

Research Article

School Personnel's Self-Esteem, Sense of Self-Efficacy and Interventions on Weight-Related Bullying According to Their Weight Perception and Dieting Behaviors

Aime A^{1,2*}, Gagnon C¹, Maiano C^{1,2}, Robert-Mazaye C¹ and LeBlanc L¹

¹Department of Psychoeducation and Psychology, University of Quebec in Outaouais (UQO), Canada

²Department of Psychology, Concordia University, Canada

***Corresponding author:** Annie Aime, Department of Psychoeducation and Psychology, University of Quebec in Outaouais, Campus of Saint-Jérôme, 5 rue Saint-Joseph, Saint-Jérôme, QC J7Z 0B7, Canada

Received: January 13, 2021; **Accepted:** February 11, 2021; **Published:** February 18, 2021

Abstract

To increase academic performance in children, elementary school personnel are encouraged to focus on socio-emotional learning. Better classroom management and safer environments, exempt of bullying and particularly of weight-related bullying, appear like ways of fostering socio-emotional learning in children. However, some school personnel's characteristics could impact their ability to act on these dimensions. This research is interested in how weight-related intervention behaviors, self-esteem and sense of self-efficacy vary according to school personnel's dieting behaviors and weight perception are related to their self-esteem, sense of self-efficacy, and intervention behaviors on weight-related bullying. A total of 164 Canadian participants filled in questionnaires focusing on bullying, self-esteem, and sense of self-efficacy. Results show that most school personnel felt competent to manage their group of students and to intervene on weight-related bullying. Those who were on a diet and who perceived their weight as higher seem significantly more involved in promoting motivation for school and learning engagement in their students as well as more likely to intervene with the bully when encountering weight-related bullying situations. For their part, participants of normal weight who were on a diet had a significantly lower self-esteem than those dieting and having a perception of overweight. These results are encouraging because they suggest that elementary school personnel feel competent with regards to the socio-emotional learning of their students and is actively involved in providing them a safe learning environment.

Keywords: Dieting behaviors; Weight perception; Weight-related bullying; Sense of self-efficacy; Self-esteem

Abbreviations

BMI: Body Mass Index; HBQ: Handling Bullying Questionnaire; TSES: Teachers' sense of efficacy scale; RSES: Rosenberg self-esteem scale; MANOVA: Multivariate analysis of variance; ANOVA: Analysis of Variance

Introduction

Schools play an important role in promoting cognitive as well as socio-emotional development in children [1]. Given the association between school performance, well-being and socio-emotional competencies [2], many school-based interventions aiming at fostering socio-emotional learning have been implanted and assessed [1,3]. Such interventions and programs can, for example, focus on establishing environments in which students feel safe and valued as well as on improving classroom management to enhance behavioral adjustment, prosocial behaviors and academic performance [1]. To achieve equity, security, and well-being of children in their school environment, the involvement of teachers and school personnel is essential [4]. Those with a greater sense of self-efficacy seem effective in encouraging their students' adopting prosocial behaviors and building a capacity to sustain positive relationships [5], whereas those who promote an environment free from bullying are supporting

their students' feeling of safety and well-being [6-10]. Bullying's intervention appears in fact very important because only one victimization experience can be enough to compromise students' feeling of safety and school performance [6]. Among the reasons for bullying, weight has been associated with the highest risk of bullying victimization, with students with obesity and overweight being respectively 1.63 and 1.13 times more at risk to be bullied than those with normal weight [11].

School personnel such as teachers, psychologist, school counselors, social workers or school directors may intervene differently on weight-related bullying according to some of their personal characteristics. For example, some researchers argued that perceived seriousness of the situation and empathy toward the victims are possibly impacting teachers' responses to weight-related bullying [12]. School personnel's perception of their own weight as well as weight control behaviors like dieting could also be relevant. Indeed, the perception of overweight is associated with a higher risk of dieting behaviors [13] and both can be nurtured by the belief that weight is controllable and can be modified through behavioral changes [14]. However, no research so far has studied whether or not weight-related bullying intervention behaviors adopted by school personnel can vary according to their weight perception and dieting

behaviors.

