

Research Article

Humour Styles as Mediators between Self-Esteem and Loneliness

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Abstract

This study investigated whether the different humour styles mediate the relationship between self-esteem and loneliness. A sample of 689 undergraduate students completed self-report measures of self-esteem, humour styles and loneliness. Previous research (Cacioppo & Patrick, 2009) indicates an inverse relationship between self-esteem and loneliness and factors within the social environment have been argued to play a role in this relationship. Humour styles used in social interactions have been found to be associated with different levels of self-esteem and loneliness. Significant specific indirect mediation effects were found for all four humour styles. The interpersonally beneficial humour styles contributed to lower perceived loneliness, whereas use of the interpersonally detrimental humour styles resulted in higher experiences of loneliness. The results are discussed in terms of the individual and social consequences of the humour styles.

Keywords: self-esteem; loneliness; mediation; humour styles; South Africa.

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Psychological Thought, 2022, Vol. 15(2), 95-113, <https://doi.org/10.37708/psyct.v15i2.679>

Received: 2021-10-26. Accepted: 2022-06-04. Published (VoR): 2022-10-31.

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In this article is proposed that self-esteem and loneliness both relate to responses to perceived adequacies or inadequacies about certain aspects regarding the self and social and emotional relationships (Heatherton & Wyland, 2003; Kernis et al., 2008). Self-esteem is an internal evaluation that people have of themselves with regards to a specific state or the general sense of their self (Mruk, 2006), and is based on how much people value themselves (Brown & Marshall, 2006; Leary & Baumeister, 2000; Rosenberg, 1965). Self-esteem may be high, low, secure, or fragile and can fluctuate between contexts (Kernis et al., 2008). Moreover, a person's perceived level of self-esteem may take a global view or may be specific. This refers to a general overall self-view that may be positive or negative towards the self in all aspects or a domain specific self-evaluation, where facets of the self or experience may be perceived positively or negatively (Rosenberg, 1965; Rosenberg et al., 1995).

A person's level of self-esteem may fluctuate between experiential domains and with the value that they place on succeeding in a particular domain (Harter, 1999). In other words, people may display low self-esteem when they do not succeed in a specific domain in which they have aspirations, but these fluctuations do not necessarily influence their overall view of themselves. They could conceivably hold high global self-esteem as a person on the whole yet have low self-esteem in their ability to traverse social encounters. The self in the concept of self-esteem is not only psychological but also social (Mruk, 2006), suggesting that the sense of self grows from interactions with others (Harter, 2006; Mruk, 2006; Rosenberg, 1965). In this regard, studies have found that low self-esteem is associated with increased social isolation and loneliness (Cacioppo & Patrick, 2009; Mruk, 2006).

Loneliness is experienced as isolation from others, while harbouring an intense desire for connection with a specific individual or social group (Cacioppo et al., 2015; Gardiner et al., 2016; Goossens, 2012). Loneliness is often described as a painful evaluative experience about one's relational desires (Rokach, 2018). Highlighting both a cognitive and emotional process (Heinrich & Gullone, 2006), this perceived social isolation can persist despite being in the company of others (Cacioppo & Cacioppo, 2018).

A number of studies have found that low self-esteem is associated with higher levels of loneliness (Cacioppo & Patrick, 2009; Mruk, 2006) and may hamper one's ability to fully appreciate life (Heatherton & Wyland, 2003). Baumeister and Leary (1995) proposed that people have an essential need to belong and that their cognitions, emotions and social

behaviour are motivated by this need to form and maintain a minimum number of interpersonal relationships. This need is distinguishable from loneliness in that loneliness can be experienced via two different involvements, namely an insufficient amount of social contact and a lack of meaningful intimate relatedness. Rossi et al. (2020) have, for example, found that higher self-esteem can act as a buffer against fear and loneliness during the Covid-19 pandemic. The need to belong requires regular social contact with someone one feels connected with. Similarly, Rokach (2018) points out that the modern age is one that is inherently linked to relationships and that in earlier periods work was the mode from which people derived their sense of self, whereas today relationships are the primary source from which self-esteem is acknowledged.

