Development of new psychometric instruments to measure appearance distress during adolescence: the Adolescent Appearance Distress Scales

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Abstract

Measures of adolescent appearance distress have focused on weight and body shape, excluding other aspects of appearance. The absence of a psychometrically sound, general measure of appearance distress has limited evaluation of interventions and curtailed investigation of psychological processes in adolescent appearance adjustment.

This paper describes the development of scales assessing adolescent appearance distress to address this dearth of appropriate measures, validated through cross-sectional design involving 617 adolescents. Two scales were developed, comprising 13 items for younger adolescents and 17 items for older adolescents. Two similar factors were generated for each scale, "fear of negative appearance evaluation" and "salience and investment in appearance." A third factor was identified for older adolescents, "social appearance comparison." Sound psychometric properties were demonstrated.

Introduction

Physical appearance is a key component of body image and a core feature of identity, communicating to the self and others aspects of health, sexuality, ethnicity and social acceptability. It is no surprise that in studies of adults, self-consciousness of physical appearance (appearance distress) is widespread in both the visibly different ("disfigured") and normative populations (Carr, Harris, & James, 2000). What is less well understood, in part due to inadequacy of current measurement tools, is the extent to which appearance distress impacts on adolescence, and the effectiveness of interventions aimed at ameliorating adolescent appearance distress. This paper seeks to demonstrate the development of age appropriate, theoretically grounded, user-informed measurement scales to support research that addresses this gap in our understanding.

From the point of view of socio-cultural theory, a fundamental cause of appearance distress in both adults and in adolescents is the incongruity between reality and unrealistic cultural appearance ideals. Appearance ideals become internalized as personal standard for success (Cafri, et al, 2005). Saturated media coverage of idealized images ensures that an awareness of the Western cultural ideal for men (muscular, low fat, "triangular" shape) and women (an "ideal" standard of being thin, long haired, larger breasted, longer legged) is unavoidable. It is important however to recognize that the specific content of these appearance stereotypes is somewhat culturally determined (cf., for example, Anderson-Fye, 2009). Neither set of male or female ideals represent a healthy, or normally attainable appearance. However, a powerful feminist critique has argued that the position for girls and women is even more problematic than for boys and men. These appearance stereotypes have been argues to fulfill particular social functions in relation to women – to "*dissipate their emotional and cultural resources, and reduce them to sex objects*" (Forbes, Collinsworth, Jobe, Braun and Wise, 2007, p.226). For a woman, beauty is determined as fundamentally feminine, a personal and social imperative, paramount among her qualities, and requiring substantial modification from natural appearance (Scott, 1997). From a psychological perspective, women have been shown to be more invested in their appearance, more dissatisfied with their appearance, and the subject of pervasive scrutiny from men and other women (Cash, Ancis and Strachan, 1997). This becomes increasingly problematic for adolescents. As they move through puberty and into teenage years, female adolescents in particular will be increasingly aware of and subject to the external social expectations of what it is to negotiate a sexualized, appearance based identity. Thus we suggest that they are at increased risk of developing unhealthy beliefs, emotions and behaviors in relation to their own bodies and appearances. Adolescents are forced to engage with a youth culture which highly values appearance related attributes in a way far less prevalent for children (Ricciardelli, McCabe & Banfield, 2000).

Although it is clear that from at least the age of five, children internalize appearance stereotypes such as "what is beautiful is good", the evidence from developmental perspectives (Harter, 2006) suggests that during adolescence that the internalization of an appearance based identity plays a greater role in the self-concept. Adolescence is often cited as a time of great distress about appearance, and characterized by numerous personal and interpersonal transitions. In particular, the change in the perception of one's self, and the terms under which one evaluates the self, are in flux (Abbott & Barber, 2010; Harter, 2012). Physical appearance contributes more to self-esteem than any other factor during adolescence, including scholastic competence, social acceptance, behavioral conduct and athletic competence (Harter, 1999; Levine & Smolak, 2002). Adolescence is a period during which new "selves" are created in an increasingly differentiated and multifaceted self-concept. Not until adolescence are we able to create abstract self-representations based on an integration of traits into higher order aspects of the self. At this stage, adolescents are at risk of creating aspects of the self that are based on internalized appearance stereotypes prevalent in their wider social environment. At this stage also, adolescents develop an increased preoccupation with the reflected appraisals of others (Rosenberg, 1986), and an increasingly exaggerated sense of being subject to attention or scrutiny from others. We therefore argue that the development of a conception of the self that relies heavily on appearance stereotypes, in tandem with an unsophisticated and exaggerated perception of others' attention, places adolescents at greater risk of negative appearance self-evaluation.