In adults, perceiving oneself as overweight and being a frequent dieter has been linked to lower self-esteem [15,16]. Given that higher self-esteem is associated with higher sense of self-efficacy and decision making [17], weight perception and dieting behaviors of school personnel could also be pertinent to assess in the context of their ability to promote students' engagement, provide instructions to students and manage their group of students. To our knowledge, no such study is available. Thus, the aim of this study is to assess how school personnel's weight-related bullying intervention behaviors, self-esteem and sense of self-efficacy vary according to their weight perception and dieting behaviors.

Methods

Participants

A convenient sample of 164 Canadian school personnel (89% women, \bar{x} age=37.49, SD=9.73) filled in online questionnaires. Among the participants, 59 (36.0%) were on a diet and 86 (52.43%) perceived themselves as overweight. As for objective weight measured with body mass index (BMI=kg/m²), 79 had a normal weight (BMI<25); 52 presented overweight (BMI≥25 and < 30), and 33 presented obesity (BMI≥30). While 98 (59.8%) were elementary school teachers, the other 66 (40.2%) were other elementary school personnel (e.g., psychologists, counselors, directors, social workers).

Procedures

School personnel were informed of the study through emails sent from school directors, advertisements, and Facebook groups in the Province of Quebec, Canada. They could read the description of the study and access the survey link directly. The ethical certificate was obtained from the ethical committee of the first author's University.

When measures had already been translated in French, the available versions were used. For the one not already translated (i.e., Handling bullying questionnaire), the back-translation technique [18] was used. Accordingly, an iterative process of independent forward- and back-translation was realized. At least two professional translators were involved in the translation process. Moreover, an expert committee was formed to discuss and resolved any inconsistencies between versions of the questionnaires, as well as to ensure that translated items were adequate and understandable by the participants.

Measures

Handling bullying. The Handling Bullying Questionnaire (HBQ) [19] was used to measure the type of intervention when facing bullying situations. It comprises two parts. The first one corresponds to a brief bullying scenario representing direct and indirect form of bullying. This scenario was adapted to correspond to weight-related bullying. The second part consist of 22 items measuring five dimensions: 1-Disciplining the bully (3 items); 2-Working with the bully (5 items); 3-Working with the victim (4 items); 4-Enlisting other adults (5 items); 5-Ignoring the incident (5 items). Based on the scenario, participants have to answer to each item using a 5-point Likert scale ranging from 1 ("I definitely would not") to 5 ("I definitely would"). A higher score on a subscale indicates a higher tendency to endorse the corresponding strategy. The English validation of the questionnaire provides modest to acceptable internal consistencies

coefficients (Cronbach's α =0.52 to 0.78) and provided support for the five factors structure [19]. The present French translation shows weak internal consistency for the *Ignoring the incident* subscale (α =0.39), and modest to acceptable internal consistencies coefficients for the other four subscales: *Disciplining the bully* (α =0.69); *Working with the bully* (α =0.58); *Working with the victim* (α =0.79); and *Enlisting other adults* (α =0.69).

Sense of efficacy. The Teachers' Sense of Efficacy Scale Long Form (TSES) was used to measure school personnel' perception regarding their capacity to manage different school activities with their students. The long form of the TSES comprises 24 items measuring three dimensions: 1-Efficacy in student engagement (8 items), 2-Efficacy in instructional strategies (8 items), 3-Efficacy in classroom management (8 items). Participants answer to each item using a 9-point Likert scale ranging from 1 ("nothing") to 9 ("a great deal"). A higher score indicates an elevated sense of efficacy on the dimension questioned. The French version [18] used for this study shows good internal consistencies coefficients for all dimensions of the TSES (Global score: α =0.95; *efficacy in student engagement*: α =0.84; *efficacy in instructional strategies*: α =0.90; *efficacy in classroom management*: α =0.90).

