Shahid Sadoughi University of Medical Sciences School of Public Health

Social Behavior Research & Health

Social Behavior Research & Health

Social Determinants of Health Research Center

The Relationship of Risk Perceptions and Risk-Taking with Humor Styles: Mediating Role of Self-Control

Malahat Amani [a*], **Mahboobeh Mansuri** [a]

[a] Department of psychology, University of Bojnord, Bojnord, Iran.

ARTICLEINFO

ORIGINAL ARTICLE

Article History:
Received: 25 Des 2019
Revised: 22 Jan 2020
Accepted: 4 May 2020

***Corresponding Author:**

Malahat Amani

Email:
m.amani@ub.ac.ir

Tel: +98 9143580277

Citation:
Amani M, Mansuri M. The Relationship of Risk Perceptions and Risk-Taking with Humor Styles: Mediating Role of Self-Control. Social Behavior Research & Health (SBRH). 2020; 4(1): 450-460.

ABSTRACT

Background: Humor, as a form of social risk-taking is observed more frequently among individuals with risky behaviors. It seems that self-control is related to risky behaviors and humor styles. Based on the recommendations of past studies, the present study was conducted to investigate whether self-controlmediates the relationship between risk perception and risk-taking with humor styles.

Methods: The statistical population included students of Bojnord University in the academic year of 2019. A sample of 380 students was selected by stratified random sampling. They completed the humor style questionnaire, self-control questionnaire, and domain-specific risk-taking scale. The data were analyzed by SPSS software version 23 and the tests of correlation and path analysis.

Results: The results showed that adaptive humor styles were not significantly related to self-control and risk-taking; only the affiliative humor style had a negative correlation with risk perceptions. Maladaptive humor styles correlated significantly with self-control and risk-taking; only an aggressive humor style was related to positive risk perceptions**.** Path analysis showed that self-control affected the aggressive humor style ($\beta = -.45$, $p < .0001$) and self-defeating style ($\beta = -.23$, $p < .0001$), risk perception had a direct effect on aggressive humor style ($\beta = .10$, $p < .012$), and risk-taking affected the aggressive humor ($\beta = -.19$, $p < .0001$) and self-defeating ($\beta = -.11$, $p < .016$). Also, risk-taking through self-control affected aggressive humor style and self-defeating humor style significantly. The results of the goodness of fit in the modified model showed that the value of χ^2, GFI, AGFI, CFI, and RMSEA were.13, 1, .99, 1, and .0001, respectively and all these indices were at an acceptable level.

Conclusion: Individuals with high self-control take more risk and use less maladaptive humor styles. Individuals with weak ability cannot control their feelings, which results in maladaptive humor styles in interpersonal relationships.

Keywords: Humor, Self-control, Risk-taking

[DOR: 20.1001.1.27832104.2020.4.1.2.9]

[DOI: 10.18502/sbrh.v4i1.2824]

Introduction

Some studies found that humor, as a buffering and coping mechanism can decrease the effects of frequency stressors events (Svebak, 2010).Humor is a strategy to cope with stress in stressors, which can decrease emotional reactions or provide an incentive to change stressed situations (Abel, 2002).Humor helps to recover physical health problems (Romundstad et al., 2016). However, these results are contradictory to the studies that reported humor has few or no positive outcomes (Gremigni, 2012). For example, some studies found that humor sense wasnot related to physical health (Svebak et al., 2004). To deal with the lack of consistency among findings, an experimental support was provided for the two dimensions of humor (Kirsh & Kuiper, 2003). Humor may not buffer stress, but it can avoid using harmful humor (Svebak et al., 2004).

The humor studies were not useful with regard to different types of positive and negative humor styles in the last decade. This gap with a humor model was filled in which specified four humor styles including adaptive and maladaptive humor styles. Affiliative humor, as an adaptive humor is employed to amuse others without annoying anyone. Aggressive humor, as a maladaptive humor is used for superiority over others. Another adaptive humor is self-enhancing that includes the use of humor for reappraising potential stressors to cope with challenges. Self-defeating humor is maladaptive due to the comprising effort to obtain their confirmation with self-humiliation (Martin et al., 2003).

