

Does culture moderate the relationship between body dissatisfaction and quality of life? A comparative study of Australian and Malaysian emerging adults

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Abstract

Investigating moderating effects of culture between body dissatisfaction (BD) and quality of life (QoL) is paramount, as BD affects psychosocial functioning. Participants include 866 females (18–25) years old from Australia (n=464) M (20.88) SD (3.38) and Malaysia (n=402) M (20.63) SD (2.05). Higher levels of BD predicted lower levels of QoL across all four domains. BD had the strongest effect on psychological QoL for both cultures. Culture moderated the relationship between BD and: (i) physical QoL and (ii) environmental QoL. The adverse impact of BD on all domains of QoL, highlights the importance of BD as a public health problem.

Keywords

body image, culture, health promotion, moderator, public health psychology, QoL, quantitative Methods

Introduction

Body Dissatisfaction (BD) can be defined as the negative feelings and perceptions an individual has about his or her body, often influenced by various factors such as attitudes towards weight gain, body shape, appearance and cultural norms in relation to an ideal body (McGuinness and Taylor, 2016; Slevec and Tiggemann, 2011a). Findings have consistently shown that young females in industrialised and Westernised countries are dissatisfied with their body shape or weight (Grogan, 2016; Mond et al., 2013), to the point where BD is considered the norm rather than the exception (Tantleff-Dunn et al., 2011). Indeed, prevalence rates of 60% have been found in the USA (Neumark Sztainer et al., 2002), with similarly high prevalence rates found in other Westernised nations such as Australia, particularly among females (Hargreaves and Tiggemann, 2003; Rodgers et al., 2011; Tiggemann, 2005). According to previous studies, a higher percentage of females (60%) experienced BD compared to males (30%) (Stice and Whitenton, 2002).

BD is a serious public health problem as it has been empirically and theoretically identified as a significant factor in the development and maintenance of a range of disordered eating behaviours, ranging from dieting, fasting, binge eating, food restriction and purging to clinically diagnosable eating disorders such as anorexia and bulimia nervosa (Jung and Forbes, 2006; McGuiness and Taylor, 2016; Midlarsky and Nitzburg, 2008; Slevec and Tiggemann, 2011b; Smolak and Streigel-Moore, 2004; Stice, 2002; Stice et al., 2011). BD has also been associated with, and predictive of, a range of adverse health outcomes such as impaired social effectiveness, anxiety, low self-esteem, reduced sense of personal growth, impaired psychosocial functioning, depressive mood and impaired self-image (Jackson et al., 2014; Mond et al., 2013; Neumark-Sztainer et al., 2006; Pimenta et al., 2009; Silva et al., 2011). BD has been found to have a strong negative association with the various aspects of QoL. QoL refers to an 'individual's perception of their position in life in relation to their goals,

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expectations, standards and concerns and in the context of the culture in which they live' (WHO, 1997: 5). OoL is affected in complex ways by the individual's level of independence, social relationships, physical health, psychological state, personal beliefs and their relationships with their environment (WHO, 1997). QoL encompasses four main domains that include physical QoL, psychological QoL, environmental OoL and social relationships. First, physical OoL incorporates facets such as energy and fatigue, sleep and rest, as well as pain and discomfort. Second, psychological QoL incorporates positive and negative feelings, self-esteem, learning, concentration and acceptance of bodily appearance. Third, environmental QoL incorporates engagement in recreation or leisure; financial resources; sense of freedom, safety and security; accessibility to health care; and pollution and noise within the physical environment. Fourth, social relationships refer to personal relationships and social support.

BD has been found to have a strong negative association with the various aspects of QoL. For instance, de Morais et al. (2017) found that in their sample of Brazilian women, those who were dissatisfied with their body weight had lower QoL in the health (diet, eating behaviour, exercise and physical health) and emotional domain (mood, anxiety and depression) compared to women who were satisfied with their body weight. Meanwhile in the USA, Becker et al. (2017) found that negative female body image was significantly correlated with poorer QoL. Similarly, in two Australian studies, it was found that BD was associated with impairment in the domains of mental and physical QoL (Griffiths et al., 2016; Mond et al., 2013), while both a Turkish (Navir et al., 2016) and a Portuguese study (Duarte et al., 2015) found that having a negative body image significantly affected all four domains of OoL (physical, psychological, environmental and social relationships). Of particular interest to this paper is the relationship between BD and quality of life (QoL) and how this is moderated by culture.

