Chapter 2
Need Satisfaction and Links with Social-Emotional Motivation and Outcomes Among Students

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Abstract Ample research has provided support for core tenets of self-determination theory (SDT) across a range of cultures and contexts. Recently, this has extended to considering the social-emotional domains of life (e.g., interpersonal interactions, emotion regulation). In this chapter, we define and discuss social-emotional need satisfaction and the role it plays among school students. As per SDT, we focus on social-emotional need satisfaction in terms of autonomy, competence, and relatedness with respect to individuals' social and emotional interactions and experiences. We refer to the Social and Emotional Competence School Model and review recent research examining social-emotional need satisfaction to summarize the current state of the literature. Following that, we turn our attention to consideration of the adaptive social-emotional motivation, behavior, and well-being outcomes that stem from social-emotional need satisfaction. The chapter concludes with implications for teachers and schools for promoting social-emotional need satisfaction and directions for future research.

Introduction

Within the self-determination theory literature, abundant research has provided support for the basic psychological needs of autonomy, competence, and relatedness across a range of cultures and contexts (Jang et al., 2009; Oga-Baldwin et al., 2017). Within school settings, the bulk of research has examined academic need satisfaction, that is, a sense of autonomy, competence, and relatedness in relation to school or academic tasks (e.g., Jang et al., 2016). Recently, researchers have extended this focus to begin considering the basic psychological needs in relation to social-emotional domains of life, such as social-emotional motivation, behaviors, and well-being (Bigman et al., 2016; Caprara et al., 2008). Considering social-emotional

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domains is important given they form a core part of healthy human development and are central to human thriving (Jones et al., 2015).

The aim of the present chapter, therefore, is to explore the role of need satisfaction in relation to the social-emotional domains. To do this, we harness the Social and Emotional Competence (SEC) School Model (Collie, 2020), which draws together knowledge from self-determination theory (SDT; Ryan & Deci, 2017) and theorizing within the SEC literature (e.g., Rose-Krasnor & Denham, 2009). To begin, we briefly introduce the basic psychological needs as per SDT. Following this, we introduce the SEC School Model, including key constructs and processes within the model. In particular, we focus on how social-emotional need satisfaction plays a role in supporting autonomous social-emotional motivation and, in turn, adaptive behavioral and well-being outcomes. Then, recent research examining need satisfaction in relation to social-emotional motivation and outcomes is briefly reviewed to illustrate the current state of the literature. The chapter concludes with a focus on implications for practice and research within educational settings. In particular, we discuss strategies for teachers and schools to promote social-emotional need satisfaction among students. Given that research into social-emotional need satisfaction is relatively nascent, our implications for research focus on key areas that need to be addressed to further advance the field.

Basic Psychological Need Satisfaction

A fundamental component of SDT (Ryan & Deci, 2017) is the proposition that humans' innate propensity for optimal functioning requires the fulfillment of three basic psychological needs. Basic psychological need satisfaction refers to the individual's sense of autonomy, competence, and relatedness within a specified context (e.g., classroom, workplace, home environment). Autonomy satisfaction, or perceived autonomy, reflects an individual's sense of personal choice and freedom in their expression and behavior within a particular environment (de Charms, 1968). Competence satisfaction, or perceived competence, refers to an individual's perception of their own capabilities to successfully function or adapt to a given activity, environment, or situation (White, 1959). Relatedness satisfaction, or perceived relatedness, occurs when an individual enjoys positive interpersonal relations, which provide a sense of being supported, cared for, valued by important others, as well as being supportive of, caring for, and valuing those others (Baumeister & Leary, 1995).

There is a plethora of research spanning diverse populations and contexts demonstrating that basic psychological need satisfaction is linked with positive academic, occupational, and well-being outcomes (e.g., Mouratidis et al., 2011; Tian et al., 2014; Tilga et al., 2019; Vansteenkiste & Ryan, 2013). Although cultural differences have been noted as varying the degree to which basic psychological need satisfaction is valued (e.g., Markus et al., 1996), empirical evidence consistently demonstrates positive associations between need satisfaction and a range of positive outcomes

across cultures (e.g., Jang et al., 2009; Oga-Baldwin et al., 2017; Ryan & Deci, 2020). Building on this extensive body of literature in the academic and occupational domains, an emerging body of research is now considering the role of basic psychological need satisfaction as applied to the social-emotional domains. To introduce this research, it is important to first discuss conceptual work in that area.