Some studies reported that humor styles are related to various personality characteristics. For instance, aggressive humor was found to be associated with variables such as higher neuroticism and lower agreeableness (Vernon et al., 2008), higher levels of Machiavellianism and psychopathy (Veselka et al., 2010), as well as a lower rate of social competence (Yip & Martin, 2006). Additionally, maladaptive humor styles are reported to be positively correlated with insecurity attachment (Cann et al., 2008). Moreover, self-defeating humor style is related to other symptoms of physical health (Richards & Kruger, 2017). By the same token, adaptive humor styles are associated with optimism (Cheung & Yue, 2013) and life satisfaction (Zhao et al., 2014). The conducted studies reported positive effects of humor, while few studies found that humor was related to negative aspects such as risk-taking and risky choices (Cann & Cann, 2013). Therefore, the present study focused on the relationship of humor styles with risk-perception, risk-taking,and self-control.

Risk-perception, risk-taking, and humor styles

It seems that humor as a form of social risk-seeking is recognized as a probable factor for risky choices (Kennison & Messer, 2018). The risk is defined as taking a measure that its outcome is not known. Risk-taking is defined as the tendency to take threatening behavior or behavior that can damage mental and physical health. Risk-takingincludes two components of threat perception in beginning the activity and failure probability after accomplishment (Fox-Glassman & Weber, 2016). A study showed that humor styles predicted risky behaviors, risk perception, and aggressive humor related to low-level risk perception. It also predicted actual risky behavior (Cann & Cann, 2013).

On the other hand, risky behavior can be predicted by sensation-seeking particularly in social violence and criminal behavior fields (Horvath & Zuckerman, 1993). Some studies indicated that experience seeking and boredom susceptibility predicted low perception of humor (Ruch, 1988) while other studies indicated that sensation seeking related positively to situational humor (Deckers & Ruch, 1992), preferences for different forms of humor (Forabosco & Ruch, 1994), humor appreciation (Carretero-Dios & Ruch, 2010), and self-enhancing (Amani & Shabahang, 2018). Recently a study found that sensation seeking predicted affiliative and aggressive humor styles in men as well as

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

aggressive and self-defeating humor style in women (Kennison & Messer, 2018).

Given the review of literacy, it is hypothesized that affiliative and self-enhancing humor styles were related to a low level of risk-taking and high level of risk perception; whereas, aggressive and self-defeating humor styles were related to the high level of risk-taking and low level of risk perception.

Self-control, risk-taking, risk perception, and humor styles

Self-control affects relationships and interpersonal skills (Tangney et al., 2004). It seems that humor styles are effected by self-control and its dimension. Self-control is the ability to inhibit non-essential or harmful responses, to put off pleasure, to regulate emotions, to contact cautiously with others, and to adjust with a social context (Nęcka, 2015). Self-control is the ability to control behavior conducted thoughtless and automatic. Low self-control is proposed as the main reason for criminal and violent behavior based on this theory; some studies indicated that poor self-control was a risk factor for aggressive and antisocial behaviors among children, adolescent and employees (Kochanska et al., 2000; Latham & Perlow, 1996).

Most studies carried out in this field were concerned with the relationship between self-evaluation and humor. These studies indicated that negative self-evaluation resulted in using more defeating humor styles and less affiliative humor style that decreased social self-esteem (Kuiper & McHale, 2009; Stieger et al., 2011; Leist & Müller, 2013). In Iran, some studies showed that self-esteem was related positively to self- enhancing and affiliative humor styles (Najaf Abadi et al., 2013; Najafi et al., 2016).

In another study, aggressive and self-defeating humor styles were associated positively with the maladaptive schema of impaired limits that was characterized by less self-control (Dozois et al., 2009)

It is hypothesized that individuals with a high level of self-control used more affiliative and self-enhancing humor styles, which promoted interpersonal relations; whereas, individuals with lowlevel of self-control used more aggressive and self-defeating humor styles that affected interpersonal relations negatively. Low self-control is a risk factor for a range of personal and interpersonal problems (Tangney et al., 2004). It seems self-control, risk perception, and risk-taking has effects on using adaptive and maladaptive humor styles. In this regard, Cann and Cann (2013) suggested that future studies should examine the mediating role of self-control in the relationships of risk perception, risk-taking,and maladaptive humor styles. Therefore, this study was conducted to examine the relationships among risk perception, risk-taking, and humor styles using the mediating role of self-control.

Methods

In the present study, the correlation method was used. The statistical population consisted of all undergraduate students at the University of Bojnord who were studying in the academic year of 2019. In 2019, there were faculty of humanities sciences and art and faculty of basic sciences and engineering at the university, and the proportion of students were relatively equal in the faculties. Half of the participants were chosen from the Faculty of humanities Sciences and Arts and the other half from the Faculty of Basic Sciences and Engineering using the stratified sampling method. The University of Bojnord had 5500 students in 2019, which, according to Cochran's formula, is estimated to be 359. Considering the likelihood of non-response, 400 students were considered. The questionnaires were distributed among the students of 20 classes. Volunteer students completed the questionnaires anonymously. Twenty of the questionnaires were incomplete, thus the data from 380 participants were analyzed using the SPSS software version 23.

