Tarika Sandhu and Jasbir Kaur

#### **Role of Humor in De-escalating Covid Related State Anxiety**

Dr. Tarika Sandhu, \* Ms. Jasbir Kaur \*\*

\*Dr.TarikaSandhu, Associate Prof., Deptt., of Psychology, Punjabi University

\*\*Ms.JasbirKaur, Research Scholar, Deptt., of Psychology, Punjabi University

#### Abstract

Humour is a psychological response characterized by the positive emotion of amusement, the appraisal that something is funny, and the tendency to laugh. Humour, is both a source of entertainment and a means of coping with difficult or awkward situations and stressful events. The present study aimed to explore how young adults using different styles of humour experienced COVID related state anxiety. For this purpose data was collected online from young adults in the age range of 20-30 years. The time of data collection on the pandemic timeline in India ranged from 3<sup>rd</sup> week of April 2020 to 2<sup>nd</sup> week of May 2020. The spread of COVID pandemic in India at the time of data collection was nearly 1 lakh cases (95,698 as per worldometer.info)). The state anxiety during the COVID 19 situation was assessed with the help of State Trait Anxiety Inventory (1977) by Spielberger. The Humour Style Questionnaire by Martin et al. (2003), was used to assess Adaptive styles of humour (Affiliative humour, Self enhancing humour) and Maladaptive styles of humour (Self- defeating humour and Aggressive humour). The total sample comprised of 100 adults. Results distinctly indicated that young adults high on Adaptive and Maladaptive Humour styles respectively differed significantly on Covid related State Anxiety. Additionally sex differences also emerged on Covid related State Anxiety. Implications of the study point towards the buffer effect of Adaptive humour in dealing with Covid related anxiety.

**Keywords**: COVID Pandemic, State Anxiety, Humour Styles, Sex Differences

Tarika Sandhu and Jasbir Kaur

Voltaire (1723) proposed that heaven has given hope and sleep to neutralize the miseries of life. Immanuel Kant (1790) added laughter to these. No stimulus, perhaps, more effectually breaks the surface tension of consciousness than humour. It is the one universal remedy which is a medicine for the poor, a tonic for the rich, a recreation for the fatigued, a beneficent check to the strenuous. It is a universal solvent to human temperaments, and like a touch of nature makes the whole world kin. The word humour is derived from the Latin language where it indicates a body fluid, spinal fluid, moisture or vapour, but it also conveys the realm of fantasy, whim or power. Later on in the development of language humour began to be linked with comic effects (Boskovic, 2011). Humour is a universal phenomenon that exists across all cultures (Berger, 1987). It is often considered a form of communication that creates a sense of commonality among people, due to the innate tendency in human beings of humour appreciation (Alden et al., 1993) commonly relating to a perception of 'fun,' smile, and laughter (Ruch, 2008).

Humour is defined as a broad, multifaceted term that represents anything that people say or do that others perceive as funny and tends to make them laugh, as well as the mental processes that go into both creating and perceiving such an amusing stimulus, and also the emotional response of mirth involved in the enjoyment of it. (Martin and Ford,2018). Humour is found to be one of the character strengths that contributes most strongly to life satisfaction (Peterson, Ruch, Beermann, Park, & Seligman, 2007).

The late 1990s were marked by the development of measures of character strengths along with positive intervention exercises under the domain of Positive Psychology (Proctor, Maltby, &Linley, 2011; Schueller, 2010). Research indicated that positive character strengths such as kindness, humour, leadership, love and social intelligence showed significant increases in growth following traumatic events, such as a life-threatening accident, attack, or illness (Peterson et al., 2008). The Values in Action Inventory of Strengths (VIA-IS) measured 24 positive character strengths. Out of all these 24 strengths love, humour, kindness, social intelligence and openmindedness were the most commonly supported strengths (Peterson, Park, Pole, D'Andrea, &

