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School-based eating disorder prevention:

A pilot effectiveness trial of teacher-delivered *Media Smart*

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*Running Title:* MEDIA SMART EFFECTIVENESS

### Abstract

**Aim:** This pilot study tested teacher-delivered *Media Smart*, a school-based eating disorder prevention program that has achieved significant benefits when delivered by health professionals. **Method:** Two Grade 7 classes ( $N = 51$ ;  $M$  age = 12.43 years) participated, with one randomly allocated to *Media Smart* ( $n = 27$ ; 67% girls) and the other to a control condition of usual lessons ( $n = 24$ ; 37% girls). Program feasibility was assessed by teacher self-report, while student self-report of shape and weight concern (primary outcome variable) and seven additional risk factors were measured at baseline, post-program and 6-month follow-up. **Results:** Teacher ratings of program feasibility revealed 25 of the 29 (86.2%) program activities were taught with 96% of activities rated as either highly (19 activities) or moderately (5 activities) valuable for students. Mixed model analyses were conducted using a 2 (group: *Media Smart*, control) X 2 (time: post-program, 6-month follow-up) X 2 (gender: girls, boys) design, with baseline scores as a covariate. A not-significant trend for group favouring *Media Smart* was observed for shape and weight concern (Cohen's  $d$  effect size [ $d$ ] = .32), while significant effects were found for feelings of ineffectiveness ( $d = .52$ ) and weight-related peer teasing ( $d = .68$ ). **Conclusions:** The program was feasible for teacher delivery and showed some promising results, supporting a more substantial randomized-controlled effectiveness trial.

Trial registry name: Australian New Zealand Clinical Trials Registry

URL: <http://www.anzctr.org.au>

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*Keywords:* media literacy; eating disorders; prevention; risk factors; effectiveness

## Introduction

The collective eating disorder prevention field has advanced considerably over the past decade. While a 2000 review<sup>1</sup> found just 20% of programs achieved significant benefits on at least one relevant risk factor, this figure had improved to 51% by 2007.<sup>2</sup> This progress has been largely attributed to the more methodical development and evaluation of prevention programs, including: the targeting of developmentally-appropriate risk factors; sufficient program duration; avoidance of psychoeducation about eating disorders; validated outcome measures; inclusion of control groups; and; sufficient follow-up duration. This more rigorous approach has led to a range of quality efficacy studies and promising evidence for programs particularly targeting older (university-aged) females at high risk of eating problems,<sup>(e.g., 3)</sup> but also with younger, universal audiences, (i.e., inclusion of participants regardless of their level of risk of developing an eating disorder), such as intact school classes of young-adolescent girls and boys.<sup>(e.g., 4)</sup>

Despite strong growth in prevention research, the vast majority of studies have been *efficacy* trials with programs delivered by the researcher or closely-supervised health professionals under carefully controlled conditions. It has been suggested that programs that produce significant effects in these trials, might not produce the same benefits in applied real-world conditions and thus this needs to be evaluated.<sup>5, 6</sup> *Effectiveness* trials examine whether interventions produce effects when delivered by non-specialist presenters (e.g., teachers) and under real-world conditions in natural settings (e.g., schools). Such trials are endorsed by the Medical Research Council as the critical next step in disseminating research following efficacy randomized-controlled trials (RCT).<sup>7</sup> In the case of *Media Smart*, a school-based eating disorder prevention program that has shown promise in efficacy trials with universal, young-adolescent audiences when delivered by the researcher or health professionals,<sup>4, 8, 9</sup> a key question is how effective is the program when delivered by regular classroom teachers?

The previous efficacy RCT of *Media Smart* was conducted with 540 Grade 8 girls and boys, with assessment of eating disorder risk factors at baseline, post-program (1-month after baseline), 6-month follow-up and 2.5 year-follow-up.<sup>4</sup> In this trial, the researcher (who was then a postgraduate student) delivered *Media Smart* to 11 classes, while 13 classes served as a no-intervention control condition.

Significant main effects for condition favouring *Media Smart* were found for shape and weight concern (Cohen's  $d$  effect size [ $d$ ] = .29), dietary restraint ( $d$  = .26), body dissatisfaction ( $d$  = .20), feelings of ineffectiveness ( $d$  = .23) and depression ( $d$  = .26). Post-hoc testing found girls in the *Media Smart* condition continued to have significantly lower shape and weight concern scores at 2.5-year follow-up than their controlled counterparts ( $d$  = .27). Shape and weight concern is considered the most robust and proximal eating disorder risk factor.<sup>10, 11</sup> Importantly, both girls and boys benefited from the program, with *Media Smart* boys scoring significantly lower at 6-month follow-up than control boys on shape and weight concern, dieting and body dissatisfaction.