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

Instruments

Self-Control Questionnaire: Tangney and colleagues (2004) developed this questionnaire to evaluate self-control in interpersonal situations. It has 36 items rated on a 5-point scale (from 1: not at all to 5: very much). The designers reported both the Cronbach's alpha and Test-retest reliabilities of the questionnaire as 0.89. In Iran, this questionnaire was translated and the reported internal consistency was 0.89 using Cronbach's alpha (Bahadori khosroshahi & Habibi-Kaleybar, 2017). For internal consistency, also Cronbach's alpha and Split-Half Coefficient were also obtained that were 0.81 and 0.82, respectively.

Humor style questionnaire (HSQ): HSQ included a 32-item scale to measure humor styles on a 7-point Likert scale ranging from "strongly disagree (1)" to "strongly agree (7)". The HSQ measure four humor styles of affiliative, self-enhancing, aggressive, and self-defeating Cronbach's Alpha of affiliative, self-enhancing, aggressive, and self-defeating were 0.80, 0.81, 0.77, and 0.80, respectively (Martin et al., 2003). In Iran, HSQ was translated to Persian and then the Persian version of HSQ was retranslated into English to confirm the translated version. It was reported that the Cronbach's Alpha rates calculated for subscales werein the range of 0.82 to 0.64 (Amani & Shabahang, 2018**).** The Cronbach's alpha rates for affiliate humor, self-enhancing humor, aggressive humor, self-defeating humor, and total Humor style were 0.79,0.71, 0.60, 0.69, and 0.82, respectively.

Domain-Specific Risk-Taking (DOSPERT) Scale: This scale included three scales of risk-taking, risk-perception, and expected benefits. The items of each response scale are according to the domain subscales (Blais & Weber, 2006). The researchers of this study translated this scale into Persian and then retranslated the Persian version DOSPERT into English to ensure its correctness. In this study, risk perception and risk-taking scales were only used. The DOSPERT is a 30-item questionnaire that measures risks in 5 fields: health/safety, social, ethical, financial, and recreational. Each item is assessed twice, and the items are initially assessed based on the perceived risk and then they are rated based on their risk probability. The items' rates vary across the 5 fields. Cronbach's alpha was reported 0.87 and 0.83 for perceived risk and risk-taking, respectively (Cann & Cann, 2013). The Cronbach's alpha was 0.89 for risk-taking, 0.92 for risk-perception, and 0.84 for the total scales. To observe the ethical considerations, questionnaires were distributed among students who agreed to participate in the study. They were ensured about the confidentiality of data and the fact that the information was not available to any organization or individual. Moreover, all the questionnaires were completed anonymously. This study was approved by the Clinical Trials.gov at National Institutes of Health (Code: NCT04145765).

Results

The participants were in the age range of 18 to 29 years, the mean and standard deviation were 20.27 and 1.96, respectively. Statistical tests of correlation and path analysis tests were used for analyzing. The results of the statistical tests are presented below.

As Table 1 shows, the scores of maladaptive humor styles were higher than those of the adaptive styles. Furthermore, adaptive humor styles were not significantly related to self-control and risk-taking; only the affiliative humor style had a negative correlation with risk perceptions. Maladaptive humor styles correlated significantly with self-control and risk-taking; only an aggressive humor style was related to the positive risk perceptions.

Proposed model-figure 1- was analyzed and the results of its goodness of fit are presented in table 4. The index (df / $\chi 2$) value was higher than 2, Root Mean Square Error of Approximation (RMSEA) values was higher than 0.60. Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Adjusted Goodness of Fit Index (AGFI) numerical values were less than 0.90 (Hu

& Bentler, 1999). So, fitness indices of the proposed model in table 4 were not acceptable and showed that the model should be improved. Therefore, the proposed model was modified. Given the non-significant relationship between adaptive humor styles and other variables, the adaptive humor styles were deleted in the model. Moreover, since the risk perception was not related to self-control and self-defeating, these paths were also omitted. As figure 2 shows, risk perception directly affected the aggressive humor style and risk-taking because self-control affected the aggressive and self-defeating humor styles.

