



Student behavioral engagement as a mediator between teacher, family, and peer support and school truancy



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ABSTRACT

This study investigated the associations between student's behavioral engagement; teacher, family, and peer emotional support; and school truancy. Student-reported data of 821 Finnish junior high school students were analyzed using structural equation modeling. Teacher and family support were positively associated with student behavioral engagement, which in turn was negatively associated with truancy. Behavioral engagement mediated the associations between teacher and family emotional support and truancy. The results highlight the pivotal roles of teacher and family emotional support in fostering student behavioral engagement and preventing truancy in junior high schools. Students who are attached to their teachers and parents are likely to conform to their expectations and not to play truant from school.

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1. Introduction

Absences from school for no legitimate reason i.e., school truancy, are associated with many negative school and post-school outcomes such as poor academic performance, unemployment, poor level of education, and school dropout (Darmody, Smyth, & McCoy, 2008). Hence, truancy is a cause of public concern. Despite the well-known negative consequences of school truancy, definitions of truancy vary (Sutphen, Ford, & Flaherty, 2010). The social control theory holds that when students are attached to norm-relevant significant others, such as teachers and parents, they want to conform to their expectations and accept the social norms they represent (Hirschi, 1969; Veenstra, Lindenberg, Tinga, & Ormel, 2010). As suggested by participation-identification model (Finn, 1989), if attachment to norm-relevant significant others is lacking, student may show low levels of participation in classroom activities and gradual withdrawal from school by truanting. From these two perspectives, truancy is conceptualized as a potential outcome of lacking personal attachment to those disapproving truancy and low levels of behavioral commitment to school work. Truancy in the present study is defined as absences which students themselves indicate would be unacceptable to norm-relevant others, teachers and parents (see Malcolm, Wilson, Davidson, & Kirk, 2003).

At the heart of prevention of school dropout and truancy is the concept of student engagement (Appleton, Christenson, Kim, & Reschly, 2006). Engagement is a relational process activated by reciprocal interpersonal relationships (Pianta, Hamre, & Allen, 2012; Skinner & Belmont, 1993) with junior high school being the time of waning engagement (Skinner, Furrer, Marchand, & Kindermann, 2008). Typically, student engagement is viewed as a mediator between students' educational contexts and student outcomes (Appleton et al., 2006; Connell & Wellborn, 1991; Skinner et al., 2008). Feeling supported in school does not lead to positive school outcomes unless students are actively behaviorally engaged in school activities. Facilitating student behavioral engagement is expected to lead to increased probability of positive schooling outcomes, such as academic success (Skinner & Pitzer, 2012) and school completion (Archambault, Janosz, Fallu, & Pagani, 2009). Previous research suggests that students' experiences of attachment at school facilitate their behavioral engagement, which, in turn, contributes to educational outcomes (Connell & Wellborn, 1991; Finn, 1989; Klem & Connell, 2004; Skinner & Pitzer, 2012; Wang & Eccles, 2012a) such as school attendance.

This study contributes to the literature by combining two perspectives on truancy and engagement research, namely those of social control theory and participation-identification model into the framework of engagement as a mediator. We tested a model where students' attachment to school-related others (labeled "emotional support") is expected to contribute positively to students' behavioral engagement (as suggested by social control theory). Behavioral engagement, in turn, is expected to associate negatively with school truancy (as suggested by participation-identification model). Finally, we tested whether the association between emotional support and school truancy was mediated by student behavioral engagement (as suggested by

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several engagement models) after controlling a number of statistical covariates on engagement and truancy. The expected associations are depicted in Fig. 1. Typically, student behavior at school and school attendance have been treated as parts of the same construct, “behavioral engagement” (e.g., Archambault et al., 2009). This combination is problematic as students who are inattentive and come unprepared to classes may not play truant (see Betts, 2012). Engagement studies typically examine student cognitive functioning outcomes such as academic achievement (e.g., Furrer & Skinner, 2003; Skinner & Pitzer, 2012) or school completion (Archambault et al., 2009) but school truancy and academic achievement are not necessarily associated in a linear fashion as some truant youth do well academically (Maynard, Salas-Wright, Vaughn, & Peters, 2012). This may indicate that the precursors of truancy could differ from those of academic achievement.