Self-esteem. The Rosenberg self-esteem scale (RSES) was used to measure participants self-esteem. This questionnaire comprises 10 items that participants answered using a 4-point Likert scale ranging from 1 ("strongly disagree") to 4 ("strongly agree"). A higher score indicates a higher self-esteem. The French version of the RSES (20) shows good psychometric properties (i.e., factor validity and reliability, temporal stability, and convergent validity) (20). In the present study, the RSES shows a good internal consistency (α =0.82).

Analysis

Four groups of participants were formed based on their answers to "diet" (i.e., yes or no) and "weight perception's" (i.e., considering themselves as having a normal weight or as presenting overweight). They were as follow: 1-absence of dieting behaviors and perception of normal weight (No diet-normal weight; n=47); 2- absence of dieting behaviors and perception of overweight (No diet-Overweight; n=35); 3-presence of dieting behaviors and perception of normal weight (Diet-Normal weight; n=16), and 4- presence of dieting behaviors and perception of overweight (Diet-Overweight; n=35). Then, a Multivariate Analysis of Variance (MANOVA) was used to examine group differences on intervention behaviors in weight-related bullying situations, sense of self-efficacy and self-esteem. In case of significant MANOVA (p <.05), separate univariate ANOVA were performed.

Results

Results show that the diet-overweight group has the highest means on almost all the measures. With regards to self-esteem, all four groups reported high total mean scores, but the diet-normal weight group had the lowest mean. The four groups also reported a high mean for sense of self-efficacy and the same trend was observed for handling bullying situations, with the four groups presenting high means on the sub-scales, except for ignoring the incident. The no-diet normal weight group reported a lower mean compared to the other three groups on the subscale "working with the bully" (Table 1).

Table 1: Descriptive statistics on self-esteem, sense of self-efficacy, and weight-related bullying intervention behaviors according to groups of participants.

	Not dieting and perception of normal weight	Not dieting and perception of overweight	Dieting and perception of normal weight	Dieting and perception of overweight
	M (SD)	M (SD)	M (SD)	M (SD)
RSES global-Global self-esteem	34.81 (3.25)	33.67 (5.25)	31.69 (4.16) ^a	35.49 (3.94) ^a
TSES-Efficacy in Student Engagement	6.34 (0.73) ^b	6.59 (1.14)	6.60 (1.12)	7.04 (1.35) ^b
TSES -Efficacy in Instructional Strategies	6.74 (0.88)	6.90 (1.19)	6.81 (1.41)	6.90 (1.64)
TSES-Efficacy in Classroom Management	6.68 (0.85)	6.98 (1.20)	7.08 (1.39)	7.16 (1.68)
TSES global-general sense of self-efficacy	6.58 (0.68)	6.82 (1.04)	6.83 (1.24)	7.03 (1.46)
HBQ-Ignoring the incident	1.47 (0.40)	1.40 (0.48)	1.39 (0.40)	1.61 (0.46)
HBQ-Working with the victim	3.51 (1.13)	3.63 (0.94)	3.66 (0.72)	3.76 (0.86)
HBQ-Working with the bully	3.89 (0.55) ^b	4.22 (0.52)	4.24 (0.35)	4.22 (0.52) ^b
HBQ-Enlisting other adults	4.19 (0.67)	4.34 (0.60)	4.24 (0.53)	4.37 (0.48)
HBQ-DisCIPLINING the bully	4.49 (0.59)	4.57 (0.58)	4.52 (0.49)	4.60 (0.49)

^aSignificant statistical differences $p < 0.05$; between diet and considering themselves as having overweight group and diet and considering themselves as having a normal weight.

^bSignificant statistical differences $p < 0.05$; between diet and considering themselves as having overweight group and non-diet and considering themselves as having a normal weight.

The MANOVA, performed using Pillai's trace, indicated a statistically significant effect of group on intervention behaviors, sense of self-efficacy and self-esteem [$V=0.31$, $F(27,381)=2.69$; $p=0.032$]. Separate univariate ANOVA showed significant differences between groups on tendency to intervene with the bully, self-efficacy related to students' engagement, and self-esteem. More specifically, as illustrated in (Table 1), participants from the diet-overweight groups tended to present a significant: 1-higher tendency to intervene with the bully than participants from the no diet-normal weight group [$F(3,133)=4.262$; $p=0.007$; $\eta^2=0.09$]; 2- higher sense of self-efficacy related to students engagement than participants from the no diet-normal weight group [$F(3,133)=2.83$; $p=0.041$; $\eta^2=0.06$]; and 3-higher self-esteem [$F(3,133)=3.56$; $p=0.016$ $\eta^2=0.07$] than participants from the diet-normal weight group. All of these results were of moderate effect size.