As Table 2 shows, the strongest direct effect is the path of self-control to aggressive style humor, which indicates that people with low self-control use aggressive humor styles. The second stronger effect is the path of risk-taking to self-control.

Based on the Sobel test (MacKinnon et al., 1995), intermediated effects of self-control in the relationship between risk-taking and maladaptive humor –aggressive and self-defeating- were significant (Table 3).

The results of the goodness of fit in the modified model showed that the value of χ^2 was 0.13, the degree of freedom was 2, χ^2/DF was 0.13; all these indices indicated goodness of fit for this model. Furthermore, the rate indexes of GFI, AGFI, and CFI were 1, 0.99, and 1 respectively; all these indices were at an acceptable level. The rate of RMSEA was 0 indicating a good fitness of the model (Table 4). Presented in figure 1.

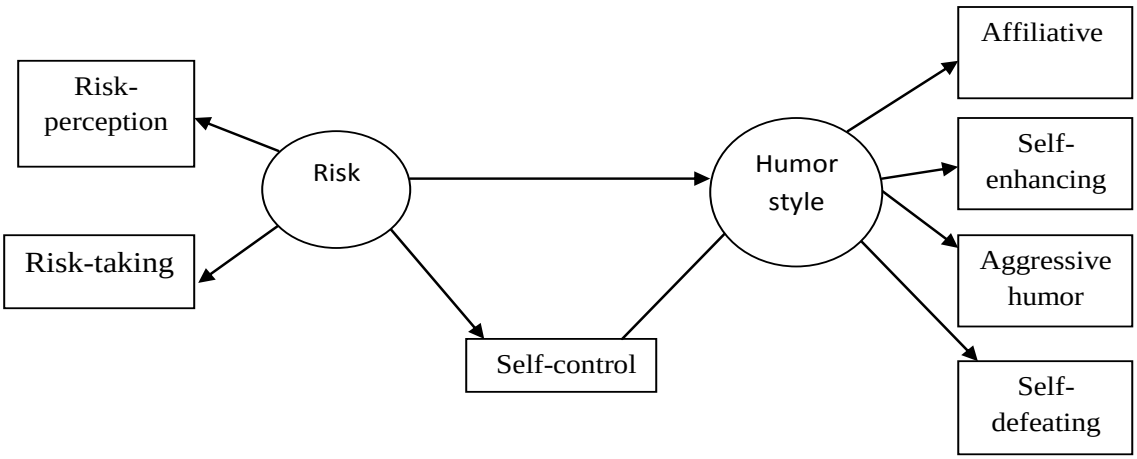

Figure1. Proposed model in this study

Table 1. Correlation among humor style, risk perceptions, risk-taking and self-control

Variables	M	SD	1	2	3	4	5	6	7
1-Affiliative	23.58	8.46	1						
2-Self-enhancing	31.00	8.47	.33**	1					
3-Aggressive	38.15	6.37	.20**	.14**	1				
4-Self-defeating	36.52	8.34	.48**	.26**	.49**	1			
5-self-Control	98.03	13.73	-.06	.08	-.49**	-.29**	1		
6-Risk-taking	67.43	24.95	.04	-.06	-.27**	-.27**	.31**	1	
7-Risk-perception	142.65	30.96	-.47**	-.05	.14**	.04	-.05	-.20**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 2. Standardized directs of risk perceptions, risk-taking, and self-control on maladaptive humor styles

Path			Direct Effects	Indirect effects	Total effects	S.E	p
Risk-taking	→	Self-control	.31	0	.31	.027	.0001
Self-control	→	Aggressive humor	-.45	0	-.45	.021	.0001
Self-control	→	Self-defeating	-.23	0	-.23	.031	.0001
Risk-perception	→	Aggressive humor	.10	0	.10	.008	.012
Risk-taking	→	Self-defeating	-.19	-.07	-.26	.012	.016
Risk-taking	→	Aggressive humor	-.11	-.14	-.25	.017	.0001

Table 3. Effects of intermediate paths in the relationship between risk-taking and maladaptive humor

Paths					Sobel test	p
Risk-taking	→	self-control	→	aggressive humor	10.07	.0001
Risk-taking	→	self-control	→	self-defeating humor	6.23	.0001

Table 4. The fitness indices in the proposed and modified model

	X^2	Df	X^2/df	GFI	AGFI	CFI	RMSEA
The proposed model	529.02	85	6.22	.83	.76	.80	.11
The modified model	.13	2	.06	1	.99	1	.0001

