MedCrave
Step into the World of Research

Journal of Psychology & Clinical Psychiatry

Research Article

Open Access

CrossMark

Materialistic values, health and wellbeing: The role of self-compassion

Abstract

The relationship between consumerism and wellbeing suggests that it all depend on our needs and motivation. A potential mediating factor is how compassionate we are towards ourselves. The main aims of the study were to investigate: 1) to investigate the relationship between materialism, experiential avoidance and experiential buying and health behaviour and wellbeing, and 2) to test if self-compassion mediates that relationship.

A quantitative survey using questionnaire data collection assessed 702 participants, 34.3% males (n=241) and 65.7% females (n=461) on measures of materialism, experiential avoidance, experiential buying, self-compassion, health behaviour, and wellbeing.

Findings show that materialism and experiential avoidance and buying are directly related to health behaviour and wellbeing and their effect is mediated by self-compassion. The findings suggest that attitudes and values towards materialism and consumerism should be considered as public health issues and provide a mechanism for intervening in the development of health behaviour and mental wellbeing.

Keywords: materialism, wellbeing, health behaviour, self-compassion

Volume 15 Issue 1 - 2024

Filipa Santos, Tony Cassidy
School of Psychology, Ulster University, UK

Correspondence: Tony Cassidy, Professor of Child & Family Psychology, School of Psychology, Faculty of Life & Health Sciences, University of Ulster, Cromore Road, Coleraine, County Londonderry, BT52 1SA, UK, Tel +44 28 7012 3025, Email t.cassid@ulster.ac.uk

Received: December 18, 2023 | **Published:** January 08, 2024

Introduction

Background: The pursuit of happiness is universal but the pathways that people choose are varied and not always successful.[1] Many people place their faith in the acquisition of material goods, but any positive impact is generally short lived.[2] Marketing, which has become a major part of our experience in what is described as a global economy, aims to encourage consumers to adopt materialistic values and the evidence suggests that materialism is antithetical to their health and happiness.[3] Through emerging adulthood possessions are increasingly used to reflect for many people how they would like to see themselves and become extensions of self-identity.[4]

Materialism is strongly and consistently related to lower subjective wellbeing,[5–8] and even to tendency towards depression for individuals.[9] Yet increased national affluence relates to higher levels of happiness and life satisfaction in nations.[10] Dittmar, et al.,[6] suggest that the individual level negative effect of materialism may reflect poor need satisfaction. The emerging work suggests two critical takeaways: happiness may be less contingent on the amount of each resource available and more dependent on the extent to which people focus on each resource — and, perhaps even more so, on how people choose to spend their time and money.[6]

Csikszentmihalyi[11] and Kasser,[12] conclude that material consumerism is associated with reduced consumer well-being, particularly in terms of the quality of human relationships and levels of happiness. For Borgmann,[13] the core problem with materialism is that it gets in the way of living a fuller human life. In fact, Humanistic theorists have long argued that materialism, or a focus on having, causes alienation and discontent and prevents individuals from reaching their full human potential.[14,15] Over-consumption (i.e., consumption which goes far beyond satisfaction of basic needs) exacerbates social inequalities and it also has serious negative consequences for the environment (UN Human Development Report, 1998).

Kasser and Ahuvia[16] showed that students who had strongly internalized materialistic values reported lowered self□actualization, vitality and happiness, as well as increased anxiety, physical symptomatology, and unhappiness. Mental and physical well-being are inextricably intertwined.[17] It is a cliché that there is no health without mental health, and the reverse is also true. Ohrnberger[18] provide analysis and a model showing reciprocal relations of causality between physical and mental health and suggest that both are mediated by lifestyle choices.[19]

Donnelly et al.,[20] stressed that material consumption can be a form of escaping and/or trying to fix the self, as an identity construction through symbolic goods, which can be seen as a culmination of escaping from one's current identity. How much we see our things as an extension of ourselves may depend in part in how confident we feel about who we are. It's as if reflecting on our things restores a fragile ego.[4] Materialism is related to demographic characteristics including sex, age, education and income.[6]

A related line of research by Rucker and Galinsky[21] at the Kellogg School of Management showed that participants who felt powerless (induced by recalling a time when someone had control over them) were more willing to pay for a silk tie and other high-status products. Perceptions of control are related to healthy habits and behaviour and to lower materialistic values[22,23] and people with a sense of perceived control tend to be more inclined to buy experiences rather than material goods/objects.[24,25] The distinction between material and experiential purchases was introduced by Boven and Gilovich,[25] who defined the former as "spending money with the primary intention of acquiring a material possession – a tangible object that you obtain and keep in your possession" and the latter as "spending money with the primary intention of acquiring a life experience—an event or series of events that you personally encounter or live through," (p. 1194). Experiential buying has been shown to increase psychological wellbeing.[26,27] Carter and Gilovich in a series of eight studies showed that individuals tend to compare their material possessions to others who have more which causes dissatisfaction and conversely find more satisfaction in spending their money and time on positive experiences such as holidays. Materialistic values are positively related to substance use amongst other harmful health behaviours.[28] Materialistic

people also tend to ignore the negative effects of excessive buying on environment.[29]