Teachers have been found to occupy a central role in promoting positive student school outcomes such as school participation (Wang & Holcombe, 2010); student behavioral engagement (Murray, 2009); school compliance (Wang & Eccles, 2012b); and effort, persistence, and participation in school work (Furrer & Skinner, 2003). Veenstra et al. (2010) compared the effects of pre-adolescents' attachments to parents, teachers, and classmates on truancy. They found attachment to teachers showing the strongest negative relationship with persistent truancy, while there was no association between attachment to classmates and truancy. Parents constitute another well-documented source of emotional support, which, according to the findings by Furrer and Skinner (2003), contribute more strongly to student behavioral engagement than that of teachers and peers. Based on their longitudinal analysis, Wang and Eccles (2012b) concluded that parent social support functioned as a protective factor on adolescent self-reported behavioral engagement (school compliance). Parent support and responsiveness, unlike parental overprotection (Studsrod & Bru, 2009) or condoning disengagement from school (Attwood & Croll, 2006), prevent adolescents' school engagement from becoming negatively affected by their peers (Demanet & Van Houtte, 2012; Fuligni & Eccles, 1993) as evidence on the contribution of peers as a source of support affecting engagement is controversial. Sometimes its impact on students' behavioral engagement has been found to be positive (Furrer & Skinner, 2003), sometimes non-existent (Li, Lerner, & Lerner, 2010), and sometimes negative (Wang & Eccles, 2012b) stemming from the fact that students' school-related problems tend to cluster at the peer group level (Kiuru, 2008). In such peer groups, there is a risk of development of a collective atmosphere condoning absences from school and peer deviancy training (see Mathys, Hyde, Shaw, & Born, 2013). Taken together, these results suggest that teacher and parent support may be more important than peer support with respect to student behavioral engagement. Students may be attached to their peers, but in case these peers do not have a clear normative position against truancy, they do not serve as significant others with regard to behavioral engagement (Veenstra et al., 2010).

High levels of self-reported behavioral engagement are associated with higher levels of attendance — especially in middle school students (Klem & Connell, 2004). Respectively, students reporting low participation in school activities have been found to report high rates of skipping school (Maynard et al., 2012). The association between self-reported low behavioral engagement and skipping school is high, especially among 10- to 16-year-old urban minority youth (Connell, Spencer, & Aber, 1994).

Given the scarcity of literature on understanding the causes of truancy (Veenstra et al., 2010) and studies treating truancy as an outcome, researchers in this study set out to investigate the associations between emotional support, student engagement, and school truancy. First, we examined the associations between student-perceived teacher, family, and peer emotional support and behavioral engagement. In line with social control theory (Hirschi, 1969; Veenstra et al., 2010) and earlier empirical findings, both teacher (Croninger & Lee, 2001; Murray, 2009; Wang & Eccles, 2012b; Wang & Holcombe, 2010) and parent support (Wang & Eccles, 2012b) were expected to contribute to student behavioral engagement positively and to a greater extent than support from peers (Lam, Wong, Yang, & Liu, 2012; Li, Lerner, & Lerner, 2010) (Hypothesis 1). Second, drawing on the participation-identification model (Finn, 1989) and previous findings (Connell et al., 1994; Klem & Connell, 2004; Maynard et al., 2012), we expected higher levels of behavioral engagement being associated with lower levels of school truancy (Hypothesis 2). Third, as suggested by models of student engagement (Appleton et al., 2006; Connell & Wellborn, 1991), we expected student behavioral engagement to mediate the associations between students' perceptions of emotional support and school truancy after controlling relevant student background characteristics (Hypothesis 3). Concerning student background characteristics with student engagement and school truancy, we do not posit a hypothesis.