The concept of BD has traditionally been thought to be a phenomenon that is culturally limited to women in Western societies, with women from non-Western societies and particularly Asian societies, being thought to rarely experience these issues (Jung and Forbs, 2006; Root, 1990). However, with an increasingly globalised world, BD is becoming international in nature, with evidence suggesting that it may be just as common in Asian societies as it is in Western Europe and North America (Gordon, 2001; Jung and Forbes, 2006; Lee and Lee, 2000). A study by Wardle et al. (2006), conducted among university students in 22 countries (n=18,512), found that weight loss attempts and the perception of being overweight were highest among Asian females compared to Caucasian females regardless of their current weight status. A review by Chisuwa and O'Dea (2010) found that approximately 68% of Japanese female adolescents reported negative body image perception and a heightened desire to be thinner regardless of their actual weight status. Of relevance to the current study, research conducted by Kamaria et al. (2016) found that 48.1% of female Malaysian undergraduate students reported BD and a desire to be thinner. Thus, it would seem that BD is prevalent in Asian cultures.

Although there is growing recognition that Asian women experience BD, there has to date been no cross-cultural research investigating the relationship between BD and facets of OoL with Asian women. It is therefore, deemed important to understand and draw a comparison on the role of BD in predicting OoL in a collectivistic culture like Malaysia compared with a more individualistic culture like Australia. From a cultural context, young Malaysian females conform to a more collectivistic culture (conforming to social values and norms, valuing social relationships and connections with family and peer groups) while Australian females conform to a more Individualistic culture (liberal attitudes, emphasis on independence). Increased Westernisation, technological advancement and modernisation in Malaysia over the years have brought about a permeation on Western ideals of BD (the thin ideal) to the non-Western culture of Malaysia. The appreciation of potential cultural differences in the experience and consequences of BD is important if appropriate and effective prevention and treatment strategies are to be developed in Asian countries. This paper seeks to investigate the association between BD and QoL and, in particular, the moderating effect of culture.

It is hypothesised that the relationship between BD and OoL of emerging female adults will be different between a Western culture (Australia) and a non-Western culture (Malaysia). Due to the collectivistic and individualistic nature of Asian and Western cultures respectively, the way in which BD predicts the four domains of QoL would be expected to be different. Social relationships and connections with peer groups are often central in collectivistic cultures. In addition, previous studies, mostly in Western cultures have found a strong association between BD and all four domains of OoL, with limited studies on this association in other cultures. Thus, Australia, being a predominantly Western culture would be expected to have a similar association between BD and the four domains of QoL. Based on the findings from previous studies and the different cultural contexts, the following hypotheses were developed:

Hypothesis 1: The relationship between BD and physical, environmental and psychological QoL would be significant and negative for the Australian sample, but would be weaker and/or non-significant for the Malaysian sample.

Hypothesis 2: The relationship between BD and social relationships would be significant and negative for the

Table 1. Frequency and percentage of the demographic variables for Australian and Malaysian participants.

Variable	Australian sample ($N = 464$)	Malaysian sample (N=402) Frequency (%)	
	Frequency (%)		
Age	M=20.88 (SD=3.38)	M=20.63 (SD=20.06)	
Ethnicity	. ,	,	
Caucasian	374 (80.6)	_	
Asian	40 (8.6)	_	
Middle Eastern	6 (1.3)	_	
African	5 (1.1)	_	
Hispanic	3 (0.6)	_	
Pacific Islander	4 (0.9)	_	
Aboriginal	4 (0.9)	_	
Torres Strait Islander	3 (0.6)	_	
Aboriginal and/or Torres Strait Islander	I (0.2)	_	
Malay		103 (25.6)	
Chinese	_	160 (39.8)	
Indian	_	101 (25.1)	
Other	24 (5.2)	38 (9.5)	
Highest qualification	, ,	, ,	
Year 12 (or equivalent)	233 (50.3)	I (0.20)	
TAFE certificate	47 (10.2)	146 (36.3)	
Undergraduate (bachelor) degree	107 (23.1)	130 (32.3)	
Postgraduate degree	27 (5.8)	76 (18.90)	
Other	49 (10.6)	49 (12.2)	
Family wealth background			
First quartile (top 85% and above)	24 (5.2)	13 (3.2)	
Second quartile (51%–75%)	283 (61.1)	232 (57.9)	
Third quartile (26%–50%)	139 (30.0)	136 (33.9)	
Fourth quartile (lowest 25%)	17 (3.7)	20 (5.0)	

Malaysian sample but would be weaker and/or non-significant for the Australian sample.