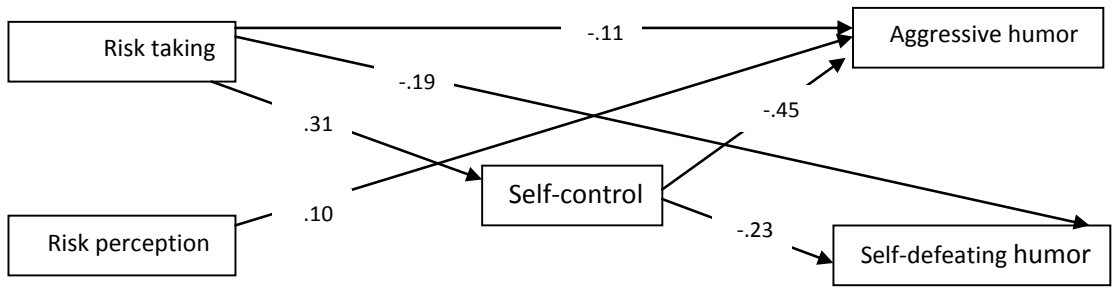

Figure 2. The effects of risk perceptions and risk-taking using self-control on maladaptive humor styles in the presented model

Discussion

The purpose of this study was to investigate the role of self-control mediator in the relationship between risk-taking and risk perception with humor styles. However, the literature showed that higher scores in self-control were correlated with higher grades, better fit, better relationships and interpersonal skills, and better emotional responses (Tangney et al., 2004). In the present study, adaptive humor styles did not have a significant correlation with self-control. Given this study, scores of adaptive styles of humor were lower than maladaptive styles. It is worth mentioning that most participants in this study resided in dormitories. A particular humor style is common among these students; they ridicule others or themselves. However, in Iranian studies self-esteem was correlated positively with self-enhancing and affiliative humor styles in non-student samples (Najaf Abadi et al., 2013; Najafi et al., 2016).

Moreover, this study showed that self-enhancing humor style had no significant correlation with risk perception and risk-taking. In this line, a study recently reported no correlation between these two variables (Kennison & Messer, 2018). It seems

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

when risk-taking and risk perceptions are more intense, more negative consequences arise (Horvath & Zuckerman, 1993). Therefore, it seems logical for people to take the risk, do not necessarily care about using humor style in interpersonal relationships, and do not attempt to maintain positive self-evaluations.

In addition, the present study showed that the affiliative humor style did not correlate with risk-taking, while it correlated negatively with perceived risk. The results of the present study are consistent with the study of Kennison and Messer (2018) in which the sensation-seeking predicted the affiliative humor style. In this case, since risk-taking is more intense with regard to emotion and behavior, individuals with high-levelrisk-taking do not try to use the affiliative humor style, to care for the values of others, and to improve interpersonal relationships. In the case of a negative correlation between perceived risk and affiliative style, it can be argued that individuals who perceive a higher risk, perceive fear and threat, their sympathetic nervous system is activated, start the fight and escape reactions. Therefore, they attempt to oppose risk, do not use an affiliative humor style, and use a more aggressive humor style. In line with this explanation, the present study showed that aggressive humor style was related positively to risk perceptions. This research showed that risk-taking was negatively associated with maladaptive humor styles. This means that individuals who use more aggressive humor styles have higher risk perception and take less risk. This result is inconsistent with the study which found that the participants who used a more aggressive humor style had lower risk perceptions and took more risk (Cann & Cann, 2013). Considering the previous studies, risk-taking was positively associated with sensation-seeking (Horvath & Zuckerman, 1993). This study was also inconsistent with the study in which individuals with a high level of aggressive humor styles had high sensation seeking and high verbal risk-taking words such as verbal insulations (Kennison & Messer, 2018). This inconsistency is related to the use of the DOSPERT scale in this study. In general, this result can be explained by the fact that people who perceive situations more threatening, i.e., have high-risk perceptions, try to reduce risk-taking for self-protection. Moreover, having a feeling of high threat may increase frustration and disappointment; these people may evict their anger and frustration by using aggressive humor style. In this case, the anger and discomfort of those who use more self-defeating humor styles will return to themselves. That is, they are humiliated and mocked more in interpersonal relationships. This study found that maladaptive humor style was associated negatively with self-control. This result is consistent with the study which showed that low self-control was an important risk factor for a wide range of interpersonal problems (Tangney et al., 2004). This result is consistent with the study that confirmed the negative relationship between self-control and aggression in the workplace (Kuiper & McHale, 2009). This line has been shown that lows elf-control was correlated with aggression and antisocial behaviors (Kochanska et al., 2000). In addition, it was consistent with the study in which the schema of impaired limits was characterized by low self-control and was also related to self-defeating and aggressive humor styles (Dozois et al., 2009). Low self-control was associated with negative self-evaluation and high self-control was related to academic achievement, less using alcohol, interpersonal skills and better relationships, secure attachment, more favorable emotional responses, more adaptability -fewer psychiatric problems, and higher self-esteem (Tangney et al., 2004). Some studies showed that negative self-evaluation led to a self-defeating humor style (Kuiper & McHale, 2009; Stieger et al., 2011; Leist & Müller, 2013). This finding explains that individuals with low self-control do not have control over their feelings or those with low self-esteem try to acquire others' attention by using different kinds of jokes and humor styles.