Discussion

This study aimed at exploring differences in weight-related bullying intervention behaviors, self-esteem and sense of self-efficacy according to school personnel's dieting behaviors (i.e. presence or absence of diet) and perception of weight (i.e. normal or overweight). Differences were noticed for weight-related bullying interventions focusing on the bully, self-esteem and sense of efficacy towards students' engagement in their learnings. This study's results show that the ability to sustain school engagement, value and motivate learning in students and to intervene with the bully in weight-related bullying situations was significantly higher in those who reported being on a diet and perceiving themselves as overweight than in those not on a diet and perceiving that they had a normal weight. Our results also suggest a strong tendency for school personnel to intervene on weight-related bullying. Moreover, participants tended to perceive themselves as competent to manage their class and provide instruction to their students. Thus, it seem plausible that school personnel actively engages in students' safety and well-being [6-10], which in turn can contribute to academic success [1]. In this study, participants reported being very likely to intervene in weight-

related bullying, no matter their weight perception or own desire to control their weight through dieting behaviors. A strong majority of participants mentioned they would definitely not ignore the incident, and that they would definitely enlist other adults in the intervention as well as discipline and work with the bully. Most also said they would probably work with the victim of weight-related bullying. These findings could indicate that negative stigmatized attitudes toward overweight and obesity found in the general population [20,21] do not interfere with school personnel willingness to intervene on weight-related bullying. In other words, a tendency to prefer thin people [22] may not be at play as school personnel engages in prevention of school bullying and violence [23]. Additionally, participants perceiving themselves as of higher weight did not report intervening more often with victims of weight-related bullying than other participants. Thus, they may not relate more strongly with the students' victims of weight-related bullying than other participants. This goes against the suggestion that people with obesity might identified with people with a similar weight [24]. It could instead indicate that all and every school personnel truly believe in the necessity to intervene and tend to endorse the idea that every child has the right to feel safe and well in his school environment [23,25-27]. However, a higher probability to intervene with students who bully others because of their weight was found for school personnel perceiving themselves as having a higher weight and feeling the need to go on a diet, as opposed to those perceiving their weight as normal and who were not on a diet. Participants experiences with diet and weight issues may make them well aware of negative bias and stigmatisation about overweight and obesity and their potential consequences on students' school engagement. Thus, they may believe weight-related bullying must be addressed and stopped rapidly by working with the bully. More generally, it could also reflect a stronger inclination for school personnel to focus on the bully when encountering weight-related bullying situations, as found in past research suggesting that teachers and school counselors tend to more often work with the bully [19,28,29]. With regards to the participants' sense of self-efficacy, the present results suggest that school personnel's ability to manage their

group of students and to provide them with instruction doesn't differ according to dieting behaviors and weight perceptions. In light of the results, it seems however possible that those who endorsed being on a diet and perceiving themselves as overweight may put more efforts in providing a positive and valued learning environment in which their students can engage, even if they are facing learning difficulties. As in the general population losing weight through dieting and exercising is seen positively [30], it might make them feel more in control, thus contributing to their general sense of self-efficacy. More precisely, being on a diet, especially for individuals who perceive themselves as presenting overweight, may be related to their sense of self-efficacy because they are actively trying to modify their body and possibly to like it better. In fact, it has been suggested that a greater sense of efficacy is observed in people who engaged in behavioral changes [31]. This impression of competency may generalize to other aspect of their life such as their professional life. They may also feel more competent to detect and intervene on their students' critical thinking, creativity, and commitment to learning. Involvement in behavioral changes through dieting could also contribute to higher self-esteem, but only for those who are considering themselves as overweight. Interestingly enough, the fewer school personnel of normal weight who were on a diet (9,8% of the whole sample) had a significantly lower self-esteem than those dieting and having a perception of overweight. This suggests that individuals of normal weight who feel the need to go on a diet may be particularly vulnerable to normative discontent [32].