The Social-Emotional Competence School Model

Although there has been limited consensus regarding the definition of SEC within the literature, it is generally considered to reflect an overarching construct that encompasses a range of social or emotional competencies and behaviors (e.g., Saarni et al., 2006; Semrud-Clikeman, 2007). Indeed, within educational contexts, SEC is commonly examined by way of behaviors and competencies. For example, the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2020) describes five social-emotional competencies (self-awareness, self-regulation, social awareness, relationship skills, and responsible decision-making), which inform social and emotional learning curriculum across a wide range of educational contexts.

Although approaches focused on behaviors and competencies, that is, top-down approaches have been crucial for extending knowledge of SEC, theorists have also called for bottom-up perspectives that consider underlying mechanisms in order to provide a more complete understanding of SEC (Stump et al., 2009). The SEC School Model (Collie, 2020), shown in Fig. 2.1, was developed to address this gap and incorporates both top-down and bottom-up approaches. More precisely, the SEC School Model integrates motivational processes derived from SDT (Ryan & Deci, 2017), with established conceptual foundations from the SEC literature (e.g., Denham, 2006; Rose-Krasnor, 1997). In doing so, the SEC School Model features the mechanisms (bottom-up) and manifestations (top-down) integral to students' overarching SEC.

As described in detail below, two key mechanisms are considered in this model: social-emotional basic psychological need satisfaction and motivation. Manifestations of students' SEC are represented by the resulting outcomes, including adaptive social-emotional behaviors and well-being. The SEC School Model, then, does not emphasize students' social-emotional competencies or abilities like many other approaches (e.g., CASEL, 2020), but rather focuses on the mechanisms underlying these competencies (i.e., need satisfaction and motivation), as well as the manifestations of these competencies (by way of behaviors and well-being). In the SEC School Model, child and adolescent development of SEC within the school environment is represented as an iterative process shown in the center of Fig. 2.1. In this iterative process, social-emotional basic psychological need satisfaction promotes a continuum of autonomous social-emotional motivation and, in turn, adaptive social-emotional outcomes. This cycle then continues. Thus, rather than considering SEC as a single construct or looking at different competencies, SEC is identified as a process involving mechanisms and manifestations (Collie, 2022b). The consequence of this iterative process reflects students' overarching SEC.
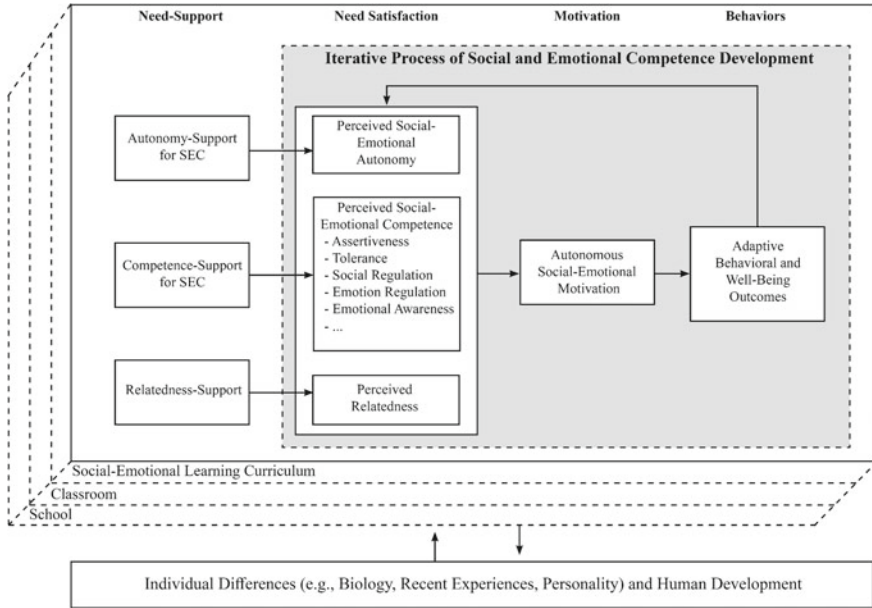
Fig. 2.1 Social and Emotional Competence School Model. *Note* The shaded areas in the figure form the focus of the current chapter. Under perceived social-emotional competence, we refer to the five factors described in Collie (2022b); however, we note there are other approaches for considering this construct, including potentially other factors not listed here as shown by the ellipsis in the Figure. © Rebecca Collie 2019

