created by Cohen et al. (1983). It is also through the transactional perspective of stress that stress occurs when an individual appraises a situation threatening, overwhelming or exceeding the available resources to respond (Folkman & Moskowitz, 2004; Lazarus & Folkman, 1984).

Investigating perceived stress is still crucial as mental health issues are universal among the student and young adult age groups. The studies at the time of COVID-19 also emphasized the prevalence of stress, anxiety, and depression and the susceptibility of young people and students to these conditions (Cao et al., 2020; Shanahan et al., 2022; Kecojevic et al., 2020; Huckins et al., 2020; Fu et al., 2021). Low-cost, culturally relevant coping resources are particularly significant in Pakistan and similar low-resource environments, where access to formal mental health care and mental health policy restrictions result in low access (Choudhry et al., 2023). Although research on stress in Pakistan is increasing, only little has been said regarding the use of humor styles in attitudes towards stress among Pakistani youth. Global literature reveals that the styles of humor may be buffer resistant to stress or risk indicators. Adaptive humor is also associated with improved coping and wellness, and self-defeating humor is associated with worse psychological consequences (Jiang et al., 2020; Richards & Kruger, 2017; van der Wal & Kok, 2019). As humor is extensively employed in Pakistani socialization, it is necessary to test the hypothesis whether various types of humor perform the same functions in contrast with the international literature.

Research Questions

1. What is the relationship between adaptive humor styles, affiliative and self-enhancing humor, and perceived stress among young adults in Pakistan?
2. What is the relationship between maladaptive humor styles, aggressive and self-defeating humor, and perceived stress among young adults in Pakistan?
3. Do humor styles significantly predict perceived stress after accounting for demographic variables such as age, gender, and education level?

Hypotheses

1. Affiliative humor and self-enhancing humor will be significantly negatively associated with perceived stress among young adults in Pakistan.
2. Aggressive humor and self-defeating humor will be significantly positively associated with perceived stress among young adults in Pakistan.
3. Humor styles will significantly predict perceived stress if age, gender, and education levels are controlled.

II. METHOD

Participants

The sample included 350 students of universities in various institutions of higher learning in Pakistan. The age of the respondents was between 16 and 33 years (average age = 23.7, SD = 2.9). The sample was a mixed sample of academic programs both undergraduate and postgraduate level. The inclusion criteria were that participants had to be registered in a university, had enough knowledge of English to fill in the questionnaires, and informed consent had to be obtained. They had to exclude students of university, incapable of completing the instruments, out of the age range of study, and ones who reported having a diagnosed psychological disorder. These conditions helped the sample to be representative to a level of capturing the target population of that of the small adults engaged in higher education and to assure that the data obtained were complete and trustworthy.

Measures

Two standard psychometric measures were used to measure humor style and perceived stress. [1] Humor Styles Questionnaire (Martin et al., 2003). In order to assess four distinct levels of humor, such as that afforded to other people, affiliative humor; self-enhancing humor; self-defeating humor; and selective self-enhancing humor, the Humor Styles Questionnaire was administered (HSQ-32; Martin et al., 2003). The instrument has 32 items that are evaluated on a 7-point Likert scale. Affiliative and self-enhancing humor are adaptive styles that are connected to prosocial relationships and coping skills, but aggressive and self-defeating humor is maladaptive. The HSQ demonstrated a satisfactory internal consistency in the current study. With overall Cronbach alpha value of Humor Styles Questionnaire to be .81 and for subscales it was .78 for affiliative humor subscale, for self-enhancing humor subscale it was .75 and for aggressive humor and self-defeating humor it was .61 and .76 respectively. [2] Perceived Stress Scale (Cohen et al., 1983). The Perceived Stress Scale (PSS-10; Cohen et al., 1983) was used to self-rate perceived stress in the last month. The PSS-10 has 10 questions and rating choice questions on a 5-point Lickert scale. A high score on all items means a high perceived stress. The scores fall into levels: low stress when the score is 0 to 13, moderate stress when score is 14 to 26 and high stress when score is 27-40. There was high reliability level of .86 in the present sample.

