



Autonomy support and control in weight management: What important others do and say matters

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Objectives. Drawing from self-determination theory (Ryan & Deci, 2002, Overview of self-determination theory: An organismic-dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). Rochester, NY: The University of Rochester Press.), we examined how individuals' psychological needs, motivation, and behaviours (i.e., physical activity and eating) associated with weight management could be predicted by perceptions of their important others' supportive and controlling behaviours.

Methods. Using a cross-sectional survey design, 235 participants (mean age = 27.39 years, *SD* = 8.96 years) completed an online questionnaire.

Results. Statistical analyses showed that when important others were perceived to be more supportive, participants reported higher levels of more optimal forms of motivation for weight management, which in turn predicted more physical activity and healthy eating behaviours. In contrast, when important others were perceived to be controlling, participants reported higher levels of less optimal forms of motivation, which in turn predicted less physical activity and healthy eating behaviours, as well as more unhealthy eating behaviours. Significant indirect effects were also found from perceived support and control from important others to physical activity and eating behaviours, all in the expected directions.

Conclusions. The findings support the importance of important others providing support and refraining from controlling behaviours in order to facilitate motivation and behaviours conducive to successful weight management.

Statement of contribution

What is already known on this subject? Autonomy support is related to basic need satisfaction and autonomous motivation in the context of weight management. In turn, these variables are related to adaptive outcomes for weight management.

What does this study add?

- Measurement of perceived controlling behaviours by important others.
- Measurement of perceived need thwarting.
- Structural model on how important others affect weight management behaviours of the individual.

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The support of important others (e.g., spouse, close friends) can play an important role in facilitating adherence to behaviours associated with losing or maintaining body weight (referred to as weight management hereafter), and success of weight management (Elfhag & Rössner, 2005). The purpose of this study is to draw from a contemporary theoretical framework of motivation, namely self-determination theory (SDT; Ryan & Deci, 2002), and focus on the role of perceived behaviours of important others in terms of supporting or undermining motivation for weight management. Specifically, we compared the role of two very different styles of communication in predicting individuals' psychological need satisfaction and thwarting, motivation for weight management, physical activity, and eating behaviours.

According to Deci and Ryan (2000), different interpersonal styles by important others may lead to contrasting outcomes in terms of motivation and behaviours. Deci and Ryan distinguished between interpersonal styles that are autonomy supportive and those that are controlling in nature. Autonomy support refers to behaviours that nurture and promote one's sense of self-determination. It is characterized by behaviours such as providing choice of activities, meaningful rationales, acknowledging and accepting negative feelings, and displaying patience to allow time for change. In contrast, behaviours that aim to induce changes in behaviour, thoughts, and feelings by applying pressure or various contingencies are considered controlling. Examples include the use of contingent rewards, punishments, or pressure-inducing language (Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2009).

Autonomy supportive and controlling interpersonal styles have been shown to be differentially related to basic psychological needs and motivational regulations as proposed by SDT. Deci and Ryan (2000) suggested that three basic psychological needs, namely autonomy (i.e., feeling that one's behaviour is in concordance with self choices and values), competence (i.e., feeling capable), and relatedness (i.e., being cared for by others), are in operation. Deci and Ryan also distinguished between motivational regulations with varying degrees of perceived self-determination which can be broadly grouped into the dimensions of *autonomous motivation*, *controlled motivation*, and *amotivation* (Ryan & Deci, 2002). Autonomous motivation encompasses intrinsic motivation (i.e., doing a task for its inherent interest and enjoyment) and identified regulation (i.e., doing an activity to obtain valued outcomes). Controlled motivation includes introjected regulation (i.e., engaging in a behaviour to avoid internal pressures or to achieve contingent self-worth) and external regulation (i.e., acting under external pressure, tangible rewards, or to obtain social approval). Amotivation refers to a state of lacking both autonomous and controlled motivation. This state occurs when needs are thwarted and is also associated with the poorest behavioural and psychological outcomes (Deci & Ryan, 2000). The three needs advanced by SDT play an imperative role in human functioning and psychological well-being. When they are satisfied, optimal human performance and autonomous motivation will be supported, which in turn lead to better adherence in behaviours and psychological well-being. In contrast, high levels of controlled motivation or amotivation will be experienced when these needs are thwarted. Controlled motivation and amotivation have been related to more maladaptive outcomes, such as lower persistence and psychological ill-being (Deci & Ryan, 2000).