As indicated above, the SEC School Model integrates knowledge from both SDT and the SEC literature. For example, within the SEC literature, three factors namely social-emotional abilities, motivations, and behaviors are established as fundamental for SEC (Rose-Krasnor & Denham, 2009). Two of these factors, motivation and behaviors, show alignment with SDT (Ryan & Deci, 2017), in which motivation is posited to predict subsequent behavior. For example, autonomous academic motivation is associated with greater academic engagement (Mouratidis et al., 2018). The inclusion of motivation and behavior in the SEC School Model, then, integrates both SDT and SEC literature.

In contrast, the abilities that form a focus in the SEC literature are transformed to reflect perceived competence in the SEC School Model which aligns with SDT and its focus on perceived competence as a basic psychological need. This switch from actual competence (i.e., competencies or abilities) to perceived competence occurs within the SEC School Model because motivation theory (Ryan & Deci, 2017; see also Bandura, 1997) highlights that it is perceived competence (more than true competence) that drives individual development and behaviors. Perceived competence has been established as a crucial motivational catalyst underlying an individual's agency toward their personal development and performance (Ryan & Moller, 2017).

Finally, researchers in the area of SEC highlight the salience of relationships with important others and agentic and individual development, in impacting the development of social-emotional abilities (Rose-Krasnor & Denham, 2009). Together these two factors align well with the basic psychological needs of relatedness and autonomy in SDT.

In sum, the SEC School Model unites conceptual understanding of students' social-emotional behaviors with SDT to provide a comprehensive understanding of SEC within school settings. By integrating the motivational processes outlined within SDT and established conceptualizations of SEC, the SEC School Model stipulates a conceptual framework for understanding the mechanisms underlying behavioral and well-being manifestations in the social-emotional domains. In the next sections, the central factors in the iterative process of the SEC School Model are introduced.

Social-Emotional Basic Psychological Need Satisfaction

Need satisfaction has been studied extensively across a range of academic, occupational, and health contexts (e.g., Ntoumanis et al., 2021; Rigby & Ryan, 2018; Ryan & Deci, 2020). Within educational contexts, SDT research has typically examined basic psychological need satisfaction with reference to academic and related achievement outcomes (e.g., Guay et al., 2010). The SEC School Model (Collie, 2020) extends understanding of these motivational processes to the domain of social-emotional development. Perceived autonomy, competence, and relatedness are now defined with reference to the social-emotional domains (Collie, 2020).

Perceived Social-Emotional Autonomy

Extending from SDT (Ryan & Deci, 2017) and consistent with conceptualizations of domain-specific autonomy in educational research (e.g., Haerens et al., 2015), the SEC School Model positions perceived autonomy as domain-specific to SEC. Specifically, *perceived social-emotional autonomy* reflects individuals' perceptions that their emotions and socially focused thoughts and behaviors are authentic/consistent with their sense of self (Collie, 2020). Perceived social-emotional autonomy also reflects individuals' sense that their social and emotional actions are internally motivated without coercion (Collie, 2020).

Perceived Social-Emotional Competence

Perceived social-emotional competence (perceived SEC) refers to an individual's sense of aptitude and effectiveness during intrapersonal and interpersonal social-emotional interactions, as well as their perceptions of being able to employ social-emotional capabilities appropriately for a given context (Collie, 2020). As noted

above, perceived SEC differs from actual competence, which has been the dominant focus in the SEC literature to date (e.g., CASEL, 2020; OECD, 2021). For example, actual competence (i.e., abilities) for emotion regulation is typically manifested as a behavior: "I regulate my emotions to feel better." In contrast, perceived competence for emotion regulation reflects the individual's appraisals of their competence: "I feel capable to regulate my emotions to feel better." As previously explained, perceived competence is an important focus as it acts as a motivating force for individual development and action-taking (Ryan & Moller, 2017).