Procedure

Collection of data was started upon obtaining permission of the concerned university authorities. The participants were offered the online connection and the paper-based solution by participating in a procedure that would lead to the handing over of the paper-based questionnaire or not. The informed consent statement informed the participants of the purpose of the study, its voluntary nature, the significance of confidentiality and the duration of the study (approximately required to complete the survey). Those who provided consent filled out the questionnaire. The survey was estimated to last about 10-15 minutes. New online answers were automatically captured with Google Forms and paper questionnaires were obtained to the researcher and entered into the SPSS database. Data was collected as 350 complete responses in the end and no missing data.

III. RESULTS

Table I: Demographic Characteristics of Participants

Variables	Category	<i>n</i>	%
<i>Education</i>	BS	267	76.3
	MS	35	10.0
	MPhil	19	5.4
	PhD	10	2.9
	Other	19	5.4
<i>Gender</i>	Male	59	16.9
	Female	291	83.1

Note. *N* = 350

Table II: Pearson Correlation Matrix for Humor Styles and Perceived Stress

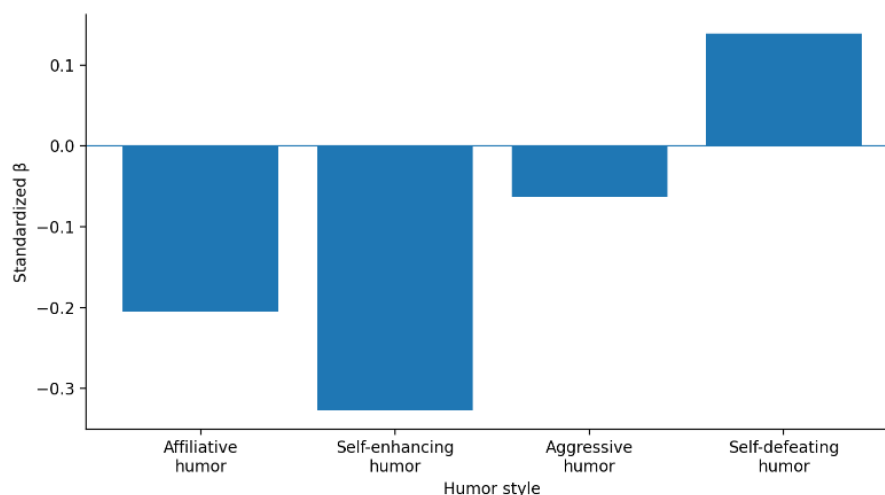
Variables	1	2	3	4	5
1. HSQ-AH	—				
2. HSQ-SE	.456**	—			
3. HSQ-AGH	.144**	.242**	—		
4. HSQ-SDH	-.019	.194**	.295**	—	
5. PSS	-.386**	-.390**	-.177**	.041	—

* $p < .05$, ** $p < .01$.

In Table 2, Perceived stress was used as a dependent variable in the hierarchical multiple regression analysis. Model 1 had demographic predictors, and Model 2 incorporated the four humor styles. There was an addition of humor styles which would add to the explained variance. In Model 2, the affiliative humor was found to have a negative relationship with perceived stress, and self-enhancing humor was found to have a negative relationship with perceived stress, but self-defeating humor was found to have a positive relationship with perceived stress. Aggressive humor was unrelated to any large extent.

Table III: Hierarchical Multiple Regression

Variables	R	R ²	ΔR^2	B	SE	β	t	P
Model 1	0.253	0.064	0.064					0.000
Age				0.409	0.135	0.165	3.025	0.003
Gender				3.735	1.028	0.197	3.632	0.000
Education				-.940	0.341	-.144	-2.756	0.006
Model 2	0.534	0.285	0.22					0.000
Age				0.4	0.121	0.161	3.309	0.001
Gender				2.698	0.952	0.142	2.834	0.005
Education				-1.227	.311	-.188	-3.941	.000
Affiliative Humor				-.178	0.046	-.205	-3.877	0.000
Self-Enhancing Humor				-.294	0.05	-.327	-5.929	0.000
Aggressive Humor				-.065	0.052	-.063	-1.245	0.214
Self-Defeating Humor				0.117	0.042	0.139	2.816	0.005

Figure I: Standardized Beta Coefficients for Humor Styles Predicting Perceived Stress

The analyses determined that there was acceptable internal consistency of the scales. The descriptive results revealed that the mean level of stress among the participants was moderate and that the majority of the participants were moderate and low-stress. The reason why the first hypothesis was supported is that an affiliative and self-enhancing humor is negatively correlated with perceived stress. The relationship between aggressive humor and perceived stress and the relationship between self-defeating humor and perceived stress were not supported at the bivariate level in the second hypothesis since they revealed a negative and no significant relationship respectively. The hypotheses three was partially supported since the affiliative humor, self-enhancing humor and self-defeating humor were significant predictors of perceived stress using hierarchical regression model but not the aggressive humor.