Acquiring/accumulating stuff as a coping mechanism is a way of denying adverse life events. Experiential avoidance (EA) has been defined as an unwillingness to remain in contact with distressing emotions, thoughts, memories, and physical sensations, even when doing so creates harm in the long run.[30–32] It is a functional process that has been linked to a wide range of psychopathology, depression, anxiety, and externalizing disorders.[33,34] In a study by Kashdan & Breen[35] experiential avoidance fully mediated associations between materialistic values and dimensions of well–being. Kashdan and Breen[35] found that materialistic values were positively correlated with negative emotions, experiential avoidance, social anxiety, and depressive symptomatology, and negatively correlated with meaning in life, relatedness to others, feelings of competence, autonomy, and gratitude.[36–38]

Research focusing on material consumption as a coping strategy have generally explored it in relation to the pursuit of self-esteem. A study by Fu, Kou and Yang[39] on materialistic values among Chinese adolescents found that adolescents pursued materialistic aspirations to compensate their needs. Adolescents with higher self-esteem were less materialistic because they coped with rejection more effectively than those with lower self-esteem. Self-esteem is conditional on perceived personal competence and attainment of goals which has led to criticism of its role in consumer research as self-defeating by Karanika & Hogg. An alternate explanation is self-compassion which entails unconditional self-worth and is non-judgemental to inadequacies and failures.[40] Self□compassion entails treating oneself with kindness, recognizing one's shared humanity, and being mindful when considering negative aspects of oneself,[40] and is strongly related to wellbeing.[41] Self-compassion is related to reduced levels of materialism by Dambrun.

The ability to regulate emotions is positively influenced by self-compassion.[41] People who suppress their emotions and use denial and avoidance as a coping strategy tend to have poorer outcomes. For instance, to cope with negative, self-directed emotions, such as feeling dissatisfied with their standard of living and failed expectations, materialistic people may enter a narrow, cognitively deconstructed mindset in order to temporarily blunt the capacity for self-reflection by Donnelly. Which may lead to the avoidant coping mechanism, specially avoiding experiences and engaging in acquiring material goods.

The main causes for illness and mortality are currently harmful behaviours and lifestyles.[42] Behaviour change interventions can substantially help reduce these otherwise inevitable consequences by Michie. Engaging in positive health behaviour is beneficial for one's own health as well as for reducing the burden on health services.[43] While it is incontrovertible that behaviour and lifestyle are major cause of physical health, there is growing evidence that they are also causally implicated in mental health.[44–46] Three areas related to materialistic values (materialism, experiential buying, and experiential avoidance) have been investigated and shown to relate to health behaviours and wellbeing. A potential mediator of the relationship between these aspects of materialistic values and health and wellbeing is the construct of self-compassion. The aims of the study were, 1) to investigate the relationship between materialism, experiential avoidance and experiential buying and health behaviour and wellbeing, and 2) to test if self-compassion mediates that relationship.

Methods

Design: A quantitative survey using questionnaire data collection of the relationship between mental well-being, health behaviour, self-compassion, materialism, experiential buying and experiential avoidance.

Participants: A total of 702 participants, with 34.3% males (n=241) and 65.7% females (n=461). The ages of the participants ranged from 18 to 45 with a mean age of 24.07 (SD=5.69). In terms of education, 9.8% (n=69) had primary education, 29.5% (n=207) had lower secondary qualifications, 38.5% (n=270) had higher secondary level education, 14.1% (n=99) had tertiary education, and 8.1% (n=57) had postgraduate qualifications. In regard to employment the majority of the sample 62.8% (n=219) were in full time employment, 1.7% (n=12) were employed part-time, 2.0% (n=14) were unemployed, and 33.5% (n=235) were students. In relation to household income, 26.4% (n=185) of the sample lived with less than £10,000 a year, 25.4% (n=178) £10,000 - £20,000, 27.1% (n=190) £20,000 - £34,999, 12.3% (n=86) £35,000 - £49,999, 8.5% (n=60) £50,000 - £74,999, and 0.4% (n=3) over £75,000 per year.

Measures: The administered self-report survey consisted of demographic variables of gender (Sex), age, education, employment, and household income; as well as the six scales described below.

