

TITLE: Explaining male body attitudes: The role of early peer emotional experiences and shame

RUNNING TITLE: Explaining male negative body attitudes

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ABSTRACT

Purpose: The current study tested a path model that examined the association between early emotional experiences with peers and male body attitudes and whether general feelings of shame and body-focused shame mediate this relationship, while controlling for the effect of Body Mass Index.

Methods: The sample comprised 241 men from the general community, aged from 18 to 60, who completed an online survey.

Results: Correlation analyses showed that the recall of positive early emotional experiences with peers is inversely linked to shame and negative body attitudes. Path analysis results indicated that early emotional experiences with peers had a direct effect on external shame, and an indirect effect on male negative body attitudes mediated by external shame and body-focused shame. Results confirmed the plausibility of the tested model, which accounted for 40% of the variance of male body attitudes. Findings suggested that men who recall fewer positive early peer emotional experiences tend to perceive that they are negatively viewed by others and present more body image-focused shame experiences. This in turn seems to explain a negative self-appreciation of one's muscularity, body fat and height.

Conclusions: This study contributes to a better understanding of male body attitudes. Findings suggest that the link between early emotional experiences and male body attitudes may depend on the experience of shame feelings and, particularly, on the extent to which one's body image becomes a source of shame. These data support the relevance of addressing shame experiences when working with men with body image related-difficulties.

Keywords: male body attitudes; early memories; external shame; body shame; men

INTRODUCTION

Literature has highlighted the importance of early emotional memories on human development and functioning [1-6]. Research suggests that the evocation of early memories of warmth and safeness with peers plays a crucial role in the promotion of feelings of self-warmth, self-compassion and self-soothing, which are considered relevant psychological adjustment indicators [7-9]. In contrast, early negative emotional memories (e.g., a sense of threat, subordination, and feeling ashamed or unvalued as a child) [10] are associated with a higher vulnerability to psychopathology [11-13]. Several authors have indeed demonstrated that the recall of early experiences of threat, abuse, or neglect may guide emotional and cognitive processing and activate defensive responses, such as shame [2,3,5].

Shame is an universal emotion rooted in the need for attachment to others. This emotion arises in the social context when individuals believe that others see or evaluate them as inferior, inadequate, defective or unattractive [e.g., 14]. Therefore, shame can be conceptualized as a functional defensive response to social threats [14, 15] activated to attenuate its negative social consequences (e.g., rejection, social criticism and ostracism) [15,16]. Shame motivates striving or working hard to correct one's behaviours or features and thus to appear desirable and be accepted by others [8].

Body image has been identified as a salient source of shame because it represents a dimension of the self that can be easily assessed and evaluated by others [e.g., 14,15,17]. Body image was defined as the picture that one's has in mind of the size, form and shape of body and the feelings one's has about these characteristics [18,19]. Furthermore, body image comprises cognitive (thoughts and beliefs about the body), perceptual, affective (feelings about one's own body), behavioral and social components, and so the development of body image is influenced by events affecting the body, as well as relationships with others, self-esteem and socialization [18,19]. In this sense, the display of a valued body image by others plays an important role in the interplay with others and in one's self-evaluations [20]. Even though literature on body image (e.g., on its phenomenology and emotional impact) has focused mostly on women [e.g., 21,22], many researchers have shown that men also experience weight, body shape, and appearance concerns, which can have detrimental effects on physical and psychological well-being indicators [23-25]. Indeed research suggests that, for men, physical appearance is a fundamental dimension for self-evaluation and for determining whether one is accepted and valued by others [25, 26].

Historically, women have been a main target of sociocultural pressures (i.e., from peers, family and the media) due to the importance given to physical attractiveness and the presentation of certain beauty