IV. DISCUSSION

The research experimented the association between humor styles and perceived stress among young adults in Pakistan and assessed whether humor styles predicted the level of stress on controlling demographic covariates. The results revealed that there were evident links between adaptive humor styles and reduced perceived stress. Affiliative humor, and self-enhancing humor were found to have very close negative relationships with perceived stress and both were found to be very important negative predictors in the hierarchical regression model. The study is supported by this trend in that humor is not merely entertainment but can act as a resources related to coping so important in young adults (Fritz, 2020; Martin et al., 2003; Samson & Gross, 2012; Erduran Tekin, 2026). It was also found that the sample had an overall moderate level of perceived stress. The majority of the respondents belonged to the median-stress group with a smaller yet significant group belonging to the high-stress category. Such a result is aligned with the findings of studies exploring that young students face academic pressure, social pressure, future uncertainty, and emotional stress in the context of young adulthood (Graves et al., 2021; Pascoe et al., 2020; Copeland et al., 2021). These stresses are commonly alleviated within the informal structures of cajoling such as peer dialogue, humor in the classroom, a group chat, memes and whispering, and day-to-day jokes within the Pakistani university setting. The findings, hence, hold meaning since they can associate a ubiquitous social behavior and psychological stress appraisal.

The initial hypothesis was that affiliate humor and self-enhancing humor would be adversely correlated with perceived stress. This was tested positive. Affiliative humor was also negatively correlated with perceived stress and they were also negatively predictive of perceived stress in the regression model. This implies that the participants who had applied humor to enhance their relationships, which brought them amusement and kept them socially close had levels of perceived stress that were lower. Affiliative humor can decrease stress in practice by feeling bonded, having emotional support, and a sense of belonging. This understanding complies with the perception that humor can help promote social bonds and enhance psychological accommodation when employed toward an open and non-aggressive direction (Kokkinos & Koutsospyros, 2023; Martin et al., 2003; Lu et al., 2024). The first hypothesis was also supported by self-enhancing humor that was the most significant negative predictor of perceived stress in the regression model. This indicates that humor may be particularly crucial when used internally in appraising stress. The use of self-enhancing humor enables them to be humorous in challenging situations and to reframe stressful situations to less threatening directions. This finding is consistent with the transactional model of stress and coping since stress is not merely a product of external demands but one that is brought about by how people evaluate the demands and their coping resources (Lazarus & Folkman, 1984; Simione & Gnagnarella, 2023; Saipol et al., 2025; Alghamdi et al., 2026). The same academic or social pressure can become less intimidating when students are able to mentally reframe it by making it enjoyable. In this way, self-enhancing humor can serve as an individual coping tool that helps decrease the emotional burden and build resilience.

The second hypothesis was that the aggressive humor would be positively correlated with self-defeating humor and perceived stress. This was not found to be true at the bivariate level. Aggressive humor had a slight negative relationship with perceived stress and self-defeating humor did not have a significant relationship with perceived stress. They were not in the anticipated direction and indicate that maladaptive humor styles might not have a straightforward operation on this sample. Even teasing and sarcasm, in Pakistani peer groups, can be perceived as a form of intimacy, familiarity and even love instead of hostility. Access to a friendship, a hostel, a classroom or a study

circle, playful teasing might describe social connection rather than personal conflict. This could be one of the reasons why aggressive humor did not exhibit a positive relationship with stress as one would have expected. There is also self-defeating humor and it must be interpreted. Some social settings might interpret such jokes on oneself as a sign of humility, friendliness or a means of escaping awkward situations. Since social norms can constrain emotional openness, self-directed humor can enable students to metamemorize distress without stating their emotional distress. That could be why self-defeating humor was not significantly correlated with perceived stress over the zero-order. Nevertheless, the regression model demonstrated another trend. The other humor styles and the demographic variables were controlled, and self-defeating humor turned out to be a major positive predictor of perceived stress. This points to the fact that self-defeating humor can certainly involve an emotional cost in terms of its distinct contribution. It can be socially acceptable, and it can also hide the discomfort or negative judgment toward self or even avoids emotion (Martin, 2007; Richards & Kruger, 2017; Leñero-Cirujano et al., 2025).