Tarika Sandhu and Jasbir Kaur

Seligman, 2008; Proctor et al., 2011). Researchers have found evidence that many of these character strengths such as hope, zest, gratitude, love, curiosity and humour especially are significant predictors of well-being and life satisfaction (Gillham et al., 2011; Proctor et al., 2011). In this context humour has been defined as a general positive attribute. It has often been suggested that a greater sense of humour can contribute significantly to well-being. In terms of physical health it has been proposed that increased humour and laughter can improve immune functioning, increase pain tolerance, and reduce cardiovascular risk (Martin, 2007). However, some studies have failed to support the facilitative effect of humour. Thus, those with a greater sense of humour do not always display fewer physical illness symptoms (McClelland &Cheriff, 1997), a reduced risk for cardiovascular disease (Kerkkanen, Kuiper, & Martin, 2004), or show higher levels of immunity (Martin & Dobbin, 1988). This conflicting evidence has lead researchers to conclude that further work needs to be done to establish the role of humour in dealing with specific life situations. (Kuiper, Grimshaw, Leite, & Kirsh, 2004; Kuiper & Nicholl, 2004; Martin, 2001; Martin, 2007). Additionally Martin, 2007 recommended that research should include contemporary models of humour that explicitly differentiate between adaptive and maladaptive humour styles. Humour style refers to a person's habitual way of using humour in daily life, that is, one's typical and stable pattern of humour behaviors and attitudes (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003). Martin et al. (2003) described four humour styles, two that are positive or beneficial to the self or others, and two that are negative or detrimental to the self or others. The two Adaptive humour styles are Affiliative and Self-enhancing humour styles, and the two Maladaptive humour styles are Self-defeating and Aggressive humour styles.

Affiliative Humour: The non-hostile jokes, witty comments, and spontaneous light hearted banter associated with affiliative humour generally helps to enhance social relationships, reduce interpersonal tension and conflict, maintain group cohesiveness, and increase group morale (Martin, 2007; Samson, Lackner, Weiss, &Papousek, 2012). That is, people who use affiliative humour tend to amuse and entertain others so as to enhance the quality of social relationships (e.g., to increase interpersonal cohesiveness and attraction). Because the use of affiliative humour affirms both the self and others, it is associated with greater intimacy in interpersonal

Tarika Sandhu and Jasbir Kaur

relationships (Martin et al., 2003) and greater conflict resolution in dating couples (Campbell, Martin, & Ward, 2008).

Self-Enhancing Humour: Individuals who use self-enhancing humour have positive perspective towards life even in case of misery. They generally view their life conditions and surroundings from a contemplative humorous stance, and maintain a positive perspective despite stress. Self-enhancing humour is used as a coping strategy to both buffer the self against the stress and regulate negative emotions, but this is not done at the expense of others (Martin, 2007). The chronic negative arousal and stress that accompanies anxiety may suppress the use of self-enhancing humour. In addition, the reduced cognitive attention and flexibility interferes significantly with the ability to perceive thoughts or ideas differently, thus making the generation and effective use of self-enhancing humour more difficult.

**Self-Defeating Humour:** This maladaptive humour style is used in a misguided attempt to reduce stress, and also to try and gain the approval of others via ingratiating and self-degrading humorous comments (Martin, 2007). The use of this humour style hides negative feelings about the self and avoids dealing with problems of emotional neediness. Thus self-defeating humour is related to less resilience in dealing with life's problems, reduced satisfaction with social support, lower self-esteem, and greater depression (Kuiper, 2012).

Aggressive Humour: This humour style is used to put down others, with little concern for how they might feel (Martin, 2007). Aggressive styles of humour, such as teasing, ridicule, and sarcasm tend to alienate other individuals; and thus impair social and interpersonal relationships. Also the use of aggressive humour style could ultimately limit opportunities for genuine and sustained social sharing of both positive and negative emotions (Rime, 2009), and resulting in an increase in anxiety. It is important to note, however, that past research offers no support for a relationship between aggressive humour and anxiety (Kuiper et al., 2004; Martin, 2007; Martin et al., 2003).