Researchers have recently turned their attention toward perceived SEC and the role it plays in students' motivation, behaviors, and well-being. A small, but growing body of research is examining perceived SEC factors by way of specific types of perceived SEC. For example, several studies have analyzed perceived competence for emotion regulation, which reflects a student's belief that they are capable of altering their thoughts in order to feel greater positive or less negative emotions (Bigman et al., 2016; Caprara et al., 2008). Other researchers have examined an overarching factor of perceived SEC, which reflects a general sense of competence across the social-emotional domains. For example, Collie (2022c) examined a broad factor of perceived social competence that captured students' general sense of competence in communicating, listening, cooperating, and resolving disagreements.

More recently and given the multidimensional nature of social-emotional behaviors and capacities, researchers have begun directing their attention toward examining different types of perceived SEC simultaneously. For example, Collie (2022b) identified five specific factors reflecting distinct components of perceived SEC: perceived competence for (a) *assertiveness*, which refers to feeling skilled in advocating for oneself and acting as a leader; (b) *tolerance*, which involves feeling able to be open-minded toward people with diverse backgrounds and opinions; (c) *social regulation*, which refers to feeling able to manage one's behaviors as appropriate in different contexts; (d) *emotion regulation*, which as noted above refers to feeling able to adjust emotions; and (e) *emotional awareness*, which refers to feeling able to identify and articulate one's emotions. According to Collie (2022b), these five dimensions map onto well-recognized social-emotional competencies as captured in other research (CASEL, 2020; Chernyshenko et al., 2018; OECD, 2021), but have been transformed into perceived (rather than actual) competence. When examined together, Collie's (2022b) study showed that these five dimensions reflect both an overarching factor, as well as specific factors, of perceived SEC. The overarching factor, general perceived SEC, captures an individual's broad sense of personal competence regarding social-emotional phenomena. In contrast, the specific factors capture unique aspects of perceived SEC that are distinct from general perceived SEC. Taken together, research is revealing different approaches to capturing perceived SEC. Importantly, and as described in more detail below, results are showing that perceived SEC measured in these different ways appears to be consistently associated with outcomes among students.

Perceived Relatedness Within the Social-Emotional Domains

The final basic psychological need is relatedness. As noted above, perceived relatedness occurs when an individual experiences a sense of being supported, cared for, valued by important others, as well as being supportive of, caring for, and valuing those others (Baumeister & Leary, 1995). The basic psychological need for relatedness is not considered domain-specific within the SEC School Model because this construct is inherently social-emotional in nature. More specifically, when students' need for relatedness is satisfied, it fundamentally encompasses social-emotional domains.

Social-Emotion Motivation

In SDT (Ryan & Deci, 2017), basic psychological need satisfaction is associated with more adaptive forms of motivation. The same is true in the SEC School Model with a specific focus on the social-emotional domains. Prior to introducing the role of motivation in the SEC School Model, we briefly review motivation as per SDT.

Motivation is pertinent across all aspects of life. SDT (Ryan & Deci, 2017) offers a continuum of motivation comprising several types that differ to the degree to which they are self-determined. Across the continuum, qualitative categories are ordered sequentially based on the regulation source. Sources of regulation can be classified broadly as being autonomous (i.e., highly self-determined) or controlled (i.e., regulated by external influences; Ryan & Deci, 2017; Sheldon et al., 2017). At a more granular level, autonomous motivation is considered to comprise intrinsic motivation and identified regulation (Ryan & Deci, 2017). *Intrinsic motivation* involves being motivated to enact a behavior due to pure joy or inherent pleasure. *Identified regulation* involves being motivated to engage in a behavior due to internal endorsement or valuing of the consequences of the behavior (Ryan & Deci, 2017). Notably, both intrinsic motivation and identified regulation are characterized by volition and choice, and internal endorsement and valuing of behaviors linked with the sense of self (Deci & Ryan, 2008).

In contrast to autonomous motivation, controlled motivation refers to engagement in behaviors in response to external pressure or demands that may result in prescribed incentives or unwanted consequences (e.g., sanctions; Deci & Ryan, 2008). Controlled motivation encompasses introjected regulation and external regulation. *Introjected regulation* involves being motivated to undertake a behavior to feel good about oneself (i.e., feeling proud) and/or to avoid feeling bad about oneself (e.g., avoiding shame). *External regulation* refers to being motivated to undertake a behavior to avoid getting in trouble or to obtain a reward. Finally, and beyond autonomous and controlled motivation, SDT also encompasses *amotivation*, which involves a state of experiencing no motivation, that is, not being motivated to engage in a behavior at all because the individual sees no point in putting in effort (Ryan & Deci, 2017). Within the school environment, ample research has demonstrated

that autonomous forms of motivation are associated with more positive academic outcomes than controlled motivation or amotivation (Guay, 2021; Guay & Bureau, 2018).