The third hypothesis was that humor styles would have a significant predictive value of perceived stress after controlling the age, gender and education level. This was at least partially confirmed. It was observed in the first regression model that the demographic variables accounted lower per cent of variance in perceived stress. In the second model, the explained variance was greater when the four humor styles were inputted. This reveals that humor styles contributed to significant predictive value to demographics. Self-enhancing humor and affiliative humor predicted perceived stress negatively and self-defeating humor predicted perceived stress positively and overwhelmed other predictors of perceived stress in the entire model, whereas aggressive humor did not significantly predict perceived stress. The results of the regression are significant as they explain the position of various styles of humor. Adaptive humor styles were defensive, particularly self-enhancing humor. Self-defeating humor had no importance in correlation but important in regression implying that the correlation between the two is more complicated and possibly suppressed or secret when analyzed at the bivariate level. After incorporating other variables, aggressive humor was not found to be important any longer. All in all, the results indicate that not humor is directed towards a similar psychology. Connection-facilitating as well as personally reappraising humor is associated with a lower perceived stress, and humor that makes the self a target is associated with a higher perceived stress under other conditions.

The results justify the theoretical framework of the study. According to the transactional model of stress and coping, stress is determined by the person-environment transaction and personal perception of demands and resources at their disposal (Lazarus & Folkman, 1984). The adaptive humor styles seem to relate with healthier appraisal processes in this study. Self-enhancing humor can assist students in distancing themselves psychologically concerning stressful situations whereas the protocol of affiliative humor can enhance interpersonal resources that counteract stress. These findings demonstrate that humor styles may be perceived as coping-related features that play a role in evaluating stress. The fact that humor is not a single construct also supports the multidimensional model of humor styles since the results indicate that humor exists as a variety of styles. The four styles were differently related to perceived stress. Stress had negative relationships with affiliative and self-enhancing humor. Aggressive humor had a small negative relationship without predictive value in the entire model. Only when other variables were controlled, self-defeating humor proved to be a positive predictor. This justifies the necessity of quantifying humor by discrete styles as opposed to considering humor as either good or harmful in general (Martin et al., 2003; Dionigi et al., 2023; Altan-Atalay & Fatih Boluvat, 2024; Čekrlja et al., 2024). The results also indicate that the cultural context impacts meaning of humor in particular in collectivist contexts, where teasing, modesty, and indirect expression of emotions may impact how humor is applied and understood (Jiang et al., 2019).

The results are relevant to a university counseling practice, classroom and campus wellness programs in Pakistan. The adaptation humor can be applied in the low-cost stress-management activities as such humor is already a part of the student culture. Activities incorporated in group counseling, peer-support programs, student societies, and orientation sessions can be helpful to encourage students to apply humor to redefine challenges and establish positive social relationships. The latter approaches might be particularly helpful in those schools where formal mental healthcare is not as accessible and where learners might be reluctant to obtain any kind of mental health assistance due to stigmatization or social stigma (Choudhry et al., 2023; van der Wal & Kok, 2019). These findings are also applicable to the teachers. Helping to reduce tension, make students more engaged, and make learning in classes warmer, inclusive and supportive humor can be successfully implemented. This does not imply that humor

should be carelessly applied by the teachers. The key is that the non-hostile and socially bridging type of humor, called as affiliative humor, could be beneficial to the learning process and lessen stress. Humor style can also be viewed by counselors as well as psychologists as a coping profile to a student. Self-enhancing jokes and self-defeating jokes should also be met with regular frequency indicating an effective inner coping tool and a symptom of internal emotional pain. Thus young adults who probably have a mental health problem that leads to culturally relevant observation can be observed using humor.

