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Research Article

# School Belonging of Adolescents: The Role of Teacher–Student Relationships, Peer Relationships and Family Involvement\*

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## Abstract

This study examines the extent to which teacher–student relationships, peer relationships, and family involvement can be used to predict a sense of school belonging among adolescents, according to gender. The sample of the study consists of 815 students enrolled in nine state primary schools in the central districts of Mersin, Turkey. The data was gathered with “Sense of School Belonging,” “Teacher–Student Relationships,” “Peer Relationships,” and “Family Involvement” sub-scales, after adapting these into Turkish, and then analyzed through a stepwise regression analysis statistical method. The results of the analyses for the total sample revealed that teacher–student relationships, peer relationships, family involvement at home, and family involvement at school are the respective significant predictors of a sense of school belonging among adolescents. The results also indicated that both teacher–student relationships and the peer relationships play a significant role in the ability to predict a sense of school belonging for both genders. However, it was also found that family involvement at school has a significant predictive role in a sense of school belonging among boys, whereas family involvement at home has a significant predictive role in a sense of school belonging among girls.

## Keywords

Family involvement • Peer relationships • School belonging • Teacher–student relationships

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The sense of school belonging has received growing attention from researchers of adolescent social and academic development. In the last decade, international adolescent and school journals have published an increasing number of studies that have documented significant associations between the sense of belonging in a variety of social contexts and an array of indicators of adolescent development (Jose, Ryan, & Pryor, 2012). However, Booker (2004, p. 1) has pointed out that “there is much that we know about school belonging, but even more that we stand to learn.”

In an effort to understand the consequences of a presence or absence of school belonging, the field of education has examined various factors that can influence student behavior and performance in various student groups (Chapman, Buckely, Sheehan, & Shochef, 2013; Goodenow & Grady, 1993; Johnson, 2009; Osterman, 2000; Waters, Cross, & Shaw, 2010). In these studies, schools, teachers, peers, families, and communities have been used as key social domains in which to examine school belonging; however they have rarely been studied together. Research also revealed that the sense of belonging is attained through mutually beneficial social relationships between a student and his/her peers and teachers (Finn, 1989; Meloro, 2005). Within this perspective, it is believed that the focus is not simply on one particular relationship, but on a minimum quantity of lasting and positive interpersonal relationships, by emphasizing “the need for belonging” as a fundamental human motivation (Meloro, 2005; Schlanger, 1998). Specifically in a school setting, students, teachers, parents, and peers constitute the most important determinants of a student’s education, and all these have some effect on an adolescent’s feelings toward school and to some extent determine their social and academic competence at school (Osterman, 2000; Wentzel et al., 2010; Voelkl, 1997).

Life at school might be described as complex and multi-faceted. There are many different domains involved in school, including classroom social and learning dynamics. In the school community, classrooms are seen as social contexts in which various interactions occur amongst adolescents. Adolescent interactions with teachers and peers in these social contexts impact their sense of school belonging, as well as their social and emotional adjustment, engagement, academic motivation, and learning (Corso, Bundick, Quaglia, & Haywood, 2013; Wentzel, 1999). Moreover, positive and supportive relationships with teachers and peers promote an adolescents’ sense of school belonging, which engender the will to participate cooperatively in classroom and school activities. Beyond teachers and peers, families provide the main source of socialization for adolescents attending school. Also family involvement and attitudes toward school have a positive effect on a student’s sense of school belonging. Research has shown that family involvement facilitates a student’s identification with their schools and teachers, and these students are more likely to report the perception of being accepted and supported by the school community (Clark, 1983; Jose et al., 2012; Law, Cuskelly, & Carroll, 2013; Osterman, 2000; Wickery, 2010).

In the relevant literature, research has shown that there are gender differences when it comes to a student's sense of belonging. It has been found that girls have greater sense of belonging than boys, and that the relationship between expectancies for success and sense of belonging are stronger for girls than they are for boys (Goodenow, 1993; Goodenow & Grady, 1993; Sanchez, Colon, & Esparza, 2005). These gender differences were explained in relation to the varying socialization processes for girls versus those for boys (Goodenow, 1993). Given that a sense of belonging is important for adolescent wellbeing, research has shown that adolescent girls give more importance to group membership, as well as relatedness and connectedness to others, while competition and autonomy are more important for boys (Newman, Newman, Griffen, O'Connor, & Spas, 2007; Sanchez et al., 2005). Also, adolescent girls have more friends than do their male peers, and need more nurturing behavior from their friends than boys do (Kiesner, Cadinu, Poulin, & Bucci, 2002). In addition, Tosolt (2010) expressed that although both girls and boys value teacher care, girls ascribe more importance to academically nurturing behavior, while boys focus on interpersonal caring behavior. However, Tosolt stated that adolescent boys must be encouraged to express their desire for interpersonal caring behavior, which girls already receive. Moreover, Hughes and Kwok (2007) have proposed that boys' relationships with their teachers are characterized by less familiarity than girls'. This is because boys are less conforming and self-regulated than girls are.