By mid-adolescence, there is an increased awareness of conflict between different aspects of the self, but without any developed means of reconciling them. In particular, differences between the actual and ideal self (including actual and ideal appearance) becomes salient, and can elicit difficulty. This is particularly the case for girls, and for appearance based self-discrepancies (Harter, 1998).

During older adolescence the ability to shift to an internally driven rather than externally driven locus of self-knowledge is developed. At this stage there is somewhat less reliance on external perspectives of the self for self-knowledge. There is also a greater ability to reconcile conflicting aspects of the self, such as the actual and ideal versions of the self. However, in conflict with this positive trend (for young women particularly) the demands of impossible cultural standards become an increasingly ubiquitous presence, and therefore the consequences of being unable to attain these ideals are potentially more detrimental.

Given these developmental changes, we argue that it is sensible to consider adolescence not as a single life stage but as reflecting a process in which the requirements of a prescriptive appearance based society may manifest differently at different ages. Currently, there are no appropriate measures that have been developed and thoroughly evaluated which aim to identify appearance distress in an adolescent population. To this end, we considered two samples, younger and older adolescents. The division between these groups was set at aged 15 years, at a point of transition from younger and middle adolescence to later adolescence.

Appearance-related distress has often been treated as synonymous with body image dissatisfaction, which in turn is interpreted as dissatisfaction with over/underweight. This work has been vital in understanding the emotional distress and related disordered eating which are both associated with poor body image (Stice, 2003). However, for some adolescents, weight is not the central focus of their appearance distress. In particular, the quality and texture of skin, the size/shape of physical features such as nose, ears, and mouth, the presence of scarring or other physical reminders of trauma or medical intervention can all be cause for distress (Fox, Rumsey and Morris, 2007).

Existing measures of this non-weight based appearance distress in adolescents are only available as a subscale within measures that are measuring multiple domains. There is a dearth of psychometric tests to assess other appearance distress in young people (Rumsey & Harcourt, 2007; Smolak, 2004). The lack of either theoretical integration or measurement tools in adolescent health science across different disciplines makes it difficult to identify common and idiosyncratic predictors and interventions for appearance-related distress.

Perhaps the most widely used measure in this field for adolescents at present is the Body Esteem Scale (BES; Mendelson, Mendelson, & White, 2001). This includes the most explicit measure of general appearance distress and has the advantage of being psychometrically valid and age-appropriate. However, the principal focus of the BES is still on weight related issues, and the interaction between weight concern, general appearance and other psychological constructs. To use the BES in both general and visibly different populations would necessitate using it collectively with other measurements such as social anxiety, perceived stigmatization, and a more detailed investigation of the role that social experience has on the development of appearance self-consciousness. This may then provide an adequate bank of measures but raises both theoretical and practical challenges for researchers that would be overcome if a single scale were available. Other scales related to well-being specifically developed for use with adolescents typically measure constructs such as general self-esteem (for example, Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Piers-Harris Children's Self-Concept Scale (Piers, 1969) but do not include items designed to detect general appearance concerns. This lack of appearance specific measures has led researchers to use other more generic indicators of psychosocial well-being to measure general appearance concerns or instead measure general self-esteem, and thus reduce the sensitivity and power of experimental designs.

The lack of general appearance scales available for those younger than 18 years old, pragmatically informed our development of two scales for adolescents aged 11 to 15 and 16 to 18 years old. In recognition that adolescence is not a homogenous life stage, we sought to develop separate scales taking into account the psychological, physiological, and social differences between early/middle and later adolescence.

Therefore the current study aimed to:

1. Develop a psychometrically robust measure to assess appearance distress in adolescent populations.
2. To identify variation in the structure of appearance distress between early/middle and later adolescence.
3. Provide a standardized tool with sufficient sensitivity for use in a variety of research and intervention settings.