Within the context of weight management, empirical research has provided support for the tenets of SDT. For instance, Edmunds, Ntoumanis, and Duda (2007) found that need satisfaction predicted autonomous motivation, better adherence to physical activity, and psychological well-being in a group of overweight and obese individuals. Silva *et al.* (2010) showed that in a group of overweight female participants who took part in a

physical activity intervention, autonomy and competence need satisfaction predicted autonomous forms of motivation, which in turn predicted physical activity behaviours. Silva *et al.* (2011) further showed that autonomous motivation predicted physical activity 1 year after the intervention has ended and also weight loss 2 years after the end of the intervention period. However, inconsistent results were found regarding the relations between controlled motivation and various outcomes. For instance, Williams, Gagne, Mushlin, and Deci (2005) found a positive association between controlled motivation and diet behaviours, but the opposite relation was reported by Julien, Senecal, and Guay (2009). Further, controlling behaviours from important others and need thwarting were not measured in these studies. Controlling behaviours have been found to predict need thwarting and psychological ill-being in sport (Bartholomew, Ntoumanis, Ryan, Bosch, & Thøgersen-Ntoumani, 2011; Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011). However, there is a lack of evidence on the association between controlling behaviours and other related constructs such as need thwarting, controlled motivation, and amotivation.

The aim of the current study is to examine how perceptions of important others' autonomy supportive and controlling behaviours might predict psychological needs, motivation, and weight management behaviours of individuals with weight management goals. Indicators of positive behavioural outcomes in this study were physical activity and healthy eating, as these have been identified as key behaviours for weight management (Wing & Hill, 2001). Unhealthy eating behaviours were also measured in this study as a maladaptive outcome with respect to weight management, as this behaviour has been previously found to predict long-term weight gain (Neumark-Sztainer *et al.*, 2006). Drawing from a SDT-based model of motivation processes (Vallerand, 1997), we hypothesized that perceived autonomy support from important others would predict higher levels of need satisfaction and lower levels of need thwarting. In contrast, we expected perceived controlling behaviours by important others to be related to less need satisfaction and more need thwarting. We further hypothesized that need satisfaction (thwarting) would predict more (less) autonomous forms of motivation and less (more) controlled motivation and amotivation. Finally, we also hypothesized that autonomous motivation would predict more adaptive (and less maladaptive) behavioural outcomes, while controlled motivation and amotivation would be related to less positive (and more negative) weight management behaviours.

Method

Participants and procedures

Participants were eligible for the study if they were aged between 18 and 64 years, were attempting to manage their weight, and perceived that their weight management efforts were influenced by an important other. Web-based questionnaires were used to collect responses. All study procedures and questionnaires used were approved by an ethics committee of a British university. Two hundred and thirty-eight participants completed the questionnaire. Three participants were removed because they did not have an important other who influenced their weight management behaviours. The final 235 participants had a mean age of 27.39 years ($SD = 8.96$ years); 183 (77.9%) were female, and 156 (66.4%) of them were attempting to lose weight, with the rest trying to maintain their weight. The majority of participants were white (75.7%), followed by black (5.53%), Asian (5.11%), and Chinese (4.26%). Participants self-reported their height and weight,

and we calculated their body mass index (BMI) based on this information. Participants' mean BMI was 24.58, with 30% of them classified as either overweight or obese (i.e., BMI > 25).

Measures

Perceived behaviours of important others

Rouse, Ntoumanis, Duda, Jolly, and Williams (2011) showed that different important others may have varying interpersonal styles and may influence participants' motivation in different ways. Therefore, we asked participants to nominate 'the one individual who has the largest impact on your weight management regime' as their important other in this study. Most participants (54%) nominated their spouse or romantic partner as their important other. Close friends (21%), parents (18%), and trainers/dieticians (3%) were also identified.