Based upon these explanations, it can be said that understanding the factors relating to school belonging in the adolescent years may help educational leaders and teachers to design a more effective school and classroom environment. Considering the importance of the social/relational aspect of school belonging, which reflects a significant role in adolescent development, the purpose of this study was to examine the extent to which teacher–student relationships, peer relationships, and family involvement can be used to predict a sense of school belonging among adolescents, according to gender. Moreover, this study can be considered as a preliminary examination for testing a structural model that imputes relationships among the mentioned variables.

### **Theoretical Framework**

Researchers have reported that school belonging is an important factor associated with positive aspects of adolescents' school-related experiences (Cemalcılar, 2010; Goodenow & Grady, 1993; Johnson, 2009; Jose et al., 2012; Osterman, 2000). This concept has been studied under various names with a variety of definitions, such as “school connectedness” (Frydenberg, Care, Freeman, & Chan, 2009; Loukas, Suzuki, & Horton, 2006; Meloro, 2005; Waters, Cross, & Shaw, 2010; Waters, Cross, & Runions, 2009), “sense of community” (Osterman, 2000), “school climate”

(Anderson, 1982), “student engagement” (Corso et al., 2013), and “school bonding” (Catalano, Oesterle, Fleming, & Hawkins, 2004).

Goodenow (1993) has specifically described school belonging as “the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment,” by using the term “belonging” synonymously with the term “psychological sense of school membership” (p. 80). Specifically, researchers have identified associations between a sense of school belonging and a number of adolescent outcomes, including strong commitment to school goals and engagement in school activities (Goodenow, 1993); academic motivation and achievement (Wentzel, Battle, Russel, & Looney, 2010), sense of well-being (Jose et al., 2012), and also negative associations with school disengagement (Corso et al., 2013); poor self-esteem; the need of such students to be disciplined more often than their peers (Crandall, 1981; Goodenow & Grady, 1993; Osterman, 2000); and low expectations of future success (Booker, 2004).

Because the sense of belonging is attained through mutually beneficial social relationships between a student and others in the school social environment as mentioned previously (Finn, 1989; Meloro, 2005), teachers, peers and family have been used as key social domains in this study.

### **Teacher-Student Relationships**

The majority of research on school belonging has focused on the relationship between the teacher and student (Booker, 2004). Research revealed that adolescents’ positive relationships with teachers predict changes in motivation outcomes, sense of belonging, interest in school, achievement expectancies, and values, as well as engagement, effort, and performance (Giani & O’Guin, 2010; Goh & Fraser, 1998; Goodenow, 1993; Murdock, 1999; Sullivan, Riceio, & Reynolds, 2008; Wentzel, 1998). Wentzel (1999) proposed that before expecting adolescents to feel a sense of belonging to the larger school community, they must first develop an attachment with the teacher. Research has also demonstrated that teacher support may have the most direct effect on adolescent engagement beyond the support of parents and peers (Connell & Wellborn, 1991; Murray & Greenberg, 2000; Newmann, 1992; Wentzel, 1998).

It has furthermore been emphasized in the literature that the most frequently stated indicator of highly effective schools for students is a caring environment exhibiting a homelike atmosphere in which teachers treat all students with respect and care, and interact with them in relationships similar to the extended family (Tosolt, 2010). Similarly, it has been emphasized that when teachers express care toward students, behave sensitively, communicate respect and interest, and remain warm and engaged, this not only improves individual relationships, students’ sense of school belonging,

cooperation among students, and motivates students to learn, as well as prevents and diffuses disturbing behavior, but also affects the broader climate and reduces classroom conflicts (Giani & O’Guin, 2010; Ma, 2003).