To date, only one effectiveness RCT has been conducted with an eating disorder prevention program.<sup>5</sup> This North American research investigated the effectiveness of a cognitive dissonance program that has shown positive effects in efficacy RCTs with university-aged females at high-risk of an eating disorder.<sup>12, 13</sup> In these efficacy trials, the program was presented by the developer or well-trained and supervised psychologists, while in the effectiveness trial it was delivered by school nurses or counselors. The results showed the intervention produced significantly greater reductions in most risk factors than the control condition (educational brochure) from baseline to post-program, 6-month follow-up and 12-month follow-up, albeit with slightly lower average effect sizes ( $M d$  = .17) compared to the efficacy trial ( $M d$  = .25).<sup>5, 12</sup> A subsequent three-year follow-up was then published<sup>14</sup> where the difference between intervention and control groups on eating disorder symptoms remained significant ( $ES=.30$ ); however, for the remaining risk factors the differences were marginal or not significant. The authors attributed these smaller effects in the effectiveness trial to: presenters having less experience at delivering the intervention in the effectiveness trial; having an educational brochure control condition in the effectiveness trial while a no intervention assessment-only control condition in the efficacy trial; and, participants having lower baseline eating disorder risk in the effectiveness trial.

The current paper describes the first phase of a larger research program. The overall purpose of the current study was to pilot teacher-delivered *Media Smart* and the evaluation methodology in preparation for a large effectiveness RCT and this involved two aims. The primary aim was to assess program feasibility when delivered by a teacher with a specific focus on whether all components of the program were taught and the teacher's perceived value of each activity. The secondary aim was to investigate the effectiveness of the program targeting a young-adolescent, universal (including boys) sample where eating disorder behaviours are unlikely to be present. In this case, effectiveness was judged by the impact on the

primary outcome variable of shape and weight concern, and additional eating disorders risk factors that were included in the efficacy trial and have been prospectively implicated in the development of disordered eating, including through the dual pathway model of bulimic pathology.<sup>15</sup> While it is acknowledged that universal prevention programs require large sample sizes and adequate follow-up assessments, our experience suggests a pilot study can be helpful approach in refining evaluation methodology prior to a large RCT.<sup>4</sup>

## Method

### Participants

Two Grade 7 classes participated from one public primary school in Adelaide, South Australia ( $M$  age = 12.43 years,  $SD$  = .61), with one class allocated to teacher-delivered *Media Smart* ( $n$  = 27; 67% girls) and the other to usual school English lessons ( $n$  = 24; 37% girls). No exclusion criteria were used, and thus, whole classes participated.

### Intervention

*Media Smart* was designed to target media internalization, which refers to strong investment in societal ideals of size and appearance to the point that they become rigid, guiding principles (e.g., the thin-ideal for females and muscular-ideal for males). Media internalization is a prospectively identified eating disorder risk factor that has been found to lead to eating pathology both directly and through the dual-pathway model of bulimic pathology. In this model, media internalization and perceived appearance pressure can lead to body dissatisfaction, which can then lead to bulimic symptoms through dietary restraint and/or negative affect.<sup>15</sup> *Media Smart* is an 8-lesson program that has been previously described.<sup>4, 8, 16, 17</sup> In brief, lesson content explores topics such as stereotypes, digital altering of images, pressures experienced by young people and what can be done about them, activism activities involving writing to advertising companies and a number of group presentations..

### Measures

Program feasibility was assessed by the teacher completing a self-report record of whether each program activity was taught (yes/ no) and the perceived value of each activity for students (Low/ Medium/ High) at the conclusion of each lesson. Qualitative feedback was also sought at the conclusion of the program regarding overall program value and any additional feedback.

Program effectiveness was assessed by students completing self-report eating disorder risk factor measures that were selected based upon their reliable use in the efficacy trial.<sup>4</sup> These measures, commonly used in school-based eating disorder research, are summarized in **Table 2**, including number of items, sample items, possible responses and internal reliability in the study (Cronbach's alpha). Evidence exists for the sound psychometric properties of these measures with adolescent populations.<sup>8, 16, 18-20</sup> In the current study, all but the depression measure<sup>21</sup> showed satisfactory levels of internal reliability, thus this measure was omitted from further analyses.