Method

The University of the West of England Faculty of Applied Sciences Research Ethics Committee approved the research, HLS-08-566

Participants

Participants were 621 young people (age range,11-18 years, M = 14.4 years, SD = 3.02; 49.6% female). Sixty seven percent of the sample were living with both parents, 28% with their mother only, 3% with their father only, and 2% reported other/preferred not to say. Reported ethnicity was 90.9%White, 1.1% ,Black African or Caribbean, 0.6%, Bangladeshi, Indian or Pakistani, 0.2% Chinese and 7.2% other..

Participants were recruited from five mixed-sex, state high schools in England (95% of UK children attend state schools; ISIC, 2013). To reduce participant burden, socioeconomic status was determined by proxy, based on the school post code catchment area. National Statistics/Ordinance Survey data were used to convert post code indicators into Index of Multiple Deprivation (IMD) scores (http://geoconvert.mimas.ac.uk). Schools were from a range of deprivation quintiles and were a broad and representative spectrum of UK youth. Participation was incentivized with a one-off donation of £500 (approximately US $780) to each school, which was paid *a priori* and unrelated to the number of participants recruited. Whole classes within the targeted age range in each school were invited to participate. Classes selected were not streamed on ability, and were taken by all pupils. Four potential participants declined to take part (three $\leq$ 15 years old, one aged $\geq$ 16), and were not required to provide a reason; representing a participation rate over 99%. The response rate and recruitment of entire classes ensured that those participating were representative of each entire school.

Materials

Development of the Adolescent Appearance Distress Scale. Our methodological epistemology was iterative, with close attention paid to face validity. The initial item pool was generated through multiple convergent methods (cf. Streiner and Norman, 2008). Three sources of data were used for the item pool generation. The first was by expert consensus. Experts were an internationally renowned team of academics and clinicians who conduct

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research with and deliver interventions to young people with appearance distresss and clinicians based in a university Centre for Appearance Research, with many years of experience publishing and/or working face- to- face in appearance psychology with adults and adolescents. A literature search was also conducted to identify any gaps in academic knowledge, using “appearance” and its synonyms combined with “adolescence” and its synonyms, to identify any new literature and scales which the expert team may have been unaware of. Finally, the authors scrutinized qualitative transcripts of adolescents talking about appearance (published elsewhere, Fox, Rumsey and Morris, 2007) to identify further aspects of appearance distress that should be included.

Following a broadly cognitive behavioral model, items were deliberatively generated across cognitive, behavioral, and emotional domains. Where possible items were contextualized in typical situations described in the qualitative analysis of Fox, Rumsey and Morris’ (2007). For example thoughts that appearance could be improved, or that peers were better looking (cognitive items);avoidance of certain clothing, or spending significant periods of time attending to appearance (behavioral items); fears of being judged, feeling embarrassed about appearance, or feeling hurt by appearance-based comments of others (emotional items). Additional items specific to romantic relationships and personal intimacy were only included for 16–18 year olds. Scales were developed with the aim that they could be administered in both general and clinical populations (e.g.: in dermatology, burn, reconstructive surgery settings). Items were not therefore gender or condition specific.

Following initial item pool development a user-involvement event, led by experienced researchers, was held to refine and test the acceptability of the items. Thirty adolescents from a different school but who were representative of the study sample, gave feedback. Items were removed or added to the item pool, and where necessary language was amended and items were clarified. Participants also advised which response format they preferred and as a consequence a “not sure” category was added.

Based on expert and user input, the preliminary Adolescent Appearance Distress Scale-Younger (AADS-Y) item pool for 11–15 year olds consisted of 75 core items, and Adolescent Appearance Distress Scale-Older (AADS-O) for 16-18 year olds comprised 71 items. The response format was a 6-point likert scale (“very unlike me”, to “very like me”).

Convergent criterion validity measures.

Social Anxiety Scale for Children – Revised (SASC-R; La Greca & Stone, 1993). SASC-R is an 18-item self-report measure with three subscales: Fear of negative evaluation, social avoidance and distress in new situations, and generalized social avoidance and distress. The authors report Cronbach’s α = .78.