### **Humour styles and Anxiety**

Tarika Sandhu and Jasbir Kaur

Different patterns of relationships between humour styles and anxiety have been explored empirically (Kuiper, Grimshaw, Leite, &Kirsh, 2004; Martin 2007; Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003). In particular, greater affiliative humour, which involves generating and sharing humour in a social context to improve relationships and makes others laugh, has been associated with lower anxiety. In a similar manner, a higher level of self-enhancing humour, which involves using humour as an effective coping technique for dealing with life stressors, has also been linked to reduced anxiety. In contrast, a higher level of self-defeating humour, which involves the use of humour in a negative way to put oneself down, has been linked to higher levels of anxiety. And the aggressive humour style has generally been found to be unrelated to anxiety. Considering all the above points it becomes clear that different types of relationships exist between various humour styles and anxiety. The two adaptive styles of humour (affiliative and self-enhancing humour) seem to be beneficial because the increased use of these styles helps to reduce anxiety levels.

### **Rationale of the study:**

The present study attempts to unravel the role of different humour styles in dealing with COVID related anxiety. The COVID 19 pandemic has caused turbulence in the general mental health of our society. Increasing number of cases, stringent preventive measures, fear of death and loss of near and dear ones, economic slump, loss of livelihood are highly stressful and anxiety provoking circumstances for the masses. A pandemic of this proportion has been recorded nearly after hundred years of the Spanish Flu which had caused large scale destruction to life. The uncertainty and unpredictability of life circumstances has escalated the general levels of anxiety for all. It thus becomes imperative to explore the role of humour which is an innate defense against stress and anxiety in managing Covid related anxiety.

#### **Objective**

To study the role of humour in de-escalating the state anxiety related to covid 19

www.bjcp.in

Bharatiya Journal of Counselling Psychology: 2021; Volume 1 Issue 1

Tarika Sandhu and Jasbir Kaur

**Hypotheses** 

BJCP

Young adults with Adaptive humour styles would be significantly lower on COVID

related State anxiety as compared to those with Maladaptive humour styles.

Females would be significantly higher on Covid related State anxiety as compared to

Males.

Method

Research design

A two group design with subjects high on adaptive humour and high on maladaptive humour was

used.

**Participants** 

The sample comprised of a total of 100 participants screened in from 208 participants on the

basis of their high scores on Adaptive and Maladaptive humour styles. For the study 50

participants pertained to the High Adaptive humour styles group and 50 participants pertained

to High Maladaptive humour styles group (Males =42, Females = 58).

Other inclusion criteria:

Age range: 20-30 years.

Educational qualification: Graduation and above

The participants hailed from North India mainly-Punjab, Haryana and Delhi.

**Measures of assessment:** 

Humour Styles Questionnaire (HSQ: Martin et al., 2003): The HSQ is a 32 item self-report

measure of four distinct humour styles: (a) Affiliative humour (e.g., "I enjoy making people

Tarika Sandhu and Jasbir Kaur

laugh") (b) Self-enhancing humour (e.g., "If I feel depressed, I can generally improve my mood using humour") (c) Aggressive humour (e.g., "If someone makes a mistake, I normally make fun of them for it") and (d) Self-defeating humour (e.g., "I let others laugh at me or enjoy themselves at my expense more than I should"). The two adaptive styles are Self-Enhancing humour and Affiliative humour. The two maladaptive styles are Self-Defeating humour and Aggressive humour. There are eight items for each humour style subscale. Each item has 7-point Likert-type response ranging from (1) "Totally Disagree" to (7) "Totally Agree". The HSQ has internal consistency on all four scales, with Cronbach's alphas of .77 for the Aggressive Humour scale, .80 for the Affiliative Humour scale, .80 for the Self-Defeating Humour scale, and .81 for the Self-Enhancing Humour scale. Low inter-correlations between the four scales indicate distinction of these four dimensions (Martin et al., 2003).