In terms of social contact, Vanhalst et al. (2013), in two longitudinal studies involving adolescents, examined the relationship between self-esteem and loneliness. Although they found a reciprocal effect, the effect of self-esteem on loneliness was double that of loneliness on self-esteem. Perceived social acceptance partially mediated this relationship to reduce levels of loneliness. Similarly, Harris and Orth (2020) concluded from a meta-analysis that self-esteem and social relationships reciprocally predicted each other across all developmental stages. Thus, knowing that they are valued and accepted has the potential to influence how people think and feel about themselves (Zeigler-Hill & Besser, 2011) and how people perceive their social connectiveness. In this regard it is argued that by engaging in positive humour, people are able to develop and maintain desired social and personal bonds (Kuiper & McHale, 2009; Martin, 2007). This may be due to the nature of laughter and humour, which occur predominantly in the company of others (Martin, 2015; Martin & Kuiper, 2016).

According to Martin and Kuiper (2016) there are three different components of humour, namely a cognitive component that requires one to perceive incongruity, an emotional component which stimulates an emotional response, and a third, interpersonal component, which suggests that humour is predominantly a social experience. These aspects interact and produce humorous content within the social domain (Martin & Kuiper, 2016). At a functional level, interpersonal humour may serve as a means of opening opportunities for building and maintaining relationships (Martin, 2007; Ziv, 2009), reducing social stress (Kearns et al., 2014), improving self-evaluative standards and social self-esteem (Kuiper & McHale, 2009) and it has also been found to play a role in the extent to which people engage in protective behaviours during the Covid-19 pandemic (Olah & Ford, 2021).

Humour has been found to be related to both self-esteem and loneliness, but the nature of this relationship depends on the way in which humour is used, i.e., the humour style. In this regard four habitual interpersonal humour styles have been identified, namely affiliative and self-enhancing humour as beneficial to others and the self, respectively, and aggressive and self-defeating humour as mostly detrimental to others and the self, respectively (Martin et al., 2003). These humour styles may enhance interpersonal relationships or be socially detrimental, depending on the style used within a given context (Klein & Kuiper, 2006; Kuiper & McHale, 2009; Martin et al., 2003).

Affiliative humour is used predominantly while engaging with others (Ruch & Heintz, 2013); it is believed to enhance relationships, and constitutes the use of humour in a non-threatening way, for example, through the telling of jokes in a benign manner to amuse others, or to reduce interpersonal tensions (Cann et al., 2015; Martin et al., 2003). This humour style is associated with sociability, good-naturedness, self-esteem, intimacy, and having an overall positive disposition (Martin, 2007).

Self-enhancing humour entails taking a mostly humorous stance in life, even when faced with adversity, and this may reduce state anxiety (Ford et al., 2017). People using this form of humour have the ability to find and enjoy humour, even in the absence of others, frequently finding the incongruities in life humorous (Martin, 2007). Self-enhancing humour can be conceptualized as a healthy defence mechanism, enabling people to adjust to adverse situations whilst keeping a realistic perspective regarding stressful events. These people may also be less susceptible to depression and anxiety, and more inclined towards openness to experiences, healthy self-esteem and psychological wellbeing (Martin et al., 2003). Martin et al. (2003) also suggest that these individuals might be less extraverted than those who utilise affiliative humour.