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS). Tennant et al.,[47] was developed to meet demand for instruments to measure mental well-being. It comprises 14 positively phrased Likert-style items and fulfils classic criteria for scale development with a five-point Likert scale response format is used. For the propose of this study a short 7 item version of WEMWBS[48] was used which was found to satisfy the strict unidimensional expectations of the Rasch model and be largely free of bias. The scale had a Cronbach Alpha of .85 in the current data. The 16-item Good Health Practices scale by Hampson, Edmonds & Goldberg[49] has an internal reliability of =.83. and provides users with a coverage of their performance of health-promoting behaviours. This scale uses a five-point Likert scale response format.

The 12□item Self□Compassion Scale–Short Form (SCS–SF) (Raes, Pommier, Neff, K. & Van Gucht, 2011) with a five-point Likert scale response format. The SCS–SF demonstrated adequate internal consistency (Cronbach's alpha ≥ 0.86 in all samples) and a near□perfect correlation with the long form SCS (r ≥ 0.97 all samples). Although the original long form of the SCS is reduced to half, the SCS–SF is reliable and has the same factorial structure as the original scale.

The Material Values Scale (MVS) developed by Richins and Dawson[50] to examine materialism as a facet of consumer behaviour. The authors define materialism as the importance ascribed to the ownership and acquisition of material goods in achieving major life goals or desired states. The MVS contains 18 items that constitute three subscales (success, centrality and happiness) designed to tap into each of these domains. A five-point Likert scale response format is used. Richins[50] reviewed the scale and produced a number of shorter version including the 15 item version we used in this study. The scale had a Cronbach Alpha of .94 in the current data.

The Experiential Buying Tendency Scale (EBTS), by Howell, comprising four questions, to measure habitual experiential purchasing using a seven-point Likert scale response format. Across eight samples (n=9634), the EBTS was developed, and shown to be reliable, valid, and predictive of consumer behaviour and psychological well-being. The scale had a Cronbach Alpha of .86 in the current data.

The Brief Experiential Avoidance Questionnaire[51] which is a 15-item scale was used. The items are scored on a 5-point Likert scale from strongly disagree to strongly agree. Experiential avoidance (EA) has been conceptualized as the tendency to avoid negative internal experiences and is an important concept in numerous conceptualizations of psychopathology as well as theories of psychotherapy.[33] The scale had a Cronbach Alpha of .77 in the current data.

Procedure: Once ethical approval was given for the current research project the survey questionnaire was uploaded to Qualtrics online survey software. A link to the questionnaire was posted on social media and sent via e-mail to a sample of students at the University and to employees in two local organisations. Participants were provided with an information sheet and asked to tick a consent form before completing the questionnaire. Participants were required to be over 18 years. Once all the data had been collected it was transferred to SPSS 26 for analysis.

Data analysis: Data was screened and cleaned and participant with more than 5% missing data were excluded. Where there was less than 5% missing data on items they were replaced with the mean score. Analysis involved calculating descriptive statistics (Means and Sds), correlations and regression to test relationships between variables and AMOS Structural Equation Modelling to test a path model.

Results

Data analysis: The aims of the study were, 1) to investigate the relationship between materialism, experiential avoidance and experiential buying and health behaviour and wellbeing, and 2) to test if self-compassion mediates that relationship. The first analysis involved calculating Descriptive statistics and Pearson Correlation Coefficients between study variables as shown in Tables 1–3.

Table 1 Correlations between variables

		Sample Mean (Sd)	Normative Mean	1	2	3	4	5
1.	Wellbeing	22.9 (4.9)	23.6[1]					
2.	Good health practices	44.6 (8.7)		.49				
3.	Self-compassion	39.8 (13.9)	36.0[2]	.59	.45			
4.	Materialism	46.8 (15.7)	41.88[3]	-.56	-.25	-.52		
5.	Experiential Avoidance	45.1 (9.7)	48.5[4]	-.45	-.69	-.33	.30	
6.	Experiential Buying	4.2 (1.5)	4.6[5]	.46	.33	.49	-.39	-.37
All correlation are significant (p<.001)								

(Footnotes)

1. Ng Fat L, Scholes S, Boniface S, et al.
2. Raes F, Pommier E, Neff KD, et al.
3. Isham A, Gatersleben B, Jackson T.
4. Howell RT, Pchelin P, Iyer R
5. Gámez W, Chmielewski M, Kotov R.