Perceived autonomy support from important other was measured using six items adapted from Williams *et al.*'s (2006) scale (e.g., 'My important other listens to how I would like to do things regarding my weight loss plans'; Cronbach's alpha [α] = .91). Perceived controlling behaviours of important other were measured using six items (e.g., 'My important other is less supportive of me when I don't stick to my weight loss plans'; α = .83) adapted from the Controlling Coach Behaviours Scale (Bartholomew, Ntoumanis, & Thøgersen-Ntoumani, 2010). Responses for perceived important others' autonomy supportive and controlling behaviours were provided using a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*).

Psychological needs

Need satisfaction was measured using 12 items modified from a scale developed in sport by Ng, Lonsdale, and Hodge (2011). Four items were used to tap autonomy (e.g., 'I feel I am pursuing goals that are my own'; α = .89), competence (e.g., 'I feel capable'; α = .89) and relatedness (e.g., 'there are people who care about me'; α = .91), respectively, with reference to weight management. For need thwarting, 12 items of the scale by Bartholomew, Ntoumanis, Ryan, and Thøgersen-Ntoumani (2011) were adapted to measure need thwarting of autonomy (four items; e.g., 'I feel pushed to behave in certain ways'; α = .87), competence (four items; e.g., 'there are situations where I am made to feel inadequate'; α = .89), and relatedness (four items; e.g., 'I feel I am rejected'; α = .83) with respect to weight management. Psychological needs were measured using a 7-point response scale (1 = *strongly disagree*; 7 = *strongly agree*).

Behavioural regulations

Items from the Behavioural Regulation in Exercise Questionnaire (BREQ-2; Markland & Tobin, 2004) were adapted to measure participants' behavioural regulations to manage their weight. Items were intended to measure intrinsic motivation (four items; e.g., 'because I enjoy [losing weight]'; α = .90), identified regulation (four items; e.g., 'because I value the benefits of losing weight'; α = .65), introjected regulation (three items; e.g., 'because I feel guilty when I don't try to lose weight'; α = .85), external regulation (four items; e.g., 'because other people say I should'; α = .88), and amotivation (four items; e.g., 'but I think doing it is a waste of time'; α = .88) with respect to weight management

behaviours. Participants responded using a 5-point scale (1 = *not true for me*; 5 = *very true for me*).

Behavioural outcomes

Physical activity, healthy and unhealthy eating behaviours were used as indicators of behavioural outcomes. Physical activity was measured using Godin and Shephard's (1985) Leisure-Time Exercise Questionnaire. Participants were asked to report the frequencies they engaged in strenuous, moderate, and mild physical activity, respectively, in the last 7 days (one item for each type of intensity). The reported frequencies were multiplied by different metabolic equivalent values (strenuous, 9; moderate, 5; mild, 3) and summed to form a score for physical activity. Eating behaviours were measured using a set of items developed by Neumark-Sztainer, Story, Hannan, Perry, and Irving (2002). Responses for items corresponding to healthy (three items; e.g., 'ate less sweets'; $\alpha = .65$) and unhealthy eating (five items; e.g., 'skipped meals'; $\alpha = .80$) were made using a 5-point scale (1 = *never*; 5 = *always*).

Results

Confirmatory factor analyses

Due to a lack of measures of SDT-variables specific to the context of weight management, we used adaptations of scales developed for related contexts. These include measures for autonomy support, controlling behaviours, need satisfaction and thwarting, and behavioural regulations. As the corresponding items were adapted from different contexts, we conducted confirmatory factor analyses (CFA) to examine their factor structure within the weight management context. The analyses were carried out using Mplus version 7 (Muthén & Muthén, 2008).

For the perceived autonomy support scale, we evaluated a one-factor model and a good fit was found: $\chi^2(9) = 10.27, p = .33$, Comparative Fit Index (CFI) = 1.00, Tucker-Lewis Index (TLI) = 1.00, root mean square error of approximation (RMSEA) = .03, and standardized root mean square residual (SRMR) = .02. For scores corresponding to controlling behaviours, the initial one-factor CFA model did not fit well: $\chi^2(9) = 32.71, p < .001$, CFI = .92, TLI = .87, RMSEA = .11, SRMR = .06, with one item having a low factor loading (.37). This item ('My important other only praises me to make me keep up with my weight loss plans') was deemed as an insufficiently good indicator of the construct and was therefore removed from the model. The revised model had a good fit: $\chi^2(5) = 10.99, p = .05$, CFI = .98, TLI = .95, RMSEA = .07, and SRMR = .03.