Some limits of this study should be mentioned. First, the results are based on a small convenience sample and on a majority of women. It is therefore impossible to generalize the findings to a male population or to verify whether female and male school personnel could differ with regards to their self-esteem, sense of self-efficacy and means of intervention in weight-related bullying situations. Second, our French translation of the Handling bullying questionnaire shows weak and modest internal consistency for all of the subscales. The interpretation of the results according to this measure should be made carefully. Third, our results do not allow to understand what fuels the intervention behaviors with the bullies in participants reporting diet behaviors and a perception of overweight. More complex model of association should be considered. For example, other factors that could contribute to the intervention's behaviors like past experiences of bullying could have sensitize school personnel to bullying and increase their empathy and sense of self-efficacy when confronted to such situations [27,33].

Conclusion

Considering the high prevalence of weight-related bullying in school settings and the potential deleterious consequences of this form of bullying, this study's findings are very encouraging since they show that no matter their weight perception and dieting practices, school personnel tend to report that they would definitely intervene on weight-related bullying situations. Nevertheless, being on a diet and perceiving oneself as of higher weight could positively contribute to school personnel's desire to intervene with the bully and interact with their self-esteem and sense of self-efficacy when it comes to fostering students' engagement in their learning. Together, these results indicate a real desire in school personnel to provide a safe school environment to their students, in which they can feel well and

learn more efficiently.

References

- Durlak JA, Weissberg RP, Dymnicki AB, Taylor RD, Schellinger KB. The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child development*. 2011; 82: 405-432.
- Guerra NG, Bradshaw CP. Linking the prevention of problem behaviors and positive youth development: Core competencies for positive youth development and risk prevention. *New directions for child and adolescent development*. 2008; 2008: 1-17.
- Jones SM, Barnes SP, Bailey R, Doolittle EJ. Promoting social and emotional competencies in elementary school. *The Future of Children*. 2017; 27: 49-72.
- Allensworth EM, Farrington CA, Gordon MF, Johnson DW, Klein K, McDaniel B, et al. Supporting Social, Emotional, & Academic Development: Research Implications for Educators. Research Synthesis. University of Chicago Consortium on School Research. 2018.
- Mashburn AJ, Hamre BK, Downer JT, Pianta RC. Teacher and classroom characteristics associated with teachers' ratings of prekindergartners' relationships and behaviors. *Journal of psychoeducational assessment*. 2006; 24: 367-380.
- Yablon YB, Addington LA. Students' Feeling of Safety in School: Does Frequency of Victimization Matter? *American Journal of Criminal Justice*. 2018; 43: 26-38.
- Cornell DG, Mayer MJ. Why do school order and safety matter? *Educational Researcher*. 2010; 39: 7-15.
- Mayer MJ, Furlong MJ. How safe are our schools? *Educational Researcher*. 2010; 39: 16-26.
- Robinson JP, Espelage DL. Inequities in educational and psychological outcomes between LGBTQ and straight students in middle and high school. *Educational researcher*. 2011; 40: 315-330.
- Kutsyruba B, Klinger DA, Hussain A. Relationships among school climate, school safety, and student achievement and well-being: a review of the literature. *Review of Education*. 2015; 3: 103-135.
- Lumeng JC, Forrest P, Appugliese DP, Kaciroti N, Corwyn RF, Bradley RH. Weight status as a predictor of being bullied in third through sixth grades. *Pediatrics*. 2010; 125: e1301-e1307.
- Yoon J, Bauman S. Teachers: A critical but overlooked component of bullying prevention and intervention. *Theory into Practice*. 2014; 53: 308-314.
- Jauregui-Lobera I, Ezquerro-Cabrera M, Carbonero-Carreño R, Ruiz-Prieto I. Weight misperception, self-reported physical fitness, dieting and some psychological variables as risk factors for eating disorders. *Nutrients*. 2013; 5: 4486-4502.
- Magallares A, Carbonero-Carreño R, Ruiz-Prieto I, Jauregui-Lobera I. Beliefs about obesity and their relationship with dietary restraint and body image perception. *Anales de Psicología/Annals of Psychology*. 2016; 32: 349-354.
- Pop C. Self-Esteem and Body Image Perception in a Sample of University Students. *Eurasian Journal of Educational Research*. 2016; 64: 31-44.
- Gillen MM, Markey CN, Markey PM. An examination of dieting behaviors among adults: Links with depression. *Eating behaviors*. 2012; 13: 88-93.
- Khan A, Fleva E, Qazi T. Role of self-esteem and general self-efficacy in teachers' efficacy in primary schools. *Psychology*. 2015; 6: 117.
- Brislin RW. Back-translation for cross-cultural research. *Journal of cross-cultural psychology*. 1970; 1: 185-216.
- Bauman S, Rigby K, Hoppa K. US teachers' and school counsellors' strategies for handling school bullying incidents. *Educational Psychology*. 2008; 28: 837-856.
- Vallieres EF, Vallerand RJ. Traduction et validation canadienne-française de l'échelle de l'estime de soi de Rosenberg. *International journal of psychology*. 1990; 25: 305-316.