The aggressive humour style is used as a method to criticise or manipulate others through the use of potentially hurtful or even offensive humour, with the aim to enhance oneself at the expense of others (Cann et al., 2015; Martin, 2007). The use of aggressive humour is particularly injurious to the self and interpersonal relationships (Martin et al., 2003; Ruch & Heintz, 2013). Moreover, aggressive humour, has been found to be positively related with neuroticism and hostility, and negatively with agreeableness, interpersonal acuity, and relationship satisfaction (Martin, 2007). Recent findings by Cann et al. (2015) suggest that aggressive humour arouses negative affect in interpersonal encounters and the user of such humour is viewed in a less favourable light. Interestingly, Cann et al. (2015) further found that individuals who indicated a preference for aggressive humour were also evaluated as less desirable during initial encounters. The authors argued that people may employ aggressive

humour socially as a protective strategy to avoid anticipated rejection. However, [Dyck and Holtzman \(2013\)](#) found that the use of aggressive humour among men received higher levels of social support, but women responded with lower levels of engagement.

Self-defeating humour involves attempts at gaining favour and acceptance by making fun of oneself, being the object of other people's jokes and partaking willingly in this process as a way of dealing with negative feelings. This style is considered to be socially detrimental and is utilised as a defence mechanism or a ploy to hide one's insecurities ([Stieger et al., 2011](#)) and occurs in social interactions ([Heintz & Ruch, 2018](#); [Ruch & Heintz, 2013](#)). Individuals who tend to use self-defeating humour may be prone to neuroticism, depression, and anxiety and can display lower levels of self-esteem and psychological wellbeing ([Martin, 2007](#); [Martin et al., 2003](#)). However, recent research by [Heintz and Ruch \(2018\)](#), who utilised cognitive interviews, suggests there may be more adaptive qualities in the self-defeating humour style. They found this style of humour is used as a way of dealing with depression and anxiety and also found it enabled people to accept their shortcomings in a humorous way.

[Markey et al. \(2014\)](#) found that all four humour styles possessed significant interpersonal content, however, different humour styles produced different interpersonal profiles. More specifically, when projected onto the interpersonal circumplex (IPC), all humour styles were associated with interpersonal dominance, however the levels of warmth varied between humour styles. Specifically, the interpersonally beneficial humour styles contained higher levels of warmth, whereas the interpersonally detrimental humour styles yielded lower levels of interpersonal warmth. It therefore seems that individuals who are interpersonally warm and also utilise benign humour, might be more effective in enhancing social relationships.

[Kuiper and McHale \(2009\)](#) found that the use of especially affiliative humour could facilitate the development and maintenance of social support networks which could improve wellbeing. Individuals who evaluated themselves more positively, also used affiliative humour and experienced higher levels of self-esteem in social encounters and vice versa. Further, individuals' negative perceptions of themselves may lead to the development of maladaptive social support networks and the experience of lower levels of well-being ([Martin, 2007](#); [Martin et al., 2003](#)).

More recently, [Vaughan et al. \(2014\)](#) also found an interrelationship between humour styles and self-esteem, and how these could influence the development and maintenance of social networks and interpersonal relationships. The authors concluded that stable high self-esteem was associated with the highest use of affiliative humour and the lowest use of the

aggressive and self-defeating humour styles. They suggest that it may be that users of affiliative humour are socially accepted, thus expanding their social network and consequently experiencing increased stability of self-esteem. On the other hand, individuals with unstable low self-esteem may experience social rejection and therefore employ less adaptive strategies, such as putting themselves down or lashing out at others as a way of getting others to include them socially. [Vaughan et al. \(2014\)](#) also noted that people with unstable self-esteem and those with low self-esteem utilised similar humour styles, namely aggressive or self-defeating humour.

Self-esteem has also emerged as a predictor of the humour styles. From a Turkish sample of undergraduate students [Ozyesil \(2012\)](#) reported that self-esteem explained 3.1%, 5.7%, 1.1%, and 4.1% of the total variance in affiliative, self-enhancing, aggressive, and self-defeating humour, respectively. A positive relationship between self-esteem and the beneficial humour styles emerged, whereas the relationship between self-esteem and the detrimental humour styles was negative. [McCosker and Moran \(2012\)](#) found similar results in an Australian study focusing on self-esteem and interpersonal competence as predictors of the four humour styles. High self-esteem predicted higher levels of affiliative and self-enhancing humour, whereas the opposite relationship emerged for aggressive and self-defeating and humour.