Moreover, in an effort to understand the increasing achievement gap between students from different socio-economic or ethnic backgrounds, the field of education has examined the contextual factors that affect student performance, achievement, and social behaviors (Booker, 2004; Eisele, Zand, & Thomson, 2009). Among other factors, school belonging has received more attention because it was recognized that students from minority social groups are sensitive to impersonal and uncaring schools, and negative relationships and experiences with members of the majority group can prevent in them a sense of belonging to the school. Indeed, when educators or students come from different socio-economic or ethnic backgrounds, positive relationships between teachers and students help to bridge these differences and communicate to students that they are valuable, capable, and worthy of being heard (Giani & O’Guin, 2010; Hughes & Kwok, 2007).

### **Peer Relationships**

Besides teacher–student relationships, peer relationships also had a particular importance in an adolescent’s sense of school belonging (Law et al., 2013; Ma, 2003; Osterman, 2000; Pittman & Richmond, 2008; Stewart, 2008). It has been argued in the literature that a high quality of peer relationships or supportive friendships satisfies the adolescents’ need to belong, because it fulfills the need to connect with others (Berndt, 2004; Booker, 2004; Stewart, 2008). For example, Osterman (2000) demonstrated that peer acceptance and support are important components of school belonging. By defining peer acceptance in terms of a student’s relationships with classmates, and the consensual like or dislike that is directed by the group toward the student, he marked peer relationships as one aspect of a student’s sense of school belonging, and admits students who are accepted by their peers demonstrate more academic and social competence.

Similarly, Ma (2003) asserted that higher levels of peer group stability lead adolescents to have higher levels of school belonging, owing to a shared sense of school history and support from their longstanding peers. Otherwise, changes in the peer group structure or lack of peer group can lead to a lowered level of school belonging, less positive feelings toward school, and academic disengagement (Ryan, 2001). In other words, rejection from one’s peers may be associated with a lower level of interest in school and with dropping out of school (Osterman, 2000). In addition, Cuskelly and Carroll (2013) stressed that friendship has an important role to play in meeting the emotional aspect of a sense of school belonging, where it acts as a buffer to experiences of inclusion and exclusion derived from peer group

acceptance, while connecting adolescents' experiences within their peer group with affective adjustment, such as sense of belonging.

### **Family Involvement**

Family involvement in student education has been linked with better school outcomes from pre-school through the high school years (Belenordo, 2001; Bester, 2007; Makgato & Mji, 2006; Stewart, 2008). Comer (1980) has stressed that adolescents need the full support of their parents to maximize their potential from schooling. Family involvement in a child's school life leads to a happy and well-adjusted individual who has positive relationships with teachers and peers (Osterman, 2000). A growing body of research has further demonstrated that family involvement leads teachers to have further information about their students to communicate with them in an effective way; thus family involvement is viewed as instrumental in helping adolescents to feel accepted by teachers (Freeman, 2005; Comer, 1980, Clark, 1983; Stewart, 2008).

Similarly, Osterman (2000) proposed that family involvement in school increases a teachers' knowledge of adolescents' learning needs and enables parents to offer appropriate home support for adolescents' school learning. In other words, family involvement strengthens the match between home and school expectations for adolescent learning, and clarifies the roles of adolescents, parents, and teachers (Stewart, 2008). This multi-dimensional construct enables the creation of a supportive school climate, and makes an important contribution to the adolescents' sense of school belonging (Wickery, 2010).

Briefly, a student sense of school belonging is based on the premise that every interaction between adults and students, and also among peers in school, is contributive. In a school where students feel a sense of belonging, it should be known that all people may have a place and can be honored for who they are and what they can offer (Sanchez et al., 2005). Teachers, peers, and parents are the groups where students form close relationships within or out of school and these relationships shape students feelings towards the school. Pittman and Richmond (2008) stated that the students who consider themselves to have a supportive peer group feel more satisfied from school work and develop good attitude towards school. According to the literature, when students feel a supportive relationship with their teacher, they feel valued, confident, and exhibit a positive attitude toward school. The family is another important factor in students' educational life. The students who feel supported socially and academically by their parents are motivated to attend school activities and also get on well with peers. Although teachers, peers, family, and community have been used as key social domains in which to examine school belonging in the related literature, they have rarely been studied together (Chapman et al., 2013; Goodenow

& Grady, 1993; Johnson, 2009; Osterman, 2000; Waters, Cross, & Shaw, 2010). For example, the implications and consequences of a sense of school belonging have been studied widely (Anderman & Freeman, 2004; Osterman, 2000), however less is known about the factors that predict belongingness. Moreover, there are inconsistent results for the relationship with students' school belonging and gender in the related literature. Cemalcılar (2010) states that there is no relationship between students' school belonging and gender, while Sancez, Colon, and Esparza (2005) point out that girls' feelings of school belonging is more powerful than boys'. The differences in the styles of communication and conceptualization of the education processes of boys and girls make it essential to use gender as a variable for this study.