For scores of need satisfaction of autonomy, competence, and relatedness, a three-factor model had good model fit: $\chi^2(51) = 97.42, p < .001$, CFI = .96, TLI = .95, RMSEA = .06, and SRMR = .05. Similarly, the three-factor model for need thwarting also had a good model fit: $\chi^2(51) = 83.71, p < .01$, CFI = .97, TLI = .96, RMSEA = .05, and SRMR = .04. Regarding the factor structure for scores of the behavioural regulations, the initial five-factor model we examined did not fit well: $\chi^2(142) = 288.12, p < .001$, CFI = .93, TLI = .91, RMSEA = .07, and SRMR = .08. An item in the identified regulation subscale (i.e., 'because I get restless if I don't try to lose weight') had low factor loading (.32) and hence was eliminated. The revised model had good fit: $\chi^2(125) = 231.18, p < .001$, CFI = .95, TLI = .94, RMSEA = .06, and SRMR = .05. To examine a parsimonious model, mean scores of satisfaction and thwarting of the three needs were used to

form indicators of need satisfaction and thwarting, respectively. Scores of intrinsic motivation and identified regulation were averaged to form a score for autonomous motivation; the mean scores of introjected and external regulation subscales were used as an indicator of controlled motivation.

Preliminary results

Descriptive statistics and Pearson correlations between the study variables are shown in Tables 1 and 2, respectively. We compared the mean scores on all variables of participants who had weight loss goals ($n = 156$) to those who had weight maintenance goals ($n = 79$) using t -tests. Participants with weight loss goal reported more use of both healthy and unhealthy eating behaviours. No other significant differences were found. Autonomy support was weakly correlated to controlling behaviours, and need satisfaction was inversely and moderately related to need thwarting. In line with previous findings (Bartholomew *et al.*, 2010; Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011), these correlations indicate that these pairs of constructs are not bipolar.

Structural equation model of motivation and weight management behaviours

Structural equation modelling analysis was used to evaluate simultaneously the hypothesized relations between important other behaviours, basic psychological needs, motivation, and the behavioural outcomes (see our hypotheses). Our sample size was insufficiently large for an analysis using a full-item indicator approach. Therefore, the single-indicator approach was used to correct for measurement error (Hayduk, 1987). Specifically, the standardized factor loadings of the single indicators were fixed to values

Table 1. Descriptive statistics of measured variables, separated by participants' weight management goals

	Participant weight management goals						t	p
	All participants ($n = 235$)		Lose weight ($n = 156$)		Maintain weight ($n = 79$)			
	M	SD	M	SD	M	SD		
1. Age	27.39	8.96	27.88	8.95	26.44	8.96	1.16	.25
2. BMI	24.58	5.62	24.96	5.45	23.82	5.91	1.45	.15
3. Autonomy support	4.31	1.56	4.39	1.61	4.17	1.48	1.00	.32
4. Controlling behaviours	2.51	1.37	2.63	1.38	2.29	1.33	1.76	.08
5. Need satisfaction	5.64	1.11	5.64	1.12	5.63	1.10	0.02	.99
6. Need thwarting	2.81	1.40	2.91	1.42	2.62	1.34	1.48	.14
7. Autonomous motivation	3.57	0.91	3.61	0.85	3.50	1.01	0.82	.41
8. Controlled motivation	2.34	0.97	2.41	1.03	2.18	0.84	1.83	.07
9. Amotivation	1.63	0.90	1.63	0.96	1.63	0.79	0.03	.98
10. Physical activity	42.69	28.58	42.74	29.63	42.60	26.60	0.04	.97
11. Healthy eating behaviours	3.36	0.88	3.49	0.79	3.09	0.98	3.15	.00
12. Unhealthy eating behaviours	1.39	0.62	1.49	0.71	1.20	0.28	4.52	.00

Note. BMI = body mass index.