The only further difference in measures across the current study and the efficacy trial was that it was decided not to measure perceived pressure<sup>22</sup> given our experience in the efficacy trial where the majority of participants did not identify with questions relating to perceived pressure from dating partners and where the role of perceived pressure as an eating disorder risk factor has been more strongly investigated with young-adult, female samples.<sup>e.g., 22</sup> Instead, we decided to measure weight-related peer teasing,<sup>23</sup> given evidence of its particular relevance to young-adolescent samples.<sup>24</sup>

## **Procedure**

Recruitment, assessments and intervention delivery occurred between March and December, 2011. Approval for this research was received from the Flinders University Social and Behavioural Research Ethics Committee, South Australian Department of Education and Children's Services and the school principal. Based on expressing an interest in body image education, two metropolitan public schools were invited where one agreed to participate and the other declined based on insufficient available lesson time to deliver the program and have students complete measures. The school had two Grade 7 classes, one with a female teacher and one with a male teacher. Following receipt of informed parental consent, students from the two classes completed a baseline online questionnaire of eating disorder risk factors. By random allocation, the female teacher was selected to have her class participate as the *Media Smart* class. She attended a 90-minute workshop on the program that was being run for a varied audience of school counselors, teachers and health professionals and was not specifically dedicated to the purpose of the trial. The teacher of the control group did not attend the workshop to prevent contamination effects in the control class. Further, the *Media Smart* teacher was asked not to discuss the program at any point with the control class teacher. The workshop included information on the prevalence and serious consequences of body image problems and eating disorders, key principles of effective program delivery and the majority was dedicated to describing the eight *Media Smart* lessons in detail with audience members participating in

examples of some activities. The teacher was given the program resources (detailed lesson plans, relevant DVD and PowerPoint files, and student workbook) and commenced program delivery one-week later. The 50-minute lessons were delivered at the rate of 2 lessons per week (consistent with the efficacy trial<sup>4</sup>) by the regular class teacher. Control classes received their normal English lessons from their usual class teacher. Post-program (5-weeks after baseline), the online questionnaire of eating disorder risk factors were again completed and this was repeated at 6-month follow-up. Only one student in the *Media Smart* and control conditions respectively were absent at follow-up assessments.

**{Put Table 1 and Figure 1 About Here}**

## Results

### Program Feasibility

The teacher reported teaching 25 of the 29 listed components (86.2%) of the program. Omitted activities (and the reason for omission) included: a DVD clip on peer pressure (considered more appropriate for an older audience by the teacher); an individual worksheet on life values (insufficient time); planning an alternative media message (insufficient time); and reviewing email responses from advertising companies (no reason given). The teacher rated her perceived activity value for students of the taught activities in the following manner: high value (19 activities; 76%); medium value (5 activities; 20%); and low value (1 activity; 4%). Two final questions asked for ratings of overall perceived value and student enjoyment of the program (*Not at All* to *Very Much*) where the teacher rated both as “very much”.

When asked to describe why the program was of value the teacher recorded the following response:

*“For most students this was their first opportunity to deconstruct the idea of stereotyping and body image in the media and in our society. It certainly instigated much discussion, which carried on outside of the lessons. Many of the students discussed the issues with their parents too. It was also a good vehicle to look at ourselves and our skills, talents, and characteristics, and talk about what we value in ourselves and others.”*

Additional feedback related primarily to insufficient time for all teaching activities:

*“My main constructive criticism would be the timeframe of the program, especially for this age group. The discussions we had were very valuable and worthwhile and needed scaffolding and*



support. This takes time. The letter/email writing needed scaffolding and explicit teaching that just didn't fit into the timeframe.”

### Program Outcomes

Linear mixed model analyses were conducted to assess the effectiveness of teacher-delivered *Media Smart* with baseline observations entered as a covariate to ensure that any significant differences were due to changes at post-program and follow-up, rather than variation in scores at baseline or measurement error. This involved a 2 (group: *Media Smart*, control) X 2 (time: post-program, 6-month follow-up) X 2 (gender: girls, boys) design. The alpha level for testing for significant main effects of group and interactions of group X time remained at .05. A priori Bonferroni-adjusted post-hoc analyses were conducted, while Cohen's  $d$  was calculated for significant interactions, main effects and between-groups post-hoc comparisons ( $d = [2 \sqrt{F}] / \sqrt{df(error)}$ ), where .2 = small, .5 = moderate, .8 = large.<sup>25</sup>