standards [20]. Nevertheless, men also face great body-related sociocultural pressures and are directly influenced by them [23,27, 28]. In Western societies, the representations of the ideal male physical appearance have become more visible and pervasive, being widely focused on a toned, muscular, lean, and physically fit body [21, 29]. In fact, modern societies pressure men to attain a lean-muscular physique (i.e., musculature coupled with low body fat), which promotes body discontent and eating pathology [30-32]. It is considered that when men internalize this ideal body image and perceive that their physical appearance fails to fit within this unrealistic body ideal, they may become more critical in regard to their bodies [24] and experience increased negative affect and sense of self-worth [e.g., 33,34]. As a result, men appear to experience more weight, body shape, and appearance-related concerns, which can have detrimental effects, like body shame, body surveillance and body dissatisfaction, which in turn lead to increased compensatory drive for muscularity [35-37] and disordered eating behaviours [e.g., 38]. Thus, for some men, sociocultural pressures may lead to negative self-evaluations based on one's body image (i.e., body image focused shame) which might promote negative body attitudes and pathological attempts to control physical appearance as defensive strategies in face of these unwanted experiences[31,32]. Literature have documented the relationship between shame and body and eating related difficulties in both men and women from clinical and non clinical samples [39-43]. In particular, disordered eating attitudes and behaviours (such as drive for thinness or binge eating symptomatology) may be conceptualized maladaptive coping strategies to control or attenuate body shame and guilt feelings [33,44,45].

Although there is a recognised need to further study the mechanisms that may explain body image difficulties in men, few studies have focused on that. Given the pervasive and negative impact of body image shame and negative body attitudes, it is considered that research should focus on the analysis of potential factors and mechanisms involved in these difficulties to inform the development of prevention and intervention programmes on these areas. Also, considering the aforementioned impact of early memories with peers and shame on eating psychopathology and body image concerns (although mainly on women) [44,46-48], the current study aims to innovatively explore the role of these constructs in men's body image. This paper thus aims to test an integrative model using a male sample, to examine the relationship between early memories with peers and negative attitudes towards the body, and to test whether external shame and body image shame significantly act on this association.

MATERIAL AND METHODS

Participants

The sample included 241 men from the Portuguese general population aged between 18 and 60 years old, with a mean age of 27.24 ($SD = 9.18$) and a mean of 14.03 ($SD = 2.62$) years of education. Participants' BMI ranged between 16.98 and 43.60, with a mean of 24.75 Kg/m^2 ($SD = 3.95$), which corresponds to normal weight values according to the conventional classification [49]. Also, participants' BMI distribution was similar to the distribution found in the Portuguese male population of the same age [50].

Measures

Demographics

Participants completed a demographic questionnaire (age, gender, nationality, area of residence, education level, and current weight and height).

Body Mass Index

Participants' BMI was calculated through the Quetelet Index based on self-reported weight and height (Kg/m^2).

Early Memories of Warmth and Safeness Scale – Peers

EMWSS-peers [51] is a 12-item self-report questionnaire derived from the EMWSS [6], and designed to specifically assess the recall of experiences of warmth, safeness, and affection within peer relationships (i.e., with friends and colleagues). Respondents are asked to indicate the frequency of these positive emotional memories (e.g., “I felt safe and secure with my peers/friends”) using a 5-point scale (ranging from 0 = “No, never” to 4 = “Yes, most of the time”). EMWSS_peers revealed good psychometric properties, presenting very good internal reliability with a Cronbach's alpha value of 0.97 [51].

The Other As Shamer Scale

OAS-2 [52] is a shorter version of the OAS [53], designed to assess external shame, that is, the perception of being negatively evaluated by others. This scale comprises 8 items (e.g., “Other people see me as small and insignificant”) scored on a 5 point scale (from 0 = “Never” to 4 = “Almost always”), which refers to

the frequency of the participants' perceptions of negative social evaluations. This scale has demonstrated good psychometric characteristics, presenting a Cronbach's alpha of 0.82 in the original study. [52]

Body Image Shame Scale

BISS [17] is a 14-item self-report measure, which evaluates the experience of body image-focused shame. The BISS comprises two subscales: external body shame (that is, perceptions that one is negatively evaluated or judged by others because one's physical appearance) and internal body shame (i.e., negative self-evaluations due to one's physical appearance). Respondents are asked to rate each item according to which they experience shame about their body image, using a 5-point scale (ranging from 0 = "Never" to 4 "Almost always"). In the current study the global score of the BISS was used, which presented a high internal consistency in the original study ($\alpha = 0.92$) [17].

Male Body Attitudes Scale

MBAS [54, 55] is a 24-item self-report scale that assesses male body attitudes. MBAS includes three subscales: muscularity (e.g., "I think I have too little muscle on my body"), body fat (e.g., "I think my body should be leaner") and height (e.g., "I wish I was taller"). Participants are asked to rate each item using a 6-point scale (ranging from 1 = "Never" to 6 = "Always"). Higher scores indicate greater male body negative appreciation. Cronbach's alpha of the original version is 0.93 [54], and in the Portuguese version is of 0.92 [55].