Table 2. Internal consistencies and Pearson correlations of measured variables

	Cronbach's α											
	1	2	3	4	5	6	7	8	9	10	11	
1. Age	—											
2. BMI	—	.03										
3. Autonomy support	.91	—	.03									
4. Controlling behaviours	.83	-.02	.00	.18**								
5. Need satisfaction	.93	.10	.00	.38**	-.19**							
6. Need thwarting	.94	-.11	-.05	.41**	-.41**	-.09						
7. Autonomous motivation	.87	.01	.13*	-.02	.40**	.61**	.08					
8. Controlled motivation	.86	-.17**	.04	.42**	-.26**	.52**	-.12	.56*				
9. Amotivation	.88	-.09	-.04	.38**	-.24**	-.08	.18**	-.09	-.04			
10. Physical activity	—	-.11	.01	-.02	.07	-.05	.29**	-.05	-.20**	.09		
11. Healthy eating behaviours	.65	.18**	.01	-.02	.16*	-.05	.05	-.05	.43**	.12	.11	
12. Unhealthy eating behaviours	.80	.06	.03	.29**	-.12	.36**	.05	.36*				

Note. BMI = body mass index.
 N = 235. * $p < .05$, ** $p < .01$.

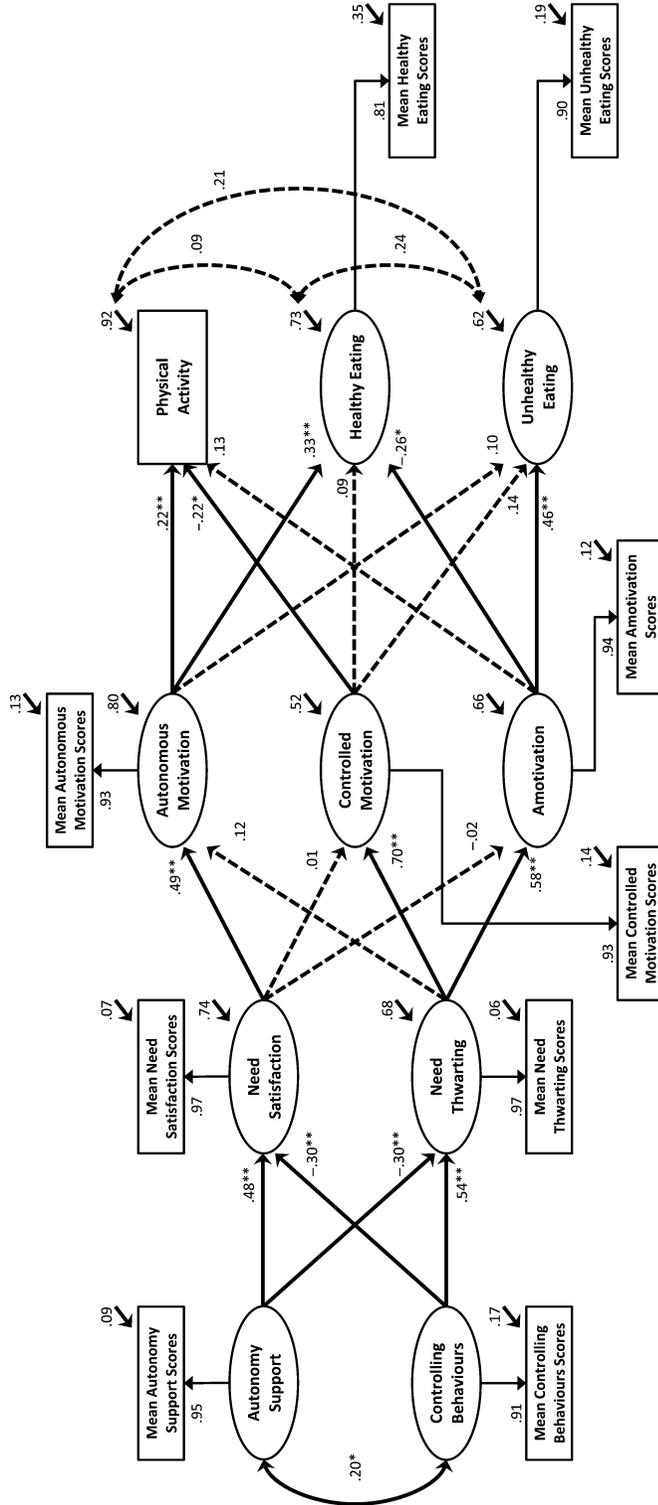


Figure 1. Structural equation model of self-determination theory-based constructs predicting behavioural outcomes associated with weight management. Note. * $p < .05$; ** $p < .01$. Dotted lines indicate non-significant path coefficients. The outcome variables of physical activity and healthy and unhealthy eating behaviours were regressed on participants' weight management goal, age, and BMI. These control variables are not shown in the figure for presentation simplicity purposes. Residual correlations between need satisfaction and thwarting ($r = -.29$), and those between autonomous motivation, controlled motivation, and amotivation ($r = -.11$ to $.41$) are also not shown for presentation simplicity purposes.

corresponding to the square root of the Cronbach's alpha of scale scores. Mean scale scores for autonomy support, controlling behaviours, need satisfaction, need thwarting, and healthy and unhealthy eating behaviours were used as indicators of the respective factors. The mean scale scores of autonomous motivation (intrinsic motivation and identified regulation), controlled motivation (introjected and external regulation), and amotivation were used as indicators of these factors (for a similar approach, see Julien *et al.*, 2009). Figure 1 shows a simplified version of the examined model as it does not depict the control variables for presentation simplicity purposes. We controlled for participants' weight management goal (weight loss vs. maintenance), age, and BMI, when predicting the outcomes of physical activity and healthy and unhealthy eating behaviours. We controlled for these variables because we found that participants having different weight management goals reported using different levels of healthy and unhealthy eating behaviours. Moreover, previous research has shown that age and weight status may be related to physical activity and diet behaviours (Boutelle, Neumark-Sztainer, Story, & Resnick, 2002; Trost, Owen, Bauman, Sallis, & Brown, 2002).