Body-Esteem Scale (BES; Mendelson, Mendelson, & White, 2001). The BES is a 23 item self-report measure that assesses participants’ attitudes and feelings about their bodies and appearance. The instrument contains three subscales: BE-Weight (weight satisfaction), BE-Appearance (general feelings about appearance), and BE-Attribution (judgment from others about appearance). The authors report Cronbach’s α = .89.

Brief Fear of Negative Evaluation scale (FNEB; Leary, 1983). The FNEB was included for 16–18 year olds. The scale contains 12 items, and assesses social-evaluative anxiety (e.g., distress, avoidance, expectations). The FNEB was specifically developed for use in those aged ≥16 years old and was therefore not suitable for the younger participants. The authors report Cronbach’s α = .90.

We hypothesized that the SASC-R and FNEB would correlate positively with the AADS and the BES would correlate negatively with the AADS.

Procedure

In agreement with the participating schools, consent was either passive (opt-out) or active (opt-in) depending on age. As the study was considered to pose minimal risk to well-being (by both adolescents in the PPI event and by senior teaching staff at the participating schools), opt-out parental consent was implemented for participants aged 11–15 years old. Several recent studies have demonstrated that opt-out can improve participation and reduce sampling bias, thus increasing validity, with no impairment to participants (Lacy et al., 2012; Vellinga, Cormican, Hanahoe, Bennett, & Murphy, 2011). Two weeks prior to the scale administration parents were sent a letter describing the study with the choice to opt-out. For adolescents aged 16 and over, traditional active (opt-in) consent, following the British Psychological Society (2010) guidelines was required. In addition, teachers held question and answer sessions with all the adolescents prior to participation.

Data collection. Initial testing for all ages was conducted in a classroom setting, under exam conditions, with supervision by a teacher and researcher.

Test-retest reliability. The age appropriate AADS was retested at two months in a subset of 79 participants aged 11–15 years old (n = 79, mean age 13 years 5 months, 39 males, 37 females, 3 sex unknown), and 35 participants aged 16–18 years old. No other scales were administered at this point. These participants were an opportunity sample from the existing pool of participants.

Results

Results for Adolescent Appearance Distress Scale-Younger (AADS-Y) and Adolescent Appearance Distress Scale-Older (AADS-O) are reported separately.

Adolescent Appearance Distress Scale-Younger

Cases with ≥10% missing data were removed (n = 20), resulting in a sample of 359 (aged 11-15 years). To determine the distribution of any remainder missing values, Little's MCAR test was used. Results indicated that missing data were absent at random (χ^2 =

349.021, df = 349, p = .490) which allowed expectation maximization imputation to be used to replace missing values.

Item analyses. Visual inspection of each of the remaining items led to the rejection of 47 items for skew, resulting in 27 items from the original item pool suitable for analysis as a scale. An iterative process of corrected item-total correlation analysis, rejecting items with Pearson correlation <.3, led to the retention of 13 items with corrected item total correlations between .45 and .71. A principal component analysis was conducted with varimax rotation. Kaiser-Meyer Olkin measure of sampling adequacy indicated a sufficient sample (0.917), and Bartlett's test of sphericity indicated no problem with sphericity of the data (χ^2 = 2127.7, df = 91, p<.001). Two components with eigenvalues >1 were observed. A scree plot of eigenvalues also showed a clear "elbow" at this point, therefore a two component solution was the best fit for the data. Component one was defined as "fear of negative appearance evaluation" and component two as "salience and investment".

Only items loaded at $\geq$.5 on either of the components (Matsunaga, 2010) were retained, resulting in 13 items, Table 1.

Table 1 here

The item-total Pearson's correlation coefficients of the remainder items were between r =. 45 to .71. Internal reliability was high, α =.90.

The scale was approximately normally distributed (M=45.2, SD =14.9). Shapiro-Wilk test demonstrated non-normality of the data (W = 0.99, df =359, p<.01). An examination of a quantile-quantile plot demonstrated that this arose due to a platykurtic (negative kurtosis) distribution; i.e. the distribution was somewhat flatter and wider than predicted by a normal distribution. This indicates a greater capacity to discriminate within the sample using the scale, as shown in Figure 1.

