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Editorial

Pathways to school belonging

School belonging is generally regarded as a student's sense of affiliation or connection to his or her school. Anyone who has personally navigated the sometimes torturous terrain of secondary school is able to have some level of direct understanding of the importance that belonging, fitting in, and identifying with a school holds for most people. Educators and practitioners often work with young people who feel that they do not belong to the school community, in which they attend. An absence of belonging can manifest itself in mental health concerns, school attrition, and risk taking behaviours. Opportunities for early intervention through fostering school belonging are born from a greater understanding and awareness of what school belonging is and how it is contextualised and fostered. This special issue aims to place a focus on school belonging and highlight it as a significant social issue of our time.

A powerful impetus for this special issue was to create a resource which offers a high level of applied impact for both researchers and practitioners. This is evident in the high quality and variance in the collection of articles that are presented in this issue. The first paper of this special issue by Slaten, Ferguson, Allen, Vella-Brodick and Waters, *School belonging: A review of the history, current trends, and future directions*, provides an overview of school belonging through a review of literature that describes the current context, trends and relevancy for future research. Most notable in this article is a discussion of school belonging in the university context. Given that the overarching school belonging literature is mainly concerned with issues in primary and secondary schools, this article is unique in exploring new ground in tertiary settings, where there is a dearth of academic research.

The second article of this special issue, by Furlong, Moffa, and Dowdy, provides further insight into the application of school belonging in school settings by examining the construct's value in mental health screening for psychological distress and life satisfaction. In their article, *Exploring the contributions of school belonging to complete mental health screening*, the authors found that students who reported high levels of life satisfaction and normative distress ("thriving") reported a higher sense of belonging than students who experienced low life satisfaction and elevated distress ("troubled"). In the second part of their analysis, they found that school belonging served as a predictor for social and emotional wellbeing one year on, but offered very little explained variance towards psychological distress symptoms. The authors argue that, although school belonging did not contribute substantially to psychological distress, it still has an important place in the complete mental health screening of secondary school students.

The special issue is particularly interested in considering school belonging in a range of populations. This is exemplified by Due, Riggs and Augoustinos, who used a novel methodology of photographic elicitation techniques in their paper,

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Experiences of school belonging for young children with refugee backgrounds. The authors found that students with refugee backgrounds were able to derive a sense of school belonging from their environment, which included their relationships with peers and teachers. The authors offer suggestions for schools catering for children with refugee backgrounds.

Literature on school belonging often focuses on student experiences and perspectives. Gowing and Jackson rigorously extend the literature by drawing on school staff as well. In *Connecting to School: Exploring student and staff understandings of connectedness to school and the factors associated with this process,* the authors contextualise school connectedness, "as a process rather than a state, fluctuating across time within the relational, experiential, and physical spaces of school life" (p. 54). The article highlights the importance of the teacher and peer relationship for school belonging, but also presents seminal findings in relation to joint decision making between young people and parents on choice of school and distance of home to school, which may facilitate greater opportunities for extra-curricular activities.

Coker, Martinez, McMahon, Cohen and Thapa extend our understanding of extra-curricular activities in their paper, *Involvement in extracurricular activities: Identifying differences in perceptions of school climate.* A central finding of their work is that extra-curricular activities are beneficial for school connectedness, which affords readers a greater understanding of the role of this predictor in school belonging. The authors examine how different extra-curricular activities (sports, clubs and the arts) interact with school connectedness and find that greater involvement in extra-curricular activities does not necessarily equate to higher school connectedness. In fact, the types of extra-curricular activities and the way they combine play a fundamental role in a young person's sense of belonging.

One of the strengths of this issue is in presenting research on school belonging that has used a range of methodologies. *Another path to belonging: A case study of middle school students' perspectives,* by Green, Emery, Sanders and Anderman, shows again the value of qualitative research in this important area. The authors make an important distinction between social belonging and academic belonging and their findings elucidate both of these types and the factors that help and hinder these two constructs through the perspectives of young people at school.

The final paper of the special issue aims to distil the research on school belonging and re-frame it into an applied practical format that can be used by school leaders and practitioners. In their paper, *Fostering school belonging in secondary schools using a socio-ecological framework,* Allen, Vella-Brodrick and Waters present a socio-ecological framework for schools. The authors argue that school leaders and educators should be encouraged to foster students' sense of belonging by building qualities within the students *and* by changing school systems and processes. The framework represents the importance of whole school approaches by discussing the role of governmental, organisational, relational and individual level variables in influencing school belonging.

School belonging is a vitally important psychological construct. Taken together, the findings of the studies featured in this special issue on school belonging have relevance for intervention design and organisational structures within educational settings, especially in respect to policy and practice. The school management, in particular, have an important role in building school belonging for individuals and

ensuring that this concept is prioritised as a guiding principle in education. The applied practice outcomes derived from this special issue will help create stronger school communities and contribute to the practice and science of educational and developmental psychology.

Kelly Allen, PhD
Guest Editor

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Editor

School Belonging: A Review of the History, Current Trends, and Future Directions

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School belonging, at both a school and university level, has been well documented as a predictor of academic and psychosocial success. The construct has been examined by scholars in a variety of different professional disciplines (e.g., education, psychology, sociology) and continues to be consistently researched. Although significant contributions have been made in the field, there are still additional areas of investigation needed, as well as interventions that need to be designed and explored. The current article was designed to review the theoretical foundations of belonging, conceptualise school belonging with respect to how it is presented in the literature, discuss the key variables related to school belonging, present a summary of the predictors of school belonging, discuss school belonging in a university setting, and posit future directions for research.

■ **Keywords:** belonging, school belonging, university belonging

The literature reveals that an individual's sense of belonging is an important psychological construct with formative implications for both psychological and physical health across the life span (e.g., Poulton, Caspi, & Milne, 2002; Wadsworth, Thomsen, Saltzman, Connor-Smith, & Compas, 2001). Past research that has investigated belonging has found that those who report a high sense of belonging are more likely to report psychological benefits such as wellbeing, increased self-esteem, and positive mood (Begen & Turner-Cobb, 2015; Newman, Lohman, & Newman, 2007), improved memory (Haslam et al., 2010), positive life transitions (Haslam et al., 2008; Iyer, Jetten, Tsivrikos, Haslam, & Postmes, 2009), and reduced stress (Newman et al., 2007). Benefits associated with physical functioning have also been reported and include reduced risk of stroke (Boden-Albala, Litwak, Elkind, Rundek, & Sacco, 2005), lowered disease risk (Cohen & Janicki-Deverts, 2009), and reduced mortality (Holt-Lunstad, Smith, & Layton, 2010; Jetten, Haslam, Haslam, & Branscombe, 2009). Moreover, the benefits associated with belonging, whether it be to a group, school or community, have also been found to have lasting effects (Walton & Cohen, 2011; Walton, Cohen, Cwir, & Spencer, 2012). While the benefits of general belonging have been widely accepted, there has not been as much research on the less understood construct of school belonging. The purpose of this article is to provide an overview of school belonging

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research through setting the theoretical context, defining school belonging, discussing the key variables associated with school belonging, presenting the predictors of school belonging as identified in research, highlighting the relevance of school belonging in university settings, and suggesting directions for future areas of research. The main objective of this literature review is to generate a greater understanding of school belonging that may assist future research and practice aimed at investigating school belonging to school and university levels. The implications of a greater understanding of this field may assist educational and developmental psychologists, researchers, and school leaders to address growing concerns related to drop-out rates by students in secondary schools (Kuperminc, Dranell, & Alvarez-Jimenez, 2008) and attrition rates at university-level training (Slaten, Elison, Hughes, Yough, & Shemwell, 2015).

Theoretical Background

Belonging has a connection to seminal work within the field of psychology (Maslow, 1943; Rogers, 1951). Maslow (1943, 1954) first noted belonging in his *hierarchy of needs* through his theory of human motivation. His theory suggests five fundamental needs that drive the behaviour of individuals in hierarchical fashion. Specifically, Maslow describes how all people have a fundamental need for love and belongingness. He theorised that the need for belongingness would emerge only after the physiological and safety needs have been satisfied. Maslow describes the motivation to belong as related to family, friends, community and social groups, and the connections gained through the establishment of these genuine relationships. Maslow's (1943) work describing the need for belonging has proven to be a powerful construct that has engendered a significant amount of work on human motivation (e.g., Baumeister & Leary, 1995; Brofenbrenner, 1977; Cohen, 1982; Fiske, 2004; Glasser, 1986; Josselson, 1992; Putnam, 2000). In addition to Maslow (1954), other early educational researchers brought the concept of belonging into educational settings specifically. These include the work of Dewey (1938) and his concept of supportive school environments, Vygotsky's (1962) work on the role of social environment in schools, and Erikson's (1968) work on social identification in educational settings.

Although there are other psychological and educational theories that allude to belonging (e.g., Bowlby, 1969; Bronfenbrenner, 1977; Connel & Wellborn, 1991; Josselson, 1992; Solomon, Watson, Battistich, Schaps, & Delucchi, 1996; Voekl, 1996), one of the seminal conceptual foundations of belonging research was published by Baumeister and Leary in 1995. The *belongingness hypothesis* suggests that the construct of belonging is a fundamental human motivator. They define the need to belong as 'a need to form and maintain at least a minimum quantity of interpersonal relationships' (Baumeister & Leary, 1995, p. 499). The belongingness hypothesis suggests that the need for belonging is not only innate but based in evolution. They argue that belonging to or interacting with groups provides a greater opportunity for survival through protection, reproduction, shared resources, and eventually affection (Baumeister & Leary, 1995).

The belongingness hypothesis argues that belonging drives goal-directed activity, and the lack of belonging causes adverse reactions (Baumeister & Leary, 1995). The need to belong motivates people to engage socially and form bonds, and the absence of these bonds can often contribute to psychological distress or even physical health concerns. Baumeister and Leary (1995) suggest two main features of belongingness:

the need for frequent personal contacts with others and the perception of a stable relationship. They also argue against the seemingly interchangeable nature of belonging and affiliation by making a sharp contrast between the two terms. Affiliation is not necessarily based on a reciprocal relationship, whereas belongingness requires an in-depth social connection. An important idea of their hypothesis of belongingness is that the need to belong is fundamental to an individual's wellbeing (Baumeister & Leary, 1995).

Defining School Belonging

Although Baumeiester and Leary (1995) have defined the overall construct of belonging, belonging to school has been defined more specifically. Willms (2000) defines school belonging as a psychological construct related to attachment to school and underpinned by feelings of being accepted and valued by others (including peers) within the school community. Other definitions of school belonging have incorporated different constructs, including a sense of community (Osterman, 2000), student engagement (Finn, 1993), positive interactions with others (Hamm & Faircloth, 2005), and social identity (Tajfel, 1972). Notwithstanding the broad variability in how school belonging (or belongingness) is conceptualised, the most commonly cited definition of school belonging in the literature is offered by Goodenow and Grady (1993), who define school belonging as 'the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment' (p. 80; e.g., Anderman, 2002; Knifsend & Graham, 2012; Ma, 2003; Nichols, 2006). This definition has also been operationalised widely through the use of the Psychological Sense of School Membership (PSSM) scale (Anderman, 2002; Knifsend & Graham, 2012; Ma, 2003; Nichols, 2006) and applies to both secondary school and university settings.

It seems that a review of the literature reveals more consistency in how school belonging is defined than in the terminology used to describe it. School belonging as a psychological construct in empirical research is often described using a range of terms, including school connectedness (Jose, Ryan, & Pryor, 2012; Libbey, 2004), school bonding (Hawkins et al., 1996), school identification (Sirin & Rogers-Sirin, 2004; Wang & Eccles, 2012), school attachment (Hallinan, 2008) and a sense of community (Osterman, 2000). Often, terminology is used interchangeably (Anderman, 2002; Rowe & Stewart, 2009), and a given term's meaning in a particular context might depend upon the individual author using it (Libbey, 2007). Some theorists have even suggested that belonging is a component of school connectedness (McNeely & Falci, 2004).

School belonging can be closely related to and sometimes included as an aspect of academic motivation research (Deci & Ryan, 1985; Glasser, 1986). For example, Glasser's (1986) control theory's classroom application is a theory of motivation that argues against the influence of external motivators altogether and suggests that all motivation is derived from basic human needs, one of which is belonging. Glasser (1986) suggests that if the basic need of belonging is not met, students will have difficulty achieving academic success.

Self-determination theory (SDT) was the catalyst for academic motivation research as it proposed three forms of motivation: intrinsic, extrinsic, and amotivation (Deci & Ryan, 1985). It is theorised that intrinsic motivation consists of three innate psychological needs: competence, autonomy, and relatedness. For the purpose of this

literature review, relatedness (Josselson, 1992) is the most salient psychological need identified by Deci and Ryan (2000), as it is often used interchangeably with belonging. Therefore, an individual's sense of belonging at a theoretical and empirical level holds implications for the academic outcomes of students (e.g., Anderman, 2002; Baskin et al., 2010; Slaten et al., 2014), a central objective for schools. This has also been supported by specific outcome research that has shown that academic outcomes, among other variables related to school belonging, may play an important role in a student's connectedness to their school.

Variables Related to School Belonging

Research has identified a number of important variables related to school belonging (e.g., Blum & Libbey, 2004; Centers for Disease Control and Prevention, 2009), such as extracurricular activities (Dotterer, McHale, & Crouter, 2007; Shochet, Smyth, & Homel, 2007), academic motivation, (Anderman, 2003; Whitlock, 2006), mental health (Holt & Espelage, 2003; Shochet, Smith, Furlong, & Homel, 2011), gender (Ma, 2003; Sanchez, Col'on, & Esparza, 2005), and race and ethnicity (Bonny, Britto, Klostermann, Hornung, & Slap, 2000). Social and emotional characteristics and how these enhance feelings of school belonging for students and vice versa have also been investigated, with positive findings (Samdal, Nutbeam, Wold, & Kannas 1998; Sirin & Rogers-Sirin, 2004; Uwah, McMahon, & Furlow, 2008). Social and emotional characteristics relate to an individual's ability to manage emotions and create positive relationships, and include variables such as self-efficacy, self-esteem, and self-concept (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2003). In addition, researchers have also found positive correlations between school belonging and variables concerned with support from others, such as peer support, teacher support, and parent support (Garcia-Reid, 2007; Hallinan, 2008; Wang & Eccles, 2012). Further research has focused on school type (Brutsaert & Van Houtte, 2002; Ma, 2003), school location (Anderman, 2002), and year level (Read, Archer, & Leathwood, 2003).

Of particular note in school belonging research is the relationship between school belonging and academic achievement, mental health outcomes, and maladaptive behaviours.

Academic Achievement

Sirin and Rogers-Sirin (2004) examined the impact of psychological and parental factors on academic achievement of African American students. Researchers selected 336 African American students and their mothers from a large database and administered questionnaires that included a measure of school engagement involving nine items, five of which examined school identification defined as a students' sense of belonging to their school. After analysing the data, researchers found that the strongest predictors of academic performance were educational expectations and school engagement. Results also indicated a significant relationship between school engagement and self-esteem (Sirin & Rogers-Sirin, 2004).

Mental Illness

The literature has also demonstrated that mental illness (e.g., anxiety and depression) may also contribute to low levels of school belonging (McMahon, Parnes, Keys, &

Viola, 2008; Moody & Bearman, 2004; Shochet et al., 2007). Newman, Newman, Griffen, O'Connor, and Spas (2007) found a significant inverse relationship between school belonging and depressive symptoms. They found that during transition from middle school to high school, students' sense of school belonging tends to decrease and therefore depressive symptoms increase (Newman et al., 2007).

A study by Anderman (2002) examined the relationship between school belonging and psychological outcomes. The researcher accessed a large sample of students ($N =$ 20,745) from schools across the United States ($N = 132$). Within the study they selected measurements of school belongingness (individual and aggregated), school problems, social rejection, optimism, self-concept, and depression. The results indicated a significant negative correlation between individual perceptions of school belonging and depression, social rejection, and school problems. However, Anderman's (2002) study also indicated a positive correlation between aggregated school belonging and grade point average (GPA), social rejection, and school problems. These results suggest that the more students feel a collective sense of school belonging the more rejection those students on the outside feel and the more problems they will encounter (Anderman, 2002).

Shochet, Smith, Furlong, and Homel's (2011) study of school belonging and psychological factors investigated the impact of school belonging on negative affect in adolescent students. Using the Psychological Sense of School Membership Scale (PSSM; Goodenow & Grady, 1993) and the Children's Depression Inventory (CDI; Kovacs, 1992), researchers surveyed 504 seventh- and eighth-grade students in Australia. Researchers found that school belonging was a significant predictor of negative affect in adolescents (Shochet et al., 2011).

Maladaptive Behaviours

Previous research has also shown a relationship between school belonging and behaviour concerns (Loukas, Roalson, & Herrera, 2010; McNeely & Falci, 2004). McNeely and Falci (2004) analysed survey data from a large sample of adolescents ($N = 20{,}745$) and found that the more connected students felt to their teachers in particular, the less likely they were to engage in what researchers referred to as six health-risk behaviours (cigarette smoking, drinking to the point of getting drunk, marijuana use, suicidal ideation, sexual behaviours, and weapon-related violence). More recently, a study by Loukas and colleagues (2010) examined data from 476 sixth- and seventh-grade students in order to determine the role of school connectedness on conduct problems. The results indicated that school connectedness was a moderator between negative family relationships and conduct concerns. Therefore, school belonging has been shown to be highly effective in school dropout prevention (Kuperminc et al., 2008; Pittman & Richmond, 2007; Slaten et al., 2015).

Predictors of School Belonging

Although school belonging is a growing body of research, there has been some work to identify predictors of the construct (Goodenow & Grady, 2003). Despite discrepancies in terminology, which might arguably dilute the potency of research drawn from the field, research has identified that while terminology varied considerably, consistent themes emerged from the broad variety of terms used in the literature; for example, school environment, student safety, teacher supportiveness and caring, parent

support, and peer relationships through extra-curricular activities were all noted as being important contributors to a sense of school belonging (Libbey, 2004).

This current literature shows that the school environment is a salient variable in predicting student belonging (Loukas et al., 2010; Slaten et al., 2015). Studies investigating environmental contributions to school belonging have identified a number of influential themes such as classroom climate, the availability of recreational spaces, opportunities to play and socialise, and school size (Anderson, Hamilton, & Hattie, 2004; Chan, 2008; Waters, Cross, & Shaw, 2010). A study by Anderman (2002) found results indicating that school location is a major predictor of school belonging. The research suggested that students' sense of belonging was lower in urban school settings as opposed to suburban schools (Anderman, 2002).

Most studies that have investigated school environment with a student's sense of belonging have focused on student safety (i.e., Cunningham, 2007; Garcia-Reid, Reid, & Peterson, 2005; Hallinan, 2008; Holt & Espelage, 2003; Shochet et al., 2007; Whitlock, 2006). Findings consistently demonstrate that perceived safety is positively associated with school belonging. Cunningham (2007) investigated *bullying norms* and whether or not students felt that teachers intervened effectively when bullying occurred, and whether or not they felt teachers viewed it as a concern. Findings suggested that the perception of healthy norms concerning bullying was positively associated with school belonging. Similar findings were reported by Hallinan (2008), who concluded that feelings of safety positively influenced school attachment. The studies by Garcia-Reid et al. (2005) and Shochet et al. (2007) also demonstrated that feelings of safety at school influenced school belonging, but this influence was mediated by support from others. When feelings of safety had been jeopardised, as in the case of repeated victimisation, Holt and Espelage found that school belonging was reduced. Thus, these studies show a clear relationship between feelings of safety and school belonging. Therefore, a school's practices related to fostering a safe environment should be a consideration in supporting school belonging within a school setting.

The important role of the teacher in supporting school belonging has been widely supported across a range of studies (Anderman, 2003; Bowen, Richman, Brewster, & Bowen, 1998; Brewster & Bowen, 2004; Garcia-Reid, 2007; Garcia-Reid et al., 2005; Hallinan, 2008; Shochet et al., 2007). A study by Anderman (2003) found that teachers play a significant role in predicting the sense of school belonging students feel. The study surveyed 618 middle school-aged students and found that when teachers are able to promote mutual respect among peers and provide a safe instructional environment for students there is a stronger sense of school belonging. This study also noted that school belonging decreased over time (Anderman, 2003).

Crouch, Keys, and McMahon (2014) also found the importance of teacher support for student school belonging in a cohort of students with disabilities. Using a mixture of self-report and objective measures (teacher observations), data were collected for 115 students that explored the role of the teacher-student relationship in school belonging for young people with and without disabilities. As found by previous research, school belonging was lower for students who perceived their relationship with their teachers as negative, and higher in students who reported a positive relationship with their teacher. Interestingly, it was found that the teacher's ratings of a student's school belonging were consistent with the student's self-reported ratings of school belonging. This finding extends school belonging research, which is mostly conducted through

self-report measures by students and emphasises the importance of the student-teacher relationship for school belonging.

Slaten and colleagues (2015) conducted a qualitative study examining the educational needs of marginalised youth in at an alternative high school. Researchers analysed the data collected from these interviews and generated several domains, which were related to the educational needs that participants felt their school was meeting. One of the salient themes cited by participants as an educational need was their sense of belonging in school, and as part of that, the genuine relationships students felt with teachers and/or administrators. Students identified school belonging in the form of relationships with school faculty as a primary motivation to stay in school as opposed to dropping out (Slaten et al., 2015). Thus, there is a role for support from school administrators as well as from teachers to foster student school belonging.

The literature also provides evidence that it is not only the social support of teachers that is found to correlate with school belonging, but also the academic support provided by teachers. Stevens, Hamman, and Olivárez Jr. (2007) explored the effect of teachers who used mastery goal orientation and academic pressure on a total of 434 early adolescents (average age 12.71 years). Mastery goal orientation involves teachers assisting students to acquire new skills and master new situations through the development of personal goals (see Dweck, 1986). The findings suggested that students reported feelings of school belonging more when their teachers were perceived to promote mastery goal orientation in the classroom. A second finding revealed that teachers who applied academic pressure were also more likely to influence school belonging (Stevens et al., 2007). These teachers were more likely to challenge students and encourage their ideas, and request they explain their academic work. Notwithstanding these results, the most important finding by Stevens et al. (2007) was that the more teachers promoted learning over performance, the more students felt like they belonged to their school.

It is not only a support and caring relationship from teachers that appears to be an important variable for fostering school belonging, but parent support as well. Kuperminc et al. (2008) conducted a study to investigate the variables that may mediate the relationship between parental involvement and achievement of Latino students. Researchers surveyed 195 middle and high school-aged students and assessed their perception of parent involvement, school belonging, and academic competence. Teachers were also asked to provide data in the form of rating their expectations for student academic attainment. For the sake of the study, researchers were able to access school records to use grades as a measure of academic achievement. The results of the study indicate that school belonging mediated the relationship between parent involvement and academic adjustment (Kuperminc et al., 2008). Slaten et al. (2014) examined the impact different types of belonging, including school, had on the way students make career decision. The results demonstrated that school belonging significantly contributed to career decision making, and the more a student felt that they belonged in school the more confident they were in making a career decision (Slaten et. al., 2014).

In addition to teacher support and parent support, peer support through extracurricular activities has also been shown to be a strong predictor of school belonging. Studies have found that students who engage in extracurricular activities report a higher sense of school belonging compared to their peers (Blomfield & Barber, 2010; Waters et al., 2010). Time spent on these activities is seen to be a positive predictor of

school belonging for both boys and girls (Dotterer et al., 2007) and is largely influenced by the adolescent's relationship with his or her parents (Shochet et al., 2007). Knifsend and Graham (2012) found that students who are moderately involved in extracurricular activities (i.e., two activities) feel a higher sense of school belonging than either students who are not involved at all, or students who are involved in too many. Thus, there appears to be an optimal level of extra-curricular activities for fostering a sense of school belonging. Booker (2004) surveyed African American students ($N = 61$) in a mixed methods study. The researcher utilised the quantitative research to determine a relationship between school belongingness and academic achievement and the qualitative methods to gain a further understanding of what the students perceived to influence their sense of school belonging. The results indicated that the students perceived both teacher and peer relationships to be the most significant influences on school belonging. Additional research was conducted by Shin, Daly, and Vera (2007), who examined the relationship between school engagement and peer norms (both positive and negative), peer support, and ethnic identity. Researchers surveyed 132 seventh- and eighth-grade students and found peer norms to be a strong predictor of school engagement (Shin et al., 2007). Thus, with respect to school belonging, it appears that the relationships students have with teachers, parents, and peers are central to fostering positive connections with school.

School Belonging in University Settings

As previously mentioned, the construct of school belonging can manifest differently across various groups and settings. A recent trend has started to focus school belonging research on young adults in collegiate settings. Among the college population, research has shown belonging to be related to psychological adjustment, motivation, and, (Pittman & Richmond, 2007, 2008; Guiffrida, Lynch, Wall, & Abel, 2013). In addition, researchers have made attempts to make models of school belonging on college campuses more culturally relevant (Guiffrida, 2006; Tierny, 1992). The purpose of this section is to discuss the most recent trends within the body of school belonging literature and identify opportunities for future research.

Further research has suggested that while school belonging may be related to academic performance, it is not necessarily related to college students' persistence to graduation (Guiffrida et al., 2013). Guiffrida and colleagues (2013) made this distinction, noting that students with high GPAs are not always motivated to finish college for various reasons. The study examined the relationship between GPA, intention to persist, and motivation as it relates to Deci and Ryan's (1985) SDT. A sample of college students ($N = 2{,}520$) were asked to complete questionnaires that included measures of competence motivation, autonomy motivation, need for relatedness, intent to persist, and GPA along with demographic information (SES, race/ethnicity, gender, and 2- or 4-year institution). After analysing the data, researchers determined there was a significant relationship between relatedness and GPA. With regard to students' intention to persist, only the measure of relatedness to school faculty was shown to have a significant relationship. The results lacked support for the other measures of relatedness (relatedness to home-altruistic, relatedness to home keep-up, and relatedness to school/peers; Guiffrida, 2013).

In an attempt to adequately research this growing body of work, scholars have made attempts at identifying predictors of school belonging that are specific to college

population (Freeman, Anderman, & Jensen, 2007; Slaten et al., 2014). Freeman and colleagues (2007) evaluated college students' sense of school belonging within the classroom and the university as a whole. They attempted to examine the relationships between school belonging, academic motivation, and instructor characteristics. Data were collected from a sample of college freshmen ($N = 238$), and the results indicated that social acceptance and pedagogical concern of instructors were large predictors of school belonging on a college campus.

A more recent study by Slaten and colleagues (2014) employed a Consensual Qualitative Research (CQR) design in order to analyse the meaning of belonging to students on a college campus (Hill, 2012). Researchers were able to identify several domains related to university belongingness: valued group involvement, meaningful personal relationships, environmental factors, and interpersonal factors. With this study, Slaten and colleagues (2014) determined that school belongingness looks different at the university level than at the school-age level. Previous studies of school belonging on college campuses have employed modified versions of the Psychological Sense of School Membership (PSSM; Goodenow, 1993) to measure school belonging (Pittman & Richmond, 2007, 2008). The results found by Slaten et al. (2014) do not disprove Tinto's (1988) theory, nor do they disprove the results found by previous studies (Guifford et al., 2013; Pittmann & Richmond, 2007, 2008). However, the results do suggest the need for a more appropriate measure of school belonging at the collegiate level.

Due to the fact that school belonging at the collegiate level is still a growing area of research there are opportunities of future research to be completed. As work by Slaten and colleagues (2014) suggests, school belonging looks different for students enrolled at a university than it does for students enrolled at a local high school, and there are many different variables that could be researched within this topic. In addition, there is a growing desire for school belonging work that is culturally sensitive and/or specific (Guiffrida, 2006).

Discussion and Future Directions

Although school belonging as a construct has garnered a substantial amount of attention in the literature, there are still some gaps that need to be tended to by academic researchers. Some preliminary qualitative research has suggested that students on the margins of the educational system find it exceedingly difficult to experience a sense of belonging in school (Slaten et al., 2015; Slaten et al., 2016). Previous school belonging research has been limited in understanding the needs of youth in poverty, under-represented minorities, students with disabilities, students with behavioural problems, and other marginalised youth as these relate to their experience of belonging in academic settings. Future quantitative studies should focus specifically on marginalised populations and how these students may or may not differ in their experience of school belonging from their majority peers.

In addition to the need for increasing research focused on marginalised populations' experience of school belonging, intervention researchers have neglected to design studies that involve testing interventions that may increase a student's sense of belonging in school (i.e., SEL interventions, student mentoring, restorative justice practices). The majority of the scholarly productivity literature regarding the construct of school belonging has demonstrated how a strong sense of school belonging

significantly improves student outcomes, and yet there has been little research on examining what interventions help enhance this sense of belonging for students in the school setting. Future research should include the measurement of school belonging alongside psychosocial interventions that are utilised in schools to ascertain whether or not current intervention strategies have an impact on students' level of belonging. In addition, new intervention strategies could be designed to target school belonging specifically, and assessed through experimental and quasi-experimental studies.