Participants completed the Portuguese versions of the described measures, which were previously validated in Portuguese samples with similar characteristics to the present one (e.g., regarding gender and age). Each measure showed an adequate to very good internal reliability in the current study (Table 1).

Procedures

The present study's procedures respected all ethical and deontological requirements inherent to scientific research and the study was approved by the Ethical Board of the Faculty of Psychology and Education Sciences of the University of Coimbra. An invitation to participate in this study was electronically sent through popular social networks and e-mail to potential participants. Attached to the invitation were detailed information regarding the purpose and procedures of the study, data conditionality, the voluntary

nature of the participation, and the link to the online platform with the informed consent and test battery. Five hundred and ninety-five individuals accepted to take part in the current research, signed the informed consent and completed the test battery on the online platform. Considering the aims of the present study, the database was cleaned to exclude: (i) female participants; (ii) participants who do not have Portuguese nationality, and (iii) participants younger than 18 and older than 60. This process resulted in a final sample of 241 male participants. There were no missing data because the platform only allows the submission of the questionnaires when all data is complete.

Data analyses

The software IBM SPSS Statistics 22.0 (SPSS IBM; Chicago, IL, USA) was used to conduct descriptive and correlation analyses. Pearson correlation coefficients analyses were performed to examine the associations between age, BMI, early positive memories with peers, external shame, body image shame and male body negative attitudes. These coefficients were interpreted in accordance with Cohen and colleagues' guidelines (2003): small size effect ($r = .10$ to $.29$), moderate ($r = .30$ to $.49$), large ($r = .50$ to $.69$), very large ($r = .70$ to $.89$), nearly perfect ($r \geq .90$), and perfect ($r = 1$) [56].

The AMOS software was used to examine the proposed theoretical model (Figure 1) which tested the hypothesis that early memories of warmth and safeness within peers (exogenous, independent variable) would present a significant effect on male body attitudes (endogenous, dependent variable), through the mediational effects of external shame and body-focused shame (endogenous, mediator variables). BMI's effects were controlled for due to their known association with body attitudes and body dissatisfaction.

A path model was estimated using the Maximum Likelihood estimation method was used to calculate the significance of the regression coefficients and the model fit statistics. The adequacy of the model was examined considering the following goodness of fit indices: Chi-square (χ^2), that when nonsignificant indicates a very good model fit; the normed Chi-square (CMIN/df), that indicates an acceptable fit when < 5 ; the Comparative Fit Index (CFI) and Tucker Lewis Index (TLI), which indicate a very good fit with values above 0.95; and the Root Mean Square Error of Approximation index (RMSEA), which indicates an adequate fit when values < 0.08 [57,58]. The bootstrap procedure (with

5000 samples) was used to create 95% bias-corrected confidence intervals around the standardised estimates of the significance of total, direct and indirect effects. The effect is statistically significant ($p < 0.50$) if zero is not included between the lower and the upper bound of the 95 % bias-corrected confidence interval [57].

RESULTS

Descriptive and correlation analyses

The descriptive and correlations between the study variables are reported in Table 1. Results from correlation analyses showed that memories of early warmth and safeness with peers (EMWSS-Peers) were associated with higher levels of external shame (OAS-2), body image shame (BISS) and male negative body attitudes (MBAS), the same is to say that men who recall more positive early memories with peers tend to present lower levels of external shame, body image shame and negative body attitudes. Higher levels of external shame were linked with higher levels of body image-focused shame, which were associated with more negative male body attitudes. In other words, men who present higher levels of external shame tend to present higher levels of body image shame and negative attitudes towards the body.

Finally, age presented a significant, positive and moderate association with BMI, and a small negative association with EMWSS-P and OAS-2. The same is to say that older men tend to present higher BMI and lower levels of external shame and also less positive memories with peers. BMI revealed significant and positive associations with BISS (with a moderate correlation magnitude) and MBAS (with a weak correlation magnitude), respectively. In other words, men who present higher BMI tend to show higher levels of body image shame and negative male body attitudes.