Adjusted mean item and covariate values by group, time and gender are presented in **Table 3**. Although presented separately, these analyses were conducted simultaneously and not repeated by gender. For the primary outcome variable, shape and weight concern [ $F(1, 76) = 1.93, p = .169; d = .32$ ] a not significant difference of small to moderate effect size favouring the *Media Smart* group was found, with both girls and boys in the *Media Smart* condition scoring lower at post-program than follow-up. A significant main effect for group of moderate effect size favouring the *Media Smart* group was found for feelings of ineffectiveness [ $F(1, 69) = 5.05, p = .034; d = .52$ ] and weight-related peer teasing [ $F(1, 76) = 8.66, p = .004; d = .68$ ]. **Table 3** presents post-hoc tests where it can be seen that on both feelings of ineffectiveness and weight-related peer teasing, *Media Smart* girls scored significantly lower than their control peers at post-program while for weight-related peer teasing this was also true at 6-month follow-up. Post-hoc tests also suggested a positive trend for self-esteem for *Media Smart* girls, while *Media Smart* boys showed largest effect sizes for feelings of ineffectiveness and weight-related peer teasing at 6-month follow-up.

{Put Table 2 About Here}

### Discussion

This study involved a pilot effectiveness trial of teacher-delivered *Media Smart*. With respect to the first aim, the teacher reported delivering 86% of the *Media Smart* program in full. While on one level this is a positive outcome that the majority of the program was implemented, on another level it is

concerning that potentially important activities were omitted. Indeed, other authors have reported teachers to have not fully followed prevention curriculums with up to 75% of teachers either omitting certain topics or generating their own topics.<sup>26</sup> This does highlight a significant challenge of effectiveness prevention research where a balance needs to be achieved between flexibility in applied settings but methodologically rigorous program delivery and evaluation so meaningful interpretations can be drawn.

It also suggests three directions for the methodology to be improved prior to the large-scale effectiveness RCT of teacher-delivered *Media Smart*. First, the teacher training workshop needs to be of longer duration and purely for a teacher-audience rather than the 90-minute, general presentation to a broad audience (i.e., school counselors, teachers and health professionals) in the current study. Discussion with local teaching authorities suggests that a 4-hour workshop would be a realistic amount of teacher availability for the RCT, and this will likely allow for further role-play of actual learning activities as recommended by Stice and colleagues.<sup>5</sup> Further, a 4-hour workshop is consistent with the current length of training for psychology postgraduate students involved in program delivery of *Media Smart* in other current research. Second, while it was useful to have teacher records of their delivery of *Media Smart*, in the RCT teachers will also be audio-taped for the researchers to independently rate program fidelity. Indeed, it is an important limitation of the current study that program adherence was only assessed by teacher self-report. Finally, the issue of the teacher experiencing insufficient time for all activities needs to be addressed. While the proposed longer training of teachers in program delivery will likely assist teachers to communicate lesson content as efficiently as possible, it is the case that some classes will complete activities quicker than others. It would seem appropriate in the effectiveness RCT that teachers are given the option to take further time with activities if they deem this necessary, where this would need to be controlled for in the analyses to assess if a dose-response relationship exists. With respect to our secondary aim, teacher-delivered *Media Smart* resulted in a positive trend for the primary outcome, shape and weight concern. While not significant in the current study, the effect size for group ( $d = .32$ ) was very similar to the significant main effect for group favouring *Media Smart* in the controlled efficacy trial ( $d = .29$ ) with the obvious difference of a much larger sample ( $N = 540$ ) and longer follow-up (2.5-years) in the efficacy trial.<sup>4</sup> Given the well-established importance of shape and weight concern as an eating disorder risk factor,<sup>10</sup> this was an encouraging finding, though clearly requiring investigation in a larger sample over a longer follow-up. It was also promising that both girls ( $d = .29$ ) and boys ( $d = .25$ ) showed positive trends on this important variable at post-program relative to their control counterparts.

Significant main effects for group favouring *Media Smart* on both feelings of ineffectiveness and weight-related peer teasing were found. The effect size for feelings of ineffectiveness in the current study ( $d = .52$ ) compares favourably to that of the efficacy trial ( $d = .23$ ).<sup>4</sup> In both trials, post-hoc testing revealed *Media Smart* girls were scoring significantly lower than their control peers at post-program but not at follow-up. In the current trial *Media Smart* boys experienced more benefit at 6-month follow-up than post-program, while the opposite was true for boys in the efficacy trial. Again, caution in interpretation is required given the differences in sample size and follow-up length between the two studies. While temperament variables such as feelings of ineffectiveness and self-esteem are not direct targets of *Media Smart* program content, the overall theme of the program content is one of empowerment and promoting confidence in both developing and expressing informed opinions. Further, the intended interactive style of program delivery is also likely to have contributed to improvements on these variables.<sup>4, 17</sup> It was encouraging that this was again achieved in the current trial.