In this regard, the present study specifically aimed at examining the extent to which teacher-student relationships, peer relationships, and family involvement predicted the sense of school belonging of adolescents according to gender. With this aim, the main research questions of this study were determined as follows:

- i. What is the predictive power of teacher–student relationships, peer relationships, family involvement at school, and family involvement at home, on adolescent student sense of school belonging?
- ii. What is the predictive power of teacher–student relationships, peer relationships, family involvement at school, and family involvement at home, on adolescent boys' sense of school belonging?
- iii. What is the predictive power of teacher–student relationships, peer relationships, family involvement at school, and family involvement at home, on adolescent girls' sense of school belonging?

## Method

### Sample

In this survey type of research, the sample was selected by using a cluster sampling technique to obtain information in regard to the population. Because of some limitations on time and accessibility, 9 schools were selected randomly from 188 state primary schools in four central districts of the Mersin province (Mezitli, Akdeniz, Toroslar, Yenişehir). Later, all students attending the seventh and eighth grade at these schools were included in the sample. Finally, the sample of this study was composed of 815 adolescent students enrolled in these schools.

The study sample was almost equally divided by gender, and it consisted of 401 girls (49.8%) and 414 boys (50.2%). The mean age of the sample was 13.36 (SD = 0.82) with a range of 11.0 to 16.0 years. As for the educational level of the parents,



16.1% of mothers and 6.4% of fathers were illiterate. Almost half of the parents were elementary school graduates (57.9% of mothers and 52.9% of fathers), while 21.1% of mothers and 28.4% of fathers were high school graduates. Also, 4.9% of mothers and 12.3% of fathers possessed a university degree. Eighty-six percent of the mothers were homemakers, and 14% of them were employed, mostly as workers and teachers. When it came to fathers, 15.7% were either unemployed or retired, and 84.7% were employed. Furthermore, 7% of fathers were employed as civil servants or professionals, such as teachers, doctors, lawyers, and bank officers, while 77.7% were employed, mostly in low-skilled occupations such as that of shopkeepers, drivers, farmers, and manual laborers.

### Measures

All participants completed the Turkish versions of the following measures adopted by the researchers for adolescents. Before the development of the Turkish version of each measure, the researchers e-mailed the developers of the measures to request permission to translate the sub-scales from English into Turkish. After obtaining permission, seven independent Turkish translations were made by three scholars and five English teachers who are proficient in both languages and these were used to develop a single Turkish version for each measure. Then, the single version of each measure was back-translated in Turkish. Discrepancies between the original and the back-translations were identified. This forward-backward process was repeated until satisfactory agreement was attained. In addition, the Turkish version of each measure was sent for review to three field experts, proficient in both languages, to ensure that the language used was culturally acceptable. At the final step, the Turkish version of each measure was administered to a group of 47 primary school students to check the measures with respect to wording. Then, a confirmatory factor analysis was used to test specific predictions concerning the structure of each measure. All the adapted measures have adequate psychometric properties, as shown in Table 1.

Sense of belonging of adolescents was assessed by the Sense of Belonging sub-scale of the Perceived Cohesion Scale (PCS), developed by [Bollen and Hoyle \(1990\)](#). As a result of some of the studies carried out to examine students' sense of belonging, it was found that the Cronbach's alphas for this sub-scale were .78 ([McNeely & Falci, 2004](#)) and .95, respectively ([Chin, Salisbury, Pearson, & Stollak, 1999](#)). The sub-scale consists of three items, with scores ranging from 3 to 15, and with higher scores indicating a higher sense of belonging to a particular group. The Turkish adaptation of this sub-scale was done by the researchers in the present study, and the results of a confirmatory factor analysis supported the one-factor model of the sub-scale, with adequate values of the various fits of indices (see Table 1). These three items had an internal consistency alpha value of 0.88 for the present study.