Table 2 Hierarchical Multiple Regression Analysis with wellbeing as dependent variable

	B	SE B	□
Step1: R^2=.06, f(3, 698)=15.89, p<.001			
Gender	-1.203	.272	-.167***
Education	-.805	.176	-.174***
Income	-.498	.149	-.128***
Step2: R^2 Δ =.29, f(1, 697)=309.93, p<.001			
Gender	-.521	.230	-.072*
Education	-.631	.147	-.136***
Income	-.589	.125	-.152***
Materialism	-.149	.008	-.549***
Step3: R^2 Δ =.09, f(1, 696)=114.11, p<.001			
Gender	-.036	.218	-.005
Education	-.704	.136	-.152***
Income	-.609	.116	-.157***
Materialism	-.126	.008	-.464***
Experiential Avoidance	-.164	.015	-.324***
Step4: R^2 Δ =.02, f(1, 695)=29.03, p=.001			
Gender	.087	.215	.012
Education	-.586	.136	-.127***
Income	-.504	.115	-.130***

Citation: Santos F, Cassidy T. Materialistic values, health and wellbeing: The role of self-compassion. *J Psychol Clin Psychiatry.* 2024;15(1):1–7. DOI: 10.15406/jpcpy.2024.15.00753

Table 2 Continued...

	B	SE B	□
Materialism	-.112	.008	-.414***
Experiential Avoidance	-.141	.016	-.278***
Experiential Buying	.144	.027	.175***
Step5: R^2 Δ =.06, f(1, 694)=88.07, p=.001			
Gender	.509	.207	.071*
Education	-.511	.128	-.111***
Income	-.417	.109	-.108***
Materialism	-.081	.009	-.297***
Experiential Avoidance	-.127	.015	-.252***
Experiential Buying	.074	.026	.090**
Self-Compassion	.355	.038	.320***
Step 6: R^2 Δ =.02, f(1, 693)=24.67, p=.001			
Gender	.521	.204	.072**
Education	-.469	.126	-.102***
Income	-.425	.107	-.109***
Materialism	-.085	.008	-.315***
Experiential Avoidance	-.067	.019	-.133***
Experiential Buying	.077	.026	.093**
Self-Compassion	.295	.039	.266***
Good Health Practice	.106	.021	.189***
*P<.05 ** p<.01 *** p<.001 Total R^2 =.54			

Table 3 Sex differences on study variables

	Female (n=461)	Male (n=205)	df	t	p
	Mean (Sd)	Mean (Sd)			
Wellbeing	23.6 (4.7))	22.9 (4.6)	664	1.98	.049
Good Health Practice	45.9 (8.4)	44.8 (8.1)	664	1.60	.110
Self-compassion	43.2 (12.8))	38.6 (14.1)	664	3.99	.001
Materialism	39.5 (18.2)	49.5 (13.5)	664	7.82	.001
Experiential avoidance	43.8 (10.9)	44.8 (8.0)	664	1.29	.195
Experiential buying	18.0 (6.3)	16.6 (5.7)	664	2.75	.006

One sample t-tests were used to test the means from the current study against normative population means. For well being our sample scored significantly lower than the population means devised by Ng Fat, Scholes, Boniface, Mindell and Stewart-Brown (2017), (t (701) =3.714, p<.001). On self-compassion our sample scored significantly higher than the norm[52] (t (701) =7.041, p<.001). For Materialism our sample scored significantly higher than the population norm (Isham, Gatersleben, & Jackson, 2021) (t (701) =8.225, p<.001). Our sample scored significantly lower than the norm on experiential buying by Howell, Pchelin, & Iyer (t (701) =7.149, p<.001). Finally our sample scored significantly lower on experiential avoidance than a normative sample.[51] (t (701) =7.149, p<.001).

Correlations amongst the predictor variables were examined to ensure there were no issues of multicollinearity. Statistically significant correlations were weak to moderate, ranging from r = .25 to r = .69, suggesting no issues of multicollinearity (values >0.8), indicating that data were suitably correlated to undertake multiple regression.

For the next analysis hierarchical multiple regressions (HMRA) were conducted. Wellbeing was entered as the dependent variable. It involved six steps. On step 1 sex, household income, and education were entered as predictors and accounted for 6% of the variance in wellbeing. On the second step Materialism was entered and accounted for an additional 29% of the variance. On the third step we entered experiential avoidance which added 9% to the variance explained. On the fourth step experiential buying was entered and added a further 2% to the variance explained. On the fifth step self-compassion was entered and accounted for an additional 6% of the variance. On the final step Good Health Practice was entered and added 2% to the explained variance bringing the total variance explained to 54%. On this final step all variables had significant partial correlations with wellbeing and on this basis, it was decided to propose and test a path model of the relationships. The proposed model is shown in Figure 1.

AMOS 26 software was used to test separate path models for wellbeing and good health practice. The model for wellbeing is shown in Figure 2.