Weight-related peer teasing was not measured as an outcome variable in the efficacy trial but was included in the current study as recent evidence suggests it might be of particular relevance to young-adolescent samples.<sup>24</sup> The main effect of group favouring *Media Smart* of moderate to large size ( $d = .68$ ) was another positive outcome with *Media Smart* girls scoring significantly lower than their control counterparts at both post-program and follow-up, while *Media Smart* boys also were experiencing a positive trend at follow-up ( $d = .27$ ). While *weight*-related teasing is not an explicit program content target of *Media Smart*, lesson four does include an activity where participants form groups and are given a scenario involving a negative peer comment about *appearance* (e.g., clothing), where their task is to develop three ways to respond to the situation and act these out to the class. In addition to this activity, it is possible that participating in the program did have the non-specific benefit of more broadly reducing appearance-based discussions between peers, however this was not measured.

While the findings for shape and weight concern, feelings of ineffectiveness and weight-related peer teasing were promising, no favourable findings emerged for dietary restraint or body dissatisfaction and it was not possible to explore the impact on depression, given the measure showed inadequate internal reliability at baseline in the current study. Significant main effects for group favouring *Media Smart* were found for each of these three variables in the efficacy trial.<sup>4</sup> While the reason for this is not known, one possibility relates to the difference in delivery of the program in his study compared to the efficacy trial. While media internalization is a direct target of the *Media Smart* program it was of interest that in both the

current effectiveness study and the efficacy RCT,<sup>4</sup> that no significant main effect for group was observed. Although in both studies there were favourable trends on this variable for *Media Smart* participants, it could be that internalization is already reasonably entrenched by early-adolescence. In the efficacy trial it was observed that variables more temporal to eating pathology than internalization in the dual pathway model were significantly reduced in *Media Smart* participants compared to control participants (i.e., body dissatisfaction, depression and dieting).

With the exception of shape and weight concern, findings from the current study suggest a generally more favourable outcome for *Media Smart* girls rather than boys, relative to their control counterparts. While interpretation of this should be made with caution given the small sample size of the study, having a female teacher was one likely contributing factor for this pattern of results. In the efficacy RCT, both girls and boys benefited from *Media Smart*, however it's possible the more favourable findings for boys in that study than the current effectiveness study were due to having a male presenter (SW) for the efficacy trial. It is hoped that the possible moderating role of presenter variables (e.g., gender, age, teacher level of eating disorder risk factors) on student outcomes can be explored in the effectiveness RCT, where some have suggested that presenter variables might be as important as program content.<sup>17</sup>

Given the main purpose of the current study was to pilot teacher-delivery of *Media Smart*, some components of RCT research were lacking. Specifically, the comparatively short follow-up duration, the no-intervention control group, the lack of independent fidelity check for program delivery, the lack of ability to prevent discussion about program content between students in the *Media Smart* and control conditions and the absence of formal measurement of the effectiveness of the teacher training workshop were all limitations. However, perhaps the most significant limitation was the small sample size, where individual differences in teaching style and other non-specific factors cannot be ruled out as contributing to the nature of the results.

Taken collectively, findings from the current study suggest it is feasible for a school teacher to deliver and gain positive outcomes from an eating disorder prevention program that was originally developed and delivered by health professionals. The current study provides support for a large-scale, thorough RCT of teacher-delivered *Media Smart*, with some further improvements in teacher training and program fidelity monitoring, as well as involving multiple school sites and classroom teachers.

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Table 1.