Table 1  
Factor Loadings, Inter-item Correlations, and Fit Indices for Variables

Variables	Number of Items	Range of Factor Loadings	Range of Inter-item Correlations	Fit Indices					
				$\chi^2/df$ (<2)	RMSEA (<.05)	SRMR (<.05)	GFI (>.90)	AGFI (>.90)	CFI (>.90)
Sense of Belonging	3	0.79–0.89	0.73–0.80	0	0	0	1	1	1
Teacher–Student Relationships	9	0.57–0.79	0–.54–0.73	1.77	0.031	0.016	0.99	0.98	0.99
Peer Relationships	6	0.56–0.71	0.54–0.61	1.51	0.025	0.016	1	.99	1
Parent Involvement at School	5	0.57–0.70	0.54–0.60	1.96	0.034	0.029	0.99	0.97	0.99
Parent Involvement at Home	5	0.62–0.82	0.64–0.71						

Note. RMSEA: Root-Mean-Square Error of Approximation, SRMR: Standardized Root Mean Squared Residual, GFI: Goodness-of-Fit Index, AGFI: Adjusted Goodness-of-Fit Index and CFI: Comparative Fit Index.

Teacher–student relationships and peer relationships were assessed by using the Student-Teacher Relationships (STR) and Student Interpersonal Relationships (SIT) sub-scales of The School Climate Survey (SCS), developed by Haynes, Emmons, and Comer in 1993. The Cronbach’s alphas for the STR and SIT were .84 and .87, respectively (Emmons, Blatt, Kuperminc, & Leadbeater, 1997). The SCS contains seven sub-scales of school climate, and specifically assesses student perceptions in the following areas: achievement motivation; sharing of resources; fairness; student interpersonal relationships; order and discipline; teacher-student relationships; and parent involvement. The scale consists of 47 items and the items are rated on a 3–point scale ranging from 1 (disagree) to 3 (agree). The STR and SIT sub-scales were adapted to Turkish by the researchers, and a validity study was conducted for this study (see Table 1). The result of the confirmatory factor analysis using LISREL indicated 9 items for STR and 6 items for SIT, which excluded one item from SIT, with small parameter estimates including factor loadings ( $\lambda < .50$ ) and squared multiple correlations ( $R^2 < .30$ ), showing a better fit for the data. The internal consistency coefficients of adopted sub-scales, as estimated by Cronbach’s alpha, were .90 for STR and .79 for SIT.

Family involvement was measured by using the Parent Involvement sub-scale (PI) of the Show Me Character Student Survey (Marshall & Caldwell, 2006). The Cronbach’s alpha for this sub-scale in their study was .80. The PI was composed of 10 items, scored on a 5-point scale, ranging from 1 (not evident) to 5 (exemplary). It was adapted to Turkish and the researchers provided a construct validity study (see Table 1). Following the confirmatory factor analysis, it became apparent that the sub-scale has two factors, namely Parent Involvement at School (PIS) and Parent Involvement at Home (PIH). The internal consistency of PIS and PIH are .79 and .85, respectively.

## Data Analysis

In the present study, the statistical analyses were conducted through the following steps. First, a nested confirmatory factor analysis as implemented in LISREL (Jöreskog & Sörbom, 1999) was used to test the optimal measurement models prior to regression analyses. For the data fit assessment, the chi-square statistic; Root Mean Square Error of Approximation (RMSEA); Standardized Root Mean Squared Residual (SRMR); Goodness of Fit Index (GFI); Adjusted Goodness of Fit Index (AGFI); and Comparative Fit Index (CFI) were used. Cronbach's alphas were also used to determine the reliability of the measuring instruments. Next, a stepwise regression analysis was used to analyze the data by using the SPSS 16 program (SPSS Inc., 2009). Primarily for this purpose, all instrument points tested whether the data had normal distribution, and next a test was run for whether there was a linear relationship between predictor variables and predicted variable via scatter diagram in the SPSS program. Later, Pearson correlation indices between variables were calculated using the results of the Mahalanobis test. Finally, stepwise regression analyses were applied for the best fitting models in order to predict the sense of school belonging for the total sample, as well as for boys and girls separately.