With regard to the relationship between humour styles and loneliness, [Fitts et al. \(2009\)](#), in a sample of college students, found that the humour styles were significant mediators in the relationship between shyness and loneliness. Specifically, low levels of affiliative and high levels of self-defeating humour predicted high levels of loneliness. [Schermer et al. \(2017\)](#) found that lonely people are prone to using self-defeating humour and suggest that the beneficial social humour styles (affiliative and self-enhancing humour) may serve as a buffer against experiencing loneliness. In this regard, [Kuiper et al. \(2016\)](#) found that increased intimacy was also associated with higher use of self-enhancing and affiliative humour, and lower self-defeating humour. They found that the targets of humorous expression make different personality impressions about the person based on the humour style used. People who frequently use the adaptive humour styles are viewed as more socially desirable, whereas those who habitually utilise the socially destructive styles are rated as less desirable.

The aim of this study was to investigate whether humour styles could function as mediators in the relationship between global self-esteem and social and emotional loneliness.

Method

Participants

A convenience sample of 689 undergraduate students between the age of 18 and 46 ($M = 19.95$; $SD = 2.36$) from a university in South Africa participated in this study. Of those respondents, 190 (27.6%) were men and 499 (72.4%) were women. This sample was culturally diverse with four different ethnic groups represented. The ethnicity of the participants included Indian (7.1%), Coloured (6.5%), Black African (70.4%), White (13.2%), not specified (2.8%). Participation was voluntary with extra course credit offered to students who participated.

Measures

A biographical questionnaire was used to gather demographic information. Participants were required to disclose their age, gender, and ethnic affiliation. Three self-report measures were selected to assess the participants' humour styles, global self-esteem and social and emotional loneliness.

The Humor Styles Questionnaire

The Humor Styles Questionnaire (HSQ; [Martin et al., 2003](#)) is a multidimensional, self-report questionnaire which can be applied to both adolescents and adults to examine individual differences in humour. The HSQ consists of 32 questions, eight for each of the four humour sub-scales, two of which are considered positive or prosocial (affiliative and self-enhancing humour styles) and two of which assess negative dimensions, which are considered detrimental to social relationships (aggressive and self-defeating humour styles).

The HSQ requires participants to respond to statements about how they typically react or behave. Responses are measured on a scale ranging from 1 (totally disagree) to 7 (totally agree). Examples of the four humour styles questions are: (1) Affiliative, "I enjoy making people laugh"; (2) Self-enhancing, "If I am feeling depressed, I can usually cheer myself up with humour"; (3) Aggressive, "If I don't like someone, I often use humour or teasing to put them down"; (4) Self-defeating, "I let people laugh at me or make fun at my expense more than I should". This study found Cronbach's alphas ranging between .67 and .70 for the four humour styles subscales (See Table 1).

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) is a self-assessment instrument in which respondents indicate to what extent they believe that they are generally as good as most other people. The RSES is the most frequently used measurement instrument when assessing global trait self-esteem (Mruk, 2006; Zeigler-Hill & Besser, 2011). Ten questions require participants to respond according to how they generally feel about themselves, and they rank their response on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) (e.g., “I feel that I am a person of worth, at least on an equal plane with others.”). This study found a good Cronbach’s alpha of .84 for the total self-esteem score.

Social and Emotional Loneliness Scale

Wittenberg (1986; as cited in Shaver & Brennan, 1991) developed a short instrument that assesses both social and emotional loneliness. The questionnaire consists of ten questions, five of which assess emotional loneliness and five which assess social loneliness (Cramer & Barry, 1999). Participants rank their responses according to a five-point Likert-type scale, ranging from 1 (never) to 5 (very often). An example of a question assessing social loneliness is: “I don’t get much satisfaction from the groups I participate in”. Emotional loneliness is assessed with questions such as, “There is no one I have felt close to for a long time”. This scale measures the indirect level of loneliness as it avoids using the terms “lonely” or “loneliness” in the questionnaire items, to avoid stigma induced responses (Perlman & Peplau, 1984). Wittenberg (1986; as cited in Cramer & Barry 1999) reported good internal consistency estimates for the social and emotional loneliness scales with Cronbach’s alphas of .78 ($n = 5$) and .76 ($n = 5$), respectively. This study used the combined score of the emotional and social loneliness sub-scales which yielded an acceptable Cronbach’s alpha of .73 ($n = 10$) for the total scale.