There are a number of limitations of this study. First, the cross-sectional type of design cannot be used to make causal conclusions. Adaptive humor directly does not cause stress to be minimized or self-defeating humor to directly cause stress. The results merely depict relationships and predictive trends of the data. Second the sample was limited to university students and therefore, would not be a representative of all young adults in Pakistan with or without jobs, as well as adolescents or young adults who have not yet joined a higher education institution. Thirdly, there were more female participants than the male participants in the sample, and this would affect the generalizability of the results. The other limitation is that self-report questionnaires were used. Participants might have responded in a socially desirable manner particularly since emotional expression and mental health problems can be sensitive issues. Humor is very contextual as well. General tendencies can be measured using a questionnaire, but this might not be entirely reflective of the way jokes are interpreted in real life, when they occur in a real-life conversation, friendship, classroom, online group or family. Lastly, the quantitative design was unable to delve into the more nuanced meanings of humor within cultural settings, like when teasing is seen as love, when self-directed humor is an expression of embarrassment, or solely when humor conceals pain.

More diverse samples in terms of regions, universities, and educational backgrounds in Pakistan should be used in future studies. And it would also be benefiting to involve young adults, who are employed and do not attend universities or who live in rural and urban areas. They are encouraged to conduct longitudinal research to determine whether humor styles have an impact on changes in perceived stress as time passes by. These studies may be used to explain if adaptive humor provides defense to students when they are undergoing examination, when they are undergoing academic transitions, and major transitions in their lives. Mixed- methods and qualitative research are also suggested. Interview and focus group may be a more effective approach to understanding the clinic Pakistani students in terms of their conceptualization of teasing, sarcasm, self-directed jokes, memes and classroom humour. The cross-cultural research on other South Asian nations can also assist in determining that these results are fact-specific to Pakistan or indicate that there are certain general tendencies in the region. Digital humor (memes and online interactions) can also be explored in future research due to the fact that social media has become a popular place where young adults exchange humor and cope with stress.

The main research purpose was to find out the relationship between humor styles and perceived stress in young adults in Pakistan. The results identified adaptive humor styles, in particular, self-enhancing humor and affiliative humor to be associated with perceived stress being lower and being predictive of perceived stress in the post-demographic-adjusted condition. Aggressive humor was not related to perceived stress in the regression model and self-defeating humor showed up as a significant positive predictor of perception stress in the regression when other factors were held constant. Combinations of the findings indicate that sense of humor is a valuable psychological and cultural asset in Pakistani university students. Personal reappraisal and social related humor can assist students to cope with stress and self-defeating humor might require closer consideration in the counseling and student support settings. The findings also illustrate that some cultural context is important when interpretation of humor is involved. Humor can be an indirect expression of emotional control, social attachment or concealed expression of emotion in the South Asian societies. Given the significance of humor as an effective coping mechanism, universities, educators, and counselors will be able to become involved in healthier emotional reactions and the well-being of young adults, in general.

V.CONCLUSION

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VI. REFERENCES

- Alghamdi, K., Altahini, K., & Alkhuraymi, Y. (2026). Humor Styles, Perceived Stress Scores, and Depression Scores among Psychiatry Residents in Saudi Arabia: A Cross-sectional Study. *Journal of Contemporary Medical Sciences*, 12(2). <https://doi.org/10.22317/jcms.v12i2.2119>
- Altan-Atalay, A., & Fatih Boluvat, M. (2024). Cognitive flexibility and depression: The moderator roles of humor styles. *Current Psychology*, 43(23), 20814–20823. <https://doi.org/10.1007/s12144-024-05931-8>
- Altmann, T. (2024). Development and validation of three brief versions of the humor styles questionnaire. *Acta Psychologica*, 243, 104141. <https://doi.org/10.1016/j.actpsy.2024.104141>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. In *American Psychologist* (Vol. 55, Issue 5, pp. 469–480) [doi:10.1037/0003-066X.55.5.469]. American Psychological Association. <https://doi.org/10.1037/0003-066X.55.5.469>
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. <https://doi.org/10.1016/j.psychres.2020.112934>
- Choudhry, F. R., Khan, N., & Munawar, K. (2023). Barriers and facilitators to mental health care: A systematic review in Pakistan [Doi: 10.1080/00207411.2021.1941563]. *International Journal of Mental Health*, 52(2), 124–162. <https://doi.org/10.1080/00207411.2021.1941563>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A Global Measure of Perceived Stress. *Journal of Health and Social Behavior*, 24(4), 385–396. <https://doi.org/10.2307/2136404>
- Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., Rettew, J., & Hudziak, J. J. (2021). Impact of COVID-19 Pandemic on College Student Mental Health and Wellness [Doi: 10.1016/j.jaac.2020.08.466]. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(1), 134–141.e2. <https://doi.org/10.1016/j.jaac.2020.08.466>
- Dionigi, A., Duradoni, M., & Vagnoli, L. (2023). Understanding the Association Between Humor and Emotional Distress: The Role of Light and Dark Humor in Predicting Depression, Anxiety, and Stress. *Europe's Journal of Psychology*, 19(4). <https://doi.org/10.5964/ejop.10013>
- Erduran Tekin, Ö. (2026). 'Lose Everything, But Do Not Lose Your Joy.' The Role of Humor in the Relationship Between Psychological Distress and Life Satisfaction Among University Students: A Mixed-Methods Study. *Applied Research in Quality of Life*, 21(2), 859–879. <https://doi.org/10.1007/s11482-026-10557-y>
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and Promise. *Annual Review of Psychology*, 55(1), 745–774. <https://doi.org/10.1146/annurev.psych.55.090902.141456>