The analysis was conducted with Mplus version 7 (Muthén & Muthén, 2008) using the MLR estimator. A good model fit was found: Scaled $\chi^2(39) = 47.53$, $p = .16$, CFI = .98, TLI = .96, RMSEA = .03, and SRMR = .05. As hypothesized, perceived autonomy support predicted more need satisfaction and less need thwarting. Similarly, perceived controlling behaviours predicted more need thwarting and less need satisfaction. In turn, need satisfaction predicted autonomous motivation, while need thwarting predicted controlled motivation and amotivation. As hypothesized, autonomous motivation predicted physical activity and healthy eating behaviours. Controlled motivation predicted less physical activity. Further, amotivation predicted less healthy eating and more unhealthy eating behaviours. We also found significant indirect effects from autonomy support to physical activity ($\beta = .06$, $p < .01$), healthy eating behaviours ($\beta = .09$, $p < .01$), and unhealthy eating behaviours ($\beta = -.09$, $p < .01$). Significant indirect effects were also found from controlling behaviours to healthy ($\beta = -.08$, $p = .04$) and unhealthy eating behaviours ($\beta = .19$, $p < .01$).

Discussion

The purpose of this study was to examine how perceptions of important others' interpersonal style might predict motivation and engagement in behaviours associated with weight management. As hypothesized, we found that perceived autonomy support was associated with more adaptive motivational outcomes, namely higher need satisfaction and greater autonomous motivation. In turn, participants with higher levels on these motivational variables engaged in more physical activity and healthy eating behaviours which have been shown to be associated with successful weight management (Wing & Hill, 2001). In contrast, when important others were perceived as controlling, participants had higher levels of need thwarting and in turn had more controlled motivation and amotivation. Consequently, participants reported higher levels of maladaptive behavioural outcomes, including doing less physical activity and using less healthy eating behaviours and more unhealthy eating behaviours. In line with SDT, our results support the important positive role of perceived autonomy support in the context of weight management. Moreover, we also found preliminary evidence regarding the negative impact of having important others with a controlling interpersonal style.