The model was a very good fit for the data (□² = 11.13, DF = 6, p=.086 and □²/ degrees of freedom (CMIN/DF) is 1.855. The comparative fit index (CFI) is .99, the Incremental Fit Index (IFI) is .99. The Root Mean Square Error of Approximation (RMSEA) is .035 and the probability of a close fit (PCLOSE) is significant (PCLOSE = .751, p<.001)).

The path model for good health practice is shown in Figure 3 and was also a very good fit for the data (χ^2 = 7.86, DF = 8, p=.447 and χ^2/ degrees of freedom (CMIN/DF) is 0.983. The comparative fit index (CFI) is 1.0, the Incremental Fit Index (IFI) is 1.0. The Root Mean Square Error of Approximation (RMSEA) is .001 and the probability of a close fit (PCLOSE) is significant (PCLOSE = .979, p<.001). Both models support the predicted model in general. For wellbeing, materialism, experiential avoidance, and experiential buying all

have a direct relationship, and an indirect relationship through self-compassion. Education and income had a direct relationship with wellbeing, but sex did not. Sex had an indirect relationship through self-compassion, materialism, experiential avoidance, and experiential buying. Independent t-tests show that females scored significantly higher than males on self-compassion, experiential buying and wellbeing, while males scored significantly higher than females on materialism. The differences were not significant on good health practice or experiential avoidance.

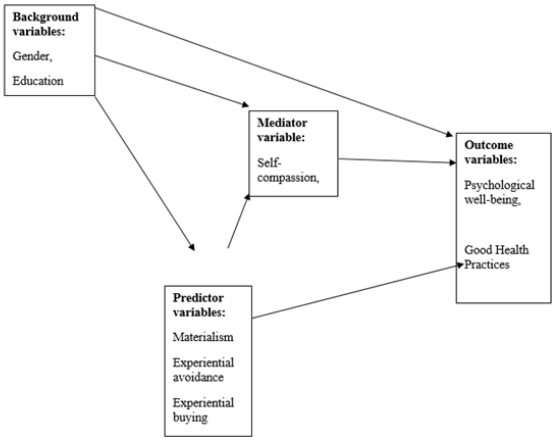

Figure 1 Proposed relationships underpinning a path model.

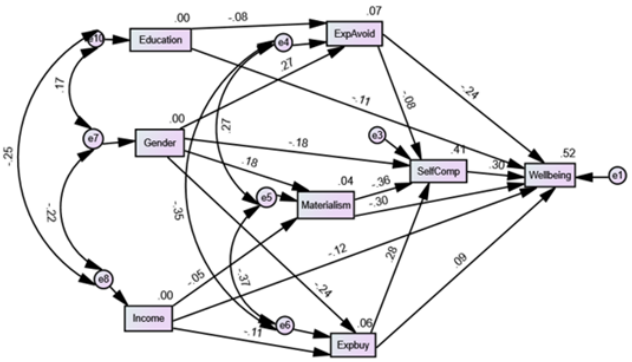

Figure 2 Path model of predictor of wellbeing: ExpAvoid, experiential avoidance; Selfcomp, self-compassion; ExpBuy, experiential buying.

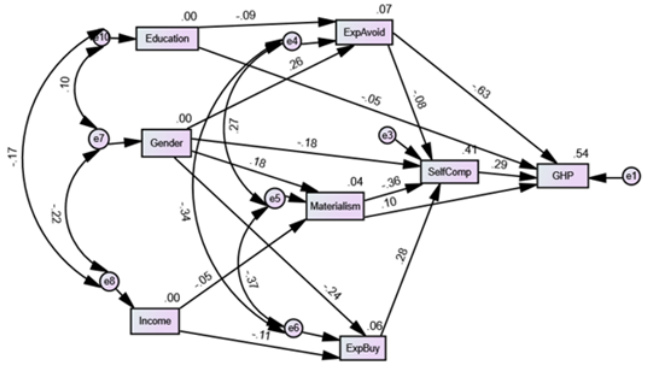

Figure 3 Path model of predictor of good health practices: ExpAvoid, experiential avoidance; Selfcomp, self-compassion; ExpBuy, experiential buying.

Education had an indirect relationship with wellbeing through experiential avoidance and income had an indirect relationship through materialism and experiential buying. The only differences in regard to good health practice were that experiential buying and income did not have a direct relationship.