- Fritz, H. L. (2020). Why are humor styles associated with well-being, and does social competence matter? Examining relations to psychological and physical well-being, reappraisal, and social support. *Personality and Individual Differences*, 154, 109641. <https://doi.org/10.1016/j.paid.2019.109641>
- Fruehwirth, J. C., Biswas, S., & Perreira, K. M. (2021). The Covid-19 pandemic and mental health of first-year college students: Examining the effect of Covid-19 stressors using longitudinal data [Doi:10.1371/journal.pone.0247999]. *PLOS ONE*, 16(3), e0247999. <https://doi.org/10.1371/journal.pone.0247999>
- Fu, W., Yan, S., Zong, Q., Anderson-Luxford, D., Song, X., Lv, Z., & Lv, C. (2021). Mental health of college students during the COVID-19 epidemic in China. *Journal of Affective Disorders*, 280, 7–10. <https://doi.org/10.1016/j.jad.2020.11.032>
- Graves, B. S., Hall, M. E., Dias-Karch, C., Haischer, M. H., & Apter, C. (2021). Gender differences in perceived stress and coping among college students [Doi:10.1371/journal.pone.0255634]. *PLOS ONE*, 16(8), e0255634. <https://doi.org/10.1371/journal.pone.0255634>
- Huckins, J. F., daSilva, A. W., Wang, W., Hedlund, E., Rogers, C., Nepal, S. K., Wu, J., Obuchi, M., Murphy, E. I., Meyer, M. L., Wagner, D. D., Holtzheimer, P. E., & Campbell, A. T. (2020). Mental Health and Behavior of College Students During the Early Phases of the COVID-19 Pandemic: Longitudinal Smartphone and Ecological Momentary Assessment Study. *J Med Internet Res*, 22(6), e20185. <https://doi.org/10.2196/20185>
- Jiang, F., Lu, S., Jiang, T., & Jia, H. (2020). Does the Relation Between Humor Styles and Subjective Well-Being Vary Across Culture and Age? A Meta-Analysis [Systematic Review]. *Frontiers in Psychology*, Volume 11–2020. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2020.02213>
- Jiang, T., Li, H., & Hou, Y. (2019). Cultural Differences in Humor Perception, Usage, and Implications [Review]. *Frontiers in Psychology*, Volume 10–2019. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2019.00123>
- Kecojevic, A., Basch, C. H., Sullivan, M., & Davi, N. K. (2020). The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study [Doi:10.1371/journal.pone.0239696]. *PLOS ONE*, 15(9), e0239696. <https://doi.org/10.1371/journal.pone.0239696>
- Kokkinos, C. M., & Koutsospyros, A. (2023). The Moderating Role of University Students' Humor Styles on the Association between General Mental Health and Subjective Well-Being [Doi: 10.1080/00223980.2023.2244128]. *The Journal of Psychology*, 157(8), 473–495. <https://doi.org/10.1080/00223980.2023.2244128>
- Lazarus, R., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. Springer.
- Leñero-Cirujano, M., González-Ordi, H., Torres-González, J. I., Gómez-Higuera, J., Piñar-Rodríguez, S., López-Bermejo Minaya, E., Alcalá-Albert, G. J., Carmona-Pestaña, Á., & Moro-Tejedor, M. N. (2025). Relation Between Humor Styles and Psychopathological Symptoms in Healthcare Professionals: A Cross-Sectional Study. In *Nursing Reports* (Vol. 15, Issue 1, p. 21). <https://doi.org/10.3390/nursrep15010021>
- Lu, S., Jiang, F., Lan, J., & Wang, T. (2024). The funnier, the happier? The interplay between interpersonal humor styles on mental health via gratitude. *Current Psychology*, 43(5), 4394–4403. <https://doi.org/10.1007/s12144-023-04665-3>
- Martin, R. A. (2007). *The Psychology of Humor: An Integrative Approach*. Elsevier Academic Press.
- Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality*, 37(1), 48–75. [https://doi.org/10.1016/S0092-6566\(02\)00534-2](https://doi.org/10.1016/S0092-6566(02)00534-2)
- Odriozola-González, P., Planchuelo-Gómez, Á., Iruetia, M. J., & de Luis-García, R. (2020). Psychological effects of the COVID-19 outbreak and lockdown among students and workers of a Spanish university. *Psychiatry Research*, 290, 113108. <https://doi.org/10.1016/j.psychres.2020.113108>
- Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education [Doi: 10.1080/02673843.2019.1596823]. *International Journal of Adolescence and Youth*, 25(1), 104–112. <https://doi.org/10.1080/02673843.2019.1596823>
- Richards, K., & Kruger, G. (2017). Humor Styles as Moderators in the Relationship Between Perceived Stress and Physical Health [Doi: 10.1177/2158244017711485]. *Sage Open*, 7(2), 2158244017711485. <https://doi.org/10.1177/2158244017711485>