## Results

### Correlations

Three correlation analyses were performed for the total sample, and separately for boys and girls, to test the relationships between school belonging, teacher–student relationships, peer relationships, parent involvement at school, and parent involvement at home. Table 2 shows that there are significant and positive bivariate correlations among all the variables for the total sample. Moreover, the bivariate results between the independent variables and dependent variable for boys showed that school belonging was positively related to teacher–student relationships ( $r = 0.66$ ), peer relationships ( $r = 0.32$ ), parent involvement at school ( $r = 0.44$ ), and parent involvement at home ( $r = 0.48$ ). For the girls, school belonging was also positively related to teacher–student relationships ( $r = 0.66$ ), peer relationships ( $r = 0.34$ ), parent involvement at school ( $r = 0.36$ ), and parent involvement at home ( $r = 0.39$ ).

Table 2  
Means, Standard Deviations and Pearson Correlations of Variables

Variables	1	2	3	4	5
1. School Belonging	-				
2. Teacher-Student Relationships	0.67*	-			
	0.66*	-			
	0.66*	-			
3. Peer Relationships	0.32*	0.36*	-		
	0.32*	0.38*	-		
	0.34*	0.36*	-		
4. Parent Involvement at School	0.40*	0.46*	0.19*	-	
	0.44*	0.49*	0.18*	-	
	0.36*	0.42*	0.22*	-	
5. Parent Involvement at Home	0.45*	0.53*	0.18*	0.59*	-
	0.48*	0.58*	0.17*	0.62*	-
	0.39*	0.46*	0.21*	0.55*	-
Mean	9.6	29.6	15.4	15.70	16.50
	9.5	29.2	15.7	15.38	16.22
	9.9	30.1	15.2	16.04	16.87
	2.68	6.12	3.89	3.42	3.80
SD	2.74	6.11	3.91	3.38	3.92
	2.61	6.11	3.84	3.44	3.64
Alpha	0.88	0.90	0.79	0.79	0.85
	0.88	0.89	0.78	0.76	0.86
	0.89	0.91	0.81	0.82	0.85

Note: First line for total sample, second line for boys and third line for girls.

\*  $p < .01$ .

### Regression Models for the Total Sample, Boys and Girls

Table 3 presents the results of the stepwise regression analyses for the best fitting models that were able to predict a sense of school belonging for the total sample, as well as for boys and girls separately. When the standardized regression coefficients are taken into consideration for the total sample, it is obvious that all the predictor variables accounted for students' sense of school belonging to a significant degree. According to the predictive power of variables, teacher–student relationships is the most important predictive variable, and accounted for 44.7% of the variance, followed by parent involvement at school, which accounted for 1.2% of the variance, peer relationships, which explained an additional 0.7% of the variance, and parent involvement at home, which accounted for another 0.4% of the variance. Together, these four significant predictors explained 47.1% of the variance in the sense of school belonging, regardless of gender.

Table 3  
*Summary of Stepwise Regressions for Significant Predictors of Sense of School Belonging*

Groups	Variables	B	SE B	$\beta$	t	R	R <sup>2</sup>	F
Total Sample	Teacher-Student Relationships	0.241	0.014	0.550	16.99*	0.686	0.471	179.99*
	Parent Involvement at School	0.065	0.025	0.083	2.56**			
	Peer Relationship	0.063	0.019	0.091	3.32*			
	Parent Involvement at Home	0.062	0.024	0.088	2.59**			
Boys	Teacher Student Relationships	0.253	0.020	0.565	12.85*	0.685	0.466	121.05*
	Parent Involvement at School	0.121	0.033	0.149	3.60*			
	Peer Relationships	0.056	0.027	0.079	2.05**			
	Teacher-Student Relationships	0.247	0.019	.577	13.24*			
Girls	Peer Relationships	0.075	0.027	.111	2.80*	0.679	0.461	113.36*
	Parent Involvement at Home	0.073	0.030	.102	2.44**			

\*  $p < .001$ , \*\*  $p < .01$ .

The result of the stepwise regression for the boys' sense of school belonging indicated that teacher–student relationships, parent involvement at school, and peer relationships were significantly predictive, and explained 46.6% of the variation in the scores for sense of school belonging amongst boys. Unlike for girls, parent involvement at home, included in the model, was not statistically significant in explaining the sense of school belonging of boys. As shown in Table 3, teacher–student relationships, peer relationships, and parent involvement at home were significantly predictive and accounted for 46.1% of the variance in the girls' sense of school belonging. Unlike for boys, the results for the stepwise regression models for girls were different. For instance, peer relationships was the second most predictive factor in the regression model that showed itself to be significant, and accounted for 1.7% of the variance for girls, but it is the last factor and explained only the 0.5% of the variance in the sense of school belonging for boys. Moreover, parent involvement at school, included in the model, was not statistically significant in explaining the sense of school belonging of girls.