Discussion

The aims of the study were, 1) to investigate the relationship between materialism, experiential avoidance and experiential buying and health behaviour and wellbeing, and 2) to test if self-compassion mediates that relationship. In essence the results suggest that that materialism and experiential avoidance have a negative relationship with both wellbeing and health behaviour as measured by the Good Health Practice scale. This is consistent with existing knowledge.[5–7] Experiential buying has a positive relationship with wellbeing which confirms previous findings,[26] but doesn't seem to impact health behaviour. Self-compassion has a positive relationship with both wellbeing and health behaviour,[41] and mediates the relationship with materialism, experiential avoidance and experiential buying. In essence the data suggests that higher levels of materialism and experiential avoidance are associated with lower wellbeing and poorer health behaviour. Those who choose to spend their resources on experiences rather than material possessions exhibit better wellbeing and more healthy behaviours. As with previous research self-compassion has a positive relationship with wellbeing and health behaviour,[41] and in the current study it is associated with a reduced impact of materialism and experiential avoidance on wellbeing and on health behaviour. In addition, it seems to increase the positive impact of experiential buying. People who choose experiences over material are more likely to be more self-compassionate and to exhibit better wellbeing and more healthy behaviours. From the regression analysis it appears that good health practice is significantly related to wellbeing. This is in line with previous research.[17]

Of the demographic variables measured, education, and household income significantly contributed to explaining wellbeing both directly and through their relationship with materialism, experiential avoidance, and experiential buying. Sex didn't directly relate to wellbeing but had an indirect relationship through self-compassion, materialism, experiential avoidance and experiential buying. There was a similar pattern for health behaviour except that income did not have a direct relationship.

Putting it all together the demographic variables of sex, education, and household income are related to materialism, experiential avoidance, and experiential buying, and through these on wellbeing and health behaviour. Self-compassion appears to play a mediating or moderating role between demographic variables, materialism, experiential avoidance and experiential buying health behaviour and wellbeing, though this cannot be tested in cross sectional data. In line with previous research materialism was negatively indicated in wellbeing and from this study the relationship seems to extend to good health practices. Donnelly et al.,[20] stressed that consumption of goods/objects can be a form of escaping and/or trying to fix the self and is indicative of avoidance coping. The use of materialism as a negative coping mechanism might explain its relationship with good health practices which tend to be associated with positive coping.[53] Alternatively buying life experiences did not related to better good health practices though it did relate to positively to wellbeing. This could indicate a moderating effect of experiential buying. Zhang, Howell and Caprariello[54] suggest that the benefits of experiential consumption depend on why one buys life experiences.[55] Their study measured individual differences as a moderator and concluded that experiential buying does not always originate from intrinsic motives. Sometimes people engage in this type of consumerism seeking recognition from others. This could explain the non-association

Citation: Santos F, Cassidy T. Materialistic values, health and wellbeing: The role of self-compassion. *J Psychol Clin Psychiatry.* 2024;15(1):1–7.
DOI: 10.15406/jpcpy.2024.15.00753

between experiential buying and self-compassion and therefore the disregard for health practices. In addition, sometimes people are careless on the experiences they choose to get involved in, for instance, drinking coffee with a friend is characterised as experiential buying but drinking too much coffee is considered.[56] Likewise, some people retain good health practices and are too cautious to go on adventures, hence good health practices not contributing to experiential buying total scores. Additionally, in this case, self-compassion may work as a mediator, which makes sense since self-compassion made a small but valid contribution to good health practices.[57–59]

Limitations

The main limitation was the cross-sectional nature of the survey hence only correlational conclusions and not causal ones can be assumed. In relation to the participants there was considerably more females than males, the mean ages of the participants ranged from 18 to 45 but most of the participants were in their early 20's. The sample is not representative of the whole population but since most research on materialism focuses on emerging adulthood some conclusions can be generalised.

Conclusion

This study has some important implication on consumerism in relation to good health practices and wellbeing. Looking at self-compassion as a potential mediator points to the utility of the growing number of interventions based on self-compassion and mindfulness in combating the negative effects of the prevalence of materialistic values in society on young people's health and wellbeing. In addition, understanding how materialism and consumerism impacts on health and wellbeing should inform public health approaches to dealing with mental and physical health problems. Particularly concerning is the way in which materialistic values have become the main focus in OECD countries and have informed everything from education to health care. These values have permeated the identity of individuals and communities and have displaced the community values of sharing and caring that are so necessary for sustainability and continuity.

Acknowledgments

Authors' contributions: Both authors contributed to the study conception and design, material preparation, data collection and analysis. All authors read and approved the final manuscript.

The study was approved by the Unversity Research Ethics Committee.

Consent to participate: All participants completed a consent to participate form.

Consent for publication: Both authors consent to the paper being published.

Availability of data and material (data transparency): Data can be made available on request to the corresponding author.

Conflicts of interest

Neither author has any conflict of interest.

Funding

No funding was received for this study.