State Trait Anxiety Inventory (Spielberger, 1977): The State-Trait Anxiety Inventory (STAI) is a commonly used measure of trait (a general tendency to perceive situations as threatening) and state (a temporary condition experienced in specific situations) anxiety (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). It has 20 items for assessing trait anxiety and 20 for state anxiety. Items 1 - 20 measure situational or state anxiety (STAI-S), and items 21 - 40 measure trait anxiety (STAI-T). For the state items, respondents are asked to indicate "How you feel right now, that is, at this moment." Responses indicate intensity of feeling on a 1 to 4 scale, from "not at all" through "somewhat", moderately so" to "very much so." For the trait items the question concerns "how you generally feel" and the response scale indicates frequency: "almost never", "sometimes", "often" and "almost always." For the present research 20 items of only state anxiety were used. Higher scores indicate greater anxiety.

The Google forms for State Anxiety were presented with a special note that the respondents must keep in mind the prevailing Covid situation and choose their responses based on how Covid 19 Pandemic has affected their mental health.

Bharatiya Journal of Counselling Psychology: 2021; Volume 1 Issue 1

Tarika Sandhu and Jasbir Kaur

#### **Procedure**

The data was collected by creating Google Forms of the Psychological scales. The forms were made available to the respondents by sharing the link using various online and social network mediums such as email, whatsapp and facebook. Participants were given instructions to respond to the items of the questionnaire by keeping in view their feelings during the situation of COVID 19 pandemic. Prior consent was obtained from the participants and ethical considerations of the study were clearly explained in the Google forms. Confidentiality of results was strictly maintained. Data collection commenced online from third week of April 2020 and continued till second week of May 2020. The status of spread of COVID pandemic in India during data collection was nearly 1 lakh cases (95,698) as on 17 May, 2020.

#### **Results and Discussion**

The study aimed to assess how different humour styles namely Adaptive humour style and Maladaptive humour styles effected Covid related State Anxiety. Also it aimed to study the effect of sex differences on Covid related State Anxiety. The t- test assuming equal variance on the scores of COVID related state anxiety for group of adults high on Adaptive and Maladaptive humor styles was employed to analyse the role of distinct humour styles in combating COVID related anxiety. Table 1 shows the mean values of anxiety in the subject with highAdaptive humour style group (Affiliative and Self enhancing humour styles) and high Maladaptive humour styles group (Self-defeating humour and Aggressive humour) and the obtained t values.

Tarika Sandhu and Jasbir Kaur

Table I: Showing t ratio of COVID State anxiety in high Adaptive humour style group (Affiliative and Self enhancing humour styles) and high Maladaptive humour styles group (Self-defeating humour and Aggressive humour)

Group	Covid State Anxiety Mean	S.D	t ratio
High Adaptive Humour	38.94	15.79	1.60*
High Maladaptive Humour	44.18	16.86	1.50

\*\*p > .01; \*p > .05

The main objective of the study was to examine the role of Adaptive and Maladaptive humour styles in dealing with COVID related anxiety. According to Table 1 the Mean values for COVID related state anxiety in Adaptive humour group was Mean = 38.94. On the other hand the Mean values for COVID related state anxiety in Maladaptive humour group was Mean = 44.18. Higher mean being indicative of higher anxiety shows that the anxiety was higher amongst those who adopted Maladaptive humour and was lower in Adaptive humour group. The calculated t value on Covid related state anxiety for the two groups came out to be t = 1.60 which was significant at .05 level. This result indicates that individuals high on Adaptive humour styles were significantly lower on Covid related State Anxiety as compared to individuals high on Maladaptive Humour Styles.