2. Method

2.1. Context

In Finland, compulsory comprehensive education lasts nine years, and during the last three years (junior high school), instruction is given by the subject teachers. Teachers follow the national core curriculum for basic education. All teachers are responsible for promoting positive proximal processes, such as student engagement in the classroom, whereas the home room teacher bears the main responsibility for monitoring student progress and reacting to lapses of school attendance. A nationwide web-based reporting system (Wilma) is employed in most schools; yet, at the time of data collection, it was not used in a consistent manner in junior high schools. Through the Wilma system, parents are requested to provide information for their children's school absences, and interventions are planned together with the school welfare team when necessary. The average number of students in a general education classroom in Finnish junior high schools is on average approximately 17

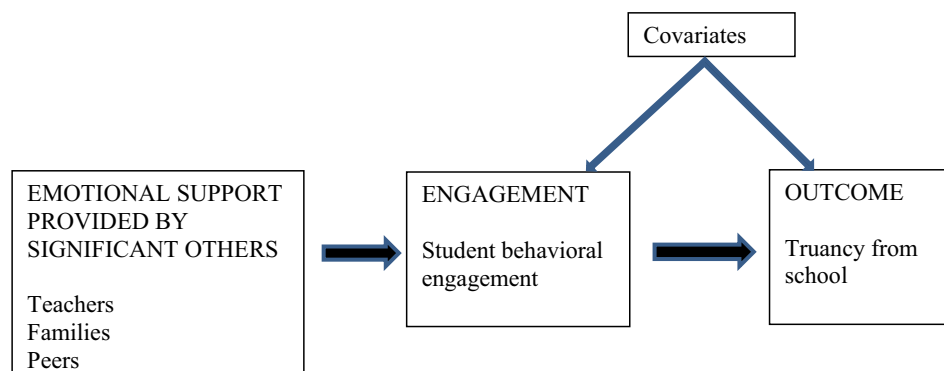


Fig. 1. Engagement as a mediator between emotional support provided by significant others and outcomes.

students. Despite the strong emphasis on providing support to all students, the level of Finnish students' behavioral engagement is not optimal (OECD, 2011), and nine percent of junior high school students report two or more truant full school days during the previous 30 days (School Health Promotion Study, 2013). The variation in school truancy between schools in different regions of Finland is very small, being less than five percentage points (School Health Promotion Study, 2010).

2.2. Participants and procedure

The sample consisted of 821 students (mean age 14.4 years, 49.7% male) from seven volunteering typical Finnish public junior high schools. The schools are located in Central Finland and participated in a nationwide three-tiered support system initiative. In all participating schools, the language of instruction was Finnish. Within each school, the school principals selected the classrooms for the study through random drawings. The home room teachers of the participating schools informed the students' parents about the purpose of the study, and 85% of the parents confirmed student participation with written consent. The data were collected in November and December of 2010. Students completed the Internet-based questionnaire in the schools' information technology classrooms during one class session (45 min). Filling out the questionnaire took between 15 and 20 min.

2.3. Measures

2.3.1. Perceived emotional support

Student experiences of school-related support were rated using the emotional engagement subscales of the Student Engagement Instrument (SEI; Appleton et al., 2006). They include items on student perceived teacher support (9 items; e.g., "At my school, teachers care about students"); family/guardians' support (4 items; e.g., "When I have problems at school, my family/guardian(s) are willing to help me"); and peer support (6 items; e.g., "Other students at school care about me"). The items were rated on a 4-point scale (1 = *strongly agree*; 4 = *strongly disagree*). The items were reverse-coded so that higher scores indicated a higher level of perceived support.

2.3.2. Behavioral engagement

Student behavioral engagement was measured with the middle school student version of the Research Assessment Package for Schools (RAPS-SM; Wellborn & Connell, 1987). The RAPS engagement scale consists of five items assessing the extent to which students exert effort in their schoolwork, pay attention in class, and prepare for classes. The four items used were: "I work very hard on my schoolwork," "I don't try very hard in school," "I pay attention in class," and "I often come to class unprepared." The items were rated on a 4-point scale (1 = *strongly agree*; 4 = *strongly disagree*) and reverse-coded so that higher scores indicated higher engagement.

2.3.3. School truancy

Self-reported truancy was measured by one item "I play truant from school" assessing how often the student played truant (Studsrod & Bru, 2009). The response options for the statement were "never," "seldom," "occasionally," "quite often," and "often." Self-reported truancy was treated as an observed dependent variable in subsequent analyses.