Building on that prior research in the academic domains, researchers have recently begun to consider social-emotional motivation. In the SEC School Model (see Fig. 2.1; Collie, 2020), autonomous social-emotional motivation is positioned as a core component and one that is promoted by social-emotional need satisfaction. Consistent with SDT (Ryan & Deci, 2017), autonomous motivation within the social-emotional domains includes both intrinsic motivation and identified motivation. *Intrinsic social-emotional motivation* refers to behaviors that are undertaken for personal interest and joy (Collie, 2022b; Ryan & Deci, 2017), such as offering to help a good friend due to the personal satisfaction in doing so (Weinstein & Ryan, 2010). *Identified social-emotional regulation* reflects behaviors that lead to personally valued consequences (Collie, 2022b; Ryan & Deci, 2017), such as sharing resources with a peer because one would appreciate the reciprocation of similar kindness in the future.

Controlled social-emotional motivation is not directly featured in the SEC School Model, which focuses on the adaptive process of need satisfaction promoting autonomous motivation, which in turn promotes positive outcomes. Nonetheless, it is important to mention this less self-determined form of motivation as emerging research is demonstrating that social-emotional need satisfaction is relevant for controlled social-emotional motivation. Controlled social-emotional motivation comprises introjected and external regulation. *Introjected social-emotional regulation* involves behaviors undertaken in order to establish or maintain an individual's sense of self-worth in social-emotional matters, such as helping a teacher or peer to avoid unpleasant feelings (e.g., guilt or shame) or to be praised for the behavior (Collie, 2022b; Ryan & Deci, 2017). *External social-emotional regulation* involves behaviors undertaken in order to achieve behavioral compliance, such as engaging in socially desirable behaviors to obtain tangible rewards (e.g., merit certificates) or to avoid punishment (e.g., receiving detention; Collie, 2022b; Ryan & Deci, 2017). Finally, *social-emotional amotivation* involves not being motivated to enact social-emotional behaviors because the individual does not see any reason for doing so, such as not helping a student who dropped their belongings in the hallway because they do not value doing so. Like controlled social-emotional motivation, social-emotional amotivation is not directly mentioned in the SEC School Model, but is nonetheless important to consider.

Social-Emotional Behaviors and Well-Being

The SEC School Model (see Fig. 2.1) posits that social-emotional need satisfaction boosts autonomous social-emotional motivation and, in turn, adaptive outcomes including behaviors and well-being. Behaviors have historically been the focus of researchers and educators in conceptualizing and measuring students' SEC

(e.g., Anderson & Messick, 1974). Social-emotional behaviors can take many forms. One well-examined adaptive social-emotional behavior is prosocial behavior, which refers to actions that are undertaken for the expected benefit of others (Schroeder & Graziano, 2015). In contrast, a well-recognized maladaptive social-emotional behavior is conduct problems, which refer to a continuum of antisocial behaviors that may involve oppositional behavior, disregarding school rules, verbal or physical aggression, and theft (Bevilacqua et al., 2018). Turning to well-being, there are numerous potential operationalizations of this construct. A couple that have received attention among students are positive affect and negative affect. These two factors represent emotional well-being. Whereas positive affect refers to students' experiences of positive emotions, such as feeling inspired and joyful, negative affect refers to students' experiences of negative emotions, such as feeling fearful or saddened (Diener & Emmons, 1984). In the implications for research below, we suggest additional operationalizations that should form a focus in the future research.

Summary

This section has described the SEC School Model (see Fig. 2.1) and the key factors it comprises. As noted, the SEC School Model involves integrating understanding from SDT (Ryan & Deci, 2017) and the SEC literature (Denham, 2006; Rose-Krasnor & Denham, 2009). A central process in the model depicts the important role of social-emotional need satisfaction, that is, perceived social-emotional autonomy, perceived SEC, and perceived relatedness in promoting autonomous social-emotional motivation (rather than controlled motivation or amotivation). In turn, autonomous social-emotional motivation is positioned as laying a foundation for adaptive behavioral and well-being outcomes among students. In the next section, empirical research demonstrating associations among these factors is reviewed.