A plausible reason based on the earlier studies for these findings could be that individuals with adaptive humour style generally view their life conditions and surroundings from a contemplative humorous stance. This enables them to sustain positivity in the face of trying times. Self-enhancing humour is used as a coping strategy to both buffer the self against the stress and regulate negative emotions, but this is not done at the expense of others. The covid situation is unprecedented and the best possible way to reduce the associated psychological negative consequences is to harness the power of positivity. The road to being truly

Tarika Sandhu and Jasbir Kaur

'atmanirbhar' during the pandemic begins with boosting psychological immunity. Developing adaptive humour empowers an individual to meet challenges posed by the pandemic in an accepting and optimistic way. These findings are in line with series of previous researches which have demonstrated that people who make more use of adaptive humour styles (affiliative humour style and self- enhancing humour style) are less depressive, less anxious, have high self- esteem and are higher on psychological well-being (Chen and Martin, 2007; Kuiper et al., 2004). Affiliative and self-enhancing humour styles are found to be correlated positively with optimism and negatively correlated with psychological distress (e.g., anxiety and depression) (Yue, Hao and Goldman, 2010). Similarly, Martin et al. (2003) reported that Ryff (1989) measure of psychological well-being related positively to adaptive humour styles (affiliative and selfenhancing humour styles) and negatively to self-defeating humour style. A greater sense of humour is correlated with the ability to cope better with stress, to get along with others and enjoy better mental and even physical health. In addition, Kuiper, Grimshaw, Leite, and Kirsh (2004) found that affiliative and self-enhancing humour styles were associated with higher self-esteem, better coping abilities, and judgments of self-competence. Aggressive and self-defeating humour styles, in contrast, were associated with lower self-esteem, greater depression and anxiety, and negative judgments of self-competence. It is clearly evident that self-defeating humour style becomes a psychological barrier in dealing with stressful life events. Self-defeating humour is clearly linked with the higher levels of anxiety (Martin et al., 2007). More use of maladaptive humour styles is typically associated with increased depression, greater anxiety, and low selfesteem (Chen and Martin, 2007). The maladaptive self-defeating humour style appears to be detrimental, as increased use of this style is associated with greater anxiety. Research has also suggested several possible mechanisms that may help explain the different patterns of relationship between humour styles and anxiety (Kuiper, 2012; Kuiper et al., 2004; Martin, 2007). These proposed underlying processes include humour style differences in employing: (1) reframing strategies for stressful events (e.g., cognitive reappraisals and/or a change of perspective via self-enhancing humour); (2) distraction and distancing techniques (via affiliative

Tarika Sandhu and Jasbir Kaur

humour), (3) emotion regulation strategies (via both self-enhancing and affiliative humour), and (4) the use of a self-degrading interpersonal presentation style (via self-defeating humour).

Another objective of the study was to compare the gender differences in the Covid 19 anxiety. The mean anxiety levels of males and females along with the t ratio have been shown in table 2 given below.

Table 2: Showing the means, SD and t ratio of COVID related state anxiety in Males and Females

Group	Covid State AnxietyMean	S.D.	t ratio
Females	40.30	18.93	
Males	38.24	12.22	0.52**

\*\*p >.01; \*p > .05

According to Table 2 the Mean value for Covid related State anxiety in Females was 40.30 and Mean value for Males was 38.24. The means of the two groups were significantly different as obtained t value was 0.52,p >.01. This implies that Females were significantly higher on Covid related State anxiety as compared to Males. These findings can be attributed to the heritability of anxiety-related vulnerability factors, such as neuroticism, anxiety sensitivity, and trait anxiety in females as compared to males. Covid pandemic has surfaced as a major cause of concern for the whole population at large but in women particularly due to various predisposing biological and socio cultural factors. The impact of culture in mediating the impact of Covid related state anxiety in females can never be ruled out. The patriarchal culture (particularly in North India) suppresses the expression of anxiety in females. The bottling up of toxic emotions, greater pressure to multi task in different roles due to the pandemic can all add up to the cumulative experience of Covid related state anxiety. It is noteworthy to mention Giardinelli et al. (2003), regarding the importance of biological as well as complex sociocultural factors which propound