Finally, although school belonging in the K-12 school system has received a significant amount of attention, researchers have neglected to examine how school belonging is different based on developmental level and school building (i.e., elementary vs. secondary vs. post secondary). Perhaps the most glaring deficit area is a sense of belonging for university students. Scholars have begun the process of attempting to define the construct as there are many differences between university and primary and/or secondary school settings (Slaten et al., 2014; Slaten et al., in press). There is a need for more research in this area, most notably to develop a valid and reliable measure of university belonging based on an acquired definition from pioneering scholars in the field (e.g., Slaten et al., 2014). Future qualitative work is needed to inquire about how students define a sense of belonging at the university level, with the hope of using this information to create a future instrument to measure the construct and begin looking at outcomes and predictors of university belonging. The implications of a greater understanding of school and university belonging contribute to the field of educational psychology and how the psychological, social, and academic needs of students can best be met to ensure successful educational outcomes across their lifespan.

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None.

Ethical Standards

This review did not involve human and/or animal experimentation.

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Exploring the Contributions of School Belonging to Complete Mental Health Screening

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Considering the many positive outcomes associated with adolescents' sense of school belonging, including psychological functioning, it is possible that including an assessment of school belonging within a complete mental health screening process could contribute to the prediction of students' future mental health status. This exploratory study used complete mental health screening data obtained from a central California high school ($N = 1{,}159$). At Time 1 (T1) schoolwide screening was used to identify complete mental health groups by applying a dual-factor strategy and concurrently measuring students' school belonging. One year later at Time 2 (T2), social-emotional wellbeing and internal distress were assessed. Cross-sectional T1 results indicated that there were significant differences in school belonging between students who reported low global life satisfaction and those who reported average or high global life satisfaction, regardless of reported level of psychological distress. A comparison of T1 to T2 data revealed that global life satisfaction and psychological distress were predictive of wellbeing and internal distress. However, contrary to study expectations, school belonging at T1 added little to the prediction of T2 psychological distress beyond the information already provided by the T1 dual-factor screening framework. Implications for practice and future directions are discussed.

■ **Keywords:** complete mental health, screening, school belonging

It is estimated that approximately one out of every three or four youths worldwide will meet the criteria for a formal mental health disorder in their lifetime (Costello, Mustillo, Keller, & Angold, 2004). Considering that approximately half of all mental disorders have onset by 14 years of age (World Health Organization, 2014), it is important to be mindful of how to identify, treat, and prevent the onset of more debilitating symptoms in youth. Recognising the barriers to accessing private mental health care (e.g., geographic location, cost, and stigma), and coupled with findings that the vast majority of youths do not seek help for their symptoms in a timely manner (Christina et al., 2000), schools are ideal locations in which to implement efforts to prevent and

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respond to youths' psychological distress (Manassis et al., 2010). This recommendation for school-based services is aligned with findings that many negative school-based outcomes are associated with psychological distress, including difficulties with social relationships, lack of initiative with schoolwork, and poor academic achievement (Fröjd et al., 2008). Robust research findings indicate that youths' feelings of school belonging: (a) can mitigate negative developmental outcomes (Lester, Waters, & Cross, 2013), (b) protect against psychological distress (Gratis, 2013; Pittman & Richmond, 2007; Sargent, Williams, Hagerty, Lynch-Sauer, & Hoyle, 2002), and (c) are associated with a range of positive psychological and educational developmental outcomes (Allen & Bowles, 2012). As such, it is possible that measuring school belonging as part of schoolwide mental health screening could contribute unique information in support of prevention and intervention strategies to improve adolescents' mental health. Though previous research indicates that school belonging is positively associated with academic achievement (Furrer & Skinner, 2003) and positive mental health indicators (Pittman & Richmond, 2007; Vieno, Perkins, Smith, & Santinello, 2005), the potential additive predictive effects of students' school belonging when included within a school-based, universal, complete mental health screening framework has not been thoroughly investigated.

Dual-Factor Approach To Screen For Complete Mental Health

Expanding beyond a primarily deficit-focused approach, contemporary mental health screening has examined a combination of students' psychological distress *and* subjective wellbeing (Moore et al., 2015). This 'dual-factor' approach, which examines both positive and negative symptoms of mental health (Greenspoon & Saklofske, 2001; Keyes, 2005; Suldo & Schaffer, 2008), is aligned with current definitions of mental health as the state of being 'free of psychopathology and flourishing, with high levels of emotional, psychological, and social well-being' (Keyes, 2005, p. 539). Although there is not yet a consensus criteria for determining student membership in complete mental health groups, the majority of school-based studies to date have first sorted students by symptoms of high and low psychological distress, and then by high and low subjective wellbeing (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008; Venning, Wilson, Kettler, & Eliott, 2013), a process that creates four logical mental health groups (Kim, Furlong, Ng, & Huebner, in press). By screening students for both positive and negative indicators of mental health, school support teams have an expanded picture of students, including which strengths might serve as protective factors in the future and improve developmental outcomes (Furlong, Dowdy, Carnazzo, Bovery, & Kim, 2014). It is possible that the addition of other measures beyond those typically used for dual-factor complete mental health screening may provide an even more comprehensive picture of students' current and future mental health. Given the known benefits of school belonging to students' mental health (Pittman & Richmond, 2007), this study focused on how information on students' sense of school belonging may inform complete mental health screening practices.

Importance Of School Belonging To Youths' Mental Health

School belonging has been defined in multiple ways, often operationalised by describing the item content of the scale used to measure the construct, and characterised by having overlapping content with similar school-belonging domain constructs, such as school connectedness, membership, bonding, engagement, satisfaction, and

attachment (Furlong, Froh, Muller, & Gonzalez, 2014). Specifically, school belonging has been defined as when students 'feel close to, a part of, and happy at school; feel that teachers care about students and treat them fairly; get along with teachers and other students, and feel safe at school' (Libbey, 2007, p. 52). School belonging has also been defined as the degree to which students are personally invested in their school, compliant with school rules and expectations, engaged in academic and extracurricular activities, and believe in school values (Kia-Keating & Ellis, 2007). Similarly, McNeely, Nonemaker, and Blum (2002) asserted that school connectedness, a related term, is defined by feelings of belonging at school and being cared for by members of students' school communities, including other students, families, and school staff. Regardless of the specific definition employed, a strong sense of school belonging and other domain-related constructs has been associated with increased academic motivation and performance (Furrer & Skinner, 2003); improved psychological functioning (Pittman & Richmond, 2007); increased happiness, self-esteem, better coping skills, social skills, and social supports; and reduced loneliness and fewer truancies (Vieno et al., 2005). Lester and colleagues (2013) reported that low levels of school belonging are associated with aggressive and violent behaviours (Chapman, Buckley, Sheehan, Shochet, & Romaniuk, 2011), criminal behaviour, gang membership, and substance use (Catalano, Osterle, Fleming, & Hawkins, 2004).

When examining the impact of school belonging on adolescents' future mental health, there are inconsistencies in the strength of prediction of school belonging across grade levels and gender. A study by Shochet, Dadds, Ham, and Montague (2006) with Australian adolescents found that a measure of school connectedness: (a) negatively predicted depressive symptoms one year later for boys and girls, and anxiety symptoms one year later for girls; and (b) positively predicted general functioning one year later for boys. However, the same study found that mental health status at baseline did not predict later school connectedness, suggesting that students' school belonging–related beliefs might serve as a protective factor against future mental health concerns. In a related study, Lester and colleagues (2013) conducted a longitudinal study examining the relations between school connectedness, depression, and anxiety among Australian adolescents ($N = 3{,}123$) who were transitioning from primary to secondary schools. Results indicated that symptoms of anxiety and depression increased over time, while feelings of school connectedness decreased. By conducting cross-lagged models to investigate causal direction across time between connectedness, depression, and anxiety, Lester et al. (2013) found that school connectedness in primary school positively predicted connectedness in secondary school. Additionally, higher levels of school connectedness in primary school predicted lower feelings of anxiety in secondary school in both females and males. However, only females' feelings of school connectedness in primary school negatively predicted symptoms of depression later on in secondary school. Like the study carried out by Shochet and colleagues (2006), mental health in primary school did not predict later school connectedness after transitioning from primary to secondary school, reinforcing the hypothesis that early feelings of school connectedness, or belonging, may impact later psychological wellbeing (Lester et al., 2013). Given findings that school belonging and the domain-related construct, school connectedness, may positively predict later psychological functioning, it is worthwhile to further investigate the relationship between belonging and later mental distress. Knowledge of a student's level of school belonging might contribute to enhanced screening, particularly for those students

who present with average levels of psychological distress but have low psychological strengths/assets.

Current Study

Previous research has focused on the predictive validity of school belonging on future mental health during the transition from primary to secondary school and from Grade 8 to 9 (Lester et al., 2013; Lester & Cross, 2015; Shochet et al., 2006). However, results of these studies suggest inconsistencies in the strength of prediction of school belonging on positive and negative indicators of adolescents' future mental health across grade levels, particularly as adolescents near, and transition to, Grade 9 (Lester et al., 2013; Lester & Cross, 2015; Shochet et al., 2006). Therefore, additional research is warranted to investigate how school belonging might be utilised to predict youth's future mental health after the transition to Grade 9 and through the high school years. Considering that onset of psychological problems typically occurs during late adolescence (Kessler et al., 2009), the present study examined school belonging in youth during high school. By examining students' sense of school belonging in high school, schools might gain information to further inform the scope and context of prevention and intervention strategies. Within the school context, it might be particularly important to assess for variables, such as school belonging, that can be more directly influenced by the school staff and are proximally related to school functioning. However, it is unclear if adolescents' levels of school belonging can predict important outcomes above and beyond screening measures used in a dual-factor, complete mental health screening context. The current study aimed to examine how information on school belonging might enhance the prediction of future psychological distress beyond what can be gleaned from complete mental health screening. Specifically, the study investigated two research questions:

RQ 1: Do adolescent complete mental health groups differ on their self-reported sense of school belonging?

RQ 2: Does school belonging predict adolescents' future social-emotional wellbeing and internal distress above and beyond measures used for complete mental health screening?

Method

Participants

Students attending a high school in central California completed annual, school-wide screening surveys at the beginning (October) of the 2014–2015 (Time 1 [T1]) and 2015–2016 (Time 2 [T2]) school years. At T1, 1,867 students (88% of enrolled students) completed the screening survey. Approximately one year later, the school conducted its annual screening survey and 1,159 students (62% of the original sample) who completed the T1 survey also completed the survey at T2. For this subset of students, at T1, 38% ($n = 442$) were in 9th grade, 35% ($n = 407$) in 10th grade, and 27% ($n = 309$) in 11th grade. One student did not report grade level. Students' self-reported sociocultural group/ethnicity was as follows: 46.5% Latino/Hispanic ($n = 539$), 38.4% White ($n = 445$), 2.8% Asian ($n = 32$), 0.9% Black/African American

($n = 10$), 0.3% Native Hawaiian or Pacific Islander ($n = 3$), 0.4% American Indian or Alaskan Native ($n = 5$), and 10.6% ($n = 123$) Mixed (two or more ethnicities selected). Two students did not report sociocultural group preference. Approximately 51% ($n = 583$) of students identified as female, 48% ($n = 555$) identified as male, and approximately 1% ($n = 10$) reported another gender identification.

Measures

Complete mental health. Complete mental health was measured using a combination of life satisfaction (Brief Multidimensional Students' Life Satisfaction Scale [BMSLSS]; Seligson, Huebner, & Valois, 2003) and psychological distress (selected items from the Strengths and Difficulties Questionnaire [SDQ]; Goodman, 1997) instruments.

Global life satisfaction at T1. The BMSLSS is a self-report measure to gauge overall life satisfaction and satisfaction with friends, family, self, school, and living environment (Seligson et al., 2003). Previous confirmatory factor analysis supported a one-factor structure with loadings ranging from .57 to .79 and adequate fit. Items were measured using a 5-point response option used by Bickman et al. (2007; 1 = *very dissatisfied* to 5 = *very satisfied*), with higher scores indicative of greater global life satisfaction. For the current study, the average of students' scores on the six items was used as the indicator of positive global life satisfaction within the dual-factor complete mental health framework. The measure had good internal consistency ($\alpha = .83$) in the present sample.

Psychological distress at T1. Negative indicators of students' mental health were measured by using the self-report version of the SDQ (Goodman, 1997). The SDQ is a measure designed for 11- to 17-year-old adolescents that measures five factors: Emotional Problems, Conduct Problems, Hyperactivity, Peer Problems, and Prosocial Behaviour. Previous analyses found that the internal consistency and factorial invariance for the five-factor model are not adequate (Rushkin, Jones, Vermeiren, & Schwab-Stone, 2008; Stevanovic et al., 2015); hence, Rushkin and colleagues (2008) conducted a confirmatory factor analysis and found support for a three-factor structure: behavioural reactivity/conduct problems, emotional distress/withdrawal, and prosocial behaviour. Drawing from the Rushkin et al. (2008) study and with an interest to maintain survey efficiency, this study used the five items with the highest loadings from the behavioural reactivity/conduct problems (original SDQ items 2, 5, 10, 15, and 22; loadings .56 to .62) and emotional distress/withdrawal (original SDQ items 3, 6, 8, 13, and 16; loadings .47 to .60) factors. Items were measured on a 3-point scale (0 = *not true*, 1 = *somewhat true*, and 2 = *certainly true*), with higher scores indicating more distress. Within the dual-factor complete mental health model, students' mean scores on these 10 items were used to determine students' psychological distress levels. Cronbach's alpha indicated adequate internal consistency among the 10 items with the present sample ($\alpha = .79$).

School belonging at T1. Five items from the School Satisfaction subscale of the Multidimensional Students' Life Satisfaction Scale (MSLSS; Huebner, 1994; Huebner, Laughlin, Ash, & Gilman, 1998) were used to assess students' feelings of belonging to school at T1. The original subscale consists of eight items and was previously used by Antaramian, Huebner, Hills, and Valois (2010) to measure students'

feelings of belonging to their school and having strong relationships with teachers and peers. For the current study, the three reverse-keyed items were not used because previous research indicated that students in Grades 7–12 experienced difficulties with the items that were worded negatively (Sawatzky, Ratner, Johnson, Kopec, & Zumbo, 2009): 'I wish I didn't have to go to school', 'There are many things about school I don't like', and 'I feel bad at school'. The five items used in the present study were: 'I learn a lot at school', 'I look forward to being in school', 'I like being in school', 'School is interesting' and 'I enjoy school activities'. These items asked about the emotional and behaviour engagement aspects of school belonging and are similar to item content in the Psychological Sense of School Membership Scale (You, Ritchey, Furlong, Shochet, & Boman, 2011) and the School Connectedness Scale (Furlong, O'Brennan, & You, 2011). Students responded using a Likert-scale format indicating how much they agreed or disagreed with each item (1 = *strongly disagree* to 6 = *strongly agree*), with higher scores representing higher levels of self-reported school belonging. The alpha coefficient for the five-item version in this study was .87.

Social emotional wellbeing at T2. The Social Emotional Health Survey — Secondary (SEHS-S) is a 36-item self-report measure that assesses youths' strengths (Furlong, You, Renshaw, Smith, & O'Malley, 2014). Confirmatory factor analyses and invariance testing across multiple groups by You, Furlong, Felix, and O'Malley (2015) suggest a higher order-factor structure, with 12 subscales loading onto four second-order traits of Belief-in-Self (self-awareness, persistence, self-efficacy), Belief-in-Others (school support, family coherence, peer support), Emotional Competence (empathy, self-control, behavioural self-control), and Engaged Living (gratitude, zest, and optimism). The second-order traits load onto a higher-order latent trait called Covitality. Other than the gratitude and zest subscales, students report their degree of functioning using a 4-point scale (1 = *not at all true of me* and 4 = *very much true of me*). Students report gratitude and zest on a 5-point scale (1 = *not at all* and 5 = *extremely*). The overall higher-order covitality score was used in this study as a measure of social-emotional wellbeing. Evidence for the higher-order invariance model has been provided across multiple, diverse samples including U.S. (You et al., 2015), Australian (Pennell, Boman, & Mergler, 2015), Korean (Lee, You, & Furlong, 2015), and Japanese (Ito, Smith, You, Shimoda, & Furlong, 2015) samples. For this sample, the internal consistency for the overall covitality score was .88.

Internal distress at T2. Students' internal symptoms of psychological distress at T2 were measured with a seven-item scale designed for this study that examined symptoms of anxious and depressed emotional experiences. Items were measured using a 5-point response scale (1 = *not at all true of me* to 5 = *very true of me*) and asked students to report on their 'past month' experiences. The items were as follows: 'I had a hard time breathing because I was anxious', 'I worried that I would embarrass myself in front of others', 'I was tense and uptight', 'I had a hard time relaxing', 'I felt sad and down', 'It was hard for me to cope and I thought I would panic', and 'I was scared for no good reason'. Using the present study's sample, we completed maximum likelihood confirmatory factor analyses using MPlus (Muthén & Muthén, 1998–2013). A two-factor model (anxious items and depression items) did not have adequate fit. The one-factor model (labelled Internal Distress) with seven items was

supported by parallel analysis with factor loadings between .62 and .85, and adequate fit, CFI = .97, SRMR = .03. To provide additional verification, the one-factor model was evaluated using an independent sample of students attending a high school in an urban California community located more than 300 kilometres from the present study's primary high school. This measurement verification sample had 71 females, 140 males, and one person who reported another gender identification. There were 69% 9th grade and 31% 10th-grade students. The fit indices for this verification sample for the one-factor CFA were: CFI = .94, SRMR = .04. The internal consistency among the seven internal distress items was high (α = .90) for the current sample.

Procedure

Survey administration. Students completed screening surveys annually, in the fall (October) of the 2014–2015 (T1) and 2015–2016 (T2) school years. Measures used at T1 included an assessment of global life satisfaction, psychological distress, and school belonging. T2 included a measure of social-emotional wellbeing and internal distress. Surveys were administered in classroom units by regular classroom teachers following a prepared script.

Complete mental health groups. Following the T1 screening, complete mental health groups were created by first categorising students by low, average, and high levels of life satisfaction (BMSLSS) as suggested by Kim et al. (in press). Consistent with earlier complete mental health research, students were also categorised by normative and elevated levels of psychological distress (using 10 items from the SDQ; Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). Similar to Kim, Dowdy, and Furlong (2014), *z* scores for both overall life satisfaction and psychological distress were utilised to sort students into groups. Standardised scores for BMSLSS mean scores were generated to classify students according to three levels of global life satisfaction: high (*z* score greater than 1.0), average (*z* score between -1.0 and 1.0), and low (*z* score below -1.0). Next, standardised scores for the mean of the 10 SDQ items were generated to classify students according to two levels of distress: elevated (*z* score of 1.0 or greater) and normative (*z* score below 1.0; we use the term *normative distress,* recognising that many students experience some distress at subsyndromal levels as part of normal life experiences). Following Moore et al.'s (2015) recommendation to consider the number of students to whom a school can realistically provide intervention services, six complete mental health groups were created by logically crossing life satisfaction and distress scores (see Table 1):

1. high life satisfaction and normative distress
2. high life satisfaction and elevated distress
3. average life satisfaction and normative distress
4. average life satisfaction and elevated distress
5. low life satisfaction and normative distress
6. low life satisfaction and elevated distress.

Students traditionally labelled 'troubled' in complete mental health research were categorised as low life satisfaction and elevated distress, which is the primary triage target group of schoolwide mental health screening; that is, students reporting

TABLE 1
Mean School Belonging (School Satisfaction Scale) Item Scores for Complete Mental Health Groups at Time 1

Group	*M*	*SD*	*n*	%
1. Low Life Satisfaction, Elevated Distress	3.60	1.05	45	3.9
2. Low Life Satisfaction, Normative Distress	3.65	0.94	101	8.7
3. Average Life Satisfaction, Elevated Distress	4.00	0.85	89	7.7
4. Average Life Satisfaction, Normative Distress	4.49	1.05	691	41.6
5. High Life Satisfaction, Elevated Distress[1]	4.53	1.52	9	.8
6. High Life Satisfaction, Normative Distress	5.09	0.63	225	19.4

Note: [1]Not included in data analyses due to small subgroup size.

high levels of distress and low levels of personal and/or social assets. Students that traditionally fall into the 'languishing' or 'vulnerable' group were categorised as low life satisfaction and normative distress, which is a group of students that is missed by traditional deficit-bounded mental health screening surveys.

Data Analysis Plan

Students who participated in screening at T1 and T2 were included in data analysis for the current study. To answer the first research question, analysis of variance (ANOVA) with planned contrasts was performed using SPSS version 22 to analyse whether mean levels of T1 school belonging differed across complete mental health groups. Students in the counterintuitive group reporting high life satisfaction and elevated distress ($n = 9$) were removed from analysis due to small sample size. Planned contrasts were utilised to compare the low life satisfaction and normative distress group to all other complete mental health groups. Assumptions of normality and homogeneity of variance were considered prior to conducting the ANOVA. Assumption of normality was violated, as the Kolmogorov-Smirnov test of normality was significant for four of the five mental health groups. However, it is recommended that sample sizes of 30 participants and above move forward with analyses (Pallant, 2013). Assumption of homogeneity was also violated, so Welch and Brown-Forsythe tests of equality of means were interpreted to determine differences across groups (Pallant, 2013).

To answer the second research question, two hierarchical multiple regressions were performed to evaluate the increase in explained variance of social-emotional wellbeing and internal distress at T2 when school belonging at T1 was added as an independent variable. First, mean scores on the global life satisfaction and the psychological distress measures at T1 were entered as independent variables in block 1 to predict social-emotional wellbeing at T2, which was measured by individuals' total scores on the SEHS-S. Next, mean scores on school belonging at T1 were entered into block 2 to examine the added value in screening for school belonging to predict future social-emotional wellbeing. The same process was completed to predict future internal distress, which was represented by scores on an independent measure of internal distress.

Assumptions of linearity, independence of errors, normality of residuals, absence of multicollinearity, absence of univariate and multivariate outliers, and homoscedasticity were considered prior to conducting the hierarchical multiple regressions.

Originally, 18 multivariate outliers were identified (Mahalanobis distance > 16.26). Nine outliers were removed from analysis, as they fell into the high life satisfaction and elevated distress group that was removed when conducting the ANOVA. Two students categorised in the average life satisfaction and normative distress group were removed, since inconsistent item responses suggested that some responses might have not reflected their life satisfaction and distress at the time (see Furlong, Fullchange, & Dowdy, in press). Finally, the remaining seven multivariate outliers were retained because they were categorised into the low life satisfaction and normative distress, and low satisfaction and elevated distress groups, indicating that these students are important to consider when examining prediction of social-emotional wellbeing and internalising symptoms of distress. Thirteen univariate outliers were identified, standardised residual >3.0, but Cook's Distance indicated that no cases posed potential problems, Cook's Distance <1.00 (Tabachnick & Fidell, 2013). Thus, 1,148 students were included in regression analyses. After removal of outliers, all other assumptions were met when predicting social-emotional wellbeing. Although distribution of scores on the internal distress measure appeared to violate assumptions of normality and homoscedasticity, skewness and kurtosis indicated that data were slightly positively skewed, which was expected on a measure of distress, in which higher scores indicate more distress. With a sample of more than 1,000 students, all analyses conducted for this study had sufficient power to detect a small ($d = .30$, $f^2 = .02$) effect size.

Results

Comparison of School Belonging Across Complete Mental Health Groups

First, complete mental health groups were created for students who participated in universal screening at T1. Consistent with prior studies forming complete mental health groups among high school students (e.g., Antaramian et al., 2010; Suldo & Shaffer, 2008), the two highest proportion of students were categorised as either having average life satisfaction and normative distress (41.6%) or high life satisfaction and normative distress (19.4%). Both of these groups would be considered to have 'complete mental health' in previous dual-factor research (e.g., Suldo & Shaffer, 2008). Of particular interest in this study, at T1, there were 101 (8.7%) students who had normative distress but also low life satisfaction, which is the group of students that is missed by traditional deficit focused mental health screeners. Descriptive statistics and correlations among the study variables are presented in Table 2.

Research question 1: Comparing school belonging among complete mental health groups at T1. To answer the first research question, mean level of school belonging was compared across complete mental health groups. Table 1 indicates that the group characterised by low life satisfaction and elevated distress had the lowest mean score for school belonging, followed by low life satisfaction and normative distress. Students who reported high life satisfaction, regardless of psychological distress level, reported the highest sense of school belonging (see Table 1). Since previous research indicates that there is a need for schools to address students in the low life satisfaction and normative distress group, mean school belonging scores for students in this group were compared to all other groups. Results indicate that there were significant differences

TABLE 2
Variable Descriptive Statistics and Correlations Among Study Variables

Variable	1	2	3	4	5	*M*	*SD*
1. BMSLSS (Time 1)	—					4.17	.64
2. SDQ – 10 items (Time 1)	– .49*	—				.50	.37
3. School belonging (Time 1)	.54*	– .32*	—			4.46	.92
4. SEHS-S (Time 2)	.51*	– .33*	.41*	—		116.41	16.92
5. Internal distress (Time 2)	– .33*	.47*	– .15*	– .34*	—	1.85	.90

Note: BMSLSS = Brief Multidimensional Life Satisfaction Scale (range 1–5). SDQ = Strengths and Difficulties Questionnaire (range 0–2). SEHS-S = Social and Emotional Health Survey — Secondary (range 26–15). School belonging was measured with the School Satisfaction Subscale of the Multidimensional Students' Life Satisfaction Scale (range 1–6). Internal distress (range 1–5).
*$p < .01$.

between groups, Welch test (4, 187.19) = 83.63, $p < .001$, and Brown-Forsythe test (4, 262.95) = 55.53, $p < .001$. There was a large effect size, eta^2 = .20, and post hoc analysis indicated that statistical power to detect this effect size was high (1.00). When comparing school belonging of the low life satisfaction and normative distress ('languishing') group to all other groups, means were significantly different in all contrasts other than when comparing to the low life satisfaction and elevated distress ('troubled') group, F (1, 77.13) = .05, p = .82. Results suggest that students who reported low life satisfaction also reported the lowest sense of school belonging compared to their peers, regardless of psychological distress level.

Research question 2: Prediction of social-emotional wellbeing and internal distress at T2. First, T1 life satisfaction and psychological distress (which were used to create complete mental health groups) were entered as predictors of T2 social-emotional wellbeing in a linear regression analysis across the sample, N = 1,148. Standardised coefficients were used to compare contributions of each independent variable (Pallant, 2013). The overall model was statistically significant, $F(2, 1146) = 209.23$, $p < .001$, R^2 = .27. Life satisfaction scores positively predicted social-emotional wellbeing scores, beta = .46, $p < .001$. Psychological distress scores negatively predicted social-emotional wellbeing scores: beta = -.11, $p < .001$. Next, life satisfaction and psychological distress (block 1), and school-belonging (block 2) from T1 were entered as predictors of T2 social-emotional wellbeing in a hierarchical regression analysis. The overall model was statistically significant, $F(3, 1145) = 157.64$, $p < .001$, R^2 = .29. Scores on life satisfaction still positively predicted social-emotional wellbeing scores: beta = .36, $p < .001$. Psychological distress scores negatively predicted social-emotional wellbeing scores: beta = -.09, p = .001. The addition of T1 school belonging mean item scores significantly contributed to the prediction of social-emotional wellbeing one year later: beta = .19, $p < .001$. Results indicated that the addition of school belonging had a small effect size, Cohen's f^2 = .035. The post hoc power analysis revealed that the statistical power for detecting this effect size was .99.

The same regression procedures were followed for internal distress. First, the T1 life satisfaction and psychological distress mean scores were entered as predictors of T2 internal distress in a linear regression analysis across the sample. The overall model was statistically significant, $F(2, 1146) = 175.56$, $p < .001$, $R^2 = .24$. Global life satisfaction scores negatively predicted internal distress: beta = -.14, $p < .001$. Psychological

distress scores positively predicted internal distress: beta = .40, $p < .001$. Next, mean item scores of T1 school belonging were added in block 2 of a hierarchical linear regression. The overall model was statistically significant, $F(3, 1145) = 119.84$, $p < .001$, $R^2 = .24$. Life satisfaction still negatively predicted internal distress: beta = -.18, $p < .001$. As expected, psychological distress positively predicted internal distress scores: beta = .41, $p < .001$. The addition of school-belonging scores positively predicted T2 internal distress: beta = .08, $p = .010$, but the explained variance in internal distress was not substantial, Cohen's $f^2 = .006$. For this observed negligible effect size, the achieved power was not adequate (.75); however, for this analysis with power = .80, a sample size of only 395 would be needed to detect a small effect size (e.g., $f^2 = .02$).

Discussion

The aims of the current study were to investigate students' sense of school belonging in a complete mental health, schoolwide screening context, as well as to examine the added contribution that screening for school belonging might provide in predicting social-emotional wellbeing and internal distress. The results of this study provide insight into understanding students beyond their level of psychological risk and can aid schools in making more informed decisions about prevention and intervention strategies.