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

Moreover, it seems that individuals with low self-confidence and low self-control use more maladaptive humor styles to humiliate themselves or others in their jokes in order to gain some degree of self-esteem.

Furthermore, this study showed that risk-taking was correlated positively with self-control. This result is inconsistent with the study which found that situational reductions in self-control ability could lead to more risk (Freeman & Muraven, 2010). Nevertheless; the lack of opportunities had a stronger effect than self-control. In this regard, a study found that pathological gamblers' drug abusers showed high levels of risky behaviors and high-levels of impulsivity, while non-pathological gamblers had a high tolerance for delay and were more risk-taking (Hinvest, 2008). In this manner, the contradiction between previous studies and this study can be related to the research data collection tools. In the present study, a self-reported questionnaire was used to measure risk-taking, which may be different from actual behaviors for choosing and executing high-risk behaviors. Moreover, the present study sample was young and young people tend to be more excited and risk-taking.

In the present study, the results of the path analysis showed that risk-taking through self-control affected maladaptive humor styles in the model framework. Individuals with high self-control took more risk and used less maladaptive humor styles. The presented model indicated goodness of fit, in which risk-taking did not affect the maladaptive humor styles directly, but self-control had an effect on maladaptive humor styles. This means that low self-control affects maladaptive humor styles. The weak ability to control feelings leads to the application of maladaptive humor styles in interpersonal relationships. Although it seems logical that risk-taking by reducing self-control effects maladaptive humor styles, in this study a high tendency to risk-taking was reported. Actually, participants may never experience these risks in actual situations that can be different from their risky behaviors in the real world. It seems that the risk assessment tool can be a better indicator of the sensation seeking in this sample.

The present study had some limitations. First, the relationships among variables of risk-taking, self-control, and maladaptive humor styles were not an indicator of causal relationships among these variables. The second limitation was related to data collection tools, which were merely self-reported questionnaires. The third limitation was that only the students in the university were studied; so, the generalizability of findings should be considered with caution. Given these limitations, it is suggested that future researchers use assignments related to actual activities in everyday life for risk assessment. They also can use another reported scale for the measurement of humor styles. Moreover, they are recommended to examine relationships among risk-taking, self-control, and humor styles in organizational situations, interpersonal relationships, and in samples with risky behavior.

Conclusion

The present study showed that risk-taking through self-control affected maladaptive humor styles. Individuals with high self-control took more risk and used less maladaptive humor styles. While risk-taking did not directly affect the maladaptive humor styles, self-control affected maladaptive humor styles. In other words, low self-control affected maladaptive humor styles. The weak ability to control feelings led to the application of maladaptive humor styles in interpersonal relationships.

Conflict of interest

The authors declare that there is no conflict of interest in this study.

Acknowledgments

We would thank all students of University of Bojnord who participated in this study.

Authors' Contribution

Conceptualization, M.A.; Methodology, M.A. and M.M.; Formal Analysis, M.A. and M.M.;

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

Investigation, M.A. and M.M.; Writing - Review & Editing, M.A.; Supervision, M.A.; Writing - Original Draft, M.A.

All authors read and approved the final manuscript. All researchers are responsible about any question related to the manuscript.