Tarika Sandhu and Jasbir Kaur

a female's predisposition to anxiety and depression in comparison to a male. Young female adults should be more alert towards the possibility of succumbing to anxious thoughts during the pandemic, though such differences are now evading. Nevertheless just like their male counterparts they too are equipped with the psychological arsenal of Adaptive humour to deescalate Covid related anxiety. Special online interventions should be designed that are customised to generate awareness in young adults, especially females about the vulnerability to anxiety during the pandemic and make them aware about the possible psychological tools to deal with it. A major implication of the study is that each individual holds a valuable key to safeguard themselves from stress and anxiety in the form of Adaptive humour style. Recreating the right perspective in times of adversity especially under the lens of adaptive humour instead of relentless worry and anxiety can go a long way in strengthening the psychological immunity of people during the Covid crisis. In view of the Covid 19 situation being long lasting, it is recommended to train people on practicing the Adaptive humour styles and get rid of such an anxiety, which is definitely going to help in taking preventive measures more fearlessly.

#### References

Alden, D. L., Hoyer, W. D., & Lee, C. (1993). Identifying global and culture-specific dimensions of humour in advertising: A multinational analysis. *Journal of Marketing*, *57*(2), 64-75.

Berger, A. A. (1987). Humour: an introduction. American Behavioural Scientist, 30 (3), 6-15.

Boyle, G. J., & Joss-Reid, J. M. (2004). Relationship of humour to health: A psychometric investigation. *British Journal of Health Psychology*, 9(1), 51-66.

Campbell, L., Martin, R. A., & Ward, J. R. (2008). An observational study of humour use during a conflict discussion. *Personal Relationships*, *15*(1), 41-55.

Chen, G. H., & Martin, R. A. (2007). A comparison of humour styles, coping humour, and mental health between Chinese and Canadian university students. *Humour*, 20(3), 215-234.

Tarika Sandhu and Jasbir Kaur

Dobbin, J. P., & Martin, R. A. (1988). Telic versus paratelic dominance: Personality moderator of biochemical responses to stress. In *Advances in Psychology*, *51*, 107-115.

Fox, C. L., Hunter, S. C., & Jones, S. E. (2016). Longitudinal associations between humour styles and psychosocial adjustment in adolescence. *Europe's journal of psychology*, 12(3), 377.

Gasparini, M. E., HinmanJr, F., Presti Jr, J. C., Schmidt, R. A., & Carroll, P. R. (1992). Continence after radical cystoprostatectomy and total bladder replacement: a urodynamic analysis. *The Journal of urology*, *148*(6), 1861-1864.

Gillham, J., Adams-Deutsch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M.,&Contero, A. (2011). Character strengths predict subjective well-being during adolescence. *The Journal of Positive Psychology*, *6*(1), 31-44.

Kant, I. (1987). Critique of judgment. 1790. Trans. Werner S. Pluhar. Indianapolis: Hackett, 987.

Kerkkanen, P., Kuiper, N. A., & Martin, R. A. (2004). Sense of humour, physical health, and well-being at work: A three-year longitudinal study of Finnish police officers. *Humour*, 17(1/2), 21-36.

Kuiper, N. A. (2012). Humour and resiliency: Towards a process model of coping and growth, *Europe's Journal of Psychology*, 8(3), 475–491.

Kuiper, N. A., & Harris, A. L. (2009). Humour styles and negative affect as predictors of different components of physical health. *Europe's Journal of Psychology*, 5(1).

Kuiper, N. A., &Leite, C. (2010). Personality impressions associated with four distinct humour styles. *Scandinavian Journal of Psychology*, *51*(2), 115-122.

Kuiper, N. A., & Nicholl, S. (2004). Thoughts of feeling better? Sense of humor and physical health. *Humor: International Journal of Humor Research*, 17, 37-66.