First, the study aimed to identify significant differences in students' sense of school belonging based on complete mental health group categorisation. As predicted, students who fell into the high life satisfaction and normative distress ('thriving') group reported the highest sense of school belonging, while students categorised by low life satisfaction and elevated distress ('troubled') reported the lowest sense of school belonging. However, further analysis found that reported levels of school belonging were not significantly different between the traditionally 'troubled' group and low life satisfaction and normative distress, or those students identified as 'languishing'. These students reported significantly lower feelings of school belonging than students who reported average and high levels of life satisfaction. Similar results were found by Antaramian and colleagues (2010), in which students identified as 'vulnerable' had similar levels of risk for academic and behavioural issues, including low levels of school belonging, as those who were identified as 'troubled'. Furthermore, differences in school belonging across groups indicated a large practical significance, which suggests that school support teams may consider school belonging to be a differentiating factor among complete mental health groups, especially between students reporting low levels of life satisfaction and those reporting average and high levels. With this knowledge, schools can better address the needs of students reporting low life satisfaction and low distress, a group not typically identified in traditional screening approaches. Considering the negative outcomes associated with low levels of school belonging, including increased externalising behaviours (Chapman et al., 2011) and internalising symptoms of psychological distress (Lester et al., 2013), prevention and intervention strategies aimed at bolstering students' belonging and connections to school may be valuable.

The second aim of the current study was to examine the utility of students' school belonging in predicting longitudinal outcomes, particularly social-emotional wellbeing and internal distress one year later. Since high levels of school belonging are associated with improved psychological functioning (Pittman & Richmond, 2007),

increased happiness and social supports, and reduced loneliness (Vieno et al., 2005), we anticipated that school belonging at T1 would increase the variance explained when predicting social-emotional wellbeing and internal distress at T2. First, the study focused on the amount of variance in students' T2 social-emotional wellbeing explained by students' T1 life satisfaction and psychological distress symptoms. Together, life satisfaction and psychological distress symptoms (typically assessed during a complete mental health screening) explained 27% of the variance in social-emotional wellbeing one year later. A 1 standard deviation increase in life satisfaction predicted an increase in social-emotional wellbeing by 0.46 of a standard deviation. In contrast, an increase in psychological distress symptoms by 1 standard deviation was predicted to decrease T2 social-emotional wellbeing by only 0.11 of a standard deviation. This further supports complete mental health screening inclusive of both assets and distress symptoms, as life satisfaction predicted a larger change in social-emotional wellbeing one year later than students' psychological symptoms of distress.

When students' school belonging at T1 was added as a predictor of social-emotional wellbeing, explained variance modestly increased to 29%. This time, a 1 standard deviation increase in life satisfaction, psychological symptoms, and school belonging was associated with a change in social-emotional wellbeing of 0.36, -0.09, and 0.19 standard deviations, respectively. Although the explained variance was significant, it is important for schools to consider whether a small increase in explained variance warrants the resources to include a screening measure in high school that focuses on school belonging. Lester and Cross (2015) found that school connectedness was a significant predictor of psychological wellbeing at the end of primary school and for the first two years of secondary school. However, peer support was the most significant protective factor against anxiety and depression at the end of the second year of secondary school, while school safety served as a protective factor against stress. Based on the results of the ANOVA on the complete mental health groups, schools may be able to predict that students with low life satisfaction may be experiencing lower school belonging than their peers, allowing administration and staff to implement strategies that bolster school belonging. Information on the differences in school belonging may help inform intervention efforts.

Next, the study focused on predicting T2 internal distress. Life satisfaction and psychological distress symptoms at T1 explained almost 24% of the variance in internal distress, with school belonging only adding 0.4% to the explained variance. Although the addition of school belonging as a predictor was significant, a 1 standard deviation increase in school belonging only predicted a change in internal distress of 0.08 standard deviations. Furthermore, the results indicated that an increase in school belonging was associated with a slight increase in internal distress one year later, which is contradictory to prior research (Lester et al., 2013). It is possible that by high school, school belonging is not associated with change in students' internal distress over time. Although Lester and colleagues (2013) found that school connectedness predicted symptoms of depression and anxiety one year later for students transitioning to secondary school, this relation was particularly strong when examining the utility of school connectedness in primary school to predict depression and anxiety in Grades 8 and 9. This suggests that a sense of school belonging may have been instilled in students prior to entering high school, and those feelings from primary school can have significant impacts on later psychological distress.

Engaging in complete mental health screening requires a planned, organised implementation by a school student care team inclusive of various members dedicated to enhancing school-based mental health services. Identifying and clarifying the goals for screening, carefully selecting instruments for use, involving key stakeholders, and attending to the process for prevention and intervention planning following the screening may help assuage concerns that are often associated with mental health screening, including concerns of stigma, insufficient resources, and inadequate measures (Moore et al., 2015). A core principle of using a complete mental health screening approach is that the results should potentially have meaning and utility for all students. While the results of this study suggested that a measure of school belonging did not contribute substantially to the prediction of later psychological distress, this does not imply that there are not benefits to schools regularly including belonging item content in schoolwide screeners, as belonging is an indicator of positive youth development and is associated with positive school climate. When engaging in complete mental health screening, school care teams will want to be mindful to include information that will be useful when planning school-based mental health services to support the continued development and thriving of their students.

Limitations and Future Directions

The current study incurred limitations that future research may consider when examining school belonging within a complete mental health screening framework. Significant limitations were found in the measures used to operationalise the variables of interest. Similar to Antaramian et al. (2010), this study operationalised school belonging by employing items from a widely used school satisfaction scale. However, it is possible that other screening tools that explicitly measure other aspects of school belonging and connectedness might prove to be stronger longitudinal predictors of wellbeing and distress. Additionally, although a one-factor structure of the internal distress measure developed for this study was adequate for the current sample and replicated with a small second independent sample, future research should confirm psychometric properties on an independent sample prior to conducting further analyses. Finally, additional research is needed on the modified version of the SDQ that was used in the current study. Although it was important to include brief measures for use in this schoolwide screening, further examination into the psychometric properties of the measures used in this study is warranted, and future research conducted with other measures of similar constructs may yield different results.

Although cut points for complete mental health groups were empirically based, the criteria used were still chosen based on the applicability to the study's sample and school, rather than established criteria that is applied to all complete mental health contexts. Other contemporary approaches to classifying students' mental health status that have employed latent class analysis (e.g., Kim, Dowdy, Furlong, & You, 2016) may provide further insight into how school belonging is meaningfully differentiated among complete mental health groups. Future research should also examine the value of screening for school belonging to predict other outcomes, especially academic achievement. Finally, all assumptions prior to regression analyses were not met when looking at explained variance of high school students' internal distress. Based on the proportion of our sample in each complete mental health group, it is not expected that scores on the internal distress measure would be normally distributed. Still, violations

of normality and homoscedasticity may have contributed to the unexpected positive relation between school belonging and internal distress.

Further research is needed to investigate differences in school belonging within and between complete mental health groups based on sociocultural groups, nationality, gender, and grade level, as meaningful differences could inform school prevention and intervention practices. Schools can also benefit from future research that examines the added utility of incorporating a measure of school belonging into screening at the primary school level, as results suggest that school belonging may not be associated with changes across time in high school. Future research may benefit from a focus on interventions that have an impact on students' sense of school belonging to investigate the effect of intervention on stability of complete mental health groups over time. When considering the significant differences in school belonging across groups, as well as previous research that suggests the 'languishing' group is the least stable across time (Kelly, Hills, Huebner, & McQuillin, 2012), interventions that target school belonging may foster student strengths, leading to increased life satisfaction and social-emotional wellbeing.

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Conflicts of Interest

None.

Ethical Standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008. The research protocol was reviewed by and approved by the authors' human subjects institutional review board.

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Experiences of School Belonging for Young Children With Refugee Backgrounds

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Previous research with adolescents with refugee backgrounds living in countries of resettlement has found that school belonging has an impact on a range of wellbeing and developmental outcomes, including mental health, peer relationships, self-esteem and self-efficacy, and academic achievement. However, very little research has explored school belonging in younger children with refugee backgrounds (i.e., under 13 years of age). In this article we report on a participatory research project concerning the experiences and understandings of school belonging with 15 children with refugee backgrounds (aged from 5 to 13 years old) who had been living in Australia for less than 12 months. The research aimed to explore experiences of school and school belonging from the perspective of children, and utilised photo elicitation techniques. The study found that refugee children were able to create a sense of school belonging through aspects of the school environment that reflected their identity and values, and through their relationships with their peers and teachers. In conclusion, we highlight the importance of ensuring that schools create spaces for refugee students to demonstrate their knowledge, values, and skills at school, and to ensure that strategies to promote school belonging in refugee students take into account their experiences and identity.

■ **Keywords:** refugee children, school belonging, photo elicitation, education

In 2015, the office for the United National High Commissioner for Refugees (UNHCR) reported that there were nearly 20 million refugees worldwide, over half of whom were under 18. This is the highest number of refugees since World War II (UNHCR, 2015). While only a proportion of these young people and their families will be moved to a resettlement country, it is nevertheless vitally important that resettlement countries have an evidence base upon which to draw when providing settlement services and support to young people with refugee backgrounds.

In resettlement countries such as Australia, school is one of the primary places where newly arrived refugee students will connect with their community, build relationships, and establish a sense of belonging in their new country (Correa-Velez, Gifford, & Barnett, 2010; de Heer, Due, & Riggs, 2016; Mace, Mulheron, Jones, & Cherian, 2014; Matthews, 2008; Woods, 2009). As such, school belonging plays a crucial role in establishing a sense of social inclusion, positive wellbeing, and the development of

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peer relationships for refugee young people from the beginning of their resettlement (Correa-Velez et al., 2010; de Heer et al., 2016; Woods, 2009).

However, while there is a body of research that has explored school belonging in adolescents in general (Anderman, 2002; Goodenow, 1993; Shochet & Smith 2014; Van Ryzin, Gravely, & Roseth, 2006), and in adolescents with refugee backgrounds in particular (Gifford, Correa-Velez, & Sampson, 2009; Kia-Keating & Ellis, 2007; Trickett & Birman, 2005), very little research has explored experiences of school belonging for young people (aged under 13) with refugee backgrounds. As such, the aim of the current article was to consider experiences of school belonging in a sample of young students with refugee backgrounds in Intensive English Language Centres (IELCs) in South Australia. In considering these experiences, the study also aimed to explore the role of schools in providing support to newly arrived refugee young people and their families.

School Belonging

School belonging is typically defined as a multidimensional concept, incorporating a student's level of attachment, commitment, involvement, and belief in their school (Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). As such, definitions of school belonging mirror definitions of belonging more broadly (e.g., Baumeister & Leary, 1995). Specifically, attachment to school refers to attachment to the broader school and students' investment in the school itself, including in relation to both environmental aspects and interpersonal relationships (Baumeister & Leary, 1995; Goodenow, 1993). Commitment refers to issues such as how happy students are to comply with the rules and expectations of their school, and has been shown to influence decisions about school in adolescents, such as whether to remain at school or leave. Involvement at school includes a focus on student engagement (both in relation to academic work, as well as any extracurricular activities that are school related). Finally, belief in school refers to the extent to which students feel that their school values have significance for them. Taken together, higher levels of school belonging have been shown to be related to a number of positive outcomes for adolescents, including improved self-esteem and motivation, and lower levels of depression and peer rejection (Anderman, 2002; Battistich, Solomon, Watson, & Schaps, 1997; Goodenow, 1993; Kia-Keating & Ellis, 2007; Sujoldzic, Peternel, Kulenovic, & Terzic, 2006).

Correspondingly, understanding experiences of school belonging in students from refugee backgrounds is critically important. Indeed, ensuring that schools and other educational institutions understand how to promote school belonging for refugee students is vital to providing students with the opportunity to feel a sense of connection to their school environment (Kia-Keating & Ellis, 2007). Moreover, such an understanding must take into account refugee students' own identities and knowledge, rather than assuming that refugee students can simply 'fit in' to existing school environments and school cultures (Matthews, 2008; Woods, 2009). In other words, understandings of school belonging for students with refugee backgrounds must lead to a two-way interaction that takes into account existing power relationships and ensures that refugee students can feel belonging in all of the domains on their own terms as well as those of the school (Matthews, 2008; Riggs & Due, 2011; Woods, 2009).

Despite the importance of focusing on belonging for refugee students, there is currently very little research outlining how such students experience school belonging

in resettlement countries such as Australia, with most of the educational literature focusing on either English language acquisition (e.g., Oliff & Couch 2005), social inclusion (e.g., Block, Cross, Riggs, & Gibbs, 2014; de Heer et al., 2016), issues of social justice (e.g, Keddie, 2012; Taylor & Sidhu, 2012), or promoting whole-school approaches (e.g., Pugh, Every, & Hattam, 2012). While each of these areas is important, our aim in this article is to provide an overview of how refugee students experience school belonging specifically, and to consider how these experiences can be used in policies for refugee education in resettlement countries.

School Belonging in Refugee Students

Kia-Keating and Ellis (2007) argue that schools have a 'unique and influential impact on the lives of adolescents' (p. 30), and that this impact is particularly important for newly arrived refugee students as they learn to navigate their new environments. In their study of 76 Somalian refugees aged between 12 and 19 in the United States, Kia-Keating and Ellis found that higher levels of school belonging were related to lower levels of depression and higher levels of self-efficacy, reflecting the broader studies noted above. Importantly, Kia-Keating and Ellis note that studies considering the experiences of refugee students at school — and the impact of these experiences on school belonging — are important given the relationship between school belonging and some wellbeing domains. The protective role of school belonging in relation to positive wellbeing outcomes has also been found in other studies (e.g., Fazel, Reed, Panter-Brick, & Stein, 2012; Rousseau, Drapeau, & Platt, 2004; Sujoldzic et al., 2006).

In a second study undertaken in the United States, Trickett and Birman (2005) found a positive relationship between overall support at school and school belonging in a sample of 110 adolescents with refugee backgrounds from the former Soviet Union. Interestingly, they found different results for support from American peers as compared to support from Russian peers, and conclude that '. . . substantively, these findings suggest the importance of ethnic peer support in creating an alternative sense of belonging for adolescents who did not feel that they fit into the school' (p. 36). In other words, they found that while support from American peers was positively related to school belonging, not all students experienced this support. When this support was not available, support from Russian peers provided an important avenue for experiencing belonging. However, Trickett and Birman found that Russian peer support was related to higher levels of disciplinary infraction in their sample of refugee students, although they did not explore the extent to which this was due to the fact that students who felt they did not 'fit in' at school may be more likely to behave in ways perceived to be outside the rules of the school. They also found a positive relationship between parental support and school belonging, highlighting the importance of involving parents in the school community in addition to students.

In the Australian context, the Good Starts study (Gifford et al., 2009) found that school belonging was an important factor in the wellbeing of newly arrived adolescents with refugee backgrounds (aged 12–18 years) enrolled in English language schools (ELS) in Melbourne. Gifford et al. (2009) found that the students in their study valued their time at school and had high aspirations in relation to their education. Specifically, their findings indicate that students reported valuing, among other things, the cultural diversity of their intensive language school, the presence of other students who spoke their own language, having a sense of safety and belonging, and a curriculum that allowed them to experience some success in their education. These findings indicate

the importance of ensuring that the facilitation of school belonging is collaborative and reciprocal, by providing opportunities for refugee students to contribute their own knowledge and aspirations, rather than focusing school experiences on existing school values and culture (Matthews, 2008; Woods, 2009).

Finally, the literature exploring school belonging for refugee students has also found that school belonging is negatively affected by experiences of discrimination (e.g., Brown & Chu, 2012; Trickett & Birman, 2005). Specifically, experiences of discrimination lead to a range of negative outcomes, including difficulties developing peer relationships at school, lower levels of school belonging and engagement, and decreased mental health and wellbeing (Priest et al., 2014).

Taken together, these findings indicate that, as with young people in general, school belonging plays an important role in a range of areas of young people with refugee backgrounds, including mental health and wellbeing. In addition, it is important to note that positive experiences of school belonging play a particularly important role for young refugee students not only because of the outcomes of school belonging outlined above, but also because trauma and mental health interventions for refugees are increasingly being administered through schools (Ehntholt & Yule, 2006). It is plausible to suggest that if levels of school belonging are not high, such interventions risk being less effective from the very beginning. As such, understanding how to promote school belonging in refugee students is vitally important to their health and wellbeing in a broad range of areas.

Method

This article, with its focus on school belonging in refugee students, forms part of a broader project that aimed to explore experiences of education for students from both migrant and refugee backgrounds in South Australia. Some details of this broader study are provided in this section by way of providing contextual information to the current study.

Setting

In South Australia, the Intensive English Language Program (IELP) involves 15 Intensive English Language Centres (IELCs), located at the same sites as mainstream government-run primary schools. As such, newly arrived children — including both those with refugee backgrounds and those with migrant backgrounds — begin their education on a mainstream education site, but spend their time in specialised intensive English language classes. Students are typically enrolled in an IELC for 6 to 12 months (with special provisions for refugee students, who are eligible for extended time in the program), whereupon they transition from their IELC into mainstream education, either at the same school or at a different site (Department for Education and Child Development, 2012). Students enter the program on a continuous, rolling basis soon after their arrival in Australia rather than only in one intake at the beginning of the school year. Students are eligible to be enrolled in an IELC if they have been in Australia for less than 12 months.

It should be noted that this system of the provision of education for students with refugee backgrounds at primary school level differs around Australia, with some states enrolling students into intensive English programs that are not at the same site as 'mainstream' primary schools. In South Australia, the sites are relatively consistent

in their approach to education and their support for transition into mainstream classes or schools; however, it should be noted that the sites do differ somewhat in the composition of the class — that is, some sites will have higher numbers of students with refugee backgrounds, and others will have higher numbers of students with migrant backgrounds.

Participants

The sample included in the broader study consisted of 63 children (15 with refugee backgrounds, and 48 with migrant backgrounds) from three separate schools with IELCs. This article focuses on the 15 children with refugee backgrounds. This sample of children was aged between 5 and 13, with seven male and eight female participants. Participants came from eight countries of origin: the Democratic Republic of the Congo, Iraq, Mongolia, Nepal, Pakistan, Papua New Guinea, Syria, and Zambia. Many spoke multiple languages, reflecting a number of moves prior to coming to Australia. The three sites under consideration were close (within 15 km) over the city centre.

Procedure

Ethics approval was granted by The University of Adelaide's Human Research Ethics Committee and the Department for Education and Child Development (DECD) in South Australia. It is important to note that the authors are aware of the ethical issues of working with this vulnerable group of young people, including issues such as gaining ongoing assent from children in addition to informed consent from parents and caregivers (Due, Riggs, & Augoustinos, 2014; Gifford, Bakopanos, Kaplan, & Correa-Velez, 2007; Crivello, Camfield, & Woodhead, 2009). As such, the first author (who undertook the data collection) spent a term at each school involved in the study in order to build rapport with participants, to let them know about the aims of the study, and to gain ongoing assent from them for their participation (see Crivello et al., 2009; Due et al., 2014; Gifford et al., 2007).

In terms of participant recruitment, information sheets and consent forms (translated into first languages) were sent home to the parents or caregivers of most students with refugee backgrounds enrolled in the IELC. On two occasions, teachers chose not to send home information sheets and consent forms due to high levels of trauma in families who were very newly arrived.

The data collection relevant to this article consisted of a photo-elicitation methodology, with accompanying interviews. Photo elicitation, or PhotoVoice, is a research technique that has been identified as a child-focused, flexible approach to research that allows children's views to be communicated on their own terms in the research process (Darbyshire, MacDougall, & Schiller, 2005; Due et al., 2014; Newman, Woodcock, & Dunham, 2006). Photo elicitation involves participants being provided with a camera (in this case, a digital camera) and asked to take photos according to a particular theme that relates to the research aims.

For the purposes of our research, students were asked to take photographs that represented their experiences at school. The students were then shown their photographs on a laptop and invited to discuss their images in either a focus group of up to three children or in an individual interview. Whether discussions took place in focus groups or individual interviews was determined by external factors, such as what was happening in the classroom at the time, whether or not an interpreter

was needed, and ensuring that the discussion did not disrupt the child's lessons. All discussion took place at the child's school. Focus groups and interviews relating to the photographs were audio recorded and transcribed, with student's names changed for anonymity.

Analytic Approach

Given that the aim of this paper was to explore experiences of school belonging, a deductive thematic analysis of the interviews and focus groups where the photographs were discussed was undertaken. Specifically, the six stages outlined by Braun and Clarke (2013) were used, including: reading and familiarisation, coding, searching for themes, reviewing themes and producing a thematic map, naming and defining themes, and finalising the analysis through writing. The final thematic structure received consensus from all authors. The final themes are presented here — under each of the areas of school belonging — together with accompanying photographs. In all instances, attempts have been made to provide representative photographs; however, due to ethical reasons, we cannot provide photographs that identify either individuals or specific schools.

Results

The themes are presented here under each of the main domains of school belonging identified in previous research (e.g., Goodenow, 1993; Kia-Keating & Ellis, 2007; Wehlage et al., 1989). In particular, the Kia-Keating and Ellis domains are used as a deductive framework due to the fact that they have been used previously in research with students with refugee backgrounds and found to be a useful framework for school belonging (Kia-Kating & Ellis, 2007). Three themes were seen under the domain of attachment (*Specific spaces and activities in the school help build school attachment*; *Friendships with children from similar cultural, ethnic or linguistic backgrounds help build attachments to the school*; and *Relationships with teachers help build attachments to the school*), two under the domain of commitment (*Commitment to the school is seen through school rules* and *The requirement to learn English may impact school commitment*), one under involvement (*Involvement in the school is seen through school activities, not extracurricular activities*), and one under belief (*Students believe in their school when it reflects their identities and values*). These are outlined further below.

Attachment to the School

The domain of attachment to school refers to personal investment in the school, and attachment to the school community and space (e.g., Kia-Keating & Ellis, 2007; Goodenow, 1993; Wehlage et al., 1989). In general, students displayed high levels of attachment to their school and indicated that they enjoyed coming to school and participating in school activities. Specific ways in which students created or displayed this attachment are discussed in this section, under the subheadings below.

Specific spaces and activities in the school help build school attachment. Attachment to the school was often displayed through students' attachment to spaces in the school grounds, leading to investment in particular aspects of school life (defined by

FIGURE 1
A child running on an oval.

particular spaces). These spaces were generally places where students frequently went for their classes (such as their own classroom, the school library, the school gym, or the art room), but also included playground spaces where the students typically spent their breaks. It is noteworthy that, as found in previous research (de Heer et al., 2016), such spaces and activities frequently revolved around activities that did not rely on knowledge of English, such as art and sport. Indeed, all of the 15 students in this study photographed spaces in the school that involved learning in areas that did not rely on English. Examples of photographs and extracts are seen in Figures 1, 2 and 3.

As the photographs and excerpts in Figures 1, 2 and 3 indicate, students frequently drew upon spaces or activities that did not rely on English language skills. Indeed, in the last excerpt, the students discussing the photograph either actively avoided, or were excluded from, activities that did rely specifically on English language competency (i.e., sitting and talking). Correspondingly, the students often spoke about forming friendships specifically with students with whom they could identify, and this is discussed in the following section.

Friendships with children from similar cultural, ethnic, or linguistic backgrounds help build attachments to the school. The children frequently took photographs of their friends and discussed their peer relationships. Indeed, as in the previous theme, all students photographed other students, and stated in interviews that this was because they were their friends. When asked *why* particular children in photographs were their

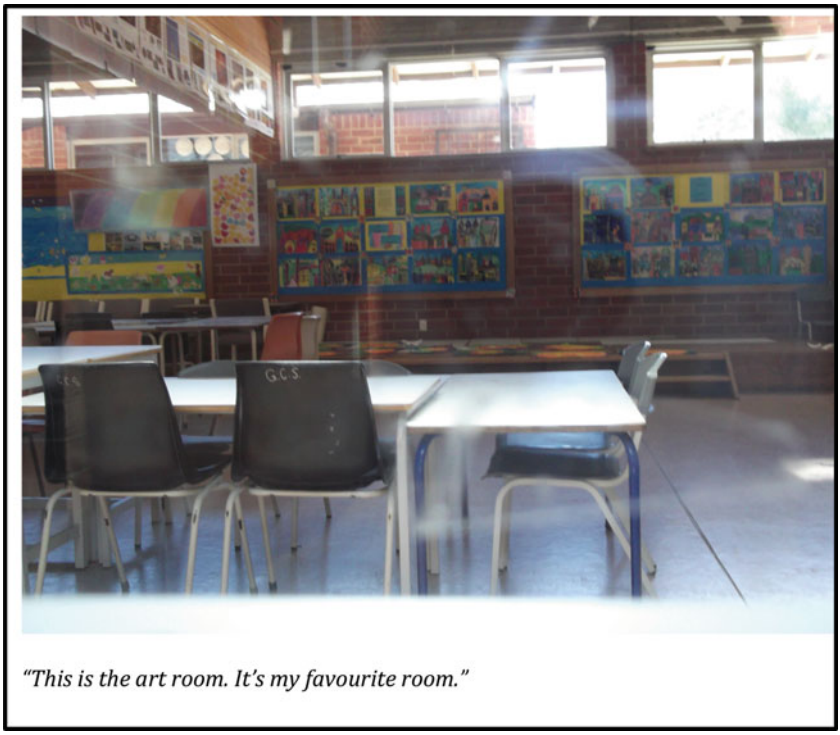

FIGURE 2
Inside an art room.

friends, 10 of the 15 the students indicated that they sought friendships with children from similar cultural, ethnic or linguistic backgrounds to themselves, and that these relationships increased their sense of school belonging. Examples of photographs and excerpts discussing friendships can be seen in Figures 4 and 5.

Relationships with teachers help build attachments to the school. All the students in the study discussed their relationship with their teachers, and it is notable that all students took photographs of at least one of their teachers (usually either their classroom teacher or a school support officer). An example of this type of photograph is seen in Figure 6.

Students displayed excitement when talking about their teachers, generally indicating that their sense of school belonging was improved by these relationships. Again, this supports previous research concerning the importance of relationships with teachers (Crouch, Keys, & McMahon, 2014) and is elaborated further in the Discussion section.

Commitment the School

The school commitment domain of school belonging refers to areas such as valuing and adhering to school rules and expectations (e.g., Kia-Keating & Ellis, 2007; Goodenow, 1993; Wehlage et al., 1989). Commitment to the school was less evident in the photographs than the previous domain of attachment to school. However, it is

FIGURE 3
A playground.

worth noting that the fact that students took so many photographs of their teachers, as discussed above, could indicate an element of commitment to the school in terms of their enjoyment of participating at school.

Commitment to the school is seen through school rules. Students did sometimes discuss school rules in the photograph, with 4 of the 15 students noting at least one school rule or expectation in their interviews. These rules of expectations were typically discussed in relation to certain areas of the school grounds that were 'out of bounds', as seen in Figure 7. Here, a student outlines a place in the schoolyard where the students are not meant to play alone. However, photographs and discussions such as this were rare, and this photograph illustrates one of the few times when students discussed school rules in this research.

The Requirement to Learn English May Impact School Commitment

Notably, commitment to the school also came up in relation to learning English and the expectation that students were at school in order to learn English, first and foremost. Indeed, eight of the students in this study discussed English in their interviews. An example of this is shown in Figure 8.

FIGURE 4
A friend sitting on some play equipment.

The extract seen in Figure 8 indicates the impact of the focus on learning English on school belonging for the students — in particular, the fact that speaking English was seen as an important element of the school's identity, and that not wishing to speak English was likely to lead to a dislike of school in Australia. This is perhaps particularly noticeable in the students' expression of '*this* school' rather than school in general, suggesting that the student may otherwise have a positive relationship with school and education.

Involvement in the School

The domain of involvement in the school generally concerns both students' engagement with their academic work, as well as their involvement in school-related extracurricular activities (Kia-Keating & Ellis, 2007; Wehlage et al., 1989). While students showed high levels of engagement with their academic work, they did not appear to be involved in many extracurricular activities associated with the school. In this domain, all of the students in the study took photographs inside their classrooms and displayed high levels of engagement with their academic work at the school, leading to the theme 'Involvement in the school is seen through school activities, not extracurricular activities' (see Figures 9 and 10).

While students displayed high levels of engagement with school activities conducted during school hours, very few students were engaged with extracurricular activities

FIGURE 5
Two friends sitting together.

outside school. This could be indicative of their newly arrived status (in that they had not had the opportunity to engage with activities out of school as yet), but it could also indicate an issue for this group of students in relation to school belonging. Indeed, only one student discussed participating in extracurricular activities related to the school (in this case, attending a sport session on the weekend). It is worth noting that this was not due to students simply not talking about activities outside school, since other students discussed their weekend or after-school activities, including religious events, language school, and seeing family. Again, this is a point we take up further in the Discussion section.