Figure 1 here

Psychometric properties. A Pearson correlation indicated high test-retest reliability (r = .89). Convergent construct validity was assessed by Pearson correlations with the scales described above, selected *a priori*. The hypothesized negative correlation with the BES (r = -.73), and positive correlation with the SASC (r =.72) were observed. Both factors also correlated significantly with BES (fear of negative appearance evaluation at r = -0.74, salience and investment r = -0.37) and SASC (fear of negative appearance evaluation at r = 0.74, salience and investment r = -0.32).

Demographic factors. There was no significant correlation between age and AADS-Y scores (r =.07, p =.26). As would be expected, there was a highly statistically significant difference between the scores of males and females. The mean score for boys was 37.1 (SD = 12.5), significantly lower than the mean score for girls, 54.4 (SD = 11.2), t (336) = 12.6, p < .001.

Adolescent Appearance Distress Scale-Older

Cases with ≥10% missing data were removed (n = 39), resulting in a sample of 258 (aged 16-18 years).

Item analyses. Visual inspection of the each of the remaining items for skew, and rejection of items with item-total correlations <0.3 resulted in 20 items from the original item pool suitable for analysis as a scale, with corrected item total correlations between r=.30 to .75. Internal reliability was high, α =.92.

A principal component analysis was conducted with varimax rotation. Kaiser-Meyer Olkin measure of sampling adequacy indicated a sufficient sample (0.912), and Bartlett's test of sphericity indicated was acceptable (χ^2 = 2683.1, *df* = 190, *p*<.001).

Three components with eigenvalues >1 were observed. A scree plot of eigenvalues also showed a clear "elbow" at this point, therefore a three component solution was the best fit for the data. Again, only items that loaded at ≥.5 on either of the components were retained (Matsunaga, 2010) and one item which loaded on two components was excluded, resulting in 17 items. Component one was defined as "fear of negative appearance evaluation", component two as "social comparison", and component three as "salience and investment".

Table 2 here

The scale was approximately normally distributed (*M*=54.1, *SD*=17.5). Shapiro-Wilk test demonstrated non-normality of the data (*W* = 0. 98, *df* =258, *p*<.05). As before, an examination of a quantile-quantile plot demonstrated that this arose due to a platykurtic (negative kurtosis) distribution, indicating a greater capacity to discriminate within the sample using the scale, as demonstrated in Figure 2.

Figure 2 here

Psychometric properties. A Pearson correlation indicated high test-retest reliability (*r* = .938). Convergent construct validity was assessed by Pearson correlations with the scales described above, selected *a priori*. The hypothesized strong negative correlation with the BES (*r* = -0.62), and positive correlations with the SASC (*r* = 0.71) and FNEB (*r* = 0.75) were observed. The fear of negative appearance evaluation correlated significantly with BES (r = -0.58), FNEB (r = 0.73) and SASC (r = 0.74). Social comparison also correlated significantly with BES (r = -0.71), FNBE (r = 0.66) and SASC (r = 0.63). Salience and investment did not correlate significantly with BES (r = -0.13), but did with FNEB (r = 0.44) and SASC (r = 0.27).

Demographic factors. There was no significant correlation between age and AADS-0 scores (*r*=.07, p=.248). There was a highly statistically significant difference between the scores of males and females. The mean score for boys was 48.1 (*SD* = 14.5), whilst the mean score for girls, 60.1 (*SD*=17.2), t (217) =5.54, $p < .001$.

Readability. The final items in each scale were assessed for readability to reflect the appropriate reading level, using the Flesch-Kincaid Ease in Microsoft Word. The overall reading ease score for the younger version was 89 (“very easy”) and for the older version 77 (“fairly easy”) and therefore both were suitable for their target ages.

Discussion

AADS-Y and AADS-O offer two distinctive, psychometrically robust measurement scales of appearance distress in adolescence. Both scales are short (13 and 17 items respectively) and simple to administer. Principal component analysis generated two similar factors for each scale, “fear of negative appearance evaluation” and “salience and investment in appearance”. In addition, the scale for older adolescents generated a third factor, “social appearance comparison.” As has been frequently observed elsewhere there was a significant difference by gender on levels of appearance distress, with girls scoring higher than boys in both age groups (Feragen, Kvalem, Rumsey, & Borge, 2010). As far as we are aware, the AADS-Y and the AADS-O are the first to measure appearance distress and self-consciousness specifically for adolescents outside weight and shape dissatisfaction.