Tarika Sandhu and Jasbir Kaur

Kuiper, N. A., Grimshaw, M., Leite, C., & Kirsh, G. (2004). Humour is not always the best medicine: Specific components of sense of humour and psychological well-being. *Humour: International Journal of Humour Research*, 17(2), 135-168.

Kuiper, N. A., Klein, D., Vertes, J., & Maiolino, N. B. (2014). Humour styles and the intolerance of uncertainty model of generalized anxiety. *Europe's Journal of Psychology*, 10(3), 543–556

Lackner, H. K., Weiss, E. M., Schulter, G., Hinghofer-Szalkay, H., Samson, A. C., & Papousek, I. (2013). I got it! Transient cardiovascular response to the perception of humour. *Biological psychology*, *93*(1), 33-40.

Martin, R. A., & Dobbin, J. P. (1989). Sense of humor, hassles, and immunoglobulin A: Evidence for a stress-moderating effect of humor. *The International Journal of Psychiatry in Medicine*, 18(2), 93-105.

Martin, R. A. (2001). Humour, laughter, and physical health: methodological issues and research findings. *Psychological Bulletin*, *127*(4), 504.

Martin, R. A., & Ford, T. (2018). The psychology of humour: An integrative approach. Academic press.

Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in uses of humour and their relation to psychological well-being: Development of the Humour Styles Questionnaire. *Journal of Research in Personality*, 37(1), 48-75.

McClelland, D. C., & Cheriff, A. D. (1997). The immune enhancing effects of humour on secretory IgA and resistance to respiratory infections. *Psychology and Health*, *12*(3), 329-344.

Parks, A. C., & Schueller, S. (2014). *The Wiley Blackwell handbook of Positive Psychological Interventions*. John Wiley & Sons.

Peterson, C., Park, N., Pole, N., D'Andrea, W., & Seligman, M. E. (2008). Strengths of character and posttraumatic growth. *Journal of Traumatic Stress*, 21(2), 214-217.

Tarika Sandhu and Jasbir Kaur

Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. (2007). Strengths of character, orientations to happiness, and life satisfaction. *The Journal of Positive Psychology*, 2(3), 149-156.

Proctor, C., Maltby, J., & Linley, P. A. (2011). Strengths use as a predictor of well-being and health-related quality of life. *Journal of Happiness Studies*, 12(1), 153-169.

Ruch, W. (2008). Psychology of humour. The Primer of Humour Research, 8, 17-101.

Ruch, W., & McGhee, P. E. (2014). Humor Intervention Programs. *The Wiley Blackwell Handbook of Positive Psychological Interventions*, 179-193.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069.

Samson, A. C., Lackner, H. K., Weiss, E. M., & Papousek, I. (2012). Perception of other people's mental states affects humor in social anxiety. *Journal of Behaviour Therapy and Experimental Psychiatry*, 43(1), 625-631.

Spielberger, C. D. (2010). State Trait anxiety inventory. *The Corsiniencyclopedia of Psychology*, 1-1.

Spielberger, C. D. (1983). Manual for the State-Trait Anxiety Inventory (Form Y). Palo Alto, CA: Consulting Psychologists Press.

Stern, F. R. (1973). The varieties of history: From Voltaire to the present, 962.

Van Cappellen, P., & Rimé, B. (2013). Positive emotions and self-transcendence. *Religion, Personality, and Social Behaviour*, *5*, 133-156.

Vernon, P. A., Martin, R. A., Schermer, J. A., & Mackie, A. (2008). A behavioral genetic investigation of humour styles and their correlations with the Big-5 personality dimensions. *Personality and Individual Differences*, 44(5), 1116-1125.

Tarika Sandhu and Jasbir Kaur

Yue, X. D., Hao, X., & Goldman, G. L. (2010). Humour styles, dispositional optimism, and mental health among undergraduates in Hong Kong and China. *Journal of Psychology in Chinese Societies*, 11(2), 173-188.