Belief in the School

The domain of belief in the school refers to a sense of loyalty to the school and its values (Kia-Keating & Ellis, 2007). Students displayed a quite high degree of loyalty to some aspects of their school, most noticeably in relation to their IELC. Ten of the 15 students discussed their IELC as being very important to their sense of belonging in school since the IELC reflected the diversity of the students in the classroom, leading to the theme 'Students believe in their school when it reflects their identities and values'. In particular, students frequently took photographs of school spaces that reflected their experiences as refugees and told us that they felt that these spaces reflected their own identities in ways that 'mainstream' classrooms did not. Figures 11, 12 and 13 provide examples of these photographs.

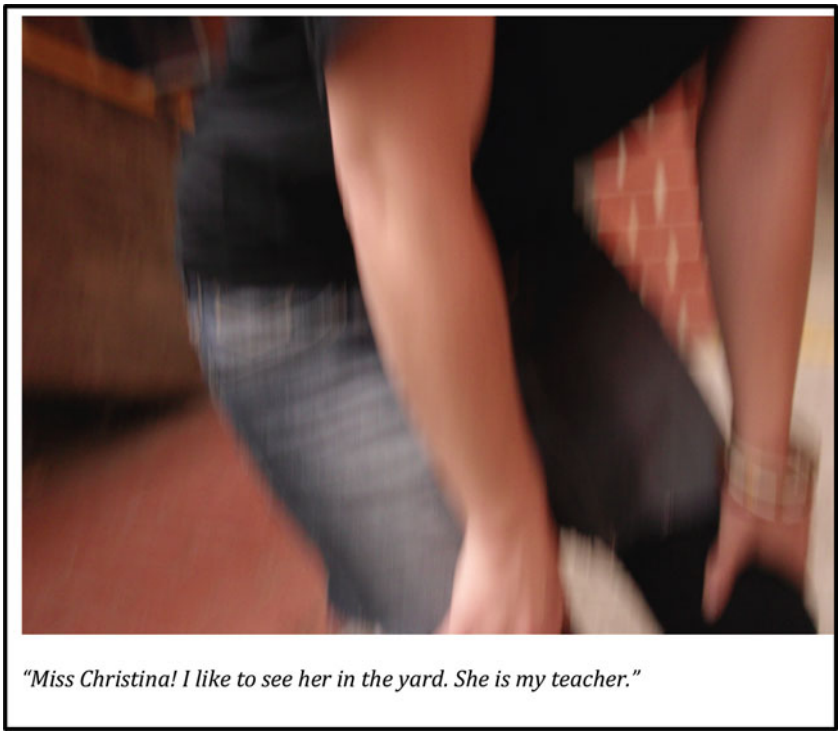

FIGURE 6
A classroom teacher.

As can be seen in the excerpt relating to Figure 11, the students frequently articulated that they valued aspects of the school that reflected some of their experiences as refugees. Here the student states that the poster 'tells other people about things for me', with the implication that there were challenges explaining these experiences to other students in the school at other times. It is plausible that the poster allowed the student to see how the values of the school aligned with her own experiences, thereby increasing school belonging. In this sense, posters such as this one and the one displayed in Figure 12 may play an important role in that they reflect refugee students' experiences and identities in the school, rather than reflecting only non-refugee or 'mainstream' identities.

Apart from posters reflecting values consistent with their experiences and identities, refugee students also discussed some activities as consistent with their own values. Earlier, we noted that subjects that do not rely on English, such as art and sport, were important for attachment to school. Here, students discuss other school activities as reflecting the activities that they enjoyed and had participated in prior to coming to Australia. An example of this is seen in Figure 13. Here, the student discusses how participating in a school activity — planting — reminded her of her country prior to coming to Australia and that she enjoyed the activity for this reason. Again, this indicates the importance of ensuring that school activities also reflect the identities and values of students from refugee backgrounds, and incorporates these into school curriculum and daily activities.

FIGURE 7
Some play equipment near an "out of bounds" area.

Discussion

One of the most important findings of the present study relates to the fact that the refugee students appeared to forge their own sense of school belonging in ways that may differ from that of other groups of students. This was particularly seen in relation to the domain of 'belief in the school', whereby students discussed how important posters and activities depicting refugee-like experiences were to their sense of belonging at school. This finding is important since previous research indicates that school belonging is likely to be improved when students see themselves and their families reflected in the beliefs of the school, and this may be difficult for students newly arrived to Australia (Block et al., 2014; Kia-Keating & Ellis, 2006). In this sense, the IELCs included in this study appeared to offer students some reflection of their experiences as refugees (as seen in this article, by promoting organisations such as the UNHCR and initiatives such as World Refugee Day).

However, it is important to note that such a reflection may not carry through to mainstream classes, and that studies which investigate school belonging in children outside IELCs are therefore important (de Heer et al., 2016). It is also of note that while students identified some aspects of the school as consistent with their beliefs, they rarely discussed aspects of the broader school environment that may lead to a wider sense of school belonging — that is, a sense of belonging in the whole school rather than only the IELC. For example, students did not discuss areas such as the broader

FIGURE 8
A friend sitting near some play equipment.

values of the school, or initiatives such as sports day. Again, it is beyond the scope of this study to ascertain whether this reflects the students' status as newly arrived (and therefore still forging a connection to and understanding of the schools' values), or whether this represents a limited sense of belonging in this domain.

As noted above, attachment to the school appeared to be high among the students. In terms of building school attachment, the study found that students frequently drew upon particular spaces to increase their sense of belonging at school, and discussed their relationships with teachers and peers. The finding concerning the importance of spaces reflects the findings of previous research (e.g., Due & Riggs, 2011) and highlights the importance of ensuring that students with refugee backgrounds feel they belong in all aspects of the school and not just areas where English language is not a priority (Matthews, 2008; Trickett & Birman, 2005; Woods, 2009). The finding concerning teachers is particularly important, given the fact that previous research highlights that good student-teacher relationships predict a range of positive outcomes, including ongoing school engagement and belonging (Crouch et al., 2014). Here, we would suggest that the fact that teaching staff in all three schools in the study were experienced in teaching students with refugee and migrant backgrounds played an important role in ensuring cultural competency and the ability to build relationships with refugee students. Our study also demonstrates that refugee students were keen to develop relationships with teachers, and that this is one useful way of immediately building school belonging when students arrive at a school in their resettlement country.

FIGURE 9
A classroom activity for learning English.

While students showed high levels of attachment to the school (or at least their IELC), the photographs taken by students did not highlight high levels of commitment or involvement in the school. In relation to commitment to the school, and as noted above, students rarely discussed school rules, although one student did note that the requirement to speak English was problematic for some students. We acknowledge here that our findings here may reflect limitations with the photo elicitation approach, in that it may have been difficult for students to capture this domain of school belonging through photographs. As such, the fact that students did not discuss school rules or other aspects of school commitment may not in fact reflect low levels of school belonging on this domain, perhaps with the exception of the potential challenge of being required to speak in English. This exception is noteworthy, however, and relates to the findings of previous research in regard to the potentially detrimental impact that a strict focus on English-language acquisition may have on refugee students at school (Matthews, 2008; Woods, 2009).

In relation to involvement at school, students displayed high levels of involvement in the academic aspect of school, and displayed high levels of educational aspiration, supporting the work of Gifford and colleagues (2009). However, only one student discussed participating in extra-curricular activities related to school. This finding is important due to previous research highlighting that elements of school belonging may be increased where participation in extra-curricular activities is higher (McNeely, Nonnemaker, & Blum, 2002). As noted above, our findings may reflect students'

FIGURE 10
Inside a library.

newly arrived status; however, it is worth noting that increasing the ability of refugee students and their families to participate in such activities may play an important role in increase school belonging. We would also suggest that expanding the school's extra-curricular activities to include events important to refugee students and their families would offer a very useful pathway for schools to assist students to develop a strong sense of school belonging. In this sense, schools could invest more time identifying activities that young people or children with refugee backgrounds may be interested in. Examples of such activities include the school hosting culturally important festivals on the weekend, holding activities for days such as Harmony Day (in which refugees' families can be involved in planning and development should they wish to do so), and ensuring the sporting activities are deliberately inclusive of newly arrived students and their families (e.g., by facilitating transport, or ensuring that information is translated so that families can be included).

Taken together, our research indicates the students in the study generally showed high levels of school belonging in most areas, but that this was frequently facilitated by the specific policies of the IELC they were in. This was seen through the focus on global issues, including awareness of the situation of refugees (as seen in the posters) and in strong relationships with teaching staff at the school. The study showed that by reflecting the identities of newly arrived students (at least to a degree), the students were able to build on what the school offered to create their own spaces in the broader school community. In this sense, it would appear that the IELCs were able

"I like how this poster talks about people like me. It is for refugee day. It tells other people about things for me. It can be hard for other people. Like, to explain about this to them"

FIGURE 11
A UNHCR poster on the door to a library.

to successfully open up a two-way dialogue with refugee students to promote their sense of belonging. Within this space, then, the students themselves were able to develop relationships and make meaning in the school in order to form attachments. The question remains as to whether such positive experiences of school belonging continue after students have left their IELC and transitioned into mainstream schools where such initiatives and staff training may not be present. This is a useful area for future research.

It is important to note that this study was not without its limitations. In particular, the study included a focus on only three schools with a total of 15 participants. Given the diverse nature of refugee experiences, the study may not represent the experiences of all students in all IELCs, particularly those which are further from the city centre or have higher numbers of refugee students. In addition, the IELCs themselves are specific to South Australia, and in this sense, the findings may not extend to other intensive English language programs. Furthermore, and as seen perhaps specifically in the domain of commitment, the methodology of photo elicitation may have provided some limited data concerning school belonging. Nevertheless, the study highlights some important aspects of school belonging for young, newly arrived students with refugee backgrounds — and does so on their own terms. The findings highlight the importance of ensuring that schools develop activities that are of interest to students with refugee backgrounds and that reflect their skills, identities, and values. If they do

FIGURE 12
A World Refugee Day poster on the door to a classroom.

so, our findings suggest that newly arrived refugees will find spaces and relationships within the school through which to form a sense of belonging in their new community.

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Conflicts of Interest

None

FIGURE 13
A flower planted during a gardening activity.

Ethical Standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008

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Connecting to School: Exploring Student and Staff Understandings of Connectedness to School and the Factors Associated With This Process

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'School connectedness' is one of a number of terms used to describe a young person's relationship to school. With school being a compulsory feature of most young people's lives, the nature of this relationship can be highly influential in terms of the quality of their overall school experience. Young people experiencing low connectedness are more likely to withdraw from school and experience the parlous outcomes that often follow. This study used a mixed methods approach to explore the meanings of being connected with school, how this process is understood by students and staff, and how it is shaped by school and individual factors. The study was conducted at a secondary college in outer metropolitan Melbourne. Data collection involved a student questionnaire, student and staff focus groups, and student diaries. Findings indicate that that year level, cigarette use, and involvement in the choice of school were associated with significant differences in connectedness scores. Qualitative data revealed that students experience their connection to school through the relational, activity-based, and academic opportunities available to them in the school setting. It is argued that the findings from this study could be used to frame effective risk reduction or protection-enhancing interventions in schools.

■ **Keywords:** school connectedness, mixed methods, engagement, focus groups, diaries, adolescent

The term 'school connectedness' (SC) is used to describe a student's relationship to school. SC is an ecological concept consisting of affective, behavioural, and cognitive dimensions, placing the individual in relationship with others. The transactional pathways of these relationships are multidirectional and shape and influence the individual's and others' experience of SC. With school being a compulsory feature of most young people's lives, the nature of their relationship with this institution can be highly influential in terms of the quality of their overall school experience. Young people with low connectedness to school are more likely to withdraw from school

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(Finn, 1989) and experience the parlous outcomes that may follow (Bloom, 2010; Lessard et al., 2008; Sum, Khatiwada, McLaughlin, & Palma, 2009).

The relationship between young people and school is the foundation on which the educational enterprise rests; therefore, this relationship is seen as highly influential in terms of outcomes for students, including its impact on academic performance and health (Mouton, Hawkins, McPherson, & Copley, 1996; Prince & Hadwin, 2013; Samdal, Nutbeam, Wold, & Kannas, 1998). The list of terms used to describe this relationship is lengthy, including 'engagement', 'bonding', 'belonging', and 'attachment', and the proliferation of terms has itself become a focus of comment and discussion (Allen & Bowles, 2012; Jimerson, Campos, & Greif, 2003; Libbey, 2004; O'Farrell & Morrison, 2003). Many researchers in this field preface their work with an acknowledgment of the variety of terms and lack of consistency in application and measurement (Faulkner, Adlaf, Irving, Allison, & Dwyer, 2009; Frydenberg, Care, Freeman, & Chan, 2009).

A Historical Overview of School Connectedness

Described as a basic human need to belong and to experience relational mutuality (Baumeister & Leary, 1995), connectedness, or social connectedness as it is frequently called, occurs in the exchanges between individuals and their social ecologies, which are broadly identified as family, school, and community or neighbourhood (Barber & Olsen, 1997; Shin & Yu, 2012).

SC has drawn increasing scholarly interest as a specific domain of social connectedness (Ripperger-Suhler & Loukas, 2012), first gaining a conceptual profile in 1993 when Resnick, Harris, and Blum named it as a key protective factor for boys and girls against acting-out behaviours. Drawing on data from the National Longitudinal Study on Adolescent Health, Resnick et al.'s 1997 study identified SC as protective against a range of health-compromising behaviours and in the process firmly established its place in the field of adolescent health research. Newmann (1981) had referred to connectedness more than a decade earlier when discussing ways to reduce student alienation in schools. Although the term was used with no conceptual specificity at that time, Newmann's impassioned case for schools to be places of 'integration, engagement and connectedness' (p. 549) offered a blueprint for school reform that contained elements such as student voice, increased opportunities for extra-curricular involvement, and improved student-teacher relationships that continue to feature strongly in SC research. Newmann's 1981 vision appears remarkably prescient when read from a vantage point three decades later. Since Resnick et al. conducted their 1993 and 1997 studies, SC has consolidated its presence in both education and health research as a key protective factor for young people, although its burgeoning profile has not produced greater conceptual clarity (Barber & Schluterman, 2008; Chung-Do, Goebert, Chang, & Hamagani, 2015; Millings, Buck, Montgomery, Spears, & Stallard, 2012).

The ambiguity surrounding SC can be partly explained by its location in the large set of constructs used to describe a student's relationship with school, including belonging and bonding. Whitlock, Wyman, and Moore (2014), in discussing connectedness and suicide prevention in adolescents, identify nine conceptual frameworks that have shaped the definition of connectedness, including attachment theory, social support theory, resilience frameworks, and the bio-ecological model of human development. Additions to this list could comfortably include social control theory (Hirschi, 1969), motivation theory (Maslow, 1962), self-determination theory (Deci & Ryan, 2000;

Ryan & Deci, 2000), and human relatedness theory (Hagerty, Lynch-Sauer, Patusky, & Bouwsema, 1993).

The definitions of SC that emerge from these theories range from Libbey's (2004) pragmatic definition of SC as 'the study of a student's relationship to school' (p. 274) to more complex understandings viewing SC as multidimensional (Tighezza, 2014) and generated by interactions among all members of a school's ecology (Rowe & Stewart, 2011; Waters et al., 2009). Clearly, an ecological understanding of connectedness, the overarching construct from which SC developed, is integral to its definition; yet SC research has been slow to embrace its conceptual origins (Barber & Schluterman, 2008).

An ecological perspective has, however, grown over the last decade. Blum (2005) noted that SC was influenced by the interplay between individuals, environment, and culture, while Whitlock's (2006) definition marked a clear departure from earlier understandings, introducing the idea of SC as both given and received. Rowe and Stewart (2009, 2010, 2011) used a whole-school approach, informed by the Health Promoting School Model, to identify ways in which SC could be enhanced and firmly located SC in the multiple ecologies of the school. Similarly, Waters et al. (2009) describe SC as a function of the dynamic interactions between individuals and their social and ecological environments.

While the definition of SC continues to evolve, a small number of early studies have continued to be highly influential in how it is understood. In 2004, the Wingspread Declaration on School Connections served as a clarion call for an increased focus on the relational dimension of young people's school experience, singling out students' relationships with adults, feelings of safety, and supportive environments, coupled with high expectations for learning as the core elements of connectedness, and defined SC as students' belief that adults in the school care about them and their learning. In 2009, the Centers for Disease Control and Prevention (2009) co-opted this definition of SC and included peers as key relational influences.

Since Resnick et al. (1997) reported that SC was protective for young people against pregnancy, substance use, emotional distress, and involvement in violence, research into SC has accelerated and evidence of the reach of its protective qualities has accumulated. One reason for the positive reception of Resnick et al.'s findings may be that it reinforced previous research into the link between a student's relationship with school and health-risk behaviours. Wilson (2004) rightly observed that research into social bonding, described as 'closely akin to connectedness' (p. 298) had already established that the quality of social bonds can lower delinquency rates. This research and associated studies into school bonding and delinquency (Hawkins, Guo, Hill, Battin-Pearson, & Abbott, 2001; Herrenkohl et al., 2003; Jenkins, 1995) provided a firm foundation on which research into the links between SC and various adolescent problem behaviours has developed.

More recently, SC has been studied in relation to internet use (Yen, Ko, Yen, Chang, & Cheng, 2009), suicide prevention (Whitlock, Wyman, & Moore, 2014), depression (Joyce & Early, 2014; Shochet & Smith, 2014), and transport risk-taking behaviours (Chapman, Buckley, Sheehan, Shochet, & Romaniuk, 2011). The consistent findings from the research continue to be optimistic, situating SC as protective in young people's lives against a range of health risk behaviours.

Despite the bourgeoning research interest in SC, there continues to be little consensus on how it is defined (Loukas & Pasch, 2013), and the present study sought to

address this gap by exploring the meanings of SC from both student and school staff perspectives. A small number of studies has begun to emerge in which teachers' views of connectedness are explored using qualitative approaches (Biag, 2016; Bower, van Kraayenoord, & Carroll, 2015; Chapman, Buckley, Sheehan, & Shochet, 2013); however, student voices are largely absent. Notable exceptions in the Australian context are Rowe and Stewart's (2009) study exploring the influence of a whole-school approach to SC via a case study design in which both students and staff were represented and Thompson and Bell's (2005) use of focus groups to explore student, teacher, and parent perspectives on disconnection to school. More recently, a New Zealand study by Neely, Walton, and Stephens (2015) used an ethnographic methodology involving students and teachers to explore the impact of shared school lunches on SC. Whitlock's (2006) study using surveys and student focus groups to explore contextual correlates of SC is also noteworthy, as is the study by Yuen et al. (2012) exploring Chinese adolescents' views on factors that shape SC. Such qualitative approaches, however, remain the exception, and SC research continues to reside largely in the empirical domain, with student surveys the default data source of most studies (Chapman et al., 2013).

The Current Study

In order to enhance the current understanding of SC, this study employed a mixed methods approach to answer the following research questions and test the following hypotheses:

1. What are the meanings of being connected to school?
2. What influences students' connectedness to school? The hypotheses related to this research question are:
   - A student's prior knowledge of Woodlands College, through having parents or siblings attend the College, would influence SC;
   - A student's involvement in the decision to attend Woodlands College would influence SC;
   - Starting secondary school with peers from primary school would influence SC;
   - The distance a student lived from school would influence SC.
3. How is students' connectedness to school nurtured?

Method

Design

This was a mixed methods study utilising both qualitative and quantitative data collection methods within a concurrent triangulation design (Cresswell, Plano Clark, Gutmann, & Hanson, 2003). This approach best suited the exploratory and confirmatory questions posed by this study and allowed both generation and verification of theory, which is considered a notable advantage of this approach (Teddlie & Tashakkori, 2006). The qualitative data were collected via student and staff focus groups, student diaries, and a student questionnaire with a series of open-ended questions and opportunities for additional comments, while the quantitative data were captured through single and multiple-choice items within the student questionnaire. The qualitative data enabled the exploration of meanings of SC as offered by students and staff, while the quantitative data through identifying the factors associated with

TABLE 1
Study Participants by Method of Data Collection

Data collection activity	Number of participants	Number of groups	Cohorts	Sex	
				M	F
Student questionnaire	206		Year 7	21	18
			Year 8	15	14
			Year 9	16	19
			Year 10	14	23
			Year 11	12	16
			Year 12	13	25
Student focus groups	118	2	Year 7	10	13
		2	Year 8	6	9
		2	Year 9	8	10
		2	Year 10	8	9
		2	Year 11	10	11
		2	Year 12	12	12
Student diaries	12		Year 7	2	2
			Year 8	1	1
			Year 10		3
			Year 11		1
			Year 12		2
Staff focus groups	71	3	Teachers	9	12
		1	Executive staff	4	1
		1	Year coordinators	4	3
		1	Student support	1	5
		1	Administrative		5
		1	Special education	2	4
		1	Resource centre		5
		1	Performing arts	3	4
		1	Physical education	5	4

Note: M = male, F = female.

SC allowed a profile of connectedness to be generated. Results from both data sources were triangulated.

Participants

The study was conducted in a coeducational secondary school, Woodlands College (a pseudonym), located in metropolitan Melbourne, Victoria, Australia. At the time the study was conducted, Woodlands had an enrolment of 1,590 students and employed 167 teachers (68 males, 99 females). Participants ranged in age from 12 to 18 ($M = 15.09$, $SD = 1.67$). Indigenous students and students with a background other than English comprised less than 1% of the total enrolment. A total of 336 students (187 female, 149 male) participated in the study. In terms of living arrangements, most of the participating students lived with their immediate family, consisting of parents and siblings (194, 94.2%), with the remainder living with extended family or friends (12, 5.8%). Seventy-one staff (43 females, 28 males) participated in focus groups. See Table 1 for participants by method of data collection.

For the quantitative aspect of this mixed methods study, the researcher determined the required sample size based on the results of a power analysis conducted

TABLE 2
Results of a Priori Power Analysis for Sample Size

Statistical test	Effect size (Med)	Error probability	Desired power	Sample size
Correlation	0.30	0.05	0.80	82
ANOVA	0.25	0.05	0.80	200
Regression	0.15	0.05	0.80	109

using G∗Power v. 3.0.1. When conducting the a priori power analysis procedures, the researcher took into account the desired medium effect size, the error probability, the desired power of the test, and the type of statistical analysis procedures that were planned (Faul, Erdfelder, Buchner, & Lang, 2009). The results of the power analysis procedures are summarised in Table 2. Based on the results of the power analysis, a minimum sample size of 200 students was targeted for recruitment. A total of 206 students completed the questionnaire, which means that the minimum number of required samples was met.

Measures

Data were collected by multiple methods, including a student questionnaire, student focus groups, student diaries, and staff focus groups. The student questionnaire constructed for this study drew on comprehensive SC research and consisted of 109 items in eight sections, containing 64 single response items, 23 multiple response items, and 21 open questions. The School Connectedness Scale (Resnick et al., 1997) has been widely used to measure SC, although considerable variations exist in how it has been applied (Furlong, O'Brennan, & You, 2011). While the original scale contained six items, other studies have used between three (Kaminski et al., 2010) and seven (Svavarsdottir, 2008). In this study, four items from the School Connectedness Scale were included in the questionnaire. These questions pertained to whether the participant feels close to people at school, feels like a part of their school, feels safe at school, and whether the students at school are treated fairly. The 109-item questionnaire was piloted with five young people who had completed their final year of secondary education at Woodlands College in the year prior to data collection.

The first section of the questionnaire contained questions related to students' age, gender, year level, educational history, family structure, parental attendance at parent-teacher interviews, and level of enjoyment in attending Woodlands College. Section 2 contained four open questions about what students do and don't enjoy about being a student at Woodlands, two questions about opportunities for students to express their opinions about school matters, and eight questions about school disciplinary policy and the student's history of truancy, and receiving detentions or suspensions. Section 3 asked questions about students' awareness and understanding of the school's policy regarding student safety, and students' views regarding bullying and their sense of safety at Woodlands. Section 4 contained 11 questions about the student's use of school spaces for different purposes and their preferred lunchtime activities. Section 5 asked students about their enjoyment of schoolwork, their academic progress across their subjects, their teachers' engagement with them around their learning, and their intentions regarding completing their secondary education. Section 6 contained items regarding the student's access to supportive adults and peers at school, utilisation of

nursing, counselling and educational support services, and health status. Section 7 posed questions about the student's relationships with school staff, what facilitates supportive relationships with particular staff, and what makes talking to teachers difficult. Section 8, 'Activities/Things You Like Doing', asked questions about the student's involvement in school-based activities, part-time employment, and use of cigarettes. Ten questions targeted students in different year levels, asking about their knowledge of, or their intention to participate in, key events for their cohort. The questionnaire concluded with an invitation for students to describe Woodlands to someone who was considering attending the College.

Item 26 in the questionnaire was a visual analogue scale (VAS), asking students to indicate their level of connectedness on a horizontal line, with the anchor points being *not connected at all* and *very connected*. The VAS has been used extensively in health research to measure subjective experiences such as pain intensity, fatigue (Crichton, 2001), and patient quality of life (de Boer et al., 2004) and demonstrates reliability, validity, and sensitivity within health settings (Gift, 1989).

The student focus groups were organised according to year level and included males and females, with the size of groups ranging from 6 to 13. The lead researcher facilitated all groups using a developed set of questions, which explored the participants' general experiences of being a student at Woodlands through to more specific questions around availability of support, student-teacher relationships, school rules, involvement in extra-curricular and co-curricular activities, and safety. To ensure the content validity of the questions a pretest with four Year 12 students was conducted. Staff focus groups drew participants from the different operational areas of staffing and teaching faculties with group size ranging from five to eight. Questions addressed how staff recognise connectedness in students, student-staff relationships, and how schools influence SC. The student and staff focus groups were developed and run according to protocols as described by Stewart and Shamdasani (1990). All focus groups were audio-recorded and transcribed by a professional transcription service.

Student diaries were used as another form of qualitative data collection. Diaries are regarded as an effective way to explore an individual's emotional and relational experiences and are popular in mixed methods approaches (Snowden, 2015). Students who volunteered for this activity were asked to record their daily experiences of school life both within and outside the classroom over a 3-week period. Given the intimacy of the act of diary keeping (Hayman, Wilkes, & Jackson, 2012) and the possibility of participant distress as a result, the researcher met weekly with young people to monitor their wellbeing and address any concerns that arose.

Procedure

Ethics approval was obtained from The University of Melbourne Human Research Ethics Committee, and the principal at Woodlands College gave permission for the study to be conducted. Participant and parental consent were obtained and students were recruited from randomly selected classes at each year level. Students were then randomly assigned to complete a questionnaire or participate in a focus group, while students who kept a diary volunteered for this task. Engaging with both male and female students across year levels 7 to 12 and staff from different areas of school operations was considered important. As indicated in Table 1, the numbers of participants involved in each data collection method varied considerably, but overall the goal of representation of different groups within the College was achieved. All data collection

occurred in Term 4 of the school year (early October to mid-December) in order to allow all students, but particularly the Year 7 cohort who were in their first year at the College, to have experienced three terms of school life.

Data Analysis

Questionnaire data were examined using both descriptive and inferential statistical analyses. SC provided the dependent variable in the study and was derived from two sources. Each participant's connectedness response on the VAS was converted into a rating from *very low* (0–2) to *very high* (9–10) and this rating was cross-tabulated against the independent variables in the questionnaire to identify significant associations.

SC was also derived by summing up the scores attributed by the participants to four questions in the questionnaire from the School Connectedness Scale (Resnick et al., 1997). Each of the items was scored on a scale of 1 to 5, resulting in scores for the SC variable ranging from 5 to 25. This measure of connectedness enabled inferential statistical analysis to be applied. A Pearson's correlation analysis was conducted to determine any significant relationships between the continuous variables of the study. The results of this analysis were also used as the basis to quantify the type and strength of relationship between the study variables, based on the r coefficient. For the categorical variables, an analysis of variance (ANOVA) was conducted to determine whether the participants' characteristics were associated with differences in their school connectedness scores. A linear regression analysis was conducted to determine which study variables were significant predictors of school connectedness. In the linear regression analysis, the study variables identified to be significantly correlated with SC were used as the independent variables, while SC was used as the dependent variable. For all analysis procedures, statistical significance was set at $p = .05$. Excel 14.6.2 and SPSS v.22.0 were used to facilitate data analysis.

The qualitative data, drawn from open items in the questionnaire, focus groups, and diaries were thematically analysed, allowing broad patterns to be identified. Thematic analysis is inductive, where the themes emerge from the data and are not predetermined by the researcher (Carroll, Booth, & Lloyd-Jones, 2012). In this study, the researcher conducted the thematic analysis in accordance with the six steps identified by Braun and Clarke (2006). To facilitate the qualitative data analysis, NVivo v.8.0 was used. Both qualitative and quantitative data sets were analysed separately and results from each set were integrated during the analysis phase to identify areas of convergence or divergence (Terrell, 2012).

Results

The means, standard deviations, and correlations of the study variables are presented in Table 3. The correlations show that age ($r = .144$, $p = .039$), extracurricular activities ($r = .247$, $p < .001$), student voice ($r = .207$, $p = .003$), general health ($r = .187$, $p = .007$), and academic engagement ($r = .334$, $p < .001$) are significantly positively correlated with SC. For SC, the dependent variable in the study, scores ranged from 5 to 24 ($M = 14.45$, $SD = 3.90$).