Our findings have several implications. First, they suggest that controlling behaviours should be avoided because they could undermine adaptive motivation for weight regulation and result in unhealthy eating behaviours. For instance, a husband using contingent rewards to motivate his wife to lose weight may make his wife feel pressured to succeed, and therefore she may become controlled in her motivation and use extreme measures, such as skipping meals, to lose weight. Second, the small positive association between autonomy support and controlling behaviours (also found in other contexts such as education; e.g., Tessier, Sarrazin, & Ntoumanis, 2008) suggests that important others who are autonomy supportive may simultaneously use controlling behaviours. Hence, while these individuals should attempt to use more autonomy supportive behaviours such as acknowledging negative feelings or providing meaningful rationales, they should also consciously avoid being controlling, such as by using contingent rewards or intimidation. Third, in line with previous research findings (Bartholomew *et al.*, 2010; Bartholomew, Ntoumanis, Ryan, & Thøgersen-Ntoumani, 2011), we found that the association between need satisfaction and need thwarting is moderate (negatively), suggesting that these constructs are not bipolar. For example, an individual may feel autonomous because it was his own decision to manage his weight. Nonetheless, his autonomy may be simultaneously thwarted when he feels pressured by his wife to eat certain foods he dislikes. In conclusion, the results point to the importance of assessing both controlling behaviours and need thwarting for a more complete understanding of how perceptions of significant others impact on the motivation, physical activity, and eating behaviours of individuals with weight management goals. Some of the results we found were similar to those reported in previous research. For instance, using structural equation modelling, we found that controlled motivation predicted less physical activity, but did not predict healthy or unhealthy eating behaviours. Other researchers have also found that controlled motivation failed to predict behavioural outcomes (Silva *et al.*, 2010) and actual weight loss (Silva *et al.*, 2011). It is possible that controlled motivation (e.g., feelings of guilt) sometimes facilitates weight management efforts; however over time, controlled motivation appears to be unrelated to behavioural persistence (Deci & Ryan, 2000; Pelletier, Fortier, Vallerand, & Brière, 2001). Further, a meta-analysis by Ng *et al.* (2012) showed that controlled motivation is associated with lower psychological well-being and thus should be avoided.

In our study, we examined a structural model based on a SDT-model suggested by Vallerand (1997). Although the direction of the paths we tested in our model was based on theoretical arguments and previous experimental research, given the cross-sectional nature of the study, our findings cannot be used to infer causal links. Indeed, some researchers have suggested that some of the hypothesized relations are bidirectional. For example, individuals who are more autonomously motivated to manage their weight may influence their important other to be more autonomy supportive (Pelletier, Séguin-Lévesque, & Legault, 2002). In contrast, important others may be more controlling when they perceive the individual to be motivated for controlled reasons. Further, some individuals have a stronger predisposition towards autonomy, that is, they have a higher tendency to orient themselves towards cues that support autonomous motivation (Williams, Grow, Freedman, Ryan, & Deci, 1996). Thus, they may perceive the behaviours of important others to be more autonomy supportive. More research would be required to examine these possible reciprocal mechanisms within weight management.

Due to the cross-sectional nature of this study, we were unable to examine how the measured variables predict actual weight loss (or weight maintenance). However, researchers have shown that certain weight management behaviours such as physical

activity can provide health benefits irrespective of weight changes (King, Hopkins, Caudwell, Stubbs, & Blundell, 2009; Ortega *et al.*, 2013). Future research could adopt experimental designs to investigate how improving the interpersonal style of significant others (i.e., making it more autonomy supportive *and* less controlling) can predict changes in body weight, behaviours associated with weight management, and psychological well- and ill-being. Objective measures for physical activity and eating behaviours could also be incorporated to improve the accuracy of such measures. Researchers could also examine how perceived and actual behaviours of important others are related. Nonetheless, according to SDT, the subjective perceptions of important others' behaviours are more important than the actual behaviours *per se*, in terms of predicting motivation-related outcomes.

In conclusion, the motivation and behaviours conducive to weight management may be influenced by individuals' perceptions of how supportive and controlling their important others are. To better understand weight management efforts, the interpersonal style and behaviours of these significant others should be taken into account.

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