2.3.4. Background characteristics

We entered five self-reported dummy coded variables into the analyses as covariates: gender (1 = female), immigrant status of family (1 = at least one parent not born in Finland), special education status (1 = receives special education services provided by the special education teacher), remedial support status (1 = receives remedial instruction services provided by the subject teacher), and family structure

(1 = lives in foster institution or group home; 2 = lives with both parents in turns due to joint custody; 3 = lives with one parent and his/her new partner; 4 = lives with one parent; 5 = lives with both parents). Other covariates were: perceived family socio-economic status (1 = low income; 5 = high income), students' own educational aspirations after basic education (1 = not intending to continue studying; 4 = high school), student's age (in years), and self-reported academic achievement (grade point average based on last school report in Finnish language and literature, Mathematics, and English; 4 = failed; 10 = excellent). The Cronbach's alpha for academic achievement was .78.

The correlation coefficients and reliability measures (Cronbach's alphas and factor score determinacies) of the four latent factors—student-perceived teacher support, family support, peer support, and behavioral engagement—and school truancy are presented in Table 1.

2.4. Analysis strategy

The estimation was conducted with Mplus version 6.12 using the maximum likelihood estimation with non-normality robust standard errors. The number of missing values was small, varying between 0.0 and 3.0% of all variable values. Little's (1988) test showed that the missing values were completely random: $\chi^2 = 237$ (1), $p = .626$. Thus, the model parameters were estimated using the full-information maximum likelihood estimation, allowing all the present data to be used (Muthén & Muthén, 1998–2010). Student school membership was taken into account by creating $k - 1$ dummy variables, which were included in the model as covariates. Students were also naturally nested within classrooms, but design effects for endogenous variables were low (1.7 for school truancy and 1.5 for student behavioral engagement). Therefore, the analyses were conducted using the Mplus COMPLEX type analysis. The COMPLEX option accounts for the nested structure by adjusting the standard errors of the estimated coefficients. The goodness-of-fit of the estimated models was evaluated according to the following indicators: by four absolute fit indices, χ^2 , chi square to degrees of freedom ratio ($\chi^2:df$), Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), and two comparative fit indices: Comparative Fit Index (CFI) and Tucker Lewis Index (TLI). The cutoff values for well-fitting models were as follows: $\chi^2 = ns$ ($p > .05$), SRMR < .05, RMSEA < .05, CFI > .95, TLI > .95, SRMR (Byrne, 2012), and $\chi^2:df < 2$ (Ullman, 2001).

3. Results

The variables correlated with each other at $p < .001$, with the exception of Peer Emotional Support, which was uncorrelated with School Truancy. First, we tested the measurement model with confirmatory factor analyses (CFA). One item ("I feel safe at school") measuring a sense of school belonging (Wang, Willett, & Eccles, 2011) rather than

Table 1

Correlations between study key variables, number of items in factors, Cronbach alphas, and factor score determinacies.

	1.	2.	3.	4.
1. Teacher emotional support (8 items)				
2. Family emotional support (4 items)	.61***			
3. Peer emotional support (6 items)	.45***	.43***		
4. Student behavioral engagement (4 items)	.46***	.41***	.22***	
5. School truancy	-.22***	-.21***	-.08 ns	-.48***
Cronbach alphas	.86	.80	.86	.70
Factor score determinacies	.94	.91	.96	.87

Note. ns = non-significant.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

teacher emotional support was removed from the model. Additionally, two same scale item residuals were allowed to freely covariate. The final measurement model consisting of four intercorrelated factors and 22 items showed good measurement properties: $\chi^2(201) = 388.983$, $p < .001$, χ^2 : $df = 1.94$, RMSEA = .034, RMSEA 90% C.I. [.029–.039], CFI = .963, TLI = .958, and SRMR = .043. The standardized factor loadings were all significant at $p < .001$.

Second, we analyzed structural paths between the latent factors and the observed dependent variable (truancy) with covariates added to the model. All the expected covariates were first included in the model, and then the non-significant covariates were removed one by one. The final structural model provided a good fit: $\chi^2(420) = 755.858$, $p < .001$, χ^2 : $df = 1.80$, RMSEA = .031, RMSEA 90% C.I. [.028–.035], CFI = .944, TLI = .939, and SRMR = .056.