Table 1. Cronbach's alpha (α), Means (M), Standard Deviations (SD) and correlations between the study measures (N = 241)

Measures	α	M	SD	1.	2.	3.	4.	5.
1.Age	-	27.24	9.18	-	-	-	-	-
2.BMI	-	24.75	3.95	0.38***	-	-	-	-

3.EMWSS-Peers	0.95	35.62	8.80	-0.16*	-0.05	-	-	-
4.OAS-2	0.89	8.30	5.48	-0.16*	-0.07	-0.42***	-	-
5.BISS	0.93	8.67	9.18	-0.06	0.30***	-0.18**	0.36***	-
6.MBAS	0.92	66.44	20.42	0.02	0.28***	-0.13*	0.29***	0.62***

Note. BMI = Body Mass Index; EMWSS-peers: Early Memories of Warmth and Safeness with Peers Scale; OAS-2: The Other As Shamer Scale – 2; BISS: Body Image Shame Scale; MBAS: Male Body Attitudes Scale; * $p < 0.050$. ** $p < 0.010$. *** $p < 0.001$.

Path Analysis

A path analysis was performed to test whether external shame (OAS-2) and body image shame (BISS) mediate the impact of early memories of warmth and safeness with peers (EMWSS-Peers) on men's attitudes towards their body (MBAS), while controlling for the effect of BMI.

Firstly, the path model was tested through a fully saturated model (i.e., zero degrees of freedom), comprising 20 parameters, which explained 40% of the variance of male body attitudes. Results indicated that three paths were not significant: the direct effect of early memories of warmth and safeness with peers on BISS ($b_{EMWSS-Peers} = -0.005$; $SE_b = 0.065$; $Z = -0.081$; $p = 0.935$); the direct effect of early memories of warmth and safeness with peers on male body attitudes ($b_{EMWSS-Peers} = 0.059$; $SE_b = 0.128$; $Z = 0.459$; $p = 0.646$), and the direct effect of external shame on male body attitudes ($b_{OAS-2} = 0.362$; $SE_b = 0.203$; $Z = 1.784$; $p = 0.074$). These paths were progressively eliminated and the model was readjusted.

The final model presented an excellent model fit [$\chi^2(3) = 3.38$, $p = 0.34$, $CMIN/DF = 1.127$; $TLI = 0.994$; $CFI = 0.998$; $RMSEA = 0.023$, $p = 0.571$; 95% CI = 0.00 to 0.11, Kline, 2005]. This model, in which all path coefficients were statistically significant ($p < .001$), except the direct effect of BMI on external shame ($b_{BMI} = -0.121$; $SE_b = 0.081$; $Z = -1.502$; $p = 0.133$) and the direct effect of BMI on male body attitudes ($b_{BMI} = 0.511$; $SE_b = 0.272$; $Z = 1.874$; $p = 0.061$). These paths were nonetheless maintained in the model to control for the effect of BMI.

Early memories of warmth and safeness with peers had a significant direct effect of -0.43 on OAS-2 ($b_{EMWSS-Peers} = -0.0266$; $SE_b = 0.036$; $Z = -7.344$; $p < .001$). In turn, external shame had a direct effect of 0.38 on BISS ($b_{OAS-2} = 0.630$; $SE_b = 0.095$; $Z = 6.627$; $p < .001$) and BMI had a direct effect of 0.33 on

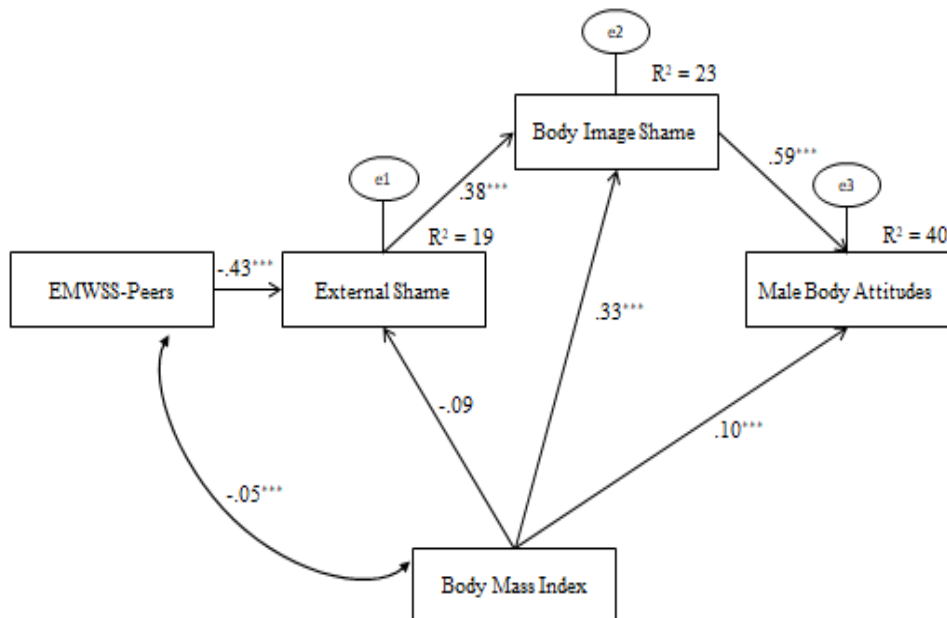
BISS ($b_{BMI} = 0.76$; $SE_b = 0.132$; $Z = 5.768$; $p < .001$). Results also showed that BISS had a direct effect of 0.59 on MBAS ($b_{BISS} = 1.317$; $SE_b = 0.117$; $Z = 11.234$; $p < .001$).