The categorical variables of the study were also analysed to determine whether these independent grouping variables were associated with differences in the SC scores of the participants. Based on the results of the ANOVA shown in Table 4, year level

TABLE 3
Means, Standard Deviations, and Correlations for Independent Variables

			School connectedness	
	M	*SD*	*r*	*p*
1. Age	15.09	1.67	.144	.039
2. Extracurricular activities	1.05	1.08	.247	.000
3. Student voice	2.72	1.03	.207	.003
4. General health	4.56	1.15	.187	.007
5. Visits to school nurse	2.38	.94	− .096	.169
6. Academic engagement	7.92	1.07	.334	.000
7. Knowledge of school	3.28	1.02	.054	.444
8. Peers from primary school	3.67	1.34	− .011	.876

TABLE 4
Results of ANOVA

	Mean	CI	*d*	*F*	*df*	*p*
Gender						
Male	13.98	[13.08,14.88]	.22	2.420	1	.121
Female	14.83	[14.18,15.47]				
Year level						
7th grade	13.95	[12.65,15.25]	.18	4.026	5	**.002**
8th grade	14.69	[13.39,15.99]				
9th grade	13.89	[12.41,15.36]				
10th grade	12.70	[11.48,13.92]				
11th grade	15.57	[14.29,16.85]				
12th grade	16.18	[14.99,17.38]				
Parents from Woodlands						
Yes	15.43	[13.78,17.09]	.29	1.732	1	.190
No	14.30	[13.73,14.87]				
Siblings from Woodlands						
Yes	14.61	[13.80,15.42]	.06	.171	1	.680
No	14.37	[13.64,15.10]				
Involvement in school choice						
Student's	12.20	[10.75,13.65]	.32	2.598	5	**.027**
Parents	13.61	[12.52,14.70]				
Students with parents	15.02	[14.33,15.70]				
Other family members	11.00	[11.00,11.00]				
Family decision	15.63	[12.53,18.72]				
Cigarette use						
Yes	12.74	[11.58,13.91]	.57	9.617	1	**.002**
No	14.85	[14.26,15.44]				

Note: $p <$ **.05.**

(F (5) = 4.026, $p = .002$), involvement in the decision to go to Woodlands College (F (5) = 2.598, $p = .027$), and cigarette use (F (1) = 9.617, $p = .002$) were significantly associated with differences in the SC scores of the participants. Students from the higher year levels had higher mean scores of SC compared to those from lower year levels. Similarly, students who made the decision to attend Woodlands with their

TABLE 5
Results of Linear Regression Analysis

Model	B	Unstandardised coefficients Std. error	Standardised coefficients Beta	*t*	Sig.
1 (Constant)	1.077	4.116		.262	.794
Age	−.338	.523	−.145	−.646	.519
Extracurricular	**.515**	**.243**	**.143**	**2.114**	**.036**
Voice	**.607**	**.249**	**.160**	**2.442**	**.016**
Health	.245	.230	.072	1.068	.287
AcadEng	**.626**	**.269**	**.171**	**2.329**	**.021**
Year	.658	.494	.296	1.331	.185
CigUse	**1.603**	**.653**	**.162**	**2.455**	**.015**
Decision to attend	.368	.208	.115	1.773	.078

Note: a. Dependent variable: School connectedness b. Model = $F(8) = 6.837$, $p < .001$, $R^2 = .218$.

parents had higher scores for SC. Students who reported cigarette smoking also had significantly lower SC scores than students who did not smoke cigarettes.

A linear regression analysis using SC scores as the dependent variable and the variables found to be significantly associated with SC as the independent variables was conducted. The results of the analysis, as shown in Table 5, indicate the proposed model is a significant predictor of SC, $F(8) = 6.837$, $p < .001$, accounting for 21.8% of the variance in the dependent variable ($R^2 = .218$). Among the predictors included in the model, extracurricular activities ($\beta = .515$, $p = .036$), student voice ($\beta = .607$, $p = .016$), academic engagement ($\beta = .626$, $p = .021$), and cigarette use ($\beta = 1.603$, $p = .015$) were found to be significant predictors of SC.

Using the students' self-ratings of connectedness, significant associations were found with enjoyment in being a member of the school community ($p = .001$), the number of subjects a student liked ($p = .001$), the number of subjects the student was passing ($p = .037$), availability of an adult to talk to if the student was upset ($p = .003$), truancy for a whole school day ($p = .004$), and distance lived from school ($p = 008$). Smaller distance from school was associated with greater connectedness.

In addressing the research question about the meanings of SC, thematic analysis of the qualitative data from the student questionnaire, focus groups and diaries provided a surprising result, with a single meta-theme, *opportunities,* distinctly emerging from each data source. Four subthemes sat beneath the meta-theme: peer friendships, relationships with teachers and other school staff, activities, and learning. Among these subthemes, opportunities to experience peer friendships, frequently referred to as 'socialising', was the most frequently named across all the qualitative data sources. The theme and subthemes sat within a temporal and spatial domain so that opportunities occurred within particular places in the school (classrooms, school grounds, ovals) and within named timeframes (a period, a lunchtime, a term, a year). Students in the focus groups and diaries consistently told a narrative that presented school as a journey with multiple episodes located across time and in a variety of spaces. These aspects are captured in a comment from a Year 11 male student who observed that 'Everyday I'm creating history here with my mates'.

School was seen as presenting opportunities to do things (extracurricular activities, sport, music, drama, camps); to make, grow, and dismantle friendships with

peers; to form and resist relationships with teachers, and to learn and resist learning. A Year 10 female student commented that 'there's lots of opportunities, lots of things to do, there's things for everybody, things you're interested in, people to meet, so a good school for opportunities and a job'. While few students used the term 'school connectedness', most students understood their connection to school through the opportunities it presented (or did not). The meanings of SC that emerged from the thematic analysis of the staff focus group data revealed five themes: enjoyment of school, engagement with teachers, part of a peer group, valuing learning, and involvement in school life. Like students, teachers also considered peer relationships as pivotal in connecting a young person to school, although more as a protective factor against disconnection than as a promotive factor for connection. In this regard, teachers and students viewed peer relationships in markedly different ways.

In relation to the research question concerning how schools can nurture SC, a single theme from the staff focus groups was provision of an enabling school environment that contained three subthemes: opportunities for teacher-student relationships to form, participatory pedagogy, and ensuring every student finds a niche in which they are recognised, can experience success, and relational connections are formed. Student responses to this research question fell into five themes: being treated fairly, being listened to by school staff on issues of concern, good teaching, the school's academic and behavioural expectations, and variety and number of relational and learning opportunities. Both students and staff regarded the relational experiences offered by school as key to enhancing SC.

Discussion

This study aimed to clarify the meanings of SC through a mixed methods approach. The study confirmed previously reported associations between SC and cigarette use, health status, extracurricular activities (Bonny, Britto, Klostermann, Hornung, & Slap, 2000; Brown & Evans, 2005), academic engagement, and student voice (Libbey, 2004). The study also identified new associations. Two of the hypothesised associations between SC were supported: joint decision making with parents about the choice of school and distance of residence from school were both associated with SC. Joint decision making may lead to greater student investment in the decision and may also be an indication of parental involvement and interest in their child's educational experiences, which has benefits for a young person's development (Davis-Alldritt, 2012). Closer residence to school may facilitate participation in extracurricular activities and increase familiarity with and access to school facilities and spaces, which in turn may promote incidental contact with other students (not necessarily in the same age group or year level).

A key finding from this study concerns the way in which students understood their connection to school. For many students this connection was experienced through the opportunities given to them by the school. Opportunities existed in relational (peers and staff), activity-based (extra- and co-curricular), and academic (learning) domains, with considerable overlap between each. Staff also understood SC in terms of a young person's relational and academic experiences, as well as involvement in school life. Student and staff suggestions for ways to facilitate SC also fell into these domains.

The lead relational experience for students in this study was the peer relationship. Although relationships with teachers were important, they did not have the intensity, endurance, or influence of peer relationships. This differs from much previous research, which has focused heavily on the teacher-student relationship and its influence on a student's experience of school. In the present study, the teacher-student relationship emerged as more transitory and less influential than students' relationships with peers, which were repeatedly characterised as central to life at school. The narratives students told about school were biographical accounts in which they and their friends and peers were lead characters, with teachers frequently appearing but occupying less prominent roles.

Students and staff provided similar advice regarding ways to enhance the relationships between teachers and students. Subjects such as sport, art, drama, and music were singled out as participatory learning experiences that created relational spaces in which students and teachers could encounter each other in novel and engaging ways. Camps, retreats, and excursions provided similar relational opportunities in which staff-student relationships and peer-peer relationships could develop.

Limitations

Students and staff who participated in this study were drawn from a single school and therefore are not representative of all students or staff or the multiple school sectors within the education system in Victoria. The purposive sampling strategy may have excluded some participants whose experience of connectedness differed from those selected to participate. The voluntary nature of teacher participation in focus groups also means that not all teacher perspectives were represented. The self-reported data from the questionnaire, focus groups, and student diaries cannot be independently verified; however, the congruence between the qualitative and quantitative data suggests that this was not a major limitation. It is worth noting that due to its definitional ambiguity, some claims regarding SC are based on studies of different constructs. Engagement and belonging appear to be most frequently used as surrogates, and this situation necessarily attenuates the strength of some claims regarding SC within this field of research in general.

Implications

SC emerges from this study as a process rather than a state, fluctuating across time within the relational, experiential, and physical spaces of school life. Reconceptualising SC as connect*ing* (and disconnect*ing*) to school requires responses that are both planned and spontaneous. Students are constantly building and dismantling their own and others' connection to school as they negotiate their educational pathways. These changes can be minor and transient, or catastrophic, as when a young person drops out of school. The malleability of a number of the factors associated with SC provides clear direction for schools to focus their efforts and is a cause for optimism and energetic engagement with the task. Further studies are required to more clearly delineate SC from other constructs and bring much-needed definitional and conceptual clarity. SC research that seeks young people's accounts of their relationship to school is also needed so that a key constituency in this field is given a greater voice. This study has shown that they have important stories to tell about connecting and disconnecting to school.

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Conflicts of Interest

None.

Ethical Standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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Involvement in Extracurricular Activities: Identifying Differences in Perceptions of School Climate

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Many youth participate in extracurricular activities, and research has linked activity participation with school engagement and academic success. Social-ecological theory suggests that the social contexts of different types of extracurricular activities may differentially affect student outcomes. Yet, there is scant research examining the relation between various extracurricular activities and student outcomes. The current study seeks to address this gap by exploring how participation in three activities (sports, clubs, and arts), and combinations of these activities are associated with perceptions of school climate, using multilevel modelling. Participants included 15,004 high school students from 28 schools across 11 states in the United States. Findings suggest that students involved in extracurricular activities have more favourable perceptions of social-emotional security, adult support, student support, and school connectedness. However, these perceptions vary by activity type and combination, and do not appear to have a stacked effect in which involvement in more activities yields more favourable outcomes. We conclude that extracurricular activity participation may serve as a mechanism to promote a positive school climate. Implications for research and practice are discussed.

■ **Keywords:** School Belonging, School Climate, Extracurricular Support, school psychology

School climate, defined as the quality and character of school life (Cohen, McCabe, Michelli, & Pinkeral, 2009), has gained significant attention as a way to promote safer and more supportive schools. School climate is based on patterns of student, parent, and school personnel experiences and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organisational structures (Thapa, Cohen, Guffey, & Higgins-D'Alessandro, 2013). While different models of school climate have been proposed, common dimensions include safety, relational (e.g., adult and student support), and environmental components (e.g., school connectedness; Thapa et al., 2013).

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Positive school climate is associated with a range of outcomes, including motivation to learn (Eccles, Barber, Stone, & Hunt, 2003), decreased absenteeism (e.g., Gottfredson & Gottfredson, 1989), lower levels of aggression and violence (Gregory et al., 2010), and lower suspension rates (Lee, Cornell, Gregory, & Fan, 2011). In light of these outcomes, school climate reform has been identified as an important strategy for bully and dropout prevention in the United States (Centers for Disease Control and Prevention, 2009; Thapa et al., 2013).

Research has linked school climate with individual, classroom, and school-level factors (Koth, Bradshaw, & Leaf, 2008; National School Climate Council, 2015). For example, factors such as race, gender, teacher-student ratio, and school size have been linked to school climate. A focus on these different levels of the school environment and different settings within the school has helped to advance our understanding of school climate. Taking into account the various activities that students are involved in through their schools may yield additional nuance to our understanding of school climate.

Extracurricular Activities

School-based extracurricular activities provide additional experiences and have received increased attention as a way of supporting positive youth development (Ramey & Rose-Krasnor, 2012). Extracurricular activity participation has also been identified as a strategy to promote school connectedness (Centers for Disease Control and Prevention, 2009), a construct that overlaps with school climate and school belonging (Anderman, 2011). Yet, scant research has examined how different types of extracurricular activities are associated with distinct dimensions of school climate.

According to the United States National Center for Education Statistics (2012), sports are the most common type of extracurricular activity, with 44% of high school seniors reporting participation in some type of sport. In addition, 21% of students participate in music activities (band, orchestra or choir), as well as clubs, such as academic (21%), hobby (12%; e.g., photography, chess), and vocational clubs (16%; e.g., DECA, Future Farmers of America, Skills USA). Overall, extracurricular activities are associated with a range of positive outcomes, such as higher grades and test scores, decreased school dropout, and greater educational attainment (Farb & Matjasko, 2012). Other studies have noted that the positive relationship between participation in extracurricular activities and academic outcomes may not apply across all activities (Farb & Matjasko, 2012). For example, Fredricks and Eccles (2008) found that participation in school clubs was related to higher grades; whereas, sports participation was related to less valuing of the school. Lleras (2008) found that participation in academic and sports activities was associated with higher educational attainment and job earnings, while fine arts participation was associated with lower job earnings. Fredricks and Eccles (2008) suggest that these differences are a function of the unique ecological contexts consisting of distinct characteristics and relationships with peers and adults. For example, student athletes are more likely to have a higher social status (Barber, Eccles, & Stone, 2001) and associate with peers who drink alcohol (Eccles & Barber, 1999). Sports have also been associated with opportunities to develop initiative, while school clubs have been associated with experiences related to identity formation and prosocial norms (Hansen, Larson, & Dworkin, 2003; Larson, Hansen, & Moneta, 2006). Thus, extracurricular activities afford students with different

developmental opportunities, and research that examines extracurricular participation in relation to dimensions of school climate is needed.

Measurement of Extracurricular Activity Involvement

Early research focusing on extracurricular activities suggested that participation in more activities is associated with more favorable outcomes; however, questions were raised about the importance of the number of activities versus the combination of activities (Feldman & Matjasko, 2005). Participation in qualitatively different activities may increase exposure to different opportunities (Feldman & Matjasko, 2005), increasing the positive effects and compensating for negative associations of individual activities and developmental outcomes. Examining participation in extracurricular activities grouped together may mask the true relationship between specific extracurricular activities and specific student outcomes.

Research focusing on breadth of participation has grown in recent years and has supported the notion that more activities, up to a point, across different activity domains is better (Bohnert, Fredricks, & Randall, 2010; Farb & Matjasko, 2012). However, these studies do not yield information about student participation in different combinations of activities, such as participation in sports and clubs, as compared to participation in arts and clubs (Linver, Roth, & Brooks-Gunn, 2009). Given that students participate in different extracurricular activities throughout the school year, and these activities are often integral to the school community, different extracurricular activities may be associated with distinct outcomes.

School Climate and Extracurricular Activities

Thapa and colleagues (2013) highlight four main dimensions of school climate: safety, relational, teaching and learning, and environmental. A review of the research on extracurricular activities suggests that various activities may support positive school climates. However, some extracurricular activities may support specific dimensions of school climate more so than others. Below, we focus specifically on the safety, interpersonal relations, and school environment dimensions of school climate.

Safety. Safety refers to social, emotional, and physical feelings of security within the school setting. Safe schools are characterised by low rates of verbal abuse, teasing, social exclusion, and physical violence (Cohen et al., 2009). Threats to safety can lead students to skip school (Centers for Disease Control and Prevention, 2009), which can undermine students' ability to learn. While scant research has examined the relation between extracurricular activities and perceptions of safety, Fleming and colleagues (2008) found that participation in extracurricular activities was related to less school misbehaviour and delinquency. Moreover, Peguero (2008) found that students who participated in classroom-related extracurricular activities (band, student government, yearbook, newspaper) were more likely to be bullied, as compared to student athletes. Thus, participation in certain types of activities may contribute to different treatment from peers, affecting their experiences and perceptions of school safety.

Interpersonal relations. The relational component of school climate involves interactions between people and how connected individuals feel (Thapa et al., 2013). Support from teachers and peers is associated with higher self-esteem and grades,

as well as psychological wellbeing (Jia et al., 2009). Extracurricular activities can contribute to positive student outcomes by allowing students to develop relationships with like-minded peers and supportive adults (Mahoney, Larson, Eccles, & Lord, 2005). However, scant research has examined the ways in which specific types of extracurricular activities may contribute to these interpersonal dimensions of school climate, such as supportive or collaborative relationships with peers and adults.

School environment. The environmental dimension of school climate includes feeling cared for and as though one is part of the school community (McNeely, Nonnemaker, & Blum, 2002). *School connectedness* and *school belonging* have been used interchangeably within the research literature (Allen & Bowles, 2012; Guo, Choe, & D'Alessandro, 2011; Libbey, 2004). However, we use the term school connectedness in this study. Research on school connectedness has found that schools with higher rates of participation in extracurricular activities report higher levels of school connectedness (Blum, McNeely, & Rinehart, 2002). Using cluster analysis, Linver et al. (2009) examined five activity clusters — sports only, sports and other activities, little or no involvement, primarily school-based, and primarily faith-based activities. This study found that students who participated in the sports-only cluster reported higher levels of connectedness, but the study did not differentiate between specific types of school activities such as clubs or arts-based activities. Sports activities have been most extensively studied in the extracurricular literature, possibly because it is the most popular activity among high school (Grades 9–12) students in the United States (National Center for Educational Statistics, 2012). However, given that students participate in other activities, such as clubs and arts, research is needed that examines how participation in multiple activities relates to student perceptions of school connectedness and belonging.

Current Study

The purpose of the current study was to examine the relationship between participation in three types of extracurricular activities (sports, clubs, and arts) and multiple dimensions of school climate (i.e., safety [social-emotional security], interpersonal relationships [adult support, student support], and school environment [school connectedness]) while controlling for student and school-level characteristics. We tested main effects in order to understand how each extracurricular activity is associated with perceptions of school climate. We also tested interaction effects in order to examine how different combinations of extracurricular activities are associated with school climate.

Method

Participants

Participants consisted of 15,004 grade 9–12 students from 28 high schools across 11 states in the United States. The majority were 9th-grade students (27%) followed by 10th- (25.6%), 11th-(25.1%) and 12th-grade (22.3%) students. A slightly higher percentage of participants were female (51.5%). Regarding race/ethnicity, the majority of students self-identified as White (68.6%), followed by African American (10.3%),

Latino (8.4%), multiracial (6.1%), Asian (4.7%), and American Indian/Alaska Native (1.5%). Most students participated in sports (54.1%), followed by clubs (37%) and arts (22.6%). Approximately one fourth of the students in this sample were not involved in an extracurricular activity. The majority of schools were public (96.3%) and suburban (67.9%), followed by urban (25%) and rural (7.1%) settings. The average percentage of students across schools displaying financial need was 36.2% (data available for 24 schools).

Measures

Independent variables. We examined students who participated in sports, clubs, and art-related extracurricular activities. Each of these categorical variables consisted of binary measurement (1 = participated in the extracurricular activity; 0 = did not participate in the extracurricular activity). Students who did not participate in the extracurricular activity served as the reference group. Students who participated in arts consisted of students who reported involvement in music and performing arts (e.g., drama, acting).

Control variables. We controlled for three individual-level variables: gender (females as reference group), race/ethnicity (non-White as reference group), and grade-level (9th grade as reference group). We also included an aggregated school-level variable to account for extracurricular involvement at the respective schools, given school variation in extracurricular offerings and involvement. This variable is a percentage, which was computed by dividing the total number of students who reported involvement in at least one extracurricular activity by the total number of students sampled from that school.

Outcome variables. The four outcome variables in this study were drawn from the Comprehensive School Climate Inventory (CSCI-V3.0). The CSCI evaluates student, parent, and school staff perceptions of school climate, and in this study we focused on student perceptions. Additionally, we focused on three of the four major CSCI domains of safety, interpersonal relationships, and institutional environment. Items on the CSCI are assessed using a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*), with higher scores reflecting more favourable perceptions of school climate. The CSCI has good construct validity and internal consistency (Clifford, Menon, Gangi, Condon, & Hornung, 2012; Guo et al., 2011).

Safety: Social-emotional security. Social-emotional security refers to the extent to which students feel safe from verbal abuse, teasing, and exclusion within the school. This subscale consists of six items and is one of the three subscales within the safety domain of the CSCI. A sample item is 'Adults in the school stop students if they see them insulting, teasing, and making fun of others'. This scale demonstrated good internal consistency ($\alpha = .85$).

Interpersonal relationships: Adult social support. Adult social support is defined as the pattern of supportive and caring adult relationships for students, including high expectations for students' success, willingness to listen to students and to get to know them as individuals, and personal concern for students' problems. This

subscale consists of eight items and is one of the three subscales within the interpersonal relationships domain of the CSCI. A sample item is 'Adults who work in my school treat students with respect'. This scale demonstrated good internal consistency ($\alpha = .86$).

Interpersonal relationships: Student social support. Student social support refers to the pattern of supportive peer relationships for students, including friendships for socialising, problems, academic help, and for new students. This subscale consists of five items and is one of the three subscales within the interpersonal relationships domain of the CSCI. A sample item is 'Students have friends at school they can trust and talk to if they have problems'. This scale demonstrated acceptable internal consistency ($\alpha = .73$).

Institutional environment: School connectedness. School connectedness refers to positive identification with the school, and norms for broad participation in school life for students, staff, and families. This subscale consists of eight items and is one of the two subscales within the environment domain of the CSCI. A sample item is 'I feel like I belong at my school'. This scale demonstrated good internal consistency ($\alpha = .82$).

Analysis

Due to the nested structure of these data, we used multilevel regression modelling to test our hypotheses, through four simultaneous models in which social-emotional security, adult social support, student social support, and school connectedness served as the outcome variables. The level 1 (student-level) predictor variables included gender (female vs. male); race/ethnicity (White vs. non-White); grade; and participation in sports, clubs, and arts. One school-level predictor variable, school-level extracurricular involvement, was included. Regarding extracurricular activities, the main effects compared students who participated in the activity (e.g., sports) versus students who did not participate in the activity, while accounting for participation in other extracurricular activities (arts and clubs). These main effects answer questions such as 'Do students participating in sports report higher levels of school connectedness, as compared to students not participating in sports, while taking into account participation in arts and clubs?'

Students can participate in multiple extracurricular activities (sports and arts), and therefore we incorporated interaction effects between the different types of extracurricular activities (sports × arts; sports × clubs; arts × clubs; sports × arts × clubs) to test how involvement in combinations of activities are associated with dimensions of school climate. Due to the multiple interaction effects, we set the critical value to .001. These interaction effects were all level-1 variables.

Results

Due to the focus of this study, in this section we report main effects and interactions related to extracurricular involvement. Results for all other independent variables are listed in Table 1.

TABLE 1
Main Effects and Interactions

	Social-emotional security		Adult social support		Student support		Connectedness	
	B	SE	B	SE	B	SE	B	SE
Intercept	3.19*	.18	3.73*	.15	3.67*	.13	3.50*	.15
Gender								
Male	.05*	.01	−.002	.01	−.02	.01	.01	.01
Race/ethnicity								
White	−.03	.01	.08*	.01	.08*	.01	.07*	.01
Grade								
10	−.12*	.02	−.07*	.01	−.05*	.01	−.10*	.01
11	−.09*	.02	−.09*	.01	−.04	.01	−.15*	.01
12	−.04	.02	−.07*	.01	−.02	.01	−.12*	.01
Extracurricular activities								
Sports	.10*	.02	.08*	.01	.14*	.01	.21*	.01
Clubs	.04	.02	.19*	.02	.12*	.02	.23*	.02
Arts	.04	.03	.07	.02	.09*	.02	.13*	.02
Sports*Arts	−.06	.04	−.06	.03	−.04	.03	−.12*	.03
Arts*Clubs	−.11	.04	−.09	.02	−.03	.04	−.13*	.04
Sports*Clubs	−.03	.03	−.09*	.02	−.02	.02	−.10*	.02
Sports*Arts*Clubs	.04	.06	−.02	.05	−.09	.05	.04	.05
School-level extracurricular participation	−.004	.003	−.003	.002	−.002	.002	−.003	.002

Safety: Social-Emotional Security

The results revealed significant main effects for gender, grade, and participation in sports (see Table 1). Students who participated in sports ($M = 2.92$) reported more social-emotional security than students who did not participate in sports ($M = 2.83$).

Interpersonal Relationships

Adult social support. Results revealed significant main effects for race/ethnicity, grade, participation in sports, and participation in clubs (see Table 1). Students who participated in sports ($M = 3.61$) reported higher levels of adult social support than students who did not participate in sports ($M = 3.57$). Further, students who participated in clubs ($M = 3.67$) reported higher levels of school adult social support than students who did not participate in clubs ($M = 3.55$). The results also revealed an interaction effect between sports participation and participation in clubs (see Figure 1). While participation in clubs ($M = 3.69$) was associated with higher levels of adult support in comparison to students who were not involved in sports or clubs ($M = 3.51$); when students participated in sports, clubs ($M = 3.66$) no longer contributed to more adult support.

Student social support. Results revealed significant main effects for race/ethnicity and participation in sports, clubs, and arts (see Table 1). Students who participated in

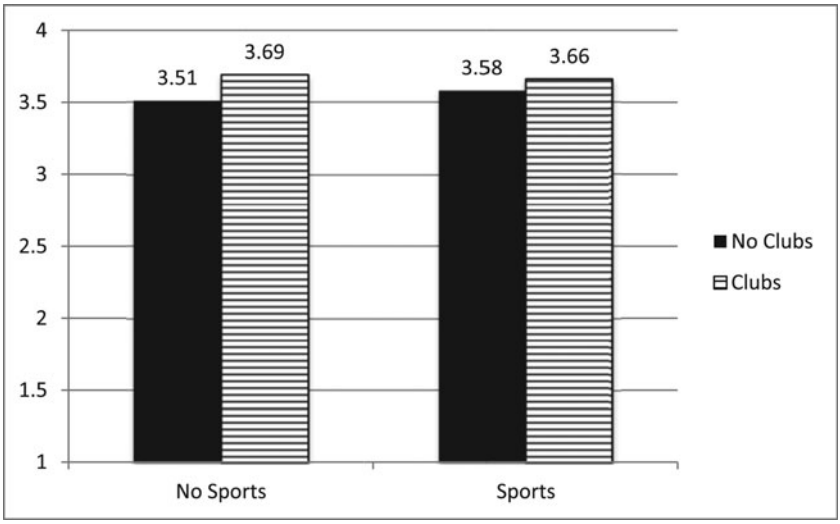

FIGURE 1
Adult support: Interaction of sports and clubs.

sports ($M = 3.72$) clubs, ($M = 3.73$) and arts ($M = 3.73$) reported more student social support than their counterparts who were not involved in these activities (no sports, $M = 3.59$; no clubs, $M = 3.64$, no arts, $M = 3.62$).

Institutional Environment: School Connectedness

Results revealed significant main effects for race/ethnicity, grade, sports, clubs, and arts (see Table 1). Students who participated in sports ($M = 3.50$), clubs ($M = 3.52$), and arts ($M = 3.45$) reported higher levels of school connectedness than their counterparts (no sports, $M = 3.35$; no clubs, $M = 3.38$; no arts, $M = 3.43$).

Results also revealed three interaction effects. A sports × arts interaction revealed that participation in arts was associated with higher levels of school connectedness ($M = 3.42$) in comparison to students who were not involved in arts or sports (3.33) (see Figure 2). However, when students participated in sports, arts ($M = 3.48$) no longer contributed to more school connectedness. The sports × clubs interaction revealed that participation in sports ($M = 3.46$) was associated with higher levels of school connectedness in comparison to students who were not involved in sports or clubs ($M = 3.28$); however, among students participating in clubs, sports ($M = 3.57$) no longer contributed to more connectedness (see Figure 3). Finally, the clubs × arts interaction revealed that participation in arts ($M = 3.43$) was associated with higher levels of school connectedness in comparison to students who were not involved in arts or clubs ($M = 3.36$) (see Figure 4). However, when students participated in clubs, arts ($M = 3.49$) no longer contributed to more school connectedness.