3.1. Associations between perceived teacher, family, and peer emotional support; student behavioral engagement; and school truancy

The results (Fig. 2) showed, first, that students' perceptions of teacher support ($\beta = .29$, $p < .001$) and family support ($\beta = .18$, $p < .01$) were positively associated with behavioral engagement, but peer emotional support and student behavioral engagement were not associated. Second, there was a significant negative association between student behavioral engagement and truancy ($\beta = -.48$, $p < .001$). Third, there were two significant indirect effects: behavioral engagement at school mediated both the effect of teacher emotional support on truancy (estimate = $-.14$, $p < .001$) and the effect of family emotional support on school truancy (estimate = $-.08$, $p < .01$).

3.2. Covariates associated with student engagement and self-reported school truancy

The statistically significant covariates contributing to student behavioral engagement were high academic achievement ($\beta = .37$, $p < .001$), female gender ($\beta = .12$, $p < .01$), and living with one parent and his/her partner, living with one parent and living with both parents regarding family structure ($\beta = .11$, $p < .05$; $\beta = .10$, $p < .05$; $\beta = .17$, $p < .01$ respectively). Further, the statistically significant covariates directly contributing to truancy were age ($\beta = .10$, $p < .001$) and female gender ($\beta = .10$, $p < .01$): girls reported truancy more often than boys and older students more often than younger students.

4. Discussion

This study investigated the associations between perceived teacher, family, and peer emotional support; student behavioral engagement; and novel educational outcome school truancy among Finnish junior high school students. The central finding of the present study confirmed our hypotheses in that teacher and parent emotional support were positively associated with student behavioral engagement, which, in turn, was negatively associated with school truancy. Additionally, the relationship between students' experiences of teacher and family support and school truancy was explained by student behavioral engagement. The results highlight the importance of attachment with significant others and students' behavioral engagement when tackling school truancy.

As hypothesized (Hypothesis 1), we found that emotional support from teachers and parents were more important for student engagement than support from peers (Lam et al., 2012; Li et al., 2010). Students reporting experiences of higher teacher and parent emotional support indicated higher levels of behavioral engagement (Klem & Connell, 2004). Social control theory posits that being attached to norm-relevant others, such as teachers and parents (e.g., Croninger & Lee, 2001), buffers against risks in life (Hirschi, 1969). Attachment serves as an effective control mechanism against disengagement from school since those students attached to significant others want to conform to their expectations and accept the social norms they represent. No direct link emerged between peer support and engagement (Li et al., 2010), which may imply the existence of different peer groups in the data. Positive peer groups having a clear normative position against truancy facilitate student behavioral engagement. Instead, if students' peers relate negatively to school and accept truancy, peer support may discourage student engagement and school adjustment (Demaneet & Van Houtte, 2012; Kiuru, 2008; Wang & Eccles, 2012b) and increase school truancy. Obviously, peers having neutral attitudes on truancy cannot help students avoid truancy from school.

In line with previous studies, this study showed that teachers hold the most important role in promoting student behavioral engagement (Furrer & Skinner, 2003; Murray, 2009; Wang & Eccles, 2012b; Wang & Holcombe, 2010). Teachers work in the classroom, which is one of the most proximal settings for influencing students' engagement (Furrer & Skinner, 2003; Pianta et al., 2012). In addition to being a subject specialist, teachers can act as an emotional resource, making their students feel related to others, which enhances adolescents' behavioral