Empirical Research Linking Need Satisfaction with Motivation and Outcomes

A growing body of research is demonstrating links between need satisfaction, motivation, and social-emotional outcomes. Looking first at the connection between need satisfaction and motivation, Collie (2022c) conducted a study involving secondary school students and examined prosocial motivation, which is a specific type of social-emotional motivation related to undertaking actions to aid others. The results demonstrated that a broad factor of perceived social competence was positively linked with autonomous prosocial motivation and negatively associated with external prosocial motivation. Students' perceived relatedness with their teachers was also linked with higher prosocial motivation. In the Collie (2022b) study introduced earlier,

general perceived SEC (i.e., an overarching factor representing students' general sense of perceived competence) and five specific factors of perceived SEC were examined among secondary students (i.e., perceived competence for assertiveness, tolerance, social regulation, emotion regulation, and emotional awareness). Results demonstrated that general perceived SEC was linked with greater autonomous social-emotional motivation and greater introjected social-emotional motivation. Here, social-emotional motivation captured students' motivations for relating with others, self-regulating their behaviors, and self-regulating their emotions. Over and above the influence of general perceived SEC, the specific factor of perceived tolerance was linked with greater autonomous motivation, and perceived social regulation was linked with lower external motivation.

Moving onto the link between social-emotional motivation and outcomes, most studies have considered prosocial motivation. Researchers have shown that among adolescents, autonomous prosocial motivation is associated with the enactment of fewer disruptive behaviors (Aelterman et al., 2019), more defending behaviors (e.g., standing up for students who are being bullied; Longobardi et al., 2020), fewer bullying behaviors (Roth et al., 2011), and more prosocial behaviors (Collie, 2022c; Wentzel et al., 2007). In contrast, external prosocial regulation is associated with lower prosocial behavior (Collie, 2022c). Social-emotional motivation more broadly (not limited to prosocial motivation; see definition above) has also been examined. Collie (2022b) found that autonomous social-emotional motivation is associated with greater prosocial behavior among adolescents, whereas external social-emotional motivation is associated with greater conduct problems.

Although the SEC School Model (Collie, 2020) does not explicitly include the direct relation between social-emotional need satisfaction and the outcomes, research suggests such associations do occur and so it is worth discussing these links. Indeed, there is research examining both general need satisfaction (i.e., in relation to school or life broadly) and social-emotional need satisfaction in relation to social-emotional outcomes. For example, general need satisfaction is linked with greater volunteering among adults (Gagné, 2003) and reduced anger and bullying among children (Hein et al., 2015). General need satisfaction is also associated with enactment of prosocial behaviors (Cheon et al., 2018) and greater positive affect (Rodríguez-Meirinhos et al., 2020) among adolescents. With respect to social-emotional need satisfaction more specifically, perceived social-emotional autonomy is linked with reduced negative affect among adolescents (Collie, 2022c). Perceived competence for emotion regulation is linked with increased prosocial behavior and emotional well-being among university students (Bigman et al., 2016; Caprara et al., 2008), greater emotional awareness among adolescents (Qualter et al., 2015), and fewer internalizing and externalizing behaviors among adolescents (Parise et al., 2019). Perceived social competence is associated with enhanced positive affect, reduced negative affect (Collie, 2022c), and lower psychological distress (Kristensen et al., 2021). Perceived relatedness with peers is linked with greater interpersonal abilities, insight of others' emotional states, and leadership capacities in the subsequent school year among children (Hoglund & Leadbeater, 2004). Further, students' perceived

relatedness with their teachers is linked with increased prosocial behavior among children (Longobardi et al., 2020).

Taken together, there is mounting evidence showing the salient links between social-emotional need satisfaction, social-emotional motivation, and important social-emotional outcomes. This research thus provides empirical support relevant for guiding practice, which is discussed in the next section. Specifically, we focus on the role of need-supportive teaching for promoting these factors among students.