21. Hilbert A, Rief W, Braehler E. Stigmatizing attitudes toward obesity in a representative population-based sample. *Obesity*. 2008; 16: 1529-1534.
22. Schwartz MB, Vartanian LR, Nosek BA, Brownell KD. The influence of one's own body weight on implicit and explicit anti-fat bias. *Obesity*. 2006; 14: 440-447.
23. Puhl RM, Neumark-Sztainer D, Bryn Austin S, Suh Y, Wakefield DB. Policy actions to address weight-based bullying and eating disorders in schools: Views of teachers and school administrators. *Journal of school health*. 2016; 86: 507-515.
24. Marini M, Sriram N, Schnabel K, Maliszewski N, Devos T, Ekehammar B, et al. Overweight people have low levels of implicit weight bias, but overweight nations have high levels of implicit weight bias. *PLoS One*. 2013; 8: e83543.
25. Kallestad JH, Olweus D. Predicting teachers and schools' implementation of the olweus bullying prevention program: A multilevel study. *Prevention & Treatment*. 2003; 6: 21a.
26. Mishna F, Scarcello I, Pepler D, Wiener J. Teachers' understanding of bullying. *Canadian Journal of Education/Revue canadienne de education*. 2005; 28: 718-738.
27. Yoon J, Sulkowski ML, Bauman SA. Teachers' responses to bullying incidents: Effects of teacher characteristics and contexts. *Journal of school violence*. 2016; 15: 91-113.
28. Sairanen L, Pfeffer K. Self-reported handling of bullying among junior high school teachers in Finland. *School Psychology International*. 2011; 32: 330-344.
29. Burger C, Strohmeier D, Sprober N, Bauman S, Rigby K. How teachers respond to school bullying: An examination of self-reported intervention strategy use, moderator effects, and concurrent use of multiple strategies. *Teaching and Teacher Education*. 2015; 51: 191-202.
30. Fardouly J, Vartanian LR. Changes in weight bias following weight loss: the impact of weight-loss method. *International Journal of Obesity*. 2012; 36: 314-319.
31. Nabi RL, Thomas J. The effects of reality-based television programming on diet and exercise motivation and self-efficacy in young adults. *Health Communication*. 2013; 28: 699-708.
32. Weinberger N-A, Kersting A, Riedel-Heller SG, Luck-Sikorski C. Body dissatisfaction in individuals with obesity compared to normal-weight individuals: a systematic review and meta-analysis. *Obesity facts*. 2016; 9: 424-441.
33. McEvedy SM, Sullivan-Mort G, McLean SA, Pascoe MC, Paxton SJ. Ineffectiveness of commercial weight-loss programs for achieving modest but meaningful weight loss: Systematic review and meta-analysis. *Journal of health psychology*. 2017; 22: 1614-1627.