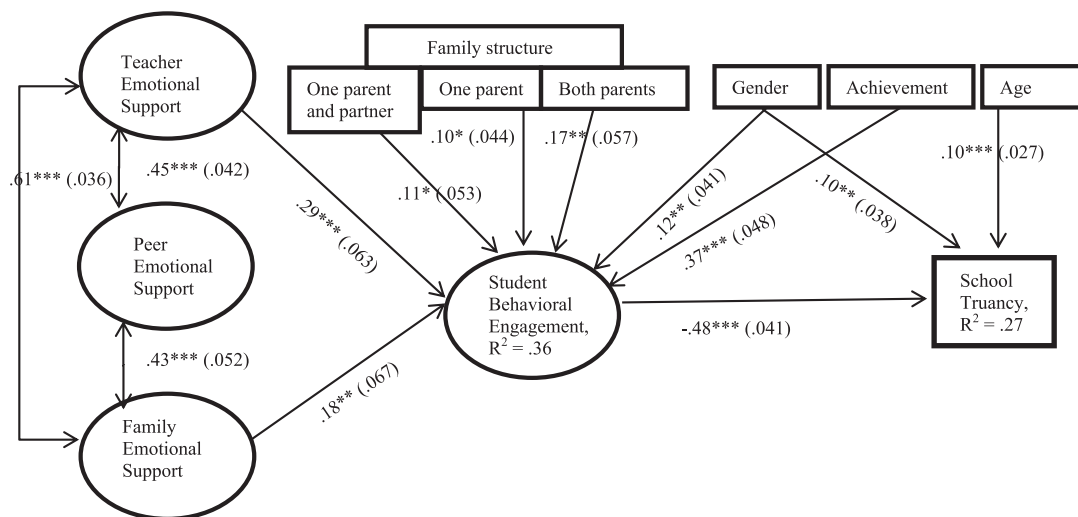


Fig. 2. Significant standardized associations and standard errors between student-reported teacher, family, and peer support, student behavioral engagement, and school truancy. Note: Achievement = students' academic achievement. Gender (1 = female). Family structure (1 = lives with one parent and his/her new partner; 1 = lives with one parent; 1 = lives with both parents). All significance values are two-tailed. *** $p < .001$. ** $p < .01$. * $p < .05$.

engagement (Connell & Wellborn, 1991) — especially during the middle school years (Klem & Connell, 2004). In accordance with previous studies (e.g., Wang & Eccles, 2012b), parent emotional support associated positively with student behavioral engagement. However, this association was weaker in magnitude than the association between teacher support and student behavioral engagement. Whereas teachers are unlikely to accept truancy (Croninger & Lee, 2001), there may be parents who condone adolescents' disengagement from school (Attwood & Croll, 2006). Those adolescents are at risk of associating with negative peers, which increases the risk of shared positive attitude toward low engagement, unaccepted absences from school, and peer deviancy training (see Mathys et al., 2013).

In accordance with Hypothesis 2, the results indicated higher levels of behavioral engagement being associated with lower levels of school truancy (Connell et al., 1994; Klem & Connell, 2004; Maynard et al., 2012). Participation-identification model (Finn, 1989) emphasizes the pivotal role of student participation in school-related activities. Lacking participation leads to poor school performance, which, in turn, contributes to emotional and behavioral withdrawal in cyclical manner. Notably, participation is characterized in four hierarchically increasing and qualitatively different levels, starting from level-one participation—such as being prepared in classes—and ending up with participation in school governance (level-four participation). Keeping in mind that there were no direct links from student-perceived support to school truancy, the results of the present study imply that the most straightforward way to decrease truancy rates is to focus on strengthening students' lower level participation, such as participation in classroom activities.

Supporting Hypothesis 3, the results indicate that student behavioral engagement is a crucial factor in explaining the impact of emotional support on schooling outcomes (Appleton et al., 2006; Connell & Wellborn, 1991; Skinner & Pitzer, 2012), such as not truanting from school. The mediating role of behavioral engagement may be particularly relevant in the context of junior high school, where instruction is given by subject specialists and student engagement exhibits a decreasing trend (e.g., Skinner et al., 2008). As compared to elementary school, where students are primarily taught by the same classroom teacher, the relationships between junior high school students and teachers are less close (Marks, 2000), thus potentially limiting the positive direct influence of teacher emotional support on student school attendance. The results of the present study imply that, in order to promote students' school attendance, the attention should be focused on the students' relationships with teachers and parents along with the most proximal engagement behaviors. The promotion of good relationships with students and their behavioral engagement such as class-related initiative and being prepared for classes (Finn, 1989) are under the control of individual teachers. Teacher emotional support fosters student behavioral engagement (Hirschi, 1969; Wang & Eccles, 2012b), which, in turn, can lead the teacher to become more emotionally supportive and the students more engaged (Finn, 1989; Skinner & Belmont, 1993). These reciprocal processes of teacher emotional support and student behavior contribute to students internalizing a sense of school belonging and valuing school-relevant goals (Connell & Wellborn, 1991; Finn, 1989) and may result in lasting enjoyment, deep commitment, and investment in learning (see also Finn, 1989; Fredricks, Blumenfeld, & Paris, 2004; Skinner et al., 2008). Obviously, students skipping full school days already have a detached attitude in terms of school work and are disconnected from school norms and expectations. If lack of teacher and family emotional support is already manifested in a student who is actively avoiding entire school days (Finn, 1989; Wang & Eccles, 2012a), providing the student with emotional support may not have a direct effect on junior high school students' decision not to play truant from school. They are already quite likely beyond the reach of the school, requiring intensive cross-agency interventions (Furlong et al., 2003). A different picture may have emerged if truancy had been operationalized as skipping individual classes. Students may attend classes

that are organized by teachers to whom students are attached and skip classes of teachers considered to be non-significant.