Procedure

Students were informed about the research study and that participation was voluntary. They were required to complete an online questionnaire which was accessible through the university’s secure online student portal. The questionnaire required the participants to provide biographical details, followed by the psychological test measures. No time limits were stipulated, ensuring that the participants completed the questionnaire without the pressure of time constraints.

Data analysis

The data used in this study was analyzed using the lavaan package (Rosseel, 2012) in R (R Core Team, 2021). A parallel multiple mediation analysis was conducted to evaluate if humour styles mediated the relationship between self-esteem and loneliness. Parallel multiple mediation analysis allows for the mediators to correlate with each other but avoids causality interference between the four mediators (Hayes, 2013). This analysis also allows testing for specific indirect effects of each of the four humour styles, while controlling for the remaining mediators in the model. The indirect effects were calculated using 1000 bootstrap samples with 95% bias-corrected confidence intervals and Maximum Likelihood (ML) as estimator.

Ethical considerations

The study received institutional ethical clearance. Participants were briefed about the nature of the study and were assured of their anonymity and that they could withdraw at any time during the study without negative consequences. Responses on the questionnaire did not link to students' identifying information. Students received extra course credit for participation and those who did not wish to participate could earn course credit by completing a short assignment. None elected to do so. To ensure students received the extra course credit, the online submission only recorded whether a student submitted the questionnaire, regardless of completion status.

Results

Descriptive analyses

Table 1 displays the Cronbach's alphas, McDonald's ω , descriptive statistics, and zero-order correlations for the variables in this study. Significant correlations were found between all the humour styles and both self-esteem, as well as loneliness. As expected, the beneficial humour styles correlated positively with self-esteem and negatively with loneliness, with aggressive humour style showing the lowest correlations. The detrimental humour styles showed opposite correlations, again with aggressive humour style displaying the smallest correlations. There was a negative correlation between self-esteem and loneliness.

Mediation analysis

A statistically significant negative direct effect was found between self-esteem and loneliness. Statistically significant indirect effects were found for affiliative and self-enhancing humour. Using either one of these two humour styles led to a reduction in the experience of loneliness. Statistically significant indirect effects were also found for aggressive and self-defeating humour. Using either one of these humour styles led to an increase in the experience of loneliness.

Table 1.

Descriptive statistics and intercorrelations of the humour style subscales, self-esteem, and loneliness.

Variables	M	SD	Cronbach's α	McDonald's ω	2	3	4	5	6
1. Affiliative humour	31.02	4.14	.69	.69	.29**	.18**	.06	.19**	-.23**
2. Self-enhancing humour	27.53	4.64	.69	.71	—	.05	.10*	.30**	-.19**
3. Aggressive humour	20.12	4.48	.67	.67	—	—	.29**	-.10*	.14**
4. Self-defeating humour	19.65	5.04	.70	.71	—	—	—	-.30**	.22**
5. Self-esteem	35.65	6.61	.84	.85	—	—	—	—	-.33**
6. Loneliness	22.79	5.98	.73	.73	—	—	—	—	—