### Discussion and Conclusions

This study was conducted in order to investigate the relative contribution of teacher-student relationships, peer relationships, and family involvement in school, and at home in relation to the sense of school belonging of adolescents. The results indicated that all the variables had a relative power over the adolescent sense of school belonging. These findings are consistent with previous research, in which a positive school-community perception of students is strongly predictive of their sense of school belonging (Birch & Ladd, 1998; Bruce & Crump, 2003; Corso et al., 2013; Cox, Duncheon, & Mc David, 2009; Murray & Greenberg, 2000; Waters et al., 2010; Wentzel et al., 2010). Moreover, it was observed that among other variables, teacher–student relationships is the most important predictive variable of adolescents' sense of school belonging. This reveals that teachers are in a powerful position to influence

a student's sense of belonging to the school. Previous research has shown that teacher support may have the most direct effect on adolescent engagement, beyond the support of parents and peers (Connell & Wellborn, 1991; Murray & Greenberg, 2000; Newmann, 1992; Tosolt, 2010; Wentzel, 1998). According to Wentzel (1999), before expecting adolescents to feel a sense of belonging to the larger school community, they must first develop an attachment with the teacher.

Similarly, Osterman (2000) proposed that teachers play a determining role in whether or not students feel that they are cared for, or that they are a welcome part of the school community. Feeling positively about teacher–student relationships in school may provide a secure emotional basis from which students can come to enjoy school. Furthermore, positive relationships with teachers may serve a particularly important role in facilitating adjustment at this age, at which students need non-parental role models and mentors. It can be claimed that teachers who foster positive relationships with their students create a favorable classroom environment, where students are more likely to be emotionally and intellectually invested in the classes in which they have positive relationships with their teachers (Murray & Greenberg, 2000). Birch and Ladd (1998) stated that teacher–student relationships develop through a complex intersection of student and teacher beliefs, attitudes, behaviors, and interactions with one another. Forming supportive relationships with teachers may allow students to feel safer and more competent in the school setting. This may lead to more positive connections with peers. Also, it must be remembered that although adolescents are more independent from adults when compared with other students at the early developmental stage, they still need support, care, and encouragement from their teachers in order to feel that they belong in their school environment and are capable to succeed academically (Rawatlal & Petersen, 2012).

In addition, Jones and Jones (1998) argue that a teacher's role as effective creator of positive peer relationships is equally as important as their role in delivering effective instruction, managing positive learning environments, and establishing positive relationships with their students. It is evident that the development of social competence in the peer group setting requires the attention of an adult who understands the social needs and capabilities of adolescents and who knows how to provide appropriate support (Bruce & Crump, 2003). It can be recommended that teachers should focus on the needs and capabilities of each student in order to help them to feel that they belong in their classrooms and schools, because adolescents do not feel connected to school when it does not meet their needs (Rawatlal & Petersen, 2012).

Also, teachers should develop an atmosphere of commonality and belonging in classrooms through effective classroom management strategies. In other words, it can be argued that teachers should be encouraged to be positive and supportive to

students in the classroom, while also allowing students the opportunity to build positive relationships with one another in the classroom. It is believed that a classroom atmosphere of commonality prevents or reduces school violence and bullying, having significant short and long-term benefits for the school community (De Wet, 2007a, 2007b).

The findings of the stepwise regression analysis for the total sample have also shown that peer relationships was the second most predictive variable of adolescents' sense of school belonging. As stated in the literature, peer acceptance and support are related to the following: higher self-esteem and academic motivation; personal development; decreased externalizing behaviors; and school belonging (Berndt, 2004; Bester, 2007; Law et al., 2013; Ryan, 2001; Stewart, 2008). Owing to the fact that peers have a critical role in meeting the need to belong and feel connected, researchers believe that membership of a group satisfies the need to belong since it fulfills the need to connect with others (Birch & Ladd, 1998; Goodenow, 1993; Law et al., 2013; Ryan, 2001).