References

Abel, M.H. (2002). Humor, stress, and coping strategies. Humor. International Journal of Humor Research, 15, 365-381. [DOI: 10.1515/humr.15.4.365]

Amani, M., Shabahang, M.J. (2018). The relationship of sensation seeking and social desirability with humor styles among Iranian salespersons. Interpersonal, 12(1), 107–121. [DOI:10.5964/ijpr.v12i1.271]

Bahadori khosroshahi, J., Habibi-Kaleybar, R. (2017). Comparison of self- control and metacognition components in normal minors and juvenile delinquents at correction and rehabilitation centers. Journal Research & Health, 7(5), 1048-1054. http://jrh.gmu.ac.ir/article-1-1404-en.html

Blais, A., Weber, E.U. (2006). A domain-specific Risk-taking (DOSPERT) Scale for Adult Populations. Judgment and Decision Making, 1, 33-47. [DOI:10.1037/t13084-000]

Cann, A., Cann, A. T. (2013). Humor styles, risk perceptions, and risky behavioral choices in college students. Humor: International Journal of Humor Research, 26(4), 595-608. [DOI: 10.1515/humor-2013-0033]

Cann, A., Norman, M. A., Welbourne, J. L., Calhoun, L. G. (2008). Attachment styles, conflict styles and humor styles: Interrelationships and associations with relationship satisfaction. European journal of personality, 22(2), 131-146. [DOI: 10.1002/ per.666]

Carretero-Dios, H., Ruch, W. (2010). Humor appreciation and sensation seeking: Invariance of findings across culture and assessment instrument? Humor: International Journal of Humor Research, 23(4), 427-445. [DOI:10.1515/humr.2010.020]

Cheung, C. K., Yue, X. D. (2013). Humor styles, optimism, and their relationships with distress among undergraduates in three Chinese cities. Humor: International Journal of Humor Research, 26(2), 351-370. [DOI: 10.1515/humor-2013-0015]

Deckers, L., Ruch, W. (1992). Sensation seeking and the situational humor response questionnaire (SHRQ): its relationship in American and German samples. Personality and individual differences, 13(9), 1051-1054. [DOI:10.1016/ 0191- 8869(92)90138-F]

Dozois, D. J., Martin, R. A., Bieling, P. J. (2009). Early maladaptive schemas and adaptive/maladaptive styles of humor. Cognitive therapy and research, 33(6), 585-596. [DOI: 10.1007/s10608-008-9223-9]

Fox-Glassman, K. T. Weber, E. U. (2016). What makes risk acceptable? Revisiting the 1978 psychological dimensions of perceptions of technological risks. Journal of Mathematical Psychology, 75, 157-169. [DOI: 10.1016/j.jmp. 2016. 05. 003]

Forabosco, G., Ruch, W. (1994). Sensation seeking, social attitudes and humor appreciation in Italy. Personality and individual differences, 16(4), 515-528. [DOI: 10.1016/0191-8869(94) 90179- 1]

Freeman, N., Muraven, M. (2010). Self-control depletion leads to increased risk taking. Social Psychological and Personality science, 1(2), 175-181.

Gremigni, P. (2012). Is humor the best medicine? In: Gremigni P. Humor and health promotion. Firsted. New York, NY: Nova Science Publishers. P: 149-188.

Horvath, P., Zuckerman, M. (1993). Sensation seeking, risk appraisal and risky behavior. Personality and Individual Differences, 14(1), 41-52. [DOI: 10.1016/0191-8869(93) 90173-Z]

Hinvest, N. (2008). The neuropsychology of self-control and risk-taking: a focus on impulsive behavior. Doctorate Thesis. UK. University of Manchester. the Faculty of Medical and Human Sciences.

[DOR: 20.1001.1.27832104.2020.4.1.2.9]

[DOI: 10.18502/sbrh.v4i1.2824]

[DOR: 20.1001.1.27832104.2020.4.1.2.9]
[DOI: 10.18502/sbrh.v4i1.2824]

Hu, L., Bentler, P. M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1-55. [DOI: 10.1080/10705519909540118]

Kennison, S.M, Messer, R.H. (2018). Humor as social risk-taking: The relationships among humor styles, sensation-seeking, and use of curse words humor. Humor: International Journal of Humor Research, 32(1), 1-21. [DOI: 10.1515/humor-2017-0032]

Kochanska, G., Murray, K. T., Harlan, E. T. (2000). Effortful control in early childhood: continuity and change, antecedents, and implications for social development. Developmental Psychology, 36, 220-232. [DOI: 10. 1037/ 0012-1649.36.2.220]

Kirsh, G. A., Kuiper, N. A. (2003). Positive and negative aspects of sense of humor: Associations with the constructs of individualism and relatedness. Humor: International Journal of Humor Research, 16, 33-62. [DOI: 10.1515/ humr.2003.004]

Kuiper, N.A., McHale, N. (2009). Humor styles as mediators between self-evaluative standards and psychological well-being. Journal of Psychology, 143(4), 359-76. [DOI: 10.3200/JRLP.143.4.359-376]