References

1. Diener E. Money matters. *Contemporary Psychology.* 2000;*45:*642–643.
2. Jiang J, Zhang Y, Ke Y, et al. Can't buy me friendship? Peer rejection and adolescent materialism: Implicit self–esteem as a mediator. *Journal of Experimental Social Psychology.* 2015;58;48–55.
3. Lenka U. Direct and indirect influence of interpersonal and environmental agents on materialism in children. *Psychological Studies.* 2016;61:55–66.
4. Jarrett C. The psychology of stuff and things. *Psychologist.* 2013;26:560.
5. Burroughs JE, Rindfleisch A. Materialism and well–being: a conflicting values perspective. *Journal of Consumer Research.* 2002;29(3):348–370.
6. Dittmar H, Hurst M. The impact of a materialistic value orientation on well–being. In: JE Maddux, editor. *Subjective well–being and life satisfaction.* New York: Routledge; 2018.
7. Górnik–Durose ME. Materialism and well–being revisited: the impact of personality. *Journal of Happiness Studies.* 2020;21:305–326.
8. Parker N, Ivtzan I. The Relationship between Materialistic aspirations and distinct aspects of psychological well–being in a UK sample. *Journal of Behavior Therapy and Mental Health.* 2016;1(1):35–48.
9. Iqbal N, Aslam N. Materialism, depression, and compulsive buying among University students. *The International Journal of Indian Psychology.* 2016;3(2).
10. Esteban Ortiz–Ospina. "Happiness and life satisfaction". 2013.
11. Csikszentmihalyi M. The costs and benefits of consuming. *Journal of Consumer Research.* 2000;27:267–272.
12. Kasser T. *The high price of materialism*. Cambridge, MA: MIT Press; 2002.
13. Borgmann A. The moral complexion of consumption. *Journal of Consumer Research.* 2000;26:418–422.
14. Fromm E. Altered states of consciousness and ego psychology. *Social Service Review.* 1976;50:557–569.
15. Maslow AH. The instinctoid nature of basic needs. *Journal of Personality*. 1954;22:326–347.
16. Kasser, T, Ahuvia A. Materialistic values and well–being in business students. *European Journal of Social Psychology.* 2002;32:137–146.
17. Osborn DP. The poor physical health of people with mental illness. *The Western Journal of Medicine.* 2001;175(5):329–332.
18. Ohrnberger J, Fichera E, Sutton M. The relationship between physical and mental health: A mediation analysis, *Social Science & Medicine.* 2017;195:42–49.
19. Stanley S, Laugharne J. The impact of lifestyle factors on the physical health of people with a mental illness: a brief review. *International Journal of Behavioral Medicine.* 2014;*21(2):*275–281.
20. Donnelly GE, Ksendzova M, Howell RT, et al. Buying to blunt negative feelings: Materialistic escape from the self. *Review of General Psychology.* 2016;20:272.
21. Rucker DD, Galinsky AD. Desire to acquire: Powerlessness and compensatory consumption. *Journal of Consumer Research.* 2008;*35:*257–267.
22. Christopher AN, Saliba L, Deadmarsh EJ. Materialism and well–being: The mediating effect of locus of control. *Personality and Individual Differences.* 2009;46:682–686.
23. Cobb–Clark DA, Kassenboehmer SC, Schurer S. Healthy habits: The connection between diet, exercise, and locus of control. *Journal of Economic Behavior & Organization.* 2014;98:1–28.
24. Howell RT, Pchelin P, Iyer R. The preference for experiences over possessions: measurement and construct validation of the experiential buying tendency scale. *The Journal of Positive Psychology.* 2012;7:57–71.

25. Boven LV, Gilovich T. To do or to have? that is the question. *Journal of Personality and Social Psychology.* 2003;85:1194.

26. Dunn EW, Gilbert DT, Wilson TD. If money doesn't make you happy, then you probably aren't spending it right. *Journal of Consumer Psychology.* 2011;21:115–125.

27. Schmitt R. *Historical materialism. Introduction to Marx and Engels*. 2018. p. 52–62.

28. Brouskeli V, Loumakou M. Materialism, stress and health behaviors among future educators. *Journal of Education and Training Studies.* 2014;2:145–150.

29. Kilbourne W, Pickett G. How materialism affects environmental beliefs, concern, and environmentally responsible behavior. *Journal of Business Research.* 2008;*61*:885–893.

30. Chen Y, Yao M, Yan W. Materialism and well–being among Chinese college students: The mediating role of basic psychological need satisfaction. *Journal of Health Psychology.* 2014;19(10):1232–1240.

31. Hayes SC, Strosahl KD, Wilson KG. *Acceptance and commitment therapy: The process and practice of mindful change.* Guilford Press; 2011.

32. Unanue W, Dittmar H, Vignoles V, et al. Materialism and well□being in the UK and Chile: basic need satisfaction and basic need frustration as underlying psychological processes. *European Journal of Personality.* 2014;28(6):569–585.