Discussion

This study examined how involvement in different types of extracurricular activities (sports, clubs, arts) is associated with students' perceptions of school climate, namely

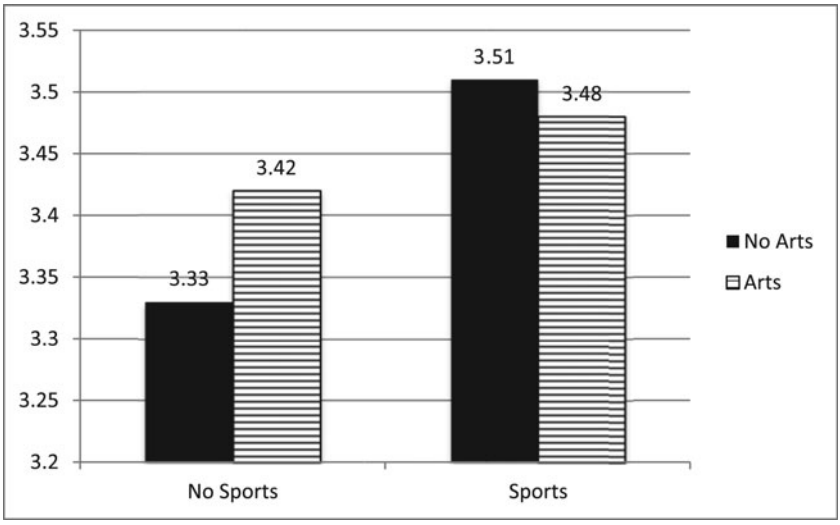

FIGURE 2
School connectedness: Interaction of sports and arts.

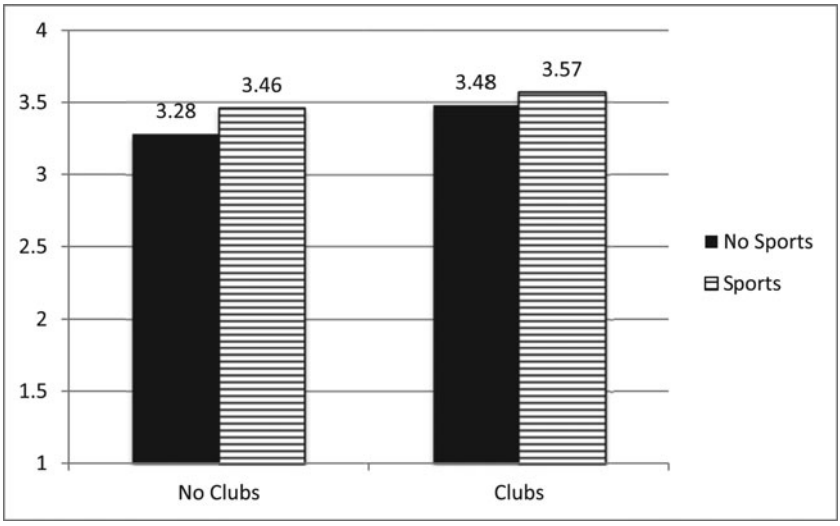

FIGURE 3
School connectedness: Interaction of sports and clubs.

social-emotional security, student support, adult support, and school connectedness. This investigation extends this body of research by linking extracurricular involvement to school climate, a construct that has not been fully explored within this body of work. Whereas previous studies have focused on specific activities and/or breadth of extracurricular participation, this study highlights how different extracurricular activities interact and are associated with different dimensions of school climate.

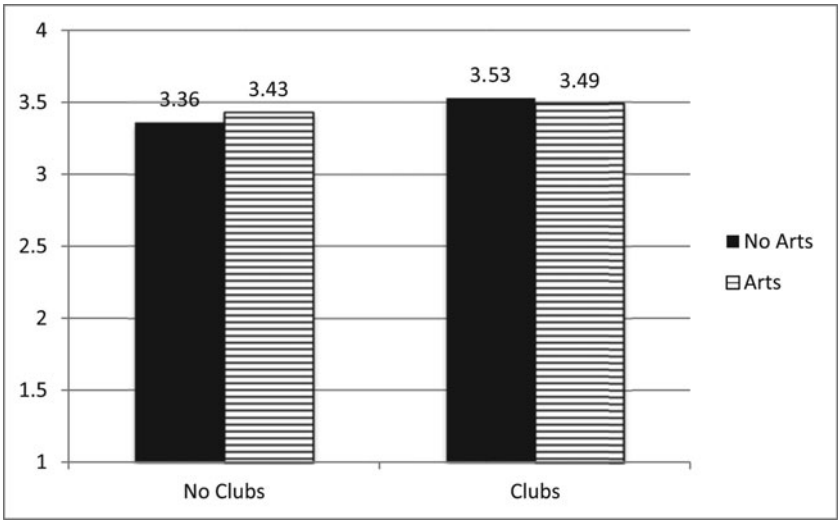

FIGURE 4
School connectedness: Interaction of clubs and arts.

Social-Emotional Security

We found that involvement in sports was the only activity associated with social-emotional security. Athletic participation is often associated with higher social status in the school context (Shakib, Veliz, Dunbar, & Sabo, 2011). Given their higher social status, athletes may feel more socially and emotionally safe because they are less likely to be teased, ridiculed, or excluded relative to students who participate in other activities. Indeed, participation in sports has been associated with less social isolation (Barber et al., 2001) and less bullying victimisation (Peguero, 2008). In contrast, participation in arts has been linked to decreased popularity and bullying victimisation (O'Neill, 2005). Thus, sports offer a unique opportunity by allowing students to be socialised into a more popular peer group where students are safe from teasing and social exclusion. Nevertheless, these findings also suggest that students who participate in arts and clubs feel similar levels of social-emotional safety as students who are not involved in extracurricular activities. The connection between extracurricular involvement and perceptions of school safety warrants further investigation.

Adult Support

Being connected to a caring adult is commonly cited as promoting positive development (Mahoney et al., 2005). Sports and club participation were linked to higher levels of adult social support. However, the interaction effects reveal a more complex picture. Participation in clubs contributes to more meaningful adult support among students who do not participate in sports. One explanation is that forging meaningful student-adult relations necessitates more time than is typically possible for students who are sports involved, given the time commitment (e.g., sport practices and competitions). Thus, any involvement in clubs, in addition to sports, may be limited to minimal involvement or certain off-season times of the school year, resulting in fewer and potentially sporadic interactions with adults.

Student Support

We found main effects for involvement in sports, arts, and clubs. A key feature of extracurricular activities is the opportunity to build supportive relationships with peers that are characterised by warmth, closeness, caring, and respect (Mahoney, Eccles, & Larson, 2004). Extracurricular activities link students to other school peers, and the more time students spend in an activity, the more likely they are to develop connections and draw friends from the activity (Eccles et al., 2003). From a practical standpoint, the higher level of student support among students who participate in sports, arts, and clubs is encouraging and suggests that participation in general, regardless of activity type, can foster positive student relations. However, it is noteworthy that these three activities are linked to positive peer relations, but as previously discussed, only sports was associated with social-emotional security. Thus, more positive student relations associated with extracurricular activities may not necessarily lead students to feel socially and emotionally safe.

School Connectedness

Our findings indicate that participation in extracurricular activities may be particularly important for fostering school connectedness. Participation in the three respective extracurricular activities was associated with higher levels of school connectedness. These findings are in line with research showing that participation in extracurricular activities is associated with greater school attachment (McNeely et al., 2002). However, unique combinations of extracurricular involvement seem to qualify these effects.

We found that participating in sports and clubs, separately and combined, was associated with higher levels of school connectedness than not participating in these activities; however, participating in sports did not yield greater feelings of school connectedness among students participating in clubs. Thus, there does not appear to be a 'stacked effect' in which participation in combinations of activities precipitates higher levels of school connectedness. According to the Centers for Disease Control and Prevention (2009), students who report having friends from several peer groups also report feeling more connected to school, and our findings do not appear to align with this notion. In addition, school clubs tend to consist of larger student groups, and the academic orientation of many clubs often connects students with the academic mission of schools (Feldman & Matjasko, 2005). As a result, participating in sports, in addition to clubs, may not bring forth a substantially meaningful added value in relation to school connectedness.

Finally, while students who participated in arts activities reported higher levels of school connectedness than students who did not, arts participation appeared to undermine the positive effects of being involved in sports. The decreased popularity and increased bullying associated with participation in art activities may partly explain these negative effects (O'Neill, 2005). For example, in a qualitative study of sports and arts participation, Patrick and colleagues (1999) found that participation in sports and arts provided students with opportunities to develop friendships. However, only students who participated in arts activities reported negative reactions from their peers, such as being labelled as 'strange' or teased. Thus, although arts activities allow students to build relationships with like-minded peers, negative reactions may undermine students' connectedness with the larger school context. These findings

further underscore how unique combinations of these extracurricular activities qualify these effects, and how participation in more activities does not necessarily lead to higher levels of school connectedness or belonging.

Implications for Research and Practice

Researchers have posited that greater breadth of participation is associated with more positive developmental outcomes. This study suggests that the effects of participation in multiple extracurricular activities depend on the types of activity combinations and that the most notable gains exist when students participate in an extracurricular activity as compared to no participation. Further, some activities are more likely to align with and reinforce the values of the school community than others. Thus, theory should not only consider the characteristics of activities that shape development, but also how activities fit into the overall school milieu. Characteristics of the school, such as a mission or school culture that values sports or arts or academic rigor, may shape the significance and quality of these extracurricular experiences. Future work should also examine specific characteristics of these extracurricular activities, such as quality, whether they are mandatory or optional, and time of operation (i.e., during the school day or during out-of-school-time hours).

Longitudinal studies are needed that examine how changes in participation are associated with changes in perceptions of school climate. Further, in light of the association between school climate and student outcomes, research can examine the extent to which school climate has a mediating or moderating affect in promoting academic success. Extracurricular activities may promote positive academic outcomes by fostering positive school climates, or through the development of neurophysiological pathways, as has been found with music participation (Kraus et al., 2014). Rigorous methodological techniques are needed that can isolate these different associations and pathways contributing to academic success.

This study has implications for educational, developmental, and community psychologists working with schools, as well as other researchers and practitioners seeking to foster positive school climates. Participation in extracurricular activities may be one way to promote a positive school climate, and schools should consider practices that promote student involvement in at least one activity. Moreover, infusing practices within extracurricular activities that emphasise individual strengths and talents, teamwork, and skill development could further enhance the quality of these settings, interpersonal relations, and school belonging (Siperstein, Glick, & Parker, 2009). Extra-curricular activities may also serve as vehicles to infuse social-emotional related interventions. A burgeoning body of implementation science research has given attention to the conditions that allow for successful implementation of school-based interventions, and some extracurricular activities may be poised as viable contexts (Forman, Olin, Hoagwood, Crowe, & Saka, 2009).

Strengths and Limitations

This study possesses several limitations. Foremost, as this study was cross-sectional, directionality cannot be determined, and fluctuations in involvement across time are not accounted for. Second, the schools were not randomly selected. Third, it is likely that students self-select into extracurricular activities, and there may be a variety of personal characteristics that lead students to join specific types of activities. These

characteristics may also contribute to perceptions of school climate. We did control for ethnicity and gender, which are related to self-selection.

Despite these limitations, this study possesses several strengths. First, this study is strengthened by the large sample size of students across multiple schools. Second, this study examines individual activities as well as combinations of activities. Third, the use of multilevel modelling adds to the rigor of our analyses, taking into account individual and school-level effects. Last, this study examines extracurricular activities in relation to multiple dimensions of school climate. Given the importance of school involvement and school climate, future research should continue to explore how extracurricular activities relate to school climate and how this relationship changes over time.

Conclusion

A recent commentary by the National School Climate Center (2015) in the United States indicates that efforts to improve school climate, including interpersonal relations and school belonging, should include three components. These include systemically engaging all members of the school community, focusing on instruction that promotes prosocial development (e.g., collaboration, co-leadership), and meaningful relationships. Extracurricular activities serve as vehicles that can engage a broad cross-section of school community members (e.g., teachers, coaches, parents), incorporate prosocial instruction, and enhance relationships among students and across stakeholders at different social-ecological levels. Ultimately, extracurricular activities can ignite students' inclination to become involved in school life and promote school belonging.

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Conflicts of Interest

None.

Ethical Standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional guides on the care and use of laboratory animals.

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Another Path to Belonging: A Case Study of Middle School Students' Perspectives

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This qualitative study explored students' experiences in a small, early-college secondary school in the United States that intentionally aims to create a culture promoting accelerated academic achievement, particularly in the areas of science, technology, engineering, and math (STEM). Past research in the fields of both educational and developmental psychology has suggested that students' sense of belonging plays a significant role in their social and academic functioning. Few studies, however, have explored how students' sense of belonging is supported in settings that emphasise accelerated academic performance. The present study focused on students' own understanding of the factors that contribute to their sense of belonging in this academically rigorous environment and extends current accounts of belonging, most of which have been quantitative in nature. The results of the present study highlight a distinction between social and academic belonging. *Social belonging* originated from students' descriptions of their relationships with teachers and friends, alongside a noted lack of bullying behaviour, and an open and accepting social environment. *Academic belonging* originated from students' accounts of meeting rigorous expectations, participating in a range of educational opportunities, receiving academic support from teachers, and sharing similar academic interests with peers. Some students reported experiencing one type of belonging without the other, suggesting that social and academic belonging are distinct aspects of students' overall sense of school belonging. Future research should examine whether academic belonging provides an alternative pathway to the sense of school belonging in academic environments beyond the context examined in the present study.

■ **Keywords:** sense of belonging, early adolescence, teacher support, peer relationships

Students' sense of school belonging — the feeling that they are 'accepted, respected, included, and supported by others' (Goodenow, 1993b, p. 80) — is associated with many positive outcomes, including higher levels of motivation, greater academic achievement, and a lower risk of depression (e.g., E.M. Anderman, 2002; L.H. Anderman & Freeman, 2004; Zumbrunn, McKim, Buhs, & Hawley, 2014). Research suggests that a number of factors, including contextual characteristics and self-appraisals, influence students' perceptions of belonging in school. For instance, Graham and

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Morales-Chicas (2015) found that when students believe that their identifications (e.g., ethnicity) are respected at school, they report stronger perceptions of belonging. Further, factors such as school structural organisation, perceived peer acceptance, teacher support, and the promotion of prosocial values have been associated with students' sense of belonging (e.g., E.M. Anderman, 2002; Freeman, L.H. Anderman, & Jensen, 2007; Battistich, Solomon, Watson & Schaps, 1997).

Although school belonging is often discussed in the literature as a single construct, many researchers suggest it is multidimensional, including relationships with peers and teachers, as well as institutional affiliation. This structure is also evident in a widely used survey measure, Goodenow's (1993b) Psychological Sense of School Membership (PSSM) scale (L.H. Anderman & Freeman, 2004; Goodenow, 1993a, 1993b; Wallace, Ye, & Chhuon, 2012). Goodenow (1993a) reported the factor analysis of an earlier version, the Class Belonging and Support Scale (CBSS), which revealed three factors: peer support, teacher support, and belonging/alienation, which Goodenow (1993a) defined as students' general sense of belonging and alienation. When Goodenow (1993b) went on to create and validate her widely utilised Psychological Sense of School Membership scale (PSSM), she maintained a similar factor structure to that found from the CBSS, except that her items assessing students' general sense of belonging and alienation were targeted towards students' overall institutional affiliation as opposed to their classroom affiliation. Despite the multidimensional nature of this measure, however, both Goodenow and subsequent researchers have tended to treat the full scale as a single construct (see L.H. Anderman & Freeman, 2004).

More recently, Wallace et al. (2012) conducted a confirmatory factor analysis (CFA) of the items from the PSSM, along with selected items from two other scales measuring sense of belonging. The results of this analysis aligned with the original three factors of belonging that Goodenow (1993a) had originally proposed, with the exception that teacher support was split into two distinct factors: one highlighting a connection to teachers in general, and the other highlighting a connection to a specific teacher (Wallace et al., 2012). These findings provide even further support for Goodenow's original conceptualisation that students' sense of belonging is dependent on their relationships with their peers and teachers, as well as their connection to the school environment in general.

To date, the majority of research that examines students' sense of belonging has tended to focus on students attending schools with a traditional structure (e.g., L.H. Anderman, 2003; L.H. Anderman & E.M. Anderman, 1999; Goodenow, 1993a, 1993b; Wallace et al., 2012). In this study, we examined perceptions of belonging for students in a school model that is less typical, but is quickly being seen as a viable option for schooling, especially for those students who are considered to be gifted in STEM subjects (Olszewski-Kubilius, 2009). The field of STEM is a conglomeration of the individual subjects of science, technology, engineering, and mathematics. Much attention has been devoted to STEM education in the United States in recent years, partly in response to difficulties that undergraduate institutions in the United States have had in retaining and recruiting students in STEM fields (Daempfle, 2003; Perez, Cromley, & Kaplan, 2014).

STEM School (a pseudonym) is a small, early-college, opt-in secondary school in a large metropolitan region in the Midwest of the United States. There are several reasons to believe that this school environment should be an especially adaptive one for students. For instance, enrolment in STEM School is voluntary and admission is

determined by lottery; allowing families to choose the school that their children attend has been associated with increased student achievement, particularly in urban areas in which there are multiple schools from which to choose (Wöbmann, Lüdemann, Schütz, & West, 2007). Furthermore, some research suggests that smaller school communities are associated with higher perceptions of belonging among students (Centers for Disease Control and Prevention, 2009; McNeely, Nonnemaker, & Blum, 2002), although this finding has not been consistent in the literature. Finally, an emphasis on task mastery and the provision of stable, supportive teacher relationships have also been associated with a sense of belonging (see L.H. Anderman & Freeman, 2004, for a review). The purpose of this study, therefore, was to provide a rich description of students' perceptions of a school environment that is explicitly focused on providing a supportive community and promoting high academic performance, to determine if belonging looks the same in this rigorous academic environment as it does in more traditional scholastic environments. A qualitative approach was taken in order to capture a full picture of students' lived experiences, which aided in the interpretation of what students consider to be most salient in their experience of their sense of belonging at school.

Conceptualisations of Belonging

Some researchers have posited that belonging is a basic human need; for example, Baumeister and Leary (1995) presented evidence that a *lack* of belonging severely and negatively impacts individuals' emotions, cognitions, and health. Similarly, Ryan and Deci (2000) proposed that belonging (referred to as *relatedness* in their model) is a crucial factor in personal growth, social development, and wellbeing. In terms of school belonging, specifically, Goodenow's (1993a) seminal work suggests that students' subjective perceptions of school membership influence their motivation and engagement.

In past work, students' sense of belonging has been associated with a range of indicators of academic motivation, including expectations of success (L.H. Anderman, 2003), valuing of school work, self-reported effort (Goodenow 1993a; 1993b), personal mastery goals (L.H. Anderman & E.M. Anderman, 1999), and behavioural and emotional engagement (Furrer & Skinner, 2003). In particular, in their recent longitudinal study, Gillen-O'Neel and Fuligni (2013) found that when American public high school students perceived a greater sense of school belonging, they were more likely to enjoy, and perceive the usefulness of, their schoolwork. Additional research suggests that students with a higher sense of belonging are more likely to report lower levels of social rejection and problematic behaviours, as well as more optimism, intrinsic motivation, autonomy, and internal regulation (E.M. Anderman, 2002; Deci & Ryan, 1985; Ryan & Deci, 2000; Ryan, 1995). Similarly, recent work conducted with a large sample of Flemish adolescents suggests that when these students perceived a greater sense of school belonging, they were less likely to engage in problematic behaviours (Demanet & Van Houtte, 2012). Finally, recent research conducted by Walton and Cohen (2011) demonstrated that when African American college freshmen were informed that the social difficulties they experienced on their campus (i.e., low perceptions of belonging) were common and normal for all college students, they experienced an increase in their grade point averages, reported higher levels of overall health and wellbeing, and were found to have visited the doctor less often 3 years after this intervention was

implemented. Given these findings, it is clear that students' sense of belonging is a crucial part of their educational experience and development.

Although conceptualisations of perceived belonging have primarily focused on social relationships, it has long been held that students' sense of belonging at school has significant implications for academic outcomes. For instance, Finn's (1989) theoretical identification-participation model suggests that if students feel a sense of identification with school, which includes the sense of belonging, they are more likely to engage in scholastic activities; this greater engagement, in turn, increases the likelihood that their academic performance will improve. Similarly, a review of research on students' sense of belonging by Juvonen (2006) suggests that belonging is linked to increases in academic achievement (e.g., see E.M. Anderman, 2002; Goodenow, 1993b; Wang & Holcombe, 2010). Recently, Good, Rattan, and Dweck (2012) found that when female students enrolled in a college calculus class believed that math ability is unchangeable, and that men have a greater math ability than women, they were less likely to perceive that they belonged to the field of math. This lowered sense of belonging, in turn, was associated with decreased grades in math, as well as lowered intentions to pursue math in the future.

Generally, however, the literature on belonging, including Goodenow's (1993b) empirical research, Finn's (1989) theoretical identification-participation model, Juvonen's (2006) review of empirical studies, and Good et al.'s (2012) empirical study, has tended to conceptualise academic achievement as an outcome of school belonging, not a component of the construct itself. Instead, Goodenow and others have focused primarily on students' social relationships, including those with peers, teachers, and a general sense of pride or affiliation with their schools as contributing to the sense of belonging. This may be due, in part, to the widespread use of Goodenow's original survey measures (e.g., the Psychological Sense of School Membership scale, PSSM). Although the results of many studies utilising these scales suggest that students' academic engagement and behaviour can increase (or undermine) their sense of belonging (L.H. Anderman & Freeman, 2004; Good et al., 2012; Juvonen, 2006), they have not considered academic fit as a dimension of the sense of belonging itself. In the present study, we suggest that for some students, sense of academic fit may provide an alternative pathway, beyond interpersonal relationships, to feeling a more general sense of school belonging. That is, students' perceptions of whether they are among intellectual peers, are able to meet high academic standards, and share academic interests with others may represent a further dimension of the sense of school belonging. The theoretical roots of academic belonging can be found in cognitive development concepts such as the zone of proximal development (Vygotsky, 1978), which suggests that students thrive with appropriate challenge, instructional scaffolding, and assistance from both teachers and peers. In the following sections, we present evidence for academic belonging and discuss its implications for theory and practice.

Method

Setting

STEM School serves approximately 200 students in middle school, which encompasses Grades 6–8, aged approximately 11–13 years, and 400 students in high school (Grades 9–12; aged approximately 14–18 years) in the Midwest of the United States. It holds a public charter and enrols by lottery from several school districts in a large,

metropolitan area. The school population is diverse: 50% of students are non-White, 30% are considered to be low-income, and 13% receive special education services. The school places a strong emphasis on academic achievement, which manifests in a number of different school-level practices. First, the school has a focus on STEM, as well as early college preparatory programming that partners with a nearby state university to allow students to begin taking college classes as early as 11th grade. To support students in this aim, entire classes are accelerated to be taught in a single semester rather than over a full academic year, and students are permitted to 'test out' of courses for which they can demonstrate content mastery. Finally, students are held to high academic standards. In order to pass their classes, students must receive at least a score of 90% (equivalent to a grade of A) on all of their assignments and exams. If students do not achieve 90% mastery the first time, they must redo assignments and retake exams until they do. In addition to practices that emphasise academic achievement, STEM School also promotes a supportive community for students through practices such as assigning an advisory teacher who follows students across multiple years, systematically including students' input into evaluating their own progress and course planning, and the ready availability of extensive technology support.

Procedures

Participants. Student interviews were conducted as part of a larger, longitudinal, multiple-methods project. An initial pool of 76 students responded to an online survey, including an open-ended question that asked students to describe 'anything you would like us to know about being a student at STEM School'. Based on these responses, we purposively selected nine middle-school students who represented the heterogeneity of the school's population and both positive and negative perspectives on their experiences. Our final sample included three students each from Grades 6, 7, and 8. Six were girls, and six self-reported their ethnicity as White, with one each reporting being Asian, Black, and Multiracial.

Interviews. Interviews were semi-structured, audio-recorded, and conducted by trained members of the research team. The participants were interviewed three times: first during the Spring 2014 semester, again during the Fall 2015 semester, and for a third time in the Spring 2015 semester. Each interview lasted about 30 minutes, and questions asked students to explain school and classroom structures of STEM School in their own words, their academic and social experiences both at STEM School and at previous schools, and their short- and long-term academic and career goals.

Data analysis. Four members of the research team met to draft provisional codes based on the theoretical framework guiding the study; that is, the commonly reported three-factor model of belonging, which includes relationships with peers, relationships with teachers, and institutional affiliation (L.H. Anderman & Freeman, 2004; Goodenow, 1993a, 1993b; Wallace et al., 2012). Provisional coding is a technique in qualitative inquiry, used when the primary purpose includes corroborating or comparing data with established literature (Saldaña, 2012). It is common to modify or expand codes, or to include new codes, as data are collected and analysed, which typically involves a deductive approach to analysis (Miles, Huberman, & Saldaña, 2013). Each aspect of belonging was assigned two codes. One code reflected instances in which students described the presence of that aspect of belonging, whereas the second code reflected

TABLE 1
Initial Qualitative Codes and Example Quotes

Code	Definition	Example quote
Pride/affiliation with STEM School	The extent to which students are proud to be a student at STEM School.	'Yeah, I'm really glad I'm here. I like this whole thing about early college.'
No pride/affiliation with STEM School	The extent to which students are not proud to be a student at STEM School.	'For high school, I didn't really want to go here. I want to go to another school. But you know, I am kind of stuck here, so I have to live with it.'
Peer belonging	'The extent to which students feel personally accepted, respected, included, and supported by [other students].' (Goodenow & Grady, 1993)	'There's no really popular people 'cause it's so small, and everyone really knows each other and it's just easy to fit in with people.'
No peer belonging	'The extent to which students [do not] feel personally accepted, respected, included, and supported by [other students].' (Goodenow & Grady, 1993)	'I feel like I had to change a tiny bit. Because I don't wanna be fully myself. Because then they might think differently of me.'
Teacher belonging	'The extent to which students feel personally accepted, respected, included, and supported by [their teachers].' (Goodenow & Grady, 1993)	'I really like the teachers – that's what I like most about [STEM School]. The teachers are really nice, and things like that and they'll – they'll kind of – if there's like a problem they'll kind of figure it out with both sides and try to kind of make something happen.'
No teacher belonging	'The extent to which students [do not] feel personally accepted, respected, included, and supported by [their teachers].' (Goodenow & Grady, 1993)	'I find that when I ask a question, she'll get really frustrated that she – that I won't answer the question right because she's like 'I expect you to understand it'.'

instances in which students noted a lack of that aspect of belonging. These six provisional codes, as well as examples of quotes that fell into each category, are provided in Table 1.

Two members of the research team independently coded the entire dataset using the agreed-upon provisional codes. Data analysis was conducted in NVivo (version 10.2.1). Initial interrater agreement was 82.5%, above the 80% threshold suggested for qualitative agreement (Miles & Huberman, 1994). Researchers then compared codes and resolved points of disagreement in their coding until consensus was reached. Next, the researchers provided their finished analyses to a third researcher, who verified the conceptual accuracy of the codes by coding 10% of the data. A limited number of quotes are presented here as exemplars, but these themes also permeate other interviews in the dataset.

Findings

When reviewing the data coded according to the three-dimensional framework of belonging (teacher relationships, peer relationships, and pride/affiliation), we

observed a clear distinction between students who reported feeling as though they belonged at their school because of social aspects, and those who felt as though they belonged because of academic aspects. Therefore, students' descriptions of what it means to fit in at STEM School were classified further into two categories: *social belonging* and *academic belonging*. It should be noted that the original three-dimensional framework was well supported by these data.

Students reported that they feel as though they belong at STEM School because of the open social environment, characterised by close relationships with peers and teachers. For instance, one student, a boy who was in 6th grade when the study began, said: 'The good part is you can get to know more people . . . and you get to be friendly with 6th or 7th graders.' An 8th-grade female student noted: 'The teachers are really understanding . . . they are really open, as I said earlier, and welcome. So I feel like I could be myself here and not like be judged or anything like that.' Thus, some students reported experiences that mapped onto the traditional understanding of belonging.