*Summary and description of self-report measures*

Variable	Description and Cronbach's alpha
Shape and weight concern	Eating Disorder Examination – Questionnaire <sup>27</sup> , 12 items (Girls $\alpha = .96$ ; Boys $\alpha = .91$ ). e.g., <i>how you think about yourself as a person?</i> , 0 = “Not at All” to 6 = “Marked.”
Dietary restraint	Dutch Eating Behaviour Questionnaire – Restraint <sup>28</sup> , 10 items (Girls $\alpha = .96$ ; Boys $\alpha = .91$ ). e.g., <i>foods that are slimming?</i> , 1 = “Never” to 5 = “Very Often.”
Body dissatisfaction*	Girls: Eating Disorder Inventory (EDI): Body Dissatisfaction <sup>29</sup> , 9 items ( $\alpha = .94$ ). e.g., <i>I think my thighs are too small</i> , 6 = “Always” to 1 = “Never”; Boys: <sup>30</sup> , 9 items ( $\alpha = .90$ ). e.g., <i>I think my thighs are too small</i> , 6 = “Always” to 1 = “Never”.
Media internalization	Sociocultural Attitudes Towards Appearance Questionnaire-3 <sup>31</sup> , 9 items (Girls $\alpha = .97$ ; Boys $\alpha = .91$ ). e.g., <i>body to the bodies of TV and movie stars</i> , 1 = “Definitely Disagree” to 5 = “Definitely Agree”.
feelings of ineffectiveness	EDI: Feelings of Ineffectiveness <sup>29</sup> , 10 items (Girls $\alpha = .85$ ; Boys $\alpha = .78$ ). e.g., <i>I feel inadequate</i> , 6 = “Always” to 1 = “Never”.
Depression	Child Depression Inventory –Short Form <sup>21</sup> , 10 items (Girls $\alpha = .74$ ; Boys $\alpha = .63$ ). e.g., 0 = “I am sad all the time”.
Self-esteem	Rosenberg Self-Esteem Scale <sup>32</sup> , 10 items (Girls $\alpha = .80$ ; Boys $\alpha = .81$ ). e.g., <i>On the whole, I am satisfied with myself</i> , 1 = “Strongly Disagree” to 4 = “Strongly Agree”.
Weight-related peer teasing	McKnight Risk Factor Survey <sup>23</sup> , 8 items (Girls $\alpha = .86$ ; Boys $\alpha = .86$ ). e.g., <i>In the past year, I have been teased about my weight</i> .



*women (including sisters) made fun of you because of your weight?*, 1= "Never" to 5 = "All the time"

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*Note \** = This scales had one or more items that differed for girls and boys. Cronbach's  $\alpha$  scores report

internal reliability for the current study.

Table 2.  
*General linear models estimated marginal means for eating disorder risk factors by time (2), group (2) and gender (2).*

	Baseline Covariate	Post-program			6
		MS	Control	Effect Size	MS
		M (SE)	M (SE)	<i>d</i>	M (SE)
<b>GIRLS</b>					
- Shape & weight concern	1.74	1.01 (.24)	1.53 (.33)	.29	1.45 (.24)
- Dietary restraint	1.98	1.52 (.14)	1.65 (.20)	.12	1.92 (.14)
- Body dissatisfaction	2.48	1.91 (.21)	2.03 (.26)	.08	2.43 (.20)
- Media internalization	2.18	1.57 (.16)	1.79 (.23)	.18	2.01 (.16)
- Self-Esteem	3.13	3.45 (.12)	3.16 (.18)	.31	3.34 (.12)
- Feelings of ineffectiveness <sup>a</sup>	2.22	1.84 (.18)	2.51 (.27)	.49*	2.05 (.18)
- Weight-related peer teasing <sup>a</sup>	1.46	1.10 (.14)	1.63 (.22)	.46*	1.29 (.14)
<b>BOYS</b>					
- Shape & weight concern <sup>a</sup>	1.74	1.08 (.36)	1.56 (.26)	.25	1.18 (.42)
- Dietary restraint	1.98	1.66 (.21)	1.52 (.16)	.07	1.55 (.25)
- Body dissatisfaction	2.48	2.21 (.28)	1.89 (.20)	.22	2.05 (.33)
- Media internalisation	2.18	1.58 (.23)	1.74 (.18)	.12	1.78 (.26)
- Self-Esteem	3.13	3.30 (.18)	3.39 (.14)	.09	3.36 (.22)
- Feelings of ineffectiveness <sup>a</sup>	2.22	1.93 (.27)	1.91 (.22)	.01	1.83 (.32)
- Weight-related peer teasing <sup>a</sup>	1.46	1.45 (.22)	1.45 (.16)	.00	1.15 (.26)

*Notes.* The effect of the baseline value has been statistically removed to allow for direct comparisons across Media Smart and Control groups at post-program and 6-month follow-up. <sup>a</sup> = significant main effect for group. Cohen's *d* is for Bonferroni-adjusted post-hoc testing of between-groups' difference by gender at post-program and 6-month follow-up. M = adjusted estimated marginal mean; SE = standard error; MS = Media Smart. Tests of significant pairwise comparisons between same-gender students in different groups: \*  $p < .05$ . Lower scores indicate lower risk on all variables except self-esteem.