The analysis of indirect effects showed that early memories of warmth and safeness with peers presented indirect effects on male body attitudes through external shame and body image shame of -0.16 (95% CI = -0.099/-0.056) and -0.10 (95% CI = -0.142/-0.056), respectively. External shame and body image shame thus mediated the association between early memories of warmth and safeness with peers and body attitudes. Results also demonstrated that external shame had an indirect effect of 0.22 (95% CI = 0.140/0.305) on male body attitudes, which was totally mediated through body image shame.

Overall, this model accounted for 40% of the variance of male body attitudes, and revealed that external shame and body image shame mediate the impact of early memories of warmth and safeness with peers on male body attitudes.

Figure 1 Path model showing the association between early positive emotional memories with peers and male body attitudes, mediated by external shame and body image shame, with standardized estimates and square multiple correlations (R^2 , $N = 241$).

Note. *** $p < .001$; *EMWSS-Peers*: Early Memories of Warmth and Safeness with Peers Scale.



DISCUSSION

Literature has highlighted that the inability to recall early warmth and safeness memories can lead to negative emotional states [e.g., 1,6,10,51,59]. Additionally, the impact of early positive memories on body-related difficulties, among women was recently documented [e.g.,47,48,60]. However, it is recognized that men also experience body image concerns which seems to have an important impact on physical and psychological health indicators [22,24,54,55]. Nevertheless, the link between early emotional memories and male body attitudes remained unexplored.

This study intended to clarify the dynamic relationship between early memories, external shame, body image shame, and male body attitudes. Specifically, the main aim of the current study was to test an integrative model that explored the effect of early memories of warmth and safeness on male body attitudes and the mediating roles of current general feelings of shame and body image shame in this association, while controlling the effect of BMI.

In accordance with previous theoretical and empirical contributions [e.g., 46-48], correlational results demonstrated that the recall of early positive memories was negatively linked with emotional defensive responses, such as external shame and body image shame. This seems to suggest that individuals who have higher ability to recall positive, affiliative, or safeness memories with peers from childhood or adolescence, tend to present lower levels of general and body image shame. These individuals thus seem to have a better perception of what others think of them (e.g., a person with value, attractiveness, and success), both in general and specifically concerning body image. Also, findings corroborated prior research demonstrating that external shame, that is perceptions of being negatively seen by others (e.g., as inferior, unattractive, or inadequate), is related to negative body attitudes [e.g., 31,39,42], which extends previous studies conducted with women by further showing this relationship in men.

The findings from the conducted path analysis revealed that the model which aimed to understand the relationship between early emotional peer experiences and male body attitudes was plausible, explaining a total of 40% of the variance of the severity of male negative body attitudes. Also, this model demonstrated that 19% of external shame's variance was explained by the inability to recall positive early emotional memories with peers. Furthermore, results suggested that lack of access to early positive memories had an indirect effect through external shame on body image shame, even when controlling for BMI. This suggests that the difficulty to access memories of warmth, acceptance or safeness is related to

an increased activation of the threat system and thus to perceptions that others perceive the self as inferior or inadequate in general (which corroborates previous findings) [2,10,51] and also on evaluations based on body image. Although this is in line with research on the role that early negative social experiences, especially those that occurred with peers, plays in body and eating difficulties [e.g.,46,47,48,60], the current paper extends literature by suggesting that the recall of these emotional experiences is relevant in men and contributes to understand male body-related difficulties. These are in fact new and particularly interesting findings, especially considering that previous studies have privileged women samples [e.g., 18,19,22,29].