There were students, however, whose sense of belonging seemed grounded in the strong academic environment and opportunities provided by the school. In particular, some students reported that STEM School offered a level of rigor that had been missing at their previous schools. One student, a boy who was in 6th grade when the study began, said:

> *The best thing is probably the mastery system . . . I feel like it just led me to learn a lot more than I ever would in any other school. The classes are the most important part for me . . . I'm excited to get more learning opportunities and subjects I'm interested in.*

These students' sense of belonging seemed closely tied to feeling that the school met their academic needs. In fact, when asked about what makes them feel as though they fit in at STEM School, a male student in 7th grade when the study began spoke positively of both the academic and social environments: 'I spend time with kids that like their work, they get done with their work, they're really focused on that. But at the same time, they like to have fun.' Thus, it appears that it is easy for some students to see how STEM School can support their sense of belonging in both the academic and social spheres. Importantly, however, some students reported experiencing one type of fitting in without the other, suggesting that social and academic belonging may be meaningfully distinct experiences. For example, one student, a 7th-grade girl, emphasised disliking both studying and STEM subjects, but suggested that STEM School was bearable: '. . . because I have such good friends here. 'Cause at my old school . . . I didn't have good friends. So, I feel like here it's, like, really good . . . it's great.' This student felt that she belonged at STEM School even though she did not enjoy the academic activities. An 8th-grade male student, however, recognised that: 'I just don't try and put myself out there that much. I am not really trying to make friends that much.' This same student was positive, however, about the academic aspect of STEM School:

> *I love the grading system, being able to make sure you learn everything . . . 'cause sometimes it's just really frustrating if you don't grasp the concept of something, and I really do like it. It's been . . . a good experience, and I know it's gonna be good in the future as well.*

Thus, students at STEM School sometimes felt a sense of a belonging in terms of the social environment, and sometimes in terms of being in the right place academically, but not necessarily both kinds of belonging together.

Further, many students expressed that they were proud to be a STEM School student, a feeling that resulted for some from the accelerated nature of the school. One student, a 7th-grade girl, stated:

> *I believe this is the best school for me, because the other schools I attend[ed] were easy and this one meets my limits, trying to help me develop and get me to better grades, so I like the school.*

Though many students appeared to feel accepted at STEM School when they were able to perform well academically, students who struggled to achieve academic success reported feeling out of place among their peers. This finding provides further evidence of the importance of academic belonging, because students clearly articulated when they felt as though it was missing. For instance, one female student, who was in 8th grade when the study began, emphasised that:

> *Well, in this school, like, there's like a high standard that you have to match and . . . I feel like some students are . . . super smart, like, prodigy students, and then, like, you have to, like, work your way up with them if you wanna, like, be up there with them. You have to work really hard, like — it might be easier for some students, but other students — depending on where they come from — it might be a little more challenging.*

It appears that although students were proud to attend a school with a strong focus on learning at an accelerated pace, their sense of belonging in this environment was undermined if they felt unable to achieve academic success. Without perceived academic success, some students appeared to experience a decrease in their self-efficacy, which had an impact on their sense of academic belonging. A 6th-grade girl said, 'The mastery program . . . makes the students who don't have their grades in mastery feel like complete idiots, but still [laughs] I guess that, I guess they kind of deserve that. And by "they" I mean "me".'

Interestingly, there were some circumstances under which students were less likely to experience a decrease in their self-efficacy. For these students, it seems that the most notable difference arose in the way they described belonging in terms of their teachers. A female student who was in 8th grade when the study began, for example, reported: 'Like, I will get a good grade if I try hard, 'cause my teachers care. And like, if they know I'm putting in effort, then they want me to succeed.' This student not only indicated that she knows her teachers care about her, but also that this encourages her to work hard and perform well academically. However, when students reported that their teachers did not make them feel as though they belonged, they were more likely to report lower self-efficacy. One struggling 6th-grade female student remarked of her teacher, for example: 'She sometimes says stuff that I'm not sure that she should say, especially, um . . . so — once she said something that made me burst into tears.'

Finally, students who reported receiving academic help from their peers appeared to experience higher self-efficacy. One 7th-grade female student who reported receiving frequent homework help from her peers via video chat, for example, reported that this helped her: 'Because I feel like if you have help from your friends then you'll feel more boosted up, like then you can do it.' Thus, it appears that both teachers and peers played a powerful role in helping students to feel able to meet the academic demands of the school and, consequently, that they belonged in an academically accelerated environment.

Discussion

The results of the present study provide a rich account of students' sense of belonging at STEM School. By speaking with students, we obtained a new level of understanding of the barriers and supports that students encounter, and learned more about their sense of belonging at school. This study supports and extends the results of previous empirical work on belonging in several ways. First, when asked to describe their sense of school belonging, students at STEM School described aspects of experience that mapped onto the three dimensions represented in the PSSM (Goodenow, 1993b). In addition, however, students described the role that perceived academic fit, the availability of academic challenge, and the acceptability of academic values play in helping them feel as though they belong.

Importantly, whereas some students reported either interpersonal or academic sources of belonging, others reported both; thus, these appear to be orthogonal concepts. It is additionally crucial to note that students' sense of belonging appeared to influence their motivation. Students who perceived a sense of academic belonging were more likely to speak of their enjoyment of their school's academic structure, as well as their belief that this system would benefit them in the future. On the other hand, however, students who did not perceive a sense of academic belonging were more likely to report that they had a difficult time achieving academic success. These findings are consistent with prior literature that has shown an association between students' enjoyment and perceived usefulness of their schoolwork, as well as expectations of academic success, and their sense of belonging (e.g., L.H. Anderman, 2003; Gillen-O'Neel & Fuligni (2013), Good et al., 2012). Equally important, however, was the finding that when students reported receiving support with academic work from either peers or teachers, they were less likely to speak about having low self-efficacy and sense of academic belonging.

These findings help illuminate both the components of belonging and the factors that serve as barriers and supports to students' sense of belonging. In particular, the finding that students who were experiencing academic difficulties were less likely to feel a sense of academic belonging draws strong parallels to Vygotsky's (1978) notion of the zone of proximal development, which suggests that students need to be given work that challenges them just beyond what they are able to complete independently. It seems likely that those students who were struggling in this academically accelerated environment may have had insufficient preparation to meet the demands placed upon them. This pattern of findings reinforces the importance of schools providing sufficient academic support for student success, even while promoting high academic standards. As schools press for ever-accelerated rates of achievement for students, teachers in similar environments may need guidance in the best ways to provide support for students' sense of both social and academic belonging.

To this end, our exploration of academic belonging echoes the concept of pedagogical caring (Noddings, 1992; Wentzel, 1997). The present data suggest that students are more likely to feel as though they belong academically when their teachers show that they care, not only about their students as people, but also about their academic success. That is, teachers influence their students' sense of school belonging not only by providing warmth and interpersonal caring, but also by communicating their expectation for students to do their best, providing high-quality instruction, and making themselves available for additional instruction and help when it is needed. The present results also show that, for many students, their sense of academic belonging

was influenced by the accelerated nature of the school environment, as well as the academic interests students shared with their peers.

Conclusion

Exploring the rigorously academic environment of STEM School complicates our understanding of belonging, suggesting that we may need to think more carefully about the specific school context when attempting to understand what it means to belong. It is important to note, however, that the results of this case study are limited to the specific context of STEM School; it is not clear how robust the current findings might be across other settings. Furthermore, we focused our investigation on students who were in the middle-school grades (early adolescence) in the first year of our study. Additional research will be needed to determine if these findings hold true for those students in other academically accelerated environments, as well as in more traditional scholastic environments. Future research should also explore the balance and relative importance of academic and social sources of belonging for students at different ages, including in the elementary grades and in later adolescence and early adulthood. If such research confirms that academic belonging is an important contributor to students' overall sense of school belonging, the development of survey measures of academic belonging would enable larger-scale, quantitative investigations.

The suggestion that students' sense of belonging can derive from both social and academic perceptions, and that these components might be orthogonal, holds potential implications for educators interested in supporting students' engagement, achievement, and wellbeing. We concur with other scholars (e.g., Turner & Meyer, 2004) that adaptive educational contexts must balance high academic expectations and press for understanding with interpersonal warmth and support. This balance may be particularly important in the early adolescent years, when students are particularly vulnerable to disengaging (Eccles et al., 1993). Creating a school environment that focuses on developing warm, caring interpersonal relationships with students, promoting respectful peer interactions, and also providing students with academic challenge and support for their scholarly ambitions will increase the opportunities for all students to experience a sense of belonging in school.

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Conflicts of Interest

None.

Ethical standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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Fostering School Belonging in Secondary Schools Using a Socio-Ecological Framework

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The benefits of belonging and feeling connected to school for adolescent mental health and wellbeing are well documented, but how belonging is fostered is less understood. The present article puts forward a new conceptual framework of school belonging based on Bronfenbrenner's (1979) sociological model of human development, using evidence from a range of previous peer-reviewed studies to better understand the factors that occur across five levels that affect a students' sense of school belonging (i.e., the individual level, the microsystem, the mesosystem, the exosystem, and the macrosystem). The conceptual framework is used to present a range of evidence-based school belonging strategies (some with examples) that schools can use to enhance student belonging. This article makes an original contribution to the field of psychological and educational research by presenting a socio-ecological framework to explore the themes that influence school belonging within a secondary school system. It broadens the frame of reference of school belonging beyond the individual student to consider features of the broader school system and environment.

■ **Keywords:** belonging, school belonging, school connectedness, academic motivation, school leadership

Belonging has been described as the need for positive regard from others (Rogers, 1951), affiliation motivation (McClelland, 1987), and the desire for relatedness (Vallerand, 1997). Friedman (2007) described a sense of belonging as the development of the self and identity building. It is a well accepted that sense of belonging is not dependent on participation with, or proximity to, others. Rather, it relies on perceptions about the quality of social interactions (Baumeister & Leary, 1995). Therefore, belonging could be considered as one's perception of his or her involvement in a social system or environment (Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier, 1992).

An extensive review of the literature demonstrates that belonging is an important construct, not only at a theoretical level, but also at an empirical level (Hagerty, Williams, & Oe, 2002; Hale, Hannum, & Espelage, 2005). A marked proportion of the psychological literature suggests that general belonging is a vital component of psychological and physical health, and these effects are typically sustained (Daley &

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Buchanan, 1999; Poulton, Caspi, & Milne, 2002; Wadsworth, Thomsen, Saltzman, Connor-Smith, & Compas, 2001).

A sense of belonging is considered to play a fundamental role in adolescent development, particularly in respect to identity formation (Brechwald & Prinstein, 2011; Davis, 2012), psychosocial adjustment, and transition to adulthood (O'Connor, 2010). The literature has also demonstrated that *school belonging*, more specifically, is an important factor in the successful psychosocial adjustment of young people and presents a purpose for schools to engage in interventions and strategies that might promote belonging to school (Lonczak, Abbott, Hawkins, Kosterman, & Catalano, 2002; Nutbrown & Clough, 2009; O'Connor, 2010; O'Connor, Sanson, & Frydenberg, 2012; Sari, 2012).

It has been argued that schools play an important role in fostering a sense of belonging for students (Allen & Bowles, 2013) because they are important institutions that can build social networks for young people. Yet, in a review of the literature concerned with school belonging, Allen and Bowles (2013) have argued that the importance of a student's sense of belongingness to school has not been given the same degree of attention as a student's academic success. This finding is consistent with the lower level of attention devoted to other areas of preventive interventions in schools, such as health promotion and social and emotional learning (Collaborative for Academic Social and Emotional Learning [CASEL], 2003; Hagerty et al., 1992; West, Sweeting, & Leyland, 2004). Very few examples of interventions aimed at specifically increasing a student's sense of belonging can be found at the secondary school level in Australian schools (e.g., SenseAbility; Beyond Blue, 2014); however, the absence of school belonging in whole-school intervention programs appears to be a universal issue, with very few examples in the literature (e.g., Centres for Disease Control and Prevention [CDC], 2009). One reason why school belonging is seldom examined in schools could be due to the absence of a model or framework that schools can employ to foster belonging in students. The field of school belonging research in this respect is largely theoretical, and this may be one factor that restricts the development of belongingness interventions (e.g., in addition to definitional and measurement issues).

Clearly, there is a need for frameworks that assist schools to foster school belonging. Yet, only a small number of conceptual frameworks have focused on school belonging at the student level (e.g., motivation, individual characteristics, emotional instability; Brendtro, Brokenleg, & VanBockern, 2002; Connell & Wellborn, 1991; Malti & Noam, 2009; Ryan & Deci, 2000). Further, these frameworks are limited because they have focused on school belonging as an internal, intra-individual phenomenon and, thus, have not accounted for relational factors and broader aspects in the school environment that influence a student's sense of belonging. While a few frameworks have recognised the importance of school resources and support (e.g., CDC, 2009; McMahon et al., 2008; Wallace, Ye, & Chhuon, 2012), very few of these frameworks have presented school belonging as a multidimensional construct within a multilayered social ecology based on empirical evidence (e.g., Rowe, Stewart, & Patterson, 2007; Waters, Cross, & Reunion, 2009).

The Socio-Ecological Framework of School Belonging

We propose that school belonging is a student's sense of affiliation to his or her school, influenced by individual, relational, and organisational factors inside a broader school

community, and within a political, cultural, and geographical landscape unique to each school setting. Put more simply, school belonging is one's feeling of being connected to a school within a school social system.

In this conceptual paper, we propose that school belonging is a multilayered socio-ecological phenomena, and we apply Bronfenbrenner's (1979) ecological framework for human development to school belonging in order to explore the various layers that affect a student's sense of school belonging. Bronfenbrenner's ecological framework for human development is concerned with systems in society and suggests that for young people, the family is the first unit to which children belong. This is followed by school and community, with each student belonging to a broader network of groups and systems.

All children are at the centre of multiple levels of influence (i.e., the microsystem, mesosystem, exosystem, and macrosystem) and schools can have a significant effect on their development and psychosocial adjustment (Bronfenbrenner, 1979). Bronfenbrenner's (1979) ecological framework for human development serves as a reminder that within any school setting, each student is a part of a greater whole influenced by formal and informal groupings, and overarching systems that are common and typically represented within all schools.

Socio-ecological frameworks such as Bronfenbrenner's (1979) emphasise the importance of social relationships but also include tangible environmental, physical, and ecological variables, such as classrooms and resources (Bronfenbrenner, 1979). The socio-ecological layers represented in such frameworks may provide a structure for schools to improve school belonging by working at the level of the individual, working with interpersonal relationships (e.g., peer, teacher, and parent), and addressing whole school approaches (Saab, 2009; Waters et al., 2009; Waters, Cross, & Shaw, 2010).

Bronfenbrenner's (1979) ecological framework for human development provides the most widely applied theoretical construct to date with which to investigate belonging in an organisational setting such as a school, while acknowledging the innate desire humans have to belong (Baumeister & Leary, 1995; Saab, 2009; Waters et al., 2009; Waters et al., 2010). This may be because Bronfenbrenner's socio-ecological framework represents the varied layers and systems within a school whereas other models and frameworks may only examine constructs directly related to the individual student (Brendtro et al., 2002; Malti & Noam, 2009).

The current conceptual paper proposes a socio-ecological framework of school belonging (Figure 1) to explore school belonging at the individual (through individual characteristics), microsystem (through relationships with parents, peers, and teachers), mesosystem (through school rules and practices), exosystem (through the extended school community), and macrosystem levels (through legislation, social norms, and government initiatives such as the nationally collected data on academic achievement).

The framework can be used by educators, school leaders, and school psychologists to intervene at various levels across the school to enhance school belonging. It also provides an organising framework for researchers in the field to categorise the many different research findings on school belonging at the individual, classroom, and organisational levels. Such a classification system will benefit schools and shed light on which layers within the schools should be prioritised.

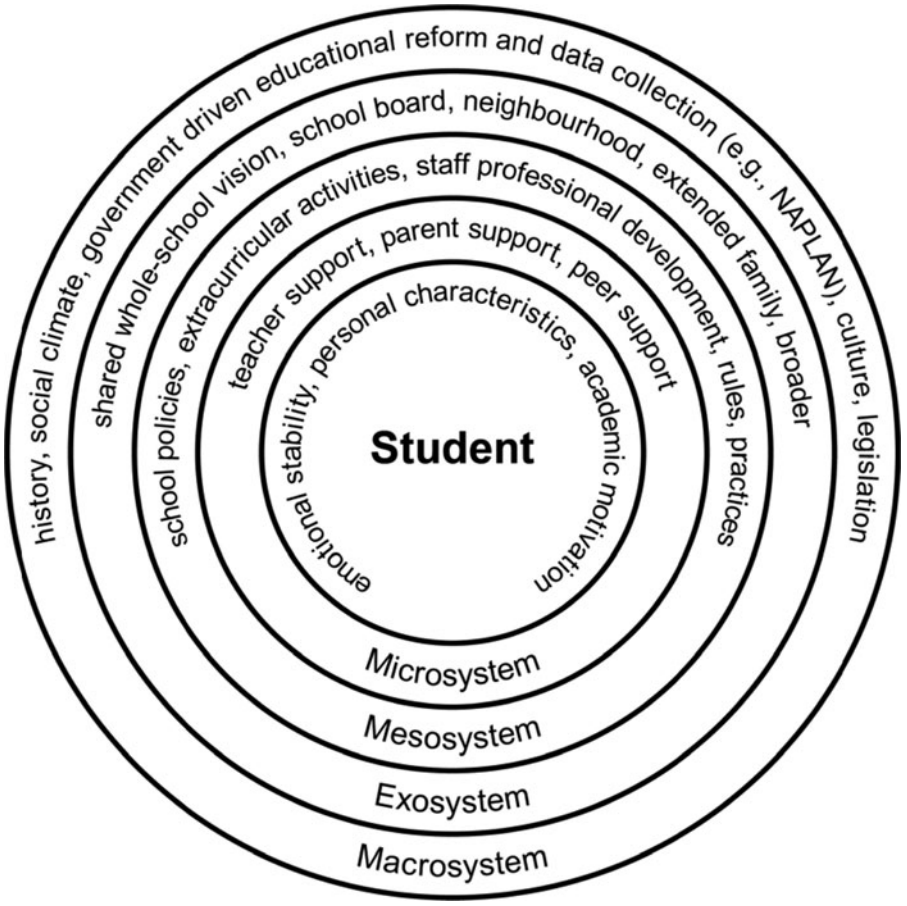

FIGURE 1
The socio-ecological framework of school belonging.

While there is plenty of research supporting the importance of school belonging, very few attempts have been made to understand *how it can be fostered*. Previous studies (Goodenow, 1992; Hurtado & Carter, 1997; Juvonen, 2006) have only focused on the definition, measurement, and importance of school belonging without identifying the precursors and methods for fostering a sense of belonging in school settings. Therefore, this article attempts to address this research-practice gap in schools by specifically looking at the themes that foster school belonging through Bronfenbrenner's (1979) socio-ecological framework for human development. This article also endeavours to draw upon existing empirical research to support the development of a framework. The translation of findings into an evidence-based framework can assist schools to address the research-practice gap and provide the necessary antecedent conditions for fostering school belonging (Hirschkorn & Geelan, 2008; Rowe & Stewart, 2011). Conceptual frameworks can be viewed as theories in their early stages, according to Sharma and Romas (2008), and as such, they should use empirical evidence and be subject to ongoing testing to further develop an evidence base.

The framework used to support the socio-ecological framework of school belonging is based on the work of Wingspread Declaration on School Connections (2004), the Centers for Disease Control and Prevention (2009), as well as other research and various measurement instruments of school belonging (Appleton, Christenson, Kim, & Reschly, 2006; Goodenow, 1992; Libbey, 2004; McNeely, Nonnemaker, & Blum, 2002). This thematic framework represents a sample of important tiers in the literature on school belonging to broadly explore the question: *What themes influence school belonging?* The studies that informed the development of the socio-ecological framework of school belonging were sourced from electronic databases such as EBSCO's Discovery search layer, including Ovid Medline, Mental Health Abstracts, PsycINFO, Social Sciences Abstracts, Sociological Abstracts via SocioFile, Academic Search Premier, Social Sciences Citation Index, and ERIC. Studies were sourced from English-speaking countries and published within the last 20 years. Therefore, a broad range of studies have been used to support the development of the socio-ecological framework of school belonging.

The Layers and Their Interactions

The socio-ecological framework of school belonging outlines five levels of interconnected layers within an *ecology* that supports school belonging. The levels start with the individual and move in concentric rings outwards through the microsystem, mesosystem, exosystem, and macrosystem. The five layers of the socio-ecological framework of school belonging and associated evidence based practices will be discussed below.

Individual

The inner portion of the socio-ecological framework of school belonging represents the individual student and associated individual-level themes that relate to his or her sense of school belonging. Past literature indicates three distinct aspects within an individual student that have been found to correlate with school belonging: academic motivation, emotional stability, and personal characteristics (social and emotional competencies).

Academic motivation includes variables related to performance, objective measures (e.g., test scores and grades), classroom engagement, and perceived value and usefulness of the curriculum and school (Wingspread Declaration on School Connections,[1] 2004). Gillen-O'Neel and Fuligni (2013) performed longitudinal within-person analyses with 572 young people aged between 13 and 19 years over a 4-year period. The results suggested that school belonging was positively associated with a higher level of perceived academic value. The authors suggest that when young people feel connected to their school, they are more likely to find school useful and be academically motivated.

Emotional stability is defined as the absence of maladaptive behaviour, psychopathology, or persistent distress, thus including the absence of mental illness (Cole, Llera, & Pemberton, 2009). One example of an emotional instability variable that has been studied in the literature on school belonging is anxiety where a consistent inverse relationship has been found within its association with school belonging (Williams & Galliher, 2006; Lee & Robbins, 2000). It is unlikely that schools will use the term *emotional instability* in policy and practice. Instead, schools are more likely to build *emotional stability* and use terminology based on psychological health and

wellbeing (Donovan, 2011). This is why the term emotional stability has been used in the framework of school belonging rather than emotional instability. Emotional stability has not been examined in previous frameworks of school belonging; therefore, the socio-ecological framework of school belonging is unique in that it represents this important theme.

The third theme at the student level that has been shown to relate to school belonging involves personal characteristics (i.e., social and emotional competencies), such as coping skills, positive affect, self-efficacy, self-esteem, and self-concept (Hawkins & Weis, 1985; Faircloth, 2009; Reschly, Huebner, Appleton, & Antaramian, 2008; Samdal, Nutbeam, Wold, & Kannas, 1998; Sirin & Rogers-Sirin, 2004). Frydenberg, Care, Freeman, and Chan (2009) found that students who engaged in productive coping (i.e., the ability to successfully regulate behaviours, cognitions, and emotions in response to daily stressors) were more likely to exhibit a greater sense of belonging to their school. Other research (e.g., Reschly et al., 2008; Ryzin, Gravely, & Roseth, 2009) has demonstrated that positive emotions like optimism, hope, and hopefulness are positively associated with school belonging as well. Reschly et al. (2008) identified that social and emotional competencies such as having a positive affect and productive coping skills play an important role in fostering school belonging and vice versa. Therefore, when schools engage in practices that encourage academic motivation, build emotional stability, and foster certain personal characteristics (e.g., coping skills, self-efficacy, self-esteem, and self-regulation), this will likely increase the students' sense of school belonging.

The direction of the relationships between academic motivation, emotional stability, and personal characteristics with school belonging has not been accurately determined from past research, but it is likely the relationship is bidirectional (e.g., Goodenow & Grady, 1993; Ryan, 1995; Klem & Connell, 2004; Zimmer-Gembeck, Chipuer, Hanisch, Creed, & McGregor, 2006). As such, it is suggested that while academic motivation, emotional stability, and personal characteristics may increase a sense of school belonging, school belonging may also lead to an increase in academic motivation, emotional stability, and personal characteristics (such as self-esteem and self-efficacy). Schools seeking to build school belonging can do so by creating high academic motivation, building strong emotional stability, and fostering personal characteristics of students.

Table 1 outlines a set of evidence-based practices designed to increase school belonging at the individual (student) level, based on the three themes of academic motivation, emotional instability, and personal characteristics (Caraway, Tucker, Reinke, & Hall, 2003; Zimmer-Gembeck et al., 2006; Sirin & Rogers-Sirin, 2004). That is, these practices are directed at the student and designed to boost his or her academic motivation, cultivate emotional stability, and foster personal characteristics such as coping skills, self-esteem, positive affect, and prosocial goal behaviour. Future intervention studies are needed to confirm the potential for academic motivation, emotional stability, and personal characteristics to increase school belonging, but Table 1 represents key independent variables found in studies that have examined school belonging that have reported a significant and positive relationship and have reported medium to large effect sizes (medium $\geq$ .30, large $\geq$ .50, Cohen, 1988) ranging from $r = .32$ to $r = .72$. These variables are presented alongside effective evidence-based practices identified in previous research derived from the literature.

TABLE 1
Individual Level Practices Associated With Socio-Ecological Framework of School Belonging

Target area	Evidence-based practices that can increase school belonging	Independent variables	Related studies
Academic motivation	Encourage students to have high (developmentally appropriate) expectations of their own academic ability. Engage in practices that motivate students to aim to do well. Communicate expectations concerned with learning and behaviour. Apply flexible teaching methodologies and personalise learning. Use consistent positive messages that encourage students to achieve their personal best.	Self-academic rating and education goals	Heaven, Mak, Barry, and Ciarrochi (2002) Klem and Connell (2004) Guthrie and Davis (2003)
	Assist students to understand the benefit and purpose of what they are learning in relation to long- and short-term outcomes (i.e., perceived instrumentality) and lesson goals.	Perceived Instrumentality	Walker (2012)
	Express a belief that what is being taught is important and valuable. Ensure that teachers are allocated to subject areas that they are interested and passionate about. Relate information to the students' real world and experiences.	Valuing academics	Battistich, Schaps, Watson, and Solomon (1996) Whitlock (2006)
	Apply mastery goal orientation in the classroom so that students have opportunities to set goals, acquire skills to master those goals, and set further goals. Use teacher feedback to motivate students towards their goals. Emphasise student progress and help students have a good understanding of where they are in their progress and where they are headed next.	Mastery Goal Orientation	Wentzel (1998) Dweck, 1986)
	Foster motivation through specific classroom interventions designed to motivate students (e.g., student-directed and strength-based learning). In addition, present novel and interesting learning opportunities to students that are based on student interests and abilities. Engage students through interactive approaches such as role play, group work, and problem solving. Teach skills and strategies related to academic motivation, competence and effective study (i.e., positive self-talk, goal setting, time management, organisation, help seeking). Encourage intrinsic rewards from learning by seeking feedback of student work from other students, teachers, parents, and the local school community.	Motivation	Battistich et al. (1996) Goodenow and Grady (1993) Patton et al. (2006)
	Teach students skills related to self-regulation to assist in self-monitoring of their academic behaviour and motivating themselves. These skills can be taught by using reward systems and checklists to ensure they are on task and/or working towards acquiring the skills to achieve their goals. Enable students to develop skills that will assist them to prepare for class with the right material and resources.	Academic self-regulation	Ryzin et al. (2009)

TABLE 1
Continued

Target area	Evidence-based practices that can increase school belonging	Independent variables	Related studies
	Provide career guidance and counselling services to students in respect to setting long-term goals and career ambitions.	Future aspirations	Reschly et al. (2008)
Emotional stability	Implement mental health promotion activities and interventions using a whole-school approach (e.g., Act Belong Commit, www.actbelongcommit.org.au). Adopt specific evidence-based programs that target skills related to self-care, resiliency, social connectedness, managing stressors, and resolving conflict. Some specific examples include Mindmatters (www.mindmatters.edu.au), Coping for Success (Frydenberg, 2011), and Thinking Skills for Peak Performance (Brandon, 2012).	Depressive symptoms	Kaminski et al. (2010) Kelly et al. (2012) Kuperminc, Leadbeater, and Blatt (2001) Shochet, Dadds, Ham, and Montague (2006) Shochet, Smith, Furlong, and Homel (2011)
	Educate staff to identify early warning signs of mental illness, implement mental health first aid, and understand appropriate referral and response pathways for students at risk. Train key staff members in postvention (i.e., interventions conducted after a critical incident, to restore wellbeing when managing a critical incident). Encourage staff to proactively reach out to students who may be exhibiting signs of stress or distress.	Emotional distress/problem Stress Fear of failure Psychoticism	Education Development Center (2008) Waters et al. (2010) Wentzel (1998) Wilkinson-Lee, Zhang, Nuno, and Wilhelm (2011) Roche & Kuperminc (2012) Caraway et al. (2003) Heaven et al. (2002)
	Encourage student help seeking behaviours across the school. Enable students to know where to access key staff members to seek personal support when needed (i.e., school counsellor, psychologist, chaplain). Ensure that these individuals are known within the school community (e.g., they may participate actively in other school-based activities that are not directly related to counselling) to reduce stigma for students seeking these services.		

TABLE 1
Continued

Target area	Evidence-based practices that can increase school belonging	Independent variables	Related studies
Personal characteristics	Ensure that students understand that they have a role to play in fostering their own sense of school belonging. This can be done through psychoeducational opportunities provided by the school, social and emotional learning, small group interventions, or individual counselling that specifically address the key themes found to foster school belonging (e.g., academic motivation, emotional stability, personal characteristics, and support from others) as well as boosting individual social and emotional competencies.	Self-esteem	Ryan, Stiller, and Lynch (1994) Sirin & Rogers-Sirin (2004)
	Encourage students to identify their individual character strengths and provide opportunities for them to apply them within curricula and co-curricula activities. Character education has been shown to increase self-efficacy and self-esteem.		Proctor et al. (2011)
	Teach students about the benefits associated with a positive mindset (i.e., their beliefs and attitudes). For example, encourage students to view errors and mistakes as learning opportunities.		Dweck (1986)
	Engage students in setting personal goals related to their wellbeing in addition to goals set around their academic outcomes. Interventions can occur within the school that foster positive relationships, coping skills, adaptability, resilience, and positive prosocial behaviour.	Prosocial goal pursuit and behaviour	Wentzel (1998) Zimmer-Gembeck et al. (2006)
	Consider the use of positive psychology interventions to foster optimism, hopefulness, and happiness (see Seligman, 2011). These interventions can include gratitude curricula, giving to others, and savouring what went well routines (Nielsen, 2011).	Positive affect	Heaven et al. (2002) Reschly et al. (2008) Ryzin et al. (2009) Stoddard, McMorris, and Sieving (2011)

Note: Practices are derived from the literature as indicated.