Principal component analysis resulted in one factor in both scales containing the predominant number of items, defined as “fear of negative appearance evaluation”. The items that characterize this factor placed social gaze, and the resultant fear of being judged negatively, at its core. Within this factor, the AADS-O includes three items that tap distress and uncertainty around sexual attractiveness that are not included in the AADS-Y.

Within the "salience and investment" construct, principal component analysis revealed not only the focus on appearance (salience) but also utilization of strategies adopted to alter appearance (investment). "Social comparison" the third factor that is only present in the AADS-O - was "social comparison." This suggests a developmental shift in the older age group, reflecting how older adolescents may place and assess themselves in a social context, as their social comparison skills become progressively more advanced with age (Harter, 2012). Therefore social comparison information becomes more salient as adolescents make more frequent use of others as their reference point for social desirability.

Differences in the items that represented the same factor in younger and older age groups corroborates how appearance distress may manifest in distinctive ways for different stages of adolescence, this further justifies the need for age specific scales. An methodological strength in producing the AADS is the level of face and content validity achieved through meaningful and responsive user-involvement, particularly given the potential sensitivities and specificities around language (for example, the items tapping appearance in the context of romantic relationships and sexual attractiveness). To our knowledge this has not been reported in the development of other similar scales in this age group.

AADS-Y and AADS-O have the potential to significantly improve our understanding of appearance distress in adolescents. The next step in the development of the scales will be testing in visibly different populations, adolescents with appearance-altering conditions or injuries, responding to calls for improved measurements tools in these clinical populations (Lawrence, Mason, Schomer, & Klein, 2012). Psychometric testing of the AADS tools with visibly different adolescents is vital to assess if the current measure would offer crosspopulation validity and is psychometrically robust and valid in alternative contexts. The AADS could then be utilized not only in clinical and non-clinical populations with differing diagnoses. The value of this lies in the potential to identify possible common theoretical constructs that may underpin adjustment to appearance difference across diagnostically distinct appearance-altering conditions. The AADS may then provide a psychometrically valid scale that would enable multiple or rare conditions to be studied concurrently.

Limitations of this study include the pragmatic use of chronological age as a cut-off for developmental stage. Age is a somewhat blunt instrument for defining developmental stage and cannot take into account early and late maturation, which are of particular relevance in appearance distress (Rogol, Clark, & Roemmich, 2000). The cross-sectional design excludes assessment of causality and how factors may interact. Future research would benefit from longitudinal studies that investigate developmental changes over time within populations. Furthermore, it is conceivable that some appearance differences bring their own idiosyncratic issues which are not assessed in this scale, and may therefore result in a lack of sensitivity for these particular differences. Within this study, to avoid participant overload in a young volunteer sample, we minimized the necessary task pack used.Further work could enhance the psychometric properties of the scale by assessing and reporting discriminant validity.

In summary, the dearth of psychometrically valid, age appropriate measures has been recognized as a major barrier in advancing knowledge of appearance distress during adolescence, further hampered by a lack of a general measure that could be tailored to specific conditions (Lawrence et al., 2012). The results of this study produced two brief, psychometrically valid, age-appropriate, reliable measures of appearance distress in adolescence, providing a practical tool for both researchers and clinicians. Analysis confirmed statistically what has been observed in clinical settings, namely that social interactions and experiences are central in generating, influencing and constructing distress with physical appearance in this age group. This finding is supported by previous research in adult general and visibly different populations that have reported social experiences as crucial in adjustment to perceived appearance differences, and theoretically this reflects a cognitive behavioral model of appearance adjustment (Feragen, Kvalem, Rumsey, & Borge, 2010). The increased focus on appearance as children move into adolescence demonstrates that this a critical and sensitive period of developmental change (McCabe & Ricciardelli, 2003), accompanied by psychosocial changes, as this population shifts from the family being a central reference point for social interaction to the importance of friendship/peer groups. Adolescence researchers are now in a position to investigate this further.