Furthermore, the results of this study revealed that teacher–student relationships are the most important variable for a sense of school belonging for both boys and girls. In a similar vein, Tosolt (2010) proposed caring behavior from teachers to be important for both girls and boys, but noted girls give more importance to academically nurturing behaviors, while boys value interpersonal caring behaviors. It is stressed that the relationships between boys and their teachers is characterized are less familiar when compared with that of girls because boys are less conforming and self-regulating than girls (Hughes & Kwok, 2007). Moreover, the results of the stepwise analyses for boys and girls indicated that peer relationships was the second most predictive variable for the girls' sense of school belonging, while it was in third order for the boys' sense of school belonging. This may be explained by referring to the varying socialization processes of girls versus boys (Goodenow, 1993), as well as to the importance of relatedness and connection with others for girls (Gilligan, 1982; Sanchez et al., 2005). Gilligan (1982) stated that adolescents, particularly females, are more likely to focus on their relationships at school because this is their main context. It is also proposed that girls give more importance to group membership and need more nurturing behavior from their friends than do boys (Newman et al., 2007; Kiesner et al., 2002).

Administrators, teachers, and parents have common goals for student learning and behavior in order that students be part of the school community. As previously emphasized, the practice of communal schools in which, among other things, interpersonal relationships are emphasized to create affective bonds among all school members, may be instrumental in developing a students' sense of school belonging (Lee

& Smith, 1995). As parents are seen as indispensable actors in a student's education, the observation of student perception of parental involvement in their education was included in this research. The findings revealed that both parent involvement at school and at home have an exploratory role when it comes to a student's sense of school belonging. In general, when parents are in a relationship with teachers characterized by mutuality, and involved in their children's education, both at home and at school, students are more motivated and exhibit higher levels of emotional, social, and behavioral adjustment (Hughes & Kwok, 2007). The findings of this study also showed that student perceptions of family involvement differ according to gender. While family involvement at home has a significant predictive role on a sense of school belonging among female students, family involvement at school has a significant predictive role on a sense of school belonging among male students. In accordance with this finding, the differing perception of students may be interpreted as showing that parents are more likely to be involved in the school activities of boys, and in the home activities of their daughters. As Stevenson and Baker (1987) have asserted, parents may be involved differently in their sons' and daughters' educational lives. With regard to the related literature, it has been found that parents are more nurturing and restrictive toward their daughters, but discipline their sons more (Epstein, 1991; Muller, 1998; Stevenson & Baker, 1987). By expressing different attitudes towards their sons and daughters, parents may contribute to a different locus of activity for each.

This study points to the importance of appreciating the role of teacher–student relationships, peer relationships, and parent involvement in an adolescent's sense of school belonging. More especially, it offers insights useful to teachers about providing an atmosphere of commonality for adolescents through effective classroom management strategies. In addition, it must be emphasized that the adolescent sense of school belonging is attained through supportive and integrative interpersonal relationships that transcend the set social boundaries, cultures or tradition; and that adolescents as individuals contribute to the well-being of that society, group, and community—especially by reducing prejudice in the present global era that engenders centrifugal forces capable of dislocating traditional bonds, fragmenting societies, and reinforcing conflict and division (Green, Preston, & Sabates, 2010; Tabane & Human-Vogel, 2010). Therefore, we propose that teachers should uphold an integrated manner in their classes and schools, in order to overcome the challenges of globalization, which include increasing social pluralism and lifestyle diversity.

As a result of this study, it must be noted that teachers ought to know and believe that relationships with their students' matter and will make a significant difference to society. The research has shown that “teachers' beliefs about their own ability to affect student outcomes are strongly correlated to student achievement” (Rawatlal & Petersen, 2012, p. 2).



In addition, we assert that educators have a critical role in the professional development of pre-service teachers by being a model for certain behaviors; that is, pre-service teachers ought not only to hear and read about teaching; they also ought to experience it. Teacher educators are examples of the views and attitudes they are trying to promote in pre-service teachers through modeling. In other words, teacher educators can be influential on the professional socialization of pre-service teachers, on basis of the examples experienced, and to make them to shape their own practices accordingly (Lunenberg, Korthagen, & Swennen, 2007).

Furthermore, school belonging should be examined from a socio-cultural perspective, considering its importance in an adolescent's relationships with others within the school setting. Also, policy-makers and educationalists should develop and implement effective whole school interventions in order to increase school belonging.

These findings need to be interpreted in the context of certain study limitations. Because measures were taken at a single point in time, alternative explanations for the associations cannot be ruled out. Additionally, there is the lack of sufficient racial and ethnic diversity among students in order to investigate whether or not these findings are valid.

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