Methods

Participants

Participants were 866 Australian (n=464) and Malaysian (n=402) women aged 18–25 years. The mean age for Australian and Malaysian women were M (20.88) SD (3.38) and M (20.63) SD (2.05) respectively.

Measures

The questionnaire was in English for Australian participants and was in dual language for the Malaysian participants (English with translation in the Malay language). Translation was carried out by the first author and all items were independently back-translated into English by a translator in order to validate the translation. The demographic information including mean age, ethnicity, highest educational qualification and description of family background of the participants is presented in Table 1.

Body dissatisfaction

This study used a modified version of the Body Image Concern subscale of the Body Image and Body Change Questionnaire to measure body dissatisfaction (Ricciardelli and McCabe, 2002). The original 10-item Body Image Concern subscale was modified by adding two items (satisfaction with one's back and buttocks) to provide a more comprehensive assessment of satisfaction with specific body parts and was consistent with Ramme et al. (2016) and Bell et al. (2016) as this scale was used with females of similar age. The resulting Body Image Concern subscale used in this study consisted of 12 items that assessed the extent to which individuals were satisfied with their body shape, weight, muscle size and the various body parts such as their abdominal region/stomach, shoulders, legs and arms, back, buttocks, hips, thighs and chest (Ramme et al., 2016). Response options ranged on a 5-point Likert scale from 1 (extremely satisfied) to 5 (extremely dissatisfied). The sum of the total scores ranged from 12 to 60, with higher scores indicating greater levels of BD. The Body Image and Body Change Questionnaire subscale has a high level of internal consistency with a Cronbach's alpha of 0.77, as well as good validity (McCabe and Ricciardelli,

2003). In the present study, a Cronbach's alpha of 0.90 was found for the Body Image Concern subscale for the Australian sample while a Cronbach's alpha of 0.91 was found for the Malaysian sample.

Quality of life

The 26-item World Health Organization Brief Quality of Life Assessment Scale (WHOOOL-BREF) was used to assess the four domains of QoL: physical (seven items), psychological (six items), environmental (eight items) and social relationships (three items). Respondents were required to rate on a 5-point Likert scale their level of dissatisfaction from 1 (very dissatisfied) to 5 (very satisfied). Scores for the physical QoL subscale were summed to produce total scores that ranged from 7 to 35 while the scores for the psychological OoL were summed to produce total scores that ranged from 6 to 30. Similarly, scores for environmental OoL were summed to produce total scores that ranged from 8 to 40 and scores for social relationships were summed to produce total scores that ranged from 3 to 15. Higher scores indicated higher QoL. The WHOQOL-BREF has a high level of internal consistency as well as good validity (Duarte et al., 2015). In the present study, Cronbach's alphas of 0.76, 0.60, 0.71 and 0.64 for the Australian sample, and 0.69, 0.70, 0.63 and 0.70 for the Malaysian sample, were found for the physical health, psychological health, environmental health and social relationships subscales respectively.

Procedure

Australian participants were recruited through social media advertisement (Facebook advertisement) and electronic correspondence via the Griffith University online Call for Research Volunteers. Malaysian participants were recruited through social media advertisements (Facebook paid advertisement), as well as face to face in universities, colleges, cafes, restaurants and shopping malls. The questionnaire was made available online via Lime Survey and a link was then created and advertised on a Facebook page that was created. Participants who were interested in participating and were eligible based on the inclusion and exclusion criteria, could complete to the questionnaire upon clicking the link (online). Participants were provided with an information sheet and consent form either in paper-based format or electronically, depending on whether they were completing the questionnaire online or on paper. 'The information sheet and consent form contained details of the study, aims of the research, expected benefits of the research, what their participation entailed, the voluntary nature of their participation, assurances of confidentiality and a statement informing them that they could withdraw from the study at any time without penalty'. Interested participants were also entered into a prize draw to win a \$350 and RM350 gift voucher in Australia and Malaysia respectively.