Our findings indicate that a family structure with one or both parents at home (Brown, 2004), female gender (Archambault et al., 2009; Linnakylä & Malin, 2008), and high academic achievement (Linnakylä & Malin, 2008) each significantly explained student engagement. The covariates explaining self-reported school truancy were students' age and gender, with older students (Veenstra et al., 2010) and girls (School Health Promotion Study, 2013) self-reporting a greater tendency for truancy than younger students and boys. Higher incidences of truancy among girls than among boys may be explained by the data gathering procedure. Since the girls in the present sample were more engaged than the boys, they might also have been more engaged (i.e., more honest) in self-reporting truancy. This might have yielded in an under-estimation of boys' truancy rates. This notion was supported as the results were confirmed using truancy information based on Wilma registers as an outcome variable. The other variables held their statistical significance, but gender became non-significant.

5. Practical implications

The present study indicates that close social bonds with significant others are associated with higher levels of behavioral engagement and, thus, a lower incidence of school truancy. An emotionally supportive and behaviorally engaging classroom environment mitigates truancy, as does keen parental interest and emotional involvement in their children's schooling. These results are particularly important in adolescence, at the time of waning engagement, decreasing experiences of support (Furrer & Skinner, 2003), and increasing truancy rates (e.g., Veenstra et al., 2010). The challenge for schools is in meeting the adolescents' inherently relational nature and changing needs for autonomy and support. School environments characterized by autonomy, teacher support, performance goals, mastery goals, and discussion contribute to school participation (Wang & Holcombe, 2010). Schools where all students are offered a classroom context with high teacher sensitivity and responsiveness to students' social/emotional needs, chances for discussions, high expectations for learning, choices for autonomy, and a regard for the adolescent perspective are likely to provide a good fit between adolescents' needs and school environment, thus, reducing truancy rates.

The findings of the present study also highlight the importance of making parents more aware of their role in adolescents' academic engagement and success (Furrer & Skinner, 2003). Junior high school students' high levels of school engagement and low levels of skipping school are best fostered by a parenting style characterized by high responsiveness, high demands (Simons & Conger, 2007), and low levels of overprotection (Studsrod & Bru, 2009) and strictness (Fuligni & Eccles, 1993). At the same time, parents should make known their norms against truancy. This should be done in cooperation with teachers in order to make students feel intensively supported by several norm-relevant significant others (Sutphen et al., 2010).

Further studies should examine the factors associated with truancy in junior high schools by means of person-centered profile analysis (see Maynard et al., 2012). This would enable the revelation of subgroups of students with different dispositions toward school and take into account the person–environment fit by planning personalized interventions. Further, longitudinal analyses are needed in order to examine the trajectories of latent profiles during adolescence and to analyze the role of successful transition from elementary to junior high school. Cross-cultural research is needed for accumulating understanding on the extent to which school truancy; student behavioral engagement; and teacher, family, and peer support are content- or student specific. There may be differences between school systems, for instance, in the extent to which they encourage parental involvement in students' education. Such information might give insight into increasing student engagement and decreasing school truancy.

6. Limitations

There are some limitations in the present study that need to be addressed. First, the study variables are based on students' self-reports – the validity of which can be questioned. Truancy is an interpretative phenomenon, and thus it may be demanding for students to decide whether their absences were legitimate or illegitimate. Second, the study was correlational and cross-sectional, the design did not allow for tests of causal inference, and other models could apply to the same data. Third, there is always an increased risk that the focal students were likely absent on the day of the data collection. If this were the case, the prevalence of truancy may be under-estimated. The confidence in results, however, is increased by several features, including the large sample size, the use of error-free latent constructs, and model confirmation with truancy information derived from school registers.

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