Implication for Practice

Within SDT, need-supportive practices reflect teachers' actions that promote students' perceived autonomy, competence, and relatedness in relation to school-work (Ryan & Deci, 2017). *Autonomy-supportive practices* involve teachers' efforts to provide students with opportunities to initiate their own learning, experience self-determination in learning, and understand the purpose of their academic tasks. *Competence-supportive practices* involve teachers' efforts to provide students with structure, clarity, and direction for their learning to help them succeed at school. Finally, *relatedness-supportive practices* involve caring behavior directed toward students so that they feel welcomed and have a sense of belonging in the classroom and school.

Need-supportive practices have consistently been associated with general need satisfaction at school, as well as positive student outcomes such as motivation and well-being (e.g., Jang et al., 2016; Yoder et al., 2021). As shown in Fig. 2.1, social-emotional variants of need-supportive instructional practices can also be considered to boost students' need satisfaction within the social-emotional domain. An emerging body of research is providing empirical support for the role of such need-support in promoting social-emotional need satisfaction, motivation, and outcomes (Collie, 2022a). Below, we provide strategies that teachers can apply to promote need-support for SEC among students.

Autonomy-Support for SEC

Autonomy-support for SEC refers to efforts by teachers to promote students' empowerment and self-initiation in relation to social-emotional behaviors (Collie, 2020; see also Ryan & Deci, 2017). Autonomy-supportive practices include actions such as recognizing and showing interest in students' viewpoint about how they are feeling, providing options to students in relation to how they manage social-emotional inter-actions, explaining why it is important to be a considerate member within the class-room and school community, and encouraging student collaboration in establishing classroom rules and norms (Cheon et al., 2018; Collie, 2022a; Roth et al., 2011). Where possible, teachers could also offer students choices for how they manage their

social-emotional interactions (e.g., seeing what works best for a student when they feel overwhelmed or frustrated in class; Cheon et al., 2018; Collie, 2022a; Roth et al., 2011).

Competence-Support for SEC

Competence-support for SEC refers to teachers' efforts to promote and scaffold social-emotional abilities and behaviors and for students to experience success in implementing these effectively (Collie, 2020; see also Ryan & Deci, 2017). Such practices might include providing students with explicit expectations, goals, and rules for social-emotional interactions, establishing structures and behavioral goals for group discussions or collaborative learning tasks, and offering task-focused feedback on how students can be considerate in their responses to others during collaborative work and discussions (Collie, 2020, 2022a). Curriculum designed to teach social-emotional abilities is also relevant. Effective instruction toward, for example, social regulation abilities helps to support students be successful in their interpersonal interactions, while also building their perceived SEC (Collie, 2020). For instance, teachers could ask students to: reflect on a recent situation where they might have employed an alternative approach to regulate their actions or emotions; devise ideas for how they could interpret the situation and respond more effectively in the future; implement those ideas next time; and evaluate the impact of these different strategies and refine them as needed (e.g., Boekaerts & Pekrun, 2016). Another example involves enhancing students' abilities to identify and understand others' perspectives and social-emotional lexicon through narrative activities, such as by role-playing various behavioral and emotional responses in different situations, and reflecting on different characters' perspectives, motives, and emotions (Brewer & Phillippe, 2022). As is evident, some of our recommendations for competence-support include social elements and thus are also relevant for boosting relatedness-support.

Relatedness-Support

Relatedness-support refers to teachers' efforts to demonstrate to students they are cared for and valued members of the school community (Ryan & Deci, 2017; Skinner & Belmont, 1993). Relatedness-supportive practices include teachers' efforts to demonstrate interest in students and their learning, such as by being honest and fair to all students. Relatedness-supportive practices may also involve teachers acknowledging important dates and events in the student's life (e.g., birthdays, sporting, or creative accomplishments outside of school) or by modeling how to engage in considerate and supportive interactions with others. It is particularly important that all students feel they are valued members of the classroom. Teachers can aid this by being perceptive and responsive to students' needs and then providing resources to

assist all students with their learning (Skinner & Belmont, 1993). Teachers may also want to take time to talk with students about their learning strengths and preferences for support, and then teachers can assign learning activities that are appropriately matched to these needs. Research also suggests that designing tasks to be personally meaningful to students (e.g., by making links with their interests and experiences outside of school) can boost relatedness between the teacher and students (Hidi & Renninger, 2006). Professional learning programs that focus on helping teachers to develop strategies for establishing and maintaining positive teacher–student