Data analysis

Four hierarchical multiple regression (HMR) analyses were conducted, one for each QoL outcome variable (physical QoL, psychological QoL, social relationships and environmental QoL). Family wealth (dummy coded 1=from a wealthy family) and university education (dummy coded 1=attended university) were entered in Step 1 as control variables. BD and culture (dummy coded where 0=Malaysian, 1=Australian) were entered at Step 2, followed by the interaction of BD and culture (being Australian or Malaysia) at Step 3.

Results

Table 2 presents the correlations means and standard deviations for all variables used in the analyses reported below. Moderated multiple regression was used to test whether culture moderated the relationship between body dissatisfaction and: (i) physical QoL; (ii) psychological QoL; (iii) social relationships; and (iv) environmental QoL, while controlling for having university level education and family wealth.

In the first step, education and family wealth were entered and significantly predicted: physical QoL, F(2, 821) = 13.13, p < 0.001; psychological QoL, F(2, 821) = 10.68, p < 0.001; social relationships, F(2, 820) = 0.97, p = 380; and environmental QoL, F(2, 821) = 21.85, p < 0.001.

Physical QoL

Participants who had attended university had lower physical QoL, while participants who came from a wealthy background had higher levels of physical QoL. Culture and body dissatisfaction were entered in the second step and F change indicated a significant improvement in prediction over the demographic variables alone, F(2, 819) = 87.86, p < 0.001 and explained an additional 17.10% variance in physical QoL. Body dissatisfaction accounted for 12.60% of the variation in physical QoL and higher levels of body dissatisfaction were associated with lower levels of physical QoL. Culture accounted for 5.90% of the variation in physical QoL and Australian participants had higher physical QoL than Malaysian participants. Finally, the interaction between culture and body dissatisfaction was entered in the third step and made a significant contribution, F(1,818)=5.06, p=0.03, to the prediction of physical QoL. The results of this analysis are presented in Table 3. Examination of the conditional effects confirms that, body dissatisfaction predicts physical QoL for Malaysian participants, b = -0.08, SE=0.01, t(818) = 5.85, p < 0.001, 95% CI [-0.09, -0.09] and Australian participants, b=-0.12, SE = 0.01, t(818) = 10.10, p < 0.001, 95% CI [-0.14, -0.09]. However, as shown in Figure 1, the effect of body dissatisfaction on physical QoL was strongest for Australian participants.

Table 2. Descriptive statistics and intercorrelations between body dissatisfaction, culture, demographic and QoL variables (*N* = 866).

	I	2	3	4	5	6	7	Mean	SD
1. Body dissatisfaction	_	0.042	-0.119**	-0.354***	-0.576***	-0.303***	-0.349***	39.24	9.02
2. University education		_	-0.093*	-0.086*	0.020	0.015	-0.057	_	_
3. Family wealth			_	0.161***	0.155***	0.044	0.222***	_	_
4. Physical QoL				_	0.514***	0.333***	0.581***	14.41	2.45
5. Psychological QoL					_	0.471***	0.603***	12.97	2.31
6. Social relationships						_	0.398***	13.43	3.42
7. Environmental QoL							_	13.45	2.15

p < 0.05. **p < 0.01. ***p < 0.001.

Table 3. Hierarchical moderated multiple regression analyses predicting physical QoL, psychological QoL, social relationships and environmental QoL (*n* = 866).