Latham, L.L., Perlow, R. (1996). The relationship of client-directed aggressive and nonclient-directed aggressive work behavior with self-control. Journal of Applied Social Psychology, 26, 1027–1041. [DOI: 10.1111/ j. 1559-1816.1996.tb01123.x]

Leist, A.K., Müller, D. (2013). Humor types show different patterns of self-regulation, self-esteem, and well-being. Journal of Happiness Studies, 14(2), 551-569. [DOI: 10.1007/s10902-012-9342-6]

MacKinnon, D. P., Warsi, G., Dwyer, J. H. (1995). A simulation study of mediated effect measures. Multivariate Behavioral Research, 30, 41-62. [DOI: 10.1207/s15327906mbr3001_3]

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. [DOI: 10.1016/ S0092-6566(02)00534-2]

Najaf Abadi, F.N., NazariChegni, A., Mehrabizadeh, H. (2013). The causal relationship between shyness and loneliness by mediating the humorous (affiliative and self-enhancing) styles and self-esteem in the students of the city of Najafabad. Quarterly Journal of New Thoughts on Education, 9(2), 131-150. [Persian] [DOI: 10.22051/jontoe.2013.344]

Najafi, M., Salehin, M., Mohamadyfar, M. (2016). The effect of self esteem, humorous styles and shyness on the feeling of loneliness in students. Quarterly Journal of New Thoughts on Education, 12(3), 59-77. [Persian] [DOI: 10.22051/ jontoe.2016.2546]

Nęcka, E. (2015).Self-Control Scale AS-36: Construction and validation study. Polish Psychological Bulletin, 46(3) 488-497. [DOI: 10.1515/ppb-2015-0055]

Richards, K., Kruger, G. (2017). Humor Styles as Moderators in the Relationship between Perceived Stress and Physical Health. SAGE Open, 1-8. [DOI: 10.1177/21582440177114]

Romundstad, S., Svebak, S., Holen, A., Holmen, J. (2016). A 15-year follow-up study of sense of humor and causes of mortality. Psychosomatic Medicine, 78, 345-353. [DOI: 10.1097/PSY. 0000000000000275]

Ruch, W. (1988). Sensation seeking and the enjoyment of structure and content of humor: Stability of findings across four samples. Personality and individual differences, 9(5), 861-871. [DOI:10.1016/0191-8869(88)90004-9]

Stieger, S., Formann, A. K., Burger, C. (2011). Humor styles and their relationship to explicit and implicit self-esteem. personality and individual differences, 50, 747-750. [DOI: 10. 1016/ j.paid.2010.11.025]

Svebak, S. (2010). The Sense of Humor Questionnaire: Conceptualization and review of 40 years of findings in empirical research.

Europe's Journal of Psychology, 6(3), 288-310. [DOI: 10.5964/ejop.v6i3.218]

Svebak, S., Martin, R. A., Holmen, J. (2004). The prevalence of sense of humor in a large, unselected county population in Norway: Relations with age, sex, and some health indicators. Humor: International Journal of Humor Research, 17(1/2), 121-134. [DOI: 10. 1515/humr.2004.001]

Tangney, J. P., R. F. Baumeister, and A. L. Boone (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. Journal of Personality, 72 (2), 271-324. [DOI: 10.1111/j.0022-3506.2004. 00263.x]

Vernon, P. A., Martin, R. A., Schermer, J. A., Mackie, A. (2008). A behavioral genetic investigation of humor styles and their correlations with the Big-5 personality dimensions. Personality and individual differences, 44(5), 1116-1125. [DOI: 10.1016/j. paid. 2007.11.003]

Veselka, L., Schermer, J. A., Martin, R. A., Vernon, P. A. (2010). Relations between humor styles and the dark triad traits of personality. Personality and individual differences, 48(6), 772-774. [DOI:10.1016/j.paid.2010.01.017]

Yip, J. A., Martin, R. A. (2006). The sense of humor, emotional intelligence, and social competence. Journal of research in personality, 40(6), 1202-1208. [DOI: 10.1016/j.jrp.2005. 08.005]

Zhao, J., Wang, Y., Kong, F. (2014). Exploring the mediation effect of social support and self-esteem on the relationship between humor style and life satisfaction in Chinese college students. Personality and individual differences, 64, 126-130. [DOI: 10.1016/j.paid. 2014.02.026]

[DOR: 20.1001.1.27832104.2020.4.1.2.9]

[DOI: 10.18502/sbrh.v4i1.2824]