- Ruch, W., & Heintz, S. (2016). The German Version of the Humor Styles Questionnaire: Psychometric Properties and Overlap With Other Styles of Humor. *Europe's Journal of Psychology*, 12(3). <https://doi.org/10.5964/ejop.v12i3.1116>
- Saipol, M., Siti Aisyah Panatik, & Syazwina Muhammad Khir. (2025). The Effect of Humor Styles and Stress Perception on Well-Being of Part-Time Students. *International Journal of Research and Innovation in Social Science*, IX(IX), 9080–9092. <https://doi.org/10.47772/IJRISS.2025.909000749>
- Samson, A. C., & Gross, J. J. (2012). Humour as emotion regulation: The differential consequences of negative versus positive humour [Doi: 10.1080/02699931.2011.585069]. *Cognition and Emotion*, 26(2), 375–384. <https://doi.org/10.1080/02699931.2011.585069>
- Shanahan, L., Steinhoff, A., Bechtiger, L., Murray, A. L., Nivette, A., Hepp, U., Ribeaud, D., & Eisner, M. (2022). Emotional distress in young adults during the COVID-19 pandemic: Evidence of risk and resilience from a longitudinal cohort study. *Psychological Medicine*, 52(5), 824–833. <https://doi.org/10.1017/S003329172000241X>
- Simione, L., & Gnagnarella, C. (2023). Humor Coping Reduces the Positive Relationship between Avoidance Coping Strategies and Perceived Stress: A Moderation Analysis. In *Behavioral Sciences* (Vol. 13, Issue 2, p. 179). <https://doi.org/10.3390/bs13020179>
- van der Wal, C. N., & Kok, R. N. (2019). Laughter-inducing therapies: Systematic review and meta-analysis. *Social Science & Medicine*, 232, 473–488. <https://doi.org/10.1016/j.socscimed.2019.02.018>
- Wang, C. C., Godecker, A., & Rose, S. L. (2022). Adaptive and maladaptive humor styles are closely associated with burnout and professional fulfillment in members of the Society of Gynecologic Oncology. *Gynecologic Oncology Reports*, 42, 101020. <https://doi.org/10.1016/j.gore.2022.101020>
- Čekrljija, Đ., Kulakow, S., Aluja, A., & Garca, L. F. (2024). The Relationship Between Humor Styles, Optimism and Quality of life, and the Role of the Gender, Age and Socio-Economic Status: A Typological Approach. *International Journal of Applied Positive Psychology*, 10(1), 13. <https://doi.org/10.1007/s41042-024-00208-8>