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Table 1

Component loading of items for the Adolescent Appearance Distress Scale-Younger (AADS-Y) scale

Summary of item	Component 1	Component 2
Fears of being covertly ridiculed due to appearance	.795	
Feel hurt when someone says something unkind about looks	.742	
Concern about appearance in the future	.705	
Dislike of being of people staring at an aspect of appearance that are self conscious about	.671	
Dislike of being judged on appearance	.659	
Avoidance of certain clothing due to appearance	.657	
Thoughts that peers better looking	.648	
Dislike of new social contacts asking about looks	.631	
Fantasise about being better looking	.565	
Concerns about what new contacts will think about appearance	.547	
Fears that does not look as good as other people of similar age in the media	.501	
Spend a great deal of time selecting clothes		.871
Spending time on appearance is highly important		.858

*Rotated component matrix loadings >0.5

Table 2

*Component loading of items for the Adolescent Appearance Distress Scale-Older (AADS-O) scale**

Summary of item	Component		
	1	2	3
Teased about looks by family	.772		
Embarrassed about appearance	.755		
Concerns about what new social contacts will think about appearance	.700		
Feels unattractive to others	.689		
Worries that not physically attractive to other people	.681		
Worries that will not be liked romantically because of appearance	.679		
Dislikes having photograph taken because of appearance	.617		
Avoidance of certain clothing due to appearance	.565		
Dislike of being of people staring at because of appearance	.546		
Dislike of new social contacts asking about looks	.522		
Thinks that could improve appearance		.758	
Proud of appearance**		.651	
Thinks looks as good as peers of similar age**		.629	
Fears that does not look as good as other people of similar age in the media		.607	
Concerns about what new social contacts will think about appearance		.512	
Spending time on appearance is highly important			.846
Spend a great deal of time selecting on hair/make up			.801

*Rotated component matrix loadings >0.5

**Positive items reverse scored

Figure 1

Distribution of Adolescent Appearance Distress Scale-Younger scores for 359 participants

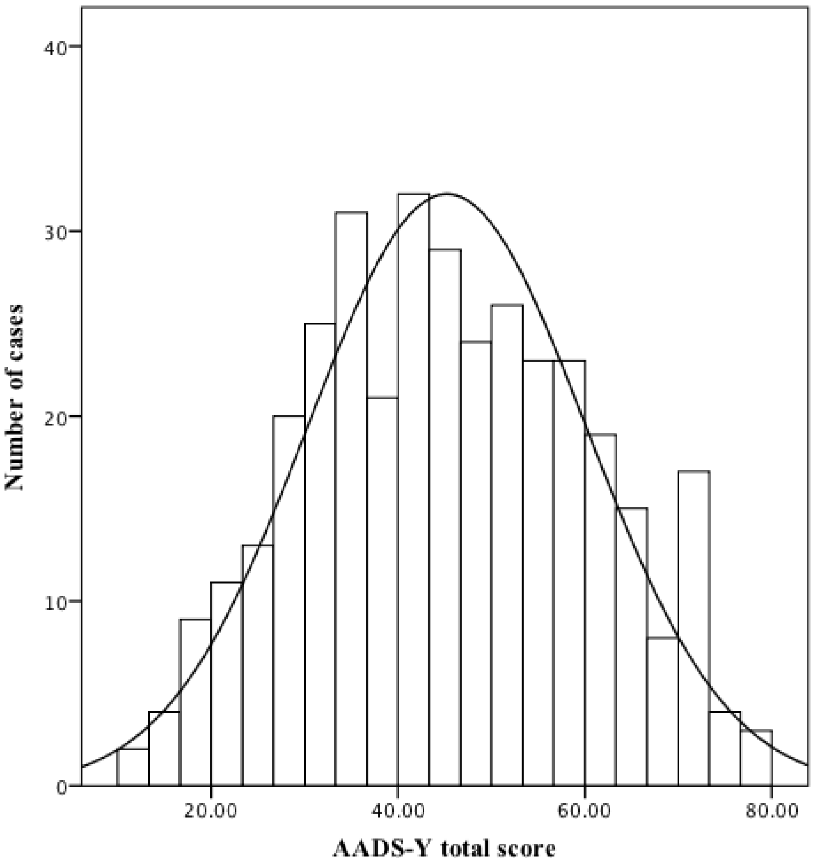

Figure 2

Frequency distribution of AADS-O scores of 258 participants