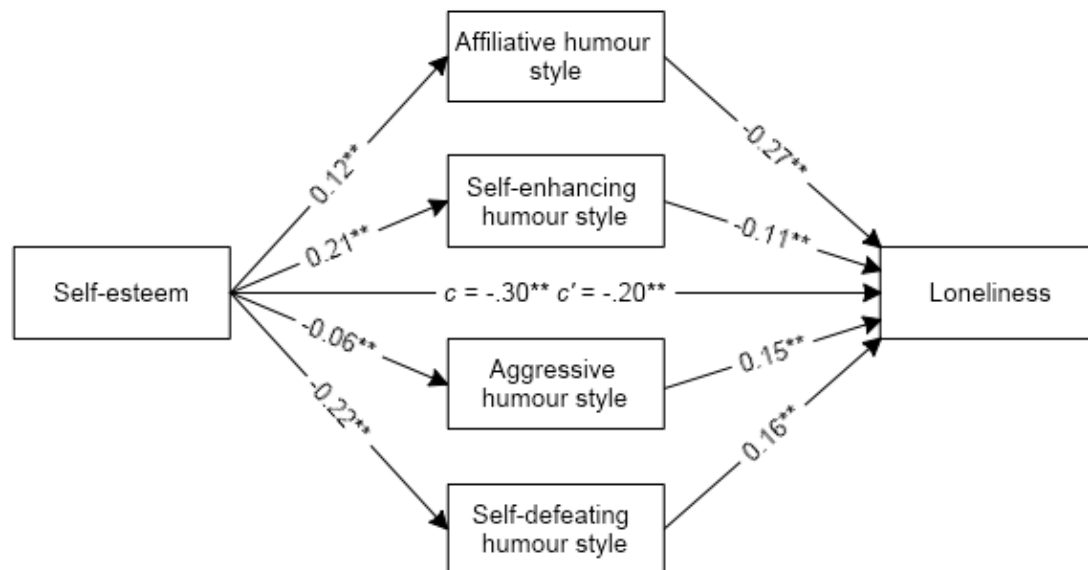
Note. * $p < 0.05$ ** $p < 0.01$

Table 2 summarizes the specific indirect effects results and Figure 1 provides a diagram of the mediation analysis.

Table 2.

Indirect effect (s) of self-esteem on social and emotional loneliness.

Variable	B	B SE	β	p	Lower 95% CI	Upper 95% CI	R ²
Affiliative humour	-0.033	0.009	-0.006	< .001	-0.052	-0.017	0.039
Self-enhancing humour	-0.024	0.011	-0.004	0.031	-0.049	-0.001	0.093
Aggressive humour	-0.009	0.005	-0.002	0.060	-0.026	-0.002	0.009
Self-defeating humour	-0.036	0.011	-0.006	0.002	-0.065	-0.012	0.087
Total indirect effect	-0.195	0.036	-.017	< .001	-.0278	-.113	



Note: c – total effect; c' - direct effect; ** $p < .01$

Figure 1. Mediation effects of the humour styles in the relationship between self-esteem and loneliness.

Discussion

The relationship between self-esteem and loneliness in this study was indirectly mediated by the affiliative humour style. This humour style is consistent with a playful, non-threatening form of humour that enhances social relationships (Martin, 2007) and may communicate to others that the user is of communal value (Zeigler-Hill & Besser, 2011). Easily engaging and incorporating themselves into the social environment, affiliative humour users may experience being valued as a social asset and consequently could experience lower levels of loneliness. This is consistent with prior research which found that participants who display benign forms of humour are more desirable and are accepted more easily into social groups (Zeigler-Hill & Besser, 2011). In other words, their humour style appears to be of social value to others which leads to inclusionary interpersonal behaviours, leading them to experience a sense of acceptance and thus reduced levels of perceived loneliness. In this regard, Kuiper and Leite (2010) found that higher levels of affiliative humour led to higher ratings on social desirability.

Similarly, but to a lesser extent than affiliative humour, the self-enhancing humour style in this study also indirectly mediated the relationship between self-esteem and loneliness. This internal evaluation of humour leads people to manage stress through a humorous lens that

precludes them from feeling isolated and excluded from the social environment (Martin et al., 2003). Despite this humour style having an intra-psychic focus rather than an interpersonal one (Martin et al., 2003), these individuals appear to be buffered from feelings of loneliness. This finding may be attributed to the internal perspective taking nature of both self-enhancing humour style (Martin et al., 2003) and loneliness (Heinrich & Gullone, 2006).