Variable	Ь	SE b	β	LL 95% CI	UL 95% CI
Outcome: physical quality of life					
Family wealth	0.54***	0.16	0.11	0.22	0.85
University education	0.01	0.16	-0.003	-0.32	0.30
Body dissatisfaction	-0.08***	0.01	-0.28	-0.10	-0.05
Culture	2.75***	0.69	0.56	1.39	4.11
Body dissatisfaction × culture	-0.04*	0.02	-0.33	-0.07	-0.01
Outcome: psychological quality of I	ife				
Family wealth	0.44**	0.14	0.09	0.17	0.71
University education	0.21	0.14	0.05	-0.05	0.48
Body dissatisfaction	-0.13***	0.01	-0.5 I	-0.15	-0.11
Culture	0.98	0.59	0.21	-0.20	2.13
Body dissatisfaction \times culture	-0.03	0.01	-0.24	-0.06	0.002
Outcome: social relationships					
Family wealth	0.08	0.24	0.01	-0.39	0.55
University education	0.20	0.24	0.03	-0.26	0.66
Body dissatisfaction	-0.12***	0.02	-0.3 l	-0.16	-0.08
Culture	-0.22	1.03	-0.03	-2.25	1.81
Body dissatisfaction × culture	0.01	0.03	0.03	-0.05	0.06
Outcome: environmental quality of	life				
Family wealth	0.77***	0.14	0.17	0.50	1.03
University education	0.21	0.14	0.05	-0.06	0.47
Body dissatisfaction	-0.10***	0.01	-0.43	-0.12	0.08
Culture	0.08	0.59	0.02	-1.08	1.25
Body dissatisfaction × culture	0.03*	0.01	0.31	0.002	0.06

p < 0.05. **p < 0.01. ***p < 0.001.

Psychological QoL

Participants who came from a wealthy background had higher levels of psychological QoL, while university attendance did not significantly predict psychological QoL. Culture and body dissatisfaction were entered in the second step and F change indicated a significant improvement in prediction over the use of the demographic variables alone, F(2,819)=197.92, p < 0.001 and explained an additional 31.80% variance in psychological QoL. Body dissatisfaction accounted for 31.36% of the variation in psychological

QoL and higher levels of body dissatisfaction were associated with lower levels of psychological QoL. Culture was not a significant predictor of psychological QoL. The interaction between culture and body dissatisfaction was entered in the third step and did not make a significant contribution, F(1,818)=3.30, p=0.07, to the prediction of psychological QoL. The results of this analysis are presented in Table 3. The prediction of psychological QoL by body dissatisfaction did not differ between Australian and Malaysian participants.

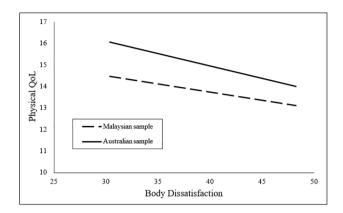


Figure 1. Moderation of relationship between body dissatisfaction and physical QoL by culture.

Social relationships

Culture and body dissatisfaction were entered in the second step and F change indicated a significant improvement in prediction over the use of demographic variables alone, F(2,819) = 40.62, p < 0.001 and explained an additional 9% variance in social relationships. Body dissatisfaction accounted for 8.94% of the variation in social relationships and higher levels of body dissatisfaction were associated with lower levels of social relationships. Culture was not a significant predictor of social relationships. The interaction between culture and body dissatisfaction was entered in the third step and did not make a significant contribution, F(1,818)=0.04, p=0.84, to the prediction of social relationships. The results of this analysis are presented in Table 3. Australian and Malaysian participants did not differ in terms of how body dissatisfaction predicts social relationships.

Environmental QoL

Participants who came from a wealthy background had higher levels of environmental QoL, however having attended university did not significantly predict environmental QoL. Culture and body dissatisfaction were entered in the second step and F change indicated a significant improvement in prediction over the use of demographic variables alone, F(2, 819) = 102.99, p < 0.001 and explained an additional 19% variance in environmental QoL. Body dissatisfaction accounted for 12.11% of the variation in environmental QoL and higher levels of body dissatisfaction were associated with lower levels of environmental QoL. Culture accounted for 8.58% of the variation in environmental QoL and Australian participants had higher environmental QoL than Malaysian participants. The interaction between culture and body dissatisfaction was entered in the third step and made a significant contribution, F(1,818)=4.48, p=0.03, to the prediction of environmental QoL. The results of this analysis are presented in Table 3.

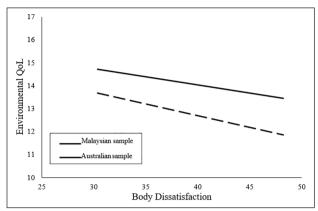


Figure 2. Moderation of relationship between body dissatisfaction and environmental QoL by culture.