Microsystem

The importance of a student's relationship with parents, peers, and teachers has been illustrated through various frameworks incorporating school belonging (e.g., CDC, 2009; Connell & Wellborn, 1991). One example is the Self-System Process Model applied to educational settings by Connell and Wellborn (1991). Elements of this model include relationship skills with peers and adults, self-awareness of feelings, emotional regulation, and conflict resolution skills. Thus, it is clear that both the individual and microsystem levels work together to foster school belonging.

Brophy (2004) encourages educators to enhance students' positive dispositional traits such as initiative and self-perceived competence, which contribute to social interactions and relatedness to adults and peers within a school setting. Through Brophy's work, based on a systematic review of motivational literature, the findings suggest that the individual and microsystem levels of the socio-ecological framework interact, because when a school builds the personal characteristics of self-perceived competence (e.g., self-efficacy, self-esteem, and self-concept), this increases the students' relational skills. This in turn strengthens relationships within the students' microsystem (e.g., with parents, peers, and teachers).

Peer support has been found to be an important variable in influencing a sense of school belonging (Goodenow & Grady, 1993; Hamm & Faircloth, 2005; Reschly, Busch, Betts, Deno, & Long, 2009; Osterman, 2000). Libbey (2004) found this variable to be especially valid on measures that looked at school connectedness. The literature suggests that peers may facilitate adolescent students' feelings of being connected to school through social and academic support (Wentzel, 1998), acceptance (Wang & Eccles, 2012), trust (Garcia-Reid, Reid, & Peterson, 2005), or merely being present (e.g., having friends at school; Whitlock, 2006).

In the literature, parents are also found to play an important role in fostering school belonging (Brewster & Bowen, 2004; Wang & Eccles, 2012). Studies have shown that when parents provide support and show care, compassion, and encouragement towards academic endeavours, young people are more likely to exhibit greater connectedness to school (Benner et al., 2008; Brewster & Bowen, 2004; Carter, McGee, Taylor, & Williams, 2007; Wang & Eccles, 2012).

The importance of teachers towards student outcomes has been widely studied (e.g., Anderman, 2002; Hattie, 2009; Wang & Eccles, 2012). In a large-scale synthesis of research, Hattie (2009) ranked a teacher-student relationship (large effect size, $d = .72$) as an important contributor to enhancing academic outcomes in students. In respect to school belonging, a study by Brewster and Bowen (2004) involving 699 high school students in the United States likewise established that while support from others (e.g., parents) was indeed beneficial for students, teacher support was the more important factor. This finding has been widely supported by other studies (e.g., Anderman, 2003; Garcia-Reid, 2007; Johnson, 2009; Sakiz, 2012).

Table 2 outlines examples of evidence-based strategies that specifically target the microsystem layer of the socio-ecological framework. Similar to Table 1, the approaches outlined are derived from the literature, as indicated in the table, and developed from key independent variables found in the literature that reported a significant and positive relationship with school belonging, with effect sizes ranging from medium to large strength, $r = .30$ to $r = .86$ (Cohen, 1988). Future research is needed to evaluate what specific interventions are needed for the themes of peer, parent, and teacher support to increase school belonging, but this table

TABLE 2
Microsystem Level Practices Associated With Socio-Ecological Framework of School Belonging

Target area	Evidence-based practices that can increase school belonging	Independent variables	Related studies
Parent support	Provide opportunities for parents to be involved in the school in meaningful ways, such as through family events and parent led committees. Enable strong communication between school staff and parents through the use of newsletters, information nights, and email correspondence. Encourage parents to feel comfortable in approaching staff members about their child's schooling. Consider disseminating information to parents that specifically provides information and strategies for supporting their child's learning and sense of belonging to the school.	Family support for learning	Reschly et al. (2008)
	Offer parenting courses and information nights that promote ways to foster positive parent-child relationships and positive communication skills. Ensure parents are aware of school support staff and teaching staff that may be able to provide appropriate referral pathways and support to parents when there has been a breakdown in the relationship between the adolescent and the parent.	Parent-student relationship	Brookmeyer, Fanti, and Henrich (2006) Carter et al. (2007) Henrich, Brookmeyer, and Shahar (2005) Kelly et al. (2012) Mo and Singh (2008) Shochet, Smyth, and Homel (2007) Stoddard et al. (2011) Waters et al. (2010) Wentzel (1998) Whitlock (2006)
Peer support	Enable multiple opportunities for students to know each other. Offer extracurricular activities, such as clubs, that can operate during lunchtimes and after school. Provide school sanctioned activities that foster social connectedness and school bonding (i.e., sports days, House activities). Encourage students to engage in these activities and ensure staff and parents model participatory behaviours.	Having friends and feeling accepted	Jennings (2003) Shochet et al. (2011) Whitlock (2006) Zimmer-Gembeck et al. (2006)
	Encourage student peers to be academically supportive towards each other. Create opportunities for study groups and peer-to-peer study support to assist homework and peer support learning. Encourage students to be inclusive, respectful, and tolerant towards the learning needs of others.	Peers are academically supportive	Goodenow and Grady, (1993) Reschly et al. (2008)
	Consider formal peer mentoring and peer support programs within the school. New students, for example, may be assigned to a peer group or buddy system.	Peers are emotionally supportive	Ryzin et al. (2009)

TABLE 2
Continued

Target area	Evidence-based practices that can increase school belonging	Independent variables	Related studies
Teacher support	Encourage teachers to provide pastoral support to students. Allow teachers time to be available to students for personal support as well as academic support. Provide opportunities for teachers to get to know and understand their students (and at least know them by name). This can show their students that they care about them. Encourage teachers to seek feedback from students regarding their relationship and rapport. Consider structuring classes, tutorials, or home groups within the school so that teachers stay with the same students for a number of years.	Positive student-teacher relationship	Anderman (2003) Bowen, Richman, and Bowen (1998) Garcia-Reid (2007) Garcia-Reid et al. (2005) National Research Council and the Institute of Medicine (2004) Reschly et al. (2008) Shochet et al. (2007) Shochet et al. (2011) Waters et al. (2010) Zimmer-Gembeck et al. (2006)
	Demonstrate fair practices within the classroom. Teachers should model respectful behaviour towards each other and to students, and implement reasonable and consistent disciplinary procedures that are agreed upon by students and other staff. Teachers can create student-led groups that provide mechanisms and pathways for student voice (e.g., student representative committee or a quality of teaching committee).	Teachers show fairness	Sakiz (2012)
	Offer support for the academic learning of students. Consider implementing a tutoring program for students to seek additional support over their academic learning or extended learning opportunities after school or during the school holidays. Teachers can provide students with autonomy, support, and involvement over their own learning. They can use learning interactions, visible learning practices, and formative feedback (Hattie, 2009).	Academic support	Patton et al. (2006) Ryzin et al. (2009) Wentzel (1998)

Note: Practices are derived from the literature as indicated.

represents some examples of approaches found in the previous literature worth exploring.

Mesosystem

The mesosystem can be seen as a byproduct of the interactions among the layers in the socio-ecological framework, and thus not only represents school processes, practices, policy, and pedagogy (Libbey, 2004; Saab, 2009), but also highlights the unique bidirectional interactions of the features within the microsystem layer. Tillery, Varjas, Roach, Kuperminc, and Meyers (2013) suggested that support for others within a school system (parents, peers, and teachers), may be made stronger or weaker by aspects of the mesosystem, such as the organisational structure and practices within the school. For example, schools promote safety at the mesosystem level through school rules and policies (Saab, 2009). *Feeling safe at school* has been identified in the literature as an important factor in a student's sense of belonging to school (CDC, 2009; Samdal et al., 1998; Wingspread Declaration on School Connections, 2004; Whitlock, 2006) and has also been found to be a central theme in measures of school connectedness and school belonging (Libbey, 2004).

School vision and mission statements are another example of one element of the mesosystem in the socio-ecological framework of school belonging. School vision and mission statements that outline a school's purpose may provide a school with an opportunity to create a shared vision in respect to how school belonging is prioritised. School vision and mission statements are, therefore, appropriate to include in a socio-ecological framework specific to a school setting due to their ability to offer a vehicle to promote a school's commitment to fostering school belonging. The development of school vision and mission statements that prioritise school belongingness can be created by schools to promote the school's approach to fostering school belonging and assist the development of goals and objectives around creating a stronger school community (CDC, 2009).

A number of studies have explored the importance of students' belief in school rules, discipline, and fairness upon school belonging (Brown & Evans, 2002; Libbey, 2004). A review of the literature on the subject shows strong evidence for school engagement and retention in schools where discipline is enforced consistently and fairly (Finn & Voelkl, 1993; Rumberger, 1995), therefore policies concerned with these variables should be an important consideration for all schools.

Multiple group memberships, such as those provided by extracurricular activities, are another example of a prevalent theme in the literature on school belonging. Researchers have found that a sense of school belonging can be positively influenced by the number of group memberships (Drolet & Arcand, 2013) and number of extracurricular activities a student may subscribe to (Dotterer, McHale, & Crouter, 2007; Libbey, 2004). One example is a study by Soria, Lingren Clark, and Coffin Koch (2011), who found that students' perceived sense of school belonging was influenced by whether or not they participated in extracurricular groups. The researchers investigated 1,865 students who participated in a range of student groups formed during orientation week activities. Results showed that students who attended these activities reported a higher sense of school belonging than those who did not. Furthermore, these students were more likely to have a higher grade point average than the respective cohort of non-participants. A similar relationship between a sense of belonging and

extracurricular activities has been found in other research (Blomfield & Barber, 2010; Dotterer et al., 2007; Knifsend & Graham, 2012; Waters et al., 2010).

As well as fostering themes that positively correlate to school belonging at the individual and microsystem levels, it is clear from the literature that school leaders may also intervene at the mesosystem of the socio-ecological system. Table 3 outlines a set of evidence-based practices for schools derived from the past studies, as outlined below. These practices aim to foster school belonging primarily at the policy and practice level. The mesosystem level can include many variables, and it can be difficult for researchers to disentangle the multiple causal relationships. These practices should therefore be interpreted with some degree of caution and may serve as a source of further research.

Exosystem

The exosystem represents the community surrounding the school and encompasses the local neighbourhood, grandparents and extended families (although depending on the family structure they may also reside in the microsystem), local businesses, and community groups (Saab, 2009). Like the mesosystem, this layer is facilitated by the opportunities provided by schools that bring these groups together. Cemalcilar (2010) suggests that changing school-level practices at the exosystem level (or macro-level through reforms and laws) is a valid recommendation for interventions designed to foster school belonging. Some concrete examples would be for schools to connect with local businesses or other schools within the neighbourhood, or to implement school activities that involve the broader school community and the extended families of its students. Schools may also consider engaging with local community partners who are willing to provide a range of services within the school (e.g., a visiting GP, nurse health checks, dental services; CDC, 2009).

Less empirical information is available for the exosystem and macrosystem levels on school belonging (Brown Kirschman & Karazsia, 2014). This is because it can be difficult to examine the exosystem or macrosystem, especially through studies concerned with preventative interventions like school belonging. These layers do not have a direct association with the student (or individual) where most studies are focused. Studies at the exosystem and macrosystem level on preventative interventions have traditionally engaged whole neighbourhoods at a considerable cost of time and resources (Brown Kirschman & Karazsia, 2014). Furthermore, publically available data concerned with the exosystem are not available as they are for other systems (e.g., mesosystem, microsystem).

Macrosystem

The macrosystem layer represents broader legislation and public policies at the federal level and includes factors such as regulations, guidelines, and government-driven initiatives and data collection (Saab, 2009) as well as the historical (e.g., past events, climate, collective attitudes, and conditions) and cultural (e.g., language, norms, customs, beliefs) context unique to each school. The macrosystem can be influential in the processes of daily school practice, particularly on how schools orient their priorities and goals. The macrosystem layer may influence a student's sense of belonging, although further research is needed to substantiate this claim. One example for this assertion can be seen in Australia, where the use of NAPLAN testing has been controversial and intertwined with debates around teacher effectiveness and performance

TABLE 3
Mesosystem Level Practices Associated with Socio-Ecological Framework of School Belonging

Evidence-based practices	Related studies
Develop a whole-school shared vision that prioritises school belonging	
The development of a shared vision that prioritises school belongingness can be created by schools to promote the school's approach to fostering school belonging and assist the development of goals and objectives around creating a stronger school community (CDC, 2009). A school's vision or mission statement may be an appropriate vehicle to do this.	Bryson (2004) Legters, Balfanz, and McPartland (2002) Owings and Kaplan (2003) Stemler, Bebell, and Sonnabend (2011) Teddlie and Reynolds (2000)
Provide staff professional development	
Provide teachers opportunities to receive professional development in the area of student school belonging that will allow them to enhance their relationships with students, foster a positive, safe, and fair classroom environment, and implement a student-centred pedagogy.	Allen, Pianta, Gregory, Mikami, and Lun (2011)
Facilitate staff development through mentoring programs that are aimed at fostering student school belonging. Mentoring programs have been found to encourage teacher retention, increase job satisfaction, enhance teaching quality, as well as have positive implications for students' outcomes. Mentoring programs allow teachers to share strategies and techniques, learn from one another, and create a positive collaborative environment.	Ingersoll and Strong (2011) National Research Council and the Institute of Medicine (2004) Quint, Bloom, Black, Stephens, and Akey (2005) Sherin and Han (2004)
School policies	
Apply policies and practices that are concerned with student safety, discipline, and fairness (e.g., anti-bullying policies) as these variables have been found to be important for fostering school belonging. Seek input from students, parents, school staff, and community members to develop school policies. Use policies to create foundations for school rules/classroom rules that can be promulgated to create a fair and safe school climate. Ensure they are understood, and implemented by all staff members.	Hawkins, Von Cleve, and Catalano (1991). Garcia-Reid et al. (2005) Whitlock (2006)
Ensure policies and practices are created that are concerned with staff wellbeing and connectedness to the school, which may promote whole-school belongingness, not just student belongingness. If the wellbeing and belongingness of staff members is taken into account, teachers may be more effective educators, which may enhance the student-teacher relationship found to be an important theme for fostering school belonging. One example is the Positive Educational Practices (PEPS) Framework (Noble & McGrath, 2008) which applies an optimistic approach to educational planning for school-wide wellbeing. Concepts such as positive emotions for students and teachers, social-emotional learning, focusing on ideal characteristics and strengths, and developing a sense of meaning are emphasised.	Noble (2006) Noble and McGrath (2008)

TABLE 3
Continued

Evidence-based practices	Related studies
School curricular and extracurricular activities	
Create school curricular and extracurricular activities that implement practices that foster school belonging. Allow for sufficient curriculum time to be available to teach social and emotional learning (SEL) found to increase school belonging. An example of such a program is MindMatters, which is a mental health program designed for Australian schools (Wyn Cahill, Holdsworth, Rowling, and Carson, 2000). One of the objectives of the MindMatters program is to include mental health promotion and education in the school curriculum. Another example could be for schools to introduce programs and interventions in the school curriculum targeting the personal characteristics of students (e.g., coping skills and resiliency skills) as well as mental health promotion initiatives shown to foster school belonging. For instance, research using interventions on coping techniques has demonstrated that adaptive coping styles are positively related to perceived sense of school belonging (Frydenberg et al., 2009). Another example is Mindfulness-Based Education programs (Schonert-Reichl & Lawlor, 2010), adapted from the practice of mindfulness to assist socio-emotional competence and encourage positive emotions.	Frydenberg et al. (2009) Schonert-Reichl and Lawlor, (2010) Wyn et al. (2000)
Extracurricular activities have been found to be an important theme for school belonging. Aim to provide opportunities for students to join multiple groups within the school system (e.g., lunch time and afterschool activities) and offer school sanctioned groups for students to belong to (e.g., home group/tutorial groups, school house groupings).	Blomfield and Barber (2010) Dotterer et al. (2007) Shochet et al. (2007)

Note: Practices are derived from the literature as indicated.

pay. A teacher's ability to implement a curriculum or bolster the study scores of students is not reported in the literature as a concern for students, yet it can often be a pressing burden for teachers in modern-day schools (Roffey, 2012; Thompson, 2013). This is perhaps a reflection of the pressure by governments and legislation to prioritise academic outcomes at the macrosystem level, above other important factors in the school system. Roffey's (2012) Wellbeing Australia Survey found that 'The additional stress on teachers working in unrealistic performance-driven environments has a negative impact on them, which in turn must impact [on the] health and wellbeing of the students in their classrooms' (p. 4). Increased teacher stress may affect the student-teacher relationship found to be important for fostering school belonging in this article. The absence of a positive student-teacher relationship may result in a reduction in school belonging. Therefore, schools should be mindful of the effect of government-driven initiatives and data collection and the effect this may have on the other socio-ecological layers common to schools.

Unless government bodies become aware of the growing pressure on schools and teachers from over-prioritising academic outcomes, schools may be reluctant to implement positive, proactive interventions related to school belonging or other areas (e.g.,

coping, resiliency, positive psychology) due to an already overcrowded curriculum (Thompson, 2013). Government bodies concerned with schools should therefore ensure that school belonging (and wellbeing more generally) is prioritised in major sources of information disseminated about schools; for example, including a school belonging measure on the *My School* website[2] . How students perceive their sense of belonging to their school may be information parents wish to seek about a school, in addition to academic scores. This is particularly relevant for addressing school drop-out rates and student retention at school. Given that school life generally encompasses a diverse range of outcomes and experiences for students, it seems reasonable to argue that a school's educational practices should not be reduced to a set of standardised scores based on one element of the school's performance (Hardy & Boyle, 2012). At the school level, schools must be mindful of these macrosystem level influences from government reform and policy. It is paramount that schools set realistic and inclusive expectations for academic outcomes for their students, while being mindful of the needs of teachers (Roffey, 2012).

Strengths and Limitations of the Framework

The socio-ecological framework of school belonging is based on empirical evidence derived from past literature. The framework is designed as a comprehensive way for schools to foster school belonging. While the framework itself has been developed from peer-reviewed empirical studies, the inclusion of mainly correlational findings means that the direction of the relationship between the themes found to be strongly correlated with school belonging require further analysis. An important caveat of the framework, therefore, is that the influence of themes associated with school belonging cannot be regarded as causal.

Future Research

The framework and suggested evidence-based school practices would be strengthened if they were tested or evaluated using other methods of research. For example, a case study would refine the understanding of how context affects: (a) what practices are implemented, (b) how the practices are implemented, and (c) the success of the practices. A deeper understanding of the evidence-based socio-ecological framework and accompanying school practices would be gained by investigating the experiences, values, and preferences of school leaders, educators, students, and school psychologists (Dollaghan, 2004). Further research should aim to use longitudinal designs with objective measures (e.g., observation) for a more detailed understanding of school belonging.

Questions also remain about how school belonging may differ within specific populations. How does the framework apply to young people who do not belong? How does the framework apply to minority groups? While it is clear that social support is essential to improve belonging among students, this appears to be even more salient for minority groups; for example, individuals of different racial and ethnic backgrounds, persons with disabilities (McMahon et al., 2008), and students who identify themselves as having GLBTQI orientation (Aerts, Van Houtte, Dewaele, Cox, & Vincke, 2012). For these students, the acceptance of their peers, teachers, and parents has been found to be an important variable in developing prosocial behaviour and a positive attitude towards school (Galliher, Rostosky, & Hughes,

2004). Assessing the socio-ecological framework of school belonging's usefulness for specific populations can be examined by future research. Further investigation of the relationship between the broader school community, neighbourhoods, and extended families on the perceived sense of belonging by young people may yield more information on how school belonging can be fostered through a whole-school approach.

Empirical evaluation of the framework in different samples would allow identification of the direction of the relationships of the various individual, microsystem, mesosystem, exosystem, and macrosystem levels with school belonging, thus creating a clearly identified pathway for fostering this construct (e.g., what layers are interdependent, how are they weighted, and what combinations are especially important for school belonging to occur?). Therefore, further research is needed to empirically validate the framework and associated evidence-based school practices and further understand the importance of school belonging and how to increase and/or maintain it in secondary school settings.

Conclusions

This article presented a new socio-ecological framework of school belonging using an ecologically oriented school perspective. The socio-ecological framework of school belonging, in its present form, extends Bronfenbrenner's (1979) ecological framework for human development and represents school belonging as a multidimensional construct. Schools may be better equipped to prioritise school belonging more effectively if they have the appropriate and accessible resources by which they could base interventions on fostering and maintaining school belonging at *multiple levels*. Therefore, the socio-ecological framework of school belonging aims to bridge research and practice through equipping schools with evidence-based information on how school belonging can be increased or maintained.

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Conflict of Interest

None.

Ethical Standards

This review did not involve human and/or animal experimentation.

Endnotes

1 In 2003 the Centers for Disease Control and Prevention's (CDC) Division of Adolescent and School Health, and the Johnson Foundation convened an international gathering of educational leaders and researchers at the Wingspread conference centre in the United States. The Wingspread Declaration on School Connections (2004) was the result of a 'detailed review of research and in-depth discussions across two days' (p. 233).

2 My School Website (ACARA, 2009), which publishes National Assessment Program — Literacy and Numeracy (NAPLAN) results, a standardised measure of academic achievement, for all primary and secondary schools in the country

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Australian Psychological Society Congress 2016
Melbourne, 13–16 September

College of Educational & Developmental Psychologists CPD Stream Information

Date & Time	Session	Session Title	Presenter Names	Presentation Type
Wednesday 14 September 2016, 9.45am – 10.45am	Congress Official Opening & Keynote Address	Sex Differences in Cognitive Abilities: What We Know and Don't Know and Why It Matters	Diane Halpern	Keynote Address
Tuesday 13 September 2016, 1.30pm – 5pm	Concurrent Session 2E	Teaching and Assessing Critical Thinking: Helping College Students Become Better Thinkers	Diane Halpern	Half-day Workshop
Thursday 15 September 2016, 11am – 11.45am	Concurrent Session 5E	How to Foster School Belonging	Kelly Allen	'How-to' Session
Friday 16 September 2016, 10.30am – 11.15am	Concurrent Session 9D	How KidsMatter supports school children's mental health and promotes positive learning outcomes	Anthea Rees Kate McNeilly	'How-to' Session
Thursday 15 September 2016, 3.45pm – 5.15pm	Concurrent Session 7D	Between sessions: Supporting schools to sustain the psychological treatment of adolescents	Bridget McPherson	'How-to' Session
Thursday 15 September 2016, 8.30am – 9.45am	Concurrent Session 5E	Issues Facing Psychologists working in schools to foster inclusive practice	Lizette Campbell Paul Bertoia	Professional Forum

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Friday 16 September 2016, 8.30am – 10am	Concurrent Session 8D	What can Geropsychology contribute to your practice? Understanding and integrating the Psychology of Ageing.	Lizette Campbell Paul Bertoia	Professional Forum
Tuesday 13 September 2016, 1.30pm – 2.30pm	Concurrent Session 2I	Improving cognitive and neuropsychological assessments using Cattell-Horn-Carroll (CHC)Theory	Kevin F. McGrew Kate Jacobs	Professional Forum
Tuesday 13 September 2016, 9am - 10am	Concurrent Session 1E	Social and emotional competence: its role and relevance for 'mainstream' students, at-risk students, and their teachers	Andrew Martin Ana Tarbetsky Rebecca Collie Erica Frydenberg	Symposium
Tuesday 13 September 2016, 10.30am – 11.50am	Concurrent Session 1E	Best Practice in School Psychology	John Burns Lydia Senediak Fiona Spencer Monica Thielking Anh Rivera	Symposium
Thursday 15 September 2016, 2pm – 3.30pm	Concurrent Session 6E	Social and emotional development in the early years: Building empathy skills for a promising future using COPE-R	Erica Frydenberg Neisha Kieman Chelsea Cornell Prishni Dobee Danielle Kaufman	Symposium
Tuesday 13 September 2016, 11.50am – 12.30pm	Concurrent Session 1E	Psychology and Restrictive Practices: Lessons from research and clinical practice	Morag Budiselik Lynne Webber Mandy Donley Keith McVilly Ian Pearce Julian Troller	Panel Discussion
Thursday 15 September 2016, 9.45am – 10am	Concurrent Session 5E	Culture and learning in international schools: Are trait differences in students' personalities attenuated or amplified?	Gerard Wurf	Individual Oral Paper
Thursday 15 September 2016, 10am – 10.15am	Concurrent Session 5E	The effect of school support and PLT work on the planning of teacher professional development	Judith Crigan	Individual Oral Paper
Thursday 15 September 2016, 10.15am – 10.30am	Concurrent Session 5E	The Resilience Doughnut. Connecting ordinary everyday moments to build resilience.	Lyn Worsley	Individual Oral Paper
Thursday 15 September 2016, 11.45am – 12pm	Concurrent Session 5E	Belonging and Socioemotional Wellbeing Among Students in Transition from Primary to Secondary School	Kimberley O'Brien	Individual Oral Paper

Friday 16 September 2016, 8.37am – 8.44am	Concurrent Session 8J	Does omega-3 rich fish oil supplementation during fetal brain growth improve child brain development?	Jacqueline Gould	Rapid Presentation
Friday 16 September 2016, 9.06am – 9.13am	Concurrent Session 8J	Advance Australia Fair? The unequal nature of Australian schooling and the importance of the parent factor in education.	Jodie Lodge	Rapid Presentation
Friday 16 September 2016, 8.30am – 8.37am	Concurrent Session 8J	Language Difficulties in Children with Attention Deficit Hyperactivity Disorder: A Meta-analytic and Systematic Review	Hannah Korrel	Rapid Presentation
Friday 16 September 2016, 9.41am – 9.49am	Concurrent Session 8J	Motivation to Engage and Belong in Relation to Academic Grades, Self-esteem and Affects for Adolescents	Terrance Bowles	Rapid Presentation
Thursday 15 September 2016, 8.58am – 9.05am	Concurrent Session 5J	When believing leads to achieving: How individual differences variables moderate the reciprocal relationship between self-efficacy and academic performance	Kate Talsma	Rapid Presentation
Friday 16 September 2016, 9.13am – 9.20am	Concurrent Session 8J	Emirati high school students and the self-concept internal/external frame of reference model	Joana Stocker	Rapid Presentation
Friday 16 September 2016, 8.44am – 8.51am	Concurrent Session 8F	Working towards a comprehensive assessment of working memory: Implication for the identification of ADHD.	Jade Goodman	Rapid Presentation
Wednesday 14 September 2016, 12.15pm – 12.22pm	Concurrent Session 3I	The role of individual differences in relation to the prevalence of effort-reward imbalance	Cameron Williams	Rapid Presentation
Friday 16 September 2016, 9.27am – 9.34am	Concurrent Session 8J	Developing an explanatory model of cyberbullying with a Canadian adolescent sample	Laurie-Ann Hellsten	Rapid Presentation

Friday 16 September 2016, 9.34am – 9.41am	Concurrent Session 8J	Embedded figures test performance in the broader autism phenotype: A meta-analysis	Serena Cribb	Rapid Presentation
Thursday 15 September 2016, 2.28pm – 2.35pm	Concurrent Session 6F	The Role of Resilience in the Wellbeing of the Australian Culturally Diverse School Students	Omar Ibrahim Nigar Khawaja	Rapid Presentation
Thursday 15 September 2016, 7pm – 9pm	Poster Viewing Session # 3	Toddlers Prefer to Help Familiar People	Meredith Allen	Poster
Thursday 15 September 2016, 7pm – 9pm	Poster Viewing Session # 3	Adolescent Antecedents of Emerging Adults Preparedness to Care	Sam Collins	Poster
Friday 16 September 2016, 1pm – 2.30pm	Poster Viewing Session # 4	Improving student learning through facilitating school collaboration	Judith Crigan	Poster
Friday 16 September 2016, 1pm – 2.30pm	Poster Viewing Session # 4	Fostering control: Can children's self-regulation be enhanced through interactive stories?	Thomasin Powell	Poster
Thursday 15 September 2016, 1.05pm – 2pm	Poster Viewing Session # 2	Feeling like a fraud: The relationship between university-student impostorism, burnout, and withdrawal	Cameron Williams	Poster
Thursday 15 September 2016, 7pm – 9pm	Poster Viewing Session # 3	The effect of internalised stigma and group identification on psychological distress and life satisfaction among young people not in employment, education, or training (NEET)	Rachel Frost	Poster
Friday 16 September 2016, 1pm – 2.30pm	Poster Viewing Session # 4	Psychological wellbeing of caregivers of young adults with cerebral palsy	Elizabeth Penrose	Poster