In fact, some studies support that negative emotional experiences (namely with peers) [e.g., 6,11,33] and body-related shame and guilt are associated with disordered eating and even eating disorders, including binge eating [33,45], and our findings reinforce this idea showing that lack of positive memories with peers is positively associated with negative body attitudes in men, such as perceptions of low muscle mass and undesirable height or body fat. Moreover, the present study also suggests that the relationship between early peer-related emotional experiences and current male body attitudes is complex and influenced by different mechanisms. Indeed, results indicated that men's inability to recall early positive emotional experiences with peers (such as experiences of care and warmth) are associated with high levels of negative body attitudes. This relationship was mediated by perceptions of social inferiority (external shame) and body image-focused shame, which seem explain a negative appreciation of male body image (muscularity, body fat and height). Moreira and Canavarro (2017) in a sample of children and adolescents with overweight and obesity have reported that body shame assumed different roles by gender in the explanation of quality of life. Indeed, the same authors [61] reported that body shame is more relevant for the well-being and psychosocial adjustment in female samples than in male samples. Although our findings do not explore gender differences, results suggested that, for adult men, body image shame has also a significant impact on the adoption of negative body attitudes, which may lead to detrimental effects on physical and psychological well-being indicators [23,25,33,34]. These novel findings seem to suggest the importance of addressing shame in the comprehension and interventions approaches for body image difficulties in men.

To sum up, difficulty in recalling of feelings of warmth and safeness in early social relationships seems to explain increased levels of shame and a heightened sense of having an unattractive body. This might suggest that the lack of feelings of having had secure and accepting relationships with peers at a young

age may lead to feelings of being rejected or seen as inferior or undesirable by others and to perceptions that one's physical appearance is different from the ideal male body image. Altogether, these mechanisms may lead to the need to control or conceal physical appearance to enhance social acceptance and desirability, which may encourage the adoption of negative attitudes towards one's perceived body-related imperfections and flaws.

This study should not be considered without taking in account some limitations. Firstly, these findings are based on cross-sectional data and therefore causal conclusions cannot be drawn. Future research should use longitudinal designs to better understand the studied mechanisms and their effect on male body dissatisfaction and negative body attitudes. Also, the current study examined a parsimonious model, and future studies should explore the role of other relevant variables and emotional processes on male body attitudes (e.g., self-esteem, body-esteem, body satisfaction, satisfaction with muscularity). Moreover, results were based on self-reported data collected through an online survey, which may compromised the collection of a representative sample of the Portuguese male adult population and the presentation of definite results. Indeed, online surveys may excluded people who do not have access to the internet or are not familiarized with this virtual world [e.g.,62], which may have biased the sample regarding education level. Moreover, there is no guarantee of the accuracy of self-reported demographic or characteristics information [63,64]. Although this is a cost-benefit method, future research should use different assessment methods (e.g., a paper-pencil form or interviews) to explore the plausibility of the current model. Finally, another limitation to this study is that sexual orientation of the participants was not assessed. Given the evidence that gay and bisexual men report more body concerns and dissatisfaction, drive for thinness, drive for muscularity and eating disorder symptomatology than heterosexual men [65,66], it is important that future research assesse sexual orientation and examines the studied relationships while considering potential differences between heterosexual and non-heterosexual men.

To our present knowledge, this is the first study to focus on the relationship between early emotional experiences and male body attitudes. This study contributes for a better understanding of the possible pathways through which early emotional experiences with peers exert their effect on male body attitudes. Research related to male body image seems to be greatly needed, and the current findings may have important implications for future research as well as for prevention and intervention programs with men with body image difficulties. Addressing shame feelings by cultivating self-compassion (e.g., Compassion-focused approaches) [7] may help attenuate the impact of the lack of early positive

memories and improve one's relationship with their body. Developing self-acceptance and respect with the unique characteristics of one's body image may be useful to decrease shame levels and develop a positive body image.

CONCLUSIONS

This study contributes to a better understanding of male body attitudes, suggesting that men who recall fewer positive early peer emotional experiences tend to perceive that they are negatively viewed by others and to present more body image-focused shame experiences and severe negative body image attitudes. Moreover, current findings highlight that the impact of early emotional experiences on male body attitudes is fully carried by the experience of shame and, particularly, by perceptions that one's body image may be a source of feelings of inferiority and inadequacy.

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