Examination of the conditional effects confirms that, body dissatisfaction predicts environmental QoL for Malaysian participants, b=-0.10, SE=0.01, t(818)=9.17, p<0.001, 95% CI [-0.12, -0.08] and Australian participants, b=-0.07, SE=0.01, t(818)=7.29, p<0.001, 95% CI [-0.09, -0.05]. However, as shown in Figure 2, the effect of body dissatisfaction on environmental QoL was strongest for Malaysian participants.

Discussion

This paper aimed to investigate the association between BD and QoL and, in particular, the moderating effect of culture. The results found that there were similarities between the two cultures in that the more BD one experiences, the lower their QoL in each domain. Second, culture was a moderator only in the relationship between BD and physical QoL and between BD and environmental QoL but not in the relationship between BD and psychological QoL. Each of these findings will be discussed in turn.

It was hypothesised that the relationship between BD and physical, environmental and psychological QoL would be significant and negative for the Australian sample but would be weaker and/or non-significant for the Malaysian sample. Consistent with the first hypothesis, it was found that there was a significant relationship between BD and physical QoL for both Australian and Malaysian samples with the effect of this relationship being strongest for Australians (this effect was moderated by culture). With respect to environmental QoL, there was a significant relationship between BD and environmental QoL, for both Australian and Malaysian samples but contrary to what was hypothesised, the effect was strongest for Malaysians (this effect was moderated by culture). Meanwhile, with respect to psychological QoL and social relationships, contrary to the second hypothesis, Australian and Malaysian participants did not differ in terms of how body dissatisfaction predicts psychological QoL and social relationships.

The significant relationship between BD and physical OoL with the effect of this relationship being strongest for Australians, reflects the more self-focused individualistic culture of Australia. Young people living in individualistic cultures often prioritise personal health and wellbeing (Okely et al., 2018). When women from individualistic cultures experience high levels of dissatisfaction with their bodies, it would likely impact their physical OoL. This emphasis on personal wellbeing or physical health could be a possible explanation for the effect strength between BD and physical OoL among Australian women. Meanwhile, there was a significant relationship between BD and environmental QoL, for both Australians and Malaysians, with the effect being strongest for Malaysians. This may be because of Malaysia's more collectivistic culture. People from collectivistic cultures often focus on their relations with the surrounding environment.

A possible explanation for the similarity in the association between BD and psychological OoL and social relationships in both Australian and Malaysian participants could be that dissatisfaction with weight or shape has such a strong influence on one's psychological functioning that culture no longer plays a significant part in this association. Focusing on dissatisfaction with body size, weight or shape pertains to the cognitive and behavioural importance of appearance in one's life which then affects their self-esteem and in turn, their mental health and wellbeing. This finding is consistent with previous research by Duchesne et al. (2017) that aimed to test the mediating effect of self-esteem on the relationship between BD and anxiety and depression in Canadian adolescents aged 14–18 years (n=409). The study found a significant association between BD and increased psychological distress. Focusing on BD and obsessing about body size, weight or shape may cause young women to feel inferior around their peers and this may impact their social relationships. This was consistent with a previous study by Schutz and Paxton (2007) that found a strong association between BD and negative friendship qualities such as friend conflict and friend alienation among young girls in the United States (n=324).

The strong association between higher levels of BD predicting lower levels of all four domains of QoL with the strongest association between psychological QoL for Australian and Malaysian women confirms the role of BD as a public health problem as its affects women in Western and non-Western cultures. The results of this study on the association between higher levels of BD and lower levels of QoL across all four domains are consistent with previous research by Mond et al. (2013) that examined the association between BD and impairment in health-related and subjective quality of life among Australian women aged 18-40 (n=5255). The study found that approximately 86.9% of participants had some level of dissatisfaction either with shape or weight. Increased levels of BD were found to have a strong association with poorer QoL for all of the domains

of OoL. The strongest associations were for items on psychosocial functioning (extent that participants felt their life to be meaningful, satisfaction with one's self) and mental health (emotional problems, feeling calm and peaceful) although BD was also found to impair some aspects of physical health. The significant association between higher levels of BD and lower levels of QoL across all four domains found in this study is also consistent with previous research by Duarte et al. (2015) among Portuguese college females aged 18–26 years (n=662). The study found that negative body image predicted psychological QoL and that self-compassion mediated the impact of BD on psychological QoL. The results of this study are also consistent with a previous cross-sectional study by Nayir et al. (2016) with individuals aged 15 and above in Turkey (n=650). The study found that BD and inferiority based on body image were found to be strongly significant with all the dimension of QoL, especially with the psychological dimension.