33. Chawla N, Ostafin B. Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology.* 2007;63:871–890.

34. Hayes SC, Wilson KG, Gifford EV, et al. Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of consulting and clinical psychology.* 1996;64:1152.

35. Kashdan TB, Breen WE. Materialism and diminished well–being: Experiential avoidance as a mediating mechanism. *Journal of social and clinical psychology.* 2007;26:521–539.

36. Boelen PA, van den Bout J, van den Hout MA. A prospective examination of catastrophic misinterpretations and experiential avoidance in emotional distress following loss. *The Journal of nervous and mental disease.* 2010;198(4):252–257.

37. Kirk A, Broman–Fulks JJ, Arch JJ. A taxometric analysis of experiential avoidance. *Behavior therapy.* 2021;52(1):208–220.

38. Rochefort C, Baldwin AS, Chmielewski M. Experiential avoidance: an examination of the construct validity of the AAQ–II and MEAQ. *Behavior therapy.* 2018;*49(3):*435–449.

39. Fu X, Kou Y, Yang Y. Materialistic values among Chinese adolescents: Effects of parental rejection and self–esteem. *Child & Youth Care Forum*. 2015;44(1):43–57.

40. Neff KD. Self–compassion, self–esteem, and well–being. *Social and Personality Psychology Compass.* 2011;5:1–12.

41. Munroe M, Al–Refae M, Chan HW, et al. Using self–compassion to grow in the face of trauma: The role of positive reframing and problem–focused coping strategies. *Psychological Trauma: Theory, Research, Practice, and Policy.* 2021.

42. Ogden J. *Health psychology: A Textbook*. McGraw–Hill education (UK); 2012.

43. Ridder DD. Health psychology. *International Encyclopedia of the Social & Behavioral Sciences.* 2015;674–678.

44. Buttery AK, Mensink GBM, Busch MA. Healthy behaviours and mental health: findings from the German Health Update (GEDA), *European Journal of Public Health.* 2015;25(2):219–225.

45. Hoare E, Milton K, Foster C, et al. The associations between sedentary behaviour and mental health among adolescents: a systematic review. *The International Journal of Behavioral Nutrition and Physical Activity.* 2016;13(1):108.

46. Johnson KE, Taliaferro LA. Health behaviors and mental health of students attending alternative high schools: A review of the research literature. *Journal for Specialists in Pediatric Nursing.* 2012;17:79–97.

47. Tennant R, Hiller L, Fishwick R, et al. The Warwick–Edinburgh mental well–being scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes.* 2007;*5*:63.

48. Haver A, Akerjordet K, Caputi P, et al. Measuring mental well–being: A validation of the short Warwick–Edinburgh mental well–being scale in Norwegian and Swedish. *Scandinavian Journal of Public Health.* 2015;43:721–727.

49. Hampson SE, Edmonds GW, Goldberg LR. The health behavior checklist: factor structure in community samples and validity of a revised good health practices scale. *Journal of Health Psychology.* 2017;1 –7.

50. Richins MA. The material values scale: measurement properties and development of a short form. *Journal of Consumer Research.* 2004;31: 209–219.

51. Gámez W, Chmielewski M, Kotov R, et al. The brief experiential avoidance questionnaire: Development and initial validation. *Psychological Assessment.* 2014;26:35–45.

52. Raes F, Pommier E, Neff KD, et al. Construction and factorial validation of a short form of the Self–Compassion Scale. *Clinical Psychology & Psychotherapy*. 2011;18:250–255.

53. Hsieh KY, Hsiao RC, Yang YH, et al. Relationship between Self–identity confusion and internet addiction among college students: the mediating effects of psychological inflexibility and experiential avoidance. *International journal of environmental research and public health.* 2019;16:3225.

54. Zhang JW, Howell RT, Caprariello PA. Buying life experiences for the "right" reasons: a validation of the motivations for experiential buying scale. *Journal of Happiness Studies.* 2013;14:817–842.

55. Zhang JW, Howell RT, Caprariello PA, et al. Damned if they do, damned if they don't: material buyers are not happier from material or experiential consumption, *Journal of Research in Personality.* 2014;*50:*71–83.

56. Butt MS, Sultan MT. Coffee and its consumption: benefits and risks. *Critical reviews in food science and nutrition.* 2011;51:363–373.

57. Mogilner Cassie, Michael I Norton. "Time, money, and happiness." *Current Opinion in Psychology.* 2016;10:12–16.

58. Muniz–Velazquez JA, Gomez–Baya D, Lopez–Casquete M. Implicit and explicit assessment of materialism: Associations with happiness and depression. *Personality and Individual Differences.* 2017;116:123–132.

59. Watson David. Self–compassion, the 'quiet ego' and materialism. Heliyon. 2018.