People using this humour style may be internally processing their experiences, effectively dealing with stress or uncertainty through humour which leads them to perceive their social and emotional relationships as satisfying and thereby experiencing less loneliness. Moreover, their possible lack of anxiety and increased humorous outlook may make them more desirable to other individuals or groups, allowing them to feel socially accepted (Zeigler-Hill & Besser, 2011). They may, therefore, have developed a sense of confidence in their ability to traverse the social domain through past positive experiences.

The aggressive humour style in this study indirectly mediated the relationship between self-esteem and loneliness. Participants in the current study who utilised the aggressive humour style, rated their self-esteem lower and experienced higher levels of loneliness. As this humour style is generally viewed as socially destructive, targets of this humour style may well distance themselves from aggressive humour users and avoid inclusionary behaviour with them (Kuiper et al., 2014; Kuiper & McHale, 2009).

The processes through which this humour style is utilised are unclear (Martin & Kuiper, 2016). An element of perceived mastery at being able to manipulate others and to what extent the user's aim is to polarise or distance themselves from the target may account for inconsistent self-esteem findings. This appears to have some support from the findings of Markey et al. (2014), in which the aggressive humour style was strongly related to interpersonally cold dominance on the interpersonal circumplex. This may result in aggressive humour users being avoided or excluded from social engagements (Martin et al., 2003), which could lead to increased loneliness.

The self-defeating humour style in this study indirectly mediated the relationship between self-esteem and loneliness. The increased use of this humour style appears to lead to an increase in perceived loneliness for people with low self-esteem. As these individuals use self-defeating humour to actively hide their insecurities in social encounters, it is possible that their vulnerabilities are magnified internally, leading to an increase in self-reported loneliness. This is consistent with findings by Martin et al. (2003) who suggest that individuals with this negative humour style are prone to, among others, anxiety and lower levels of self-esteem.

Equally, according to [Ruch and Heintz \(2013\)](#), this style of humour is predominantly used interpersonally with the aim of masking anxieties and insecurities. Self-defeating humour may, however, not be entirely socially detrimental. [Ruch and Heintz \(2013\)](#) pointed out that the self-defeating humour scale may neglect to assess potentially beneficial aspects of self-defeating humour that could aid well-being. Tentative support for this view is offered by [Tsukawaki and Imura \(2020\)](#) who found initial evidence that self-defeating humour consists of deleterious and benign aspects. Using benign self-defeating humour could foster some empathy and affection from others who appreciate that someone could make light of their own weaknesses. It is therefore possible that people with low self-esteem are more prone to using deleterious self-defeating humour.

Limitations and recommendations of the study

Given the cross-sectional nature of this study and that this research lacked experimental manipulation, no true causal inference can be drawn between self-esteem, humour style and loneliness. This study made exclusive use of self-report questionnaires. Future studies that incorporate cognitive interviews may shed more light on the adaptive side of self-defeating humour and could control for the possible role of self-esteem. The detrimental humour styles in relation to self-esteem, loneliness and wellbeing are still not fully understood. Alternative ways of investigating these humour styles may aid in gaining a deeper understanding of how they contribute to other constructs, such as self-esteem, loneliness, and general well-being.

Conclusion

All four humour styles were found to indirectly mediate the relationship between self-esteem and loneliness. The results tend to emphasize the social nature of humour use. The benign humour styles decreased the experience of loneliness, possibly by improving social value to others. The detrimental humour styles were associated with an increased experience of loneliness, possibly through social alienation for users of aggressive humour or self-deprecation and anxiety for users of self-defeating humour.

Funding/Financial Support

The authors have no funding to report.

Other Support/Acknowledgement

The authors have no support to report.

Competing Interests

The authors have declared that no competing interests exist.

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