Based on the direct effect BD has on the various domains of QoL, and the similarities in the role of BD in predicting psychological OoL and social relationships, it appears to suggest that female emerging adults across cultures, when dissatisfied with their bodies, are likely to report poor quality of life across all four domains. The similarity in findings between the Australian and Malaysian participants in the present study suggests that this effect is not confined to Western cultures but is an emerging global public health issue. The strong influence of BD could be attributed to the permeation of Western ideals of body image that emphasise the importance of physical attractiveness together with the persistent portrayal of thin women in media. As developing countries such as Malaysia have experienced rapid economic development, industrialisation, Westernisation and technological advancement, western ideals including body image, that characterise this path of modernisation become increasingly prevalent across the society.

Strengths and limitations

This study has a number of strengths. First, the large sample size (n=866) was sufficient for HMR analysis, enabling the detection of small to moderate size effects. Second, the study includes ethnically diverse samples of Malaysian and Australian female emerging adults. Despite the strengths of this study, there were also several limitations. First, due to the cross-sectional nature of the study conclusions about the causality or temporal nature of the relationship between BD and QoL cannot be made. Second, this study only included female participants aged 18-25, which limits the generalisability to similar samples of females. Further research in this area is warranted and should investigate sociocultural influences and thin internalisation as potential moderators across cultures. Future research should investigate the impact of body dissatisfaction on quality of life in relation to ethnicity in a socio-cultural

characterised by specific body norms and ideals (e.g. skin colour, eye colour, hair type). Further, longitudinal studies that investigate the development and maintenance of BD over time and its effect on QoL across cultures would be highly beneficial. More experimental studies that explore BD among emerging adults are deemed necessary as it may highlight other factors that serve as moderators. Finally, future research should include males to understand how BD predicts various domains of QoL.

Implications

The results of this study have practical implications for prevention and treatment of BD and impaired QoL. BD warrants greater attention as a public health problem as it has been found to be a potent risk factor for lower QoL in all four OoL domains of physical, psychological, environmental and social relationships for women in Western and non-Western cultures. First, more prevention and treatments strategies targeting BD are deemed important to prevent impairment in all domains of QoL, with emphasis on psychological QoL and social relationships among young women. Second, prevention efforts that are tailored to women in individualistic and collectivistic cultures in targeting BD would be more effective. More culture specific community-based health promotion strategies that focus on adaptive ways to deal with negative body image or dissatisfaction with one's body should be developed. When young women develop more positive attitudes towards their bodies, it may significantly improve their wellbeing and quality of life.

Conclusion

The findings from the present study suggests that while culture plays a role in how BD predicts one's physical and environmental health, the dissatisfaction with one's weight or shape significantly predicts lower psychological QoL and social relationships regardless of cultural context. This study adds to the knowledge of the role of BD in predicting various domains of QoL across cultures as it is the first study to our knowledge that investigated the association between BD and quality of life (QoL), in particular, the moderating effect of culture in Australian and Malaysian emerging adults. Results from this study lend empirical support to the claim that there is a significant relationship between BD and the four domains of OoL, with the strongest relationship being with that of psychosocial functioning. This study supports the assertion that BD has indeed permeated the non-Western, collectivistic culture of Malaysia as the role of BD in predicting four domains of QoL were similar across cultures. This study also highlights that culture only moderated the relationship between BD and physical and environmental QoL across the two cultures, reflecting the individualistic and collectivistic

cultures of Australia and Malaysia. As BD adversely impacted psychological (having the strongest effect on psychological QoL) across cultures, this then lends further support to the contention that BD warrant greater attention as a public health problem in its own right as opposed to it being viewed as merely a risk factor for clinical psychopathology in the form of eating disorders, depression and anxiety. It is hoped that results from this study will have a positive contribution for future interventions targeted at BD to promote positive body image and increased quality of life/wellbeing among emerging adults.

Declaration of conflicting interests

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Ethics

Ethics approval was obtained from the Human Research Ethics Committee (GU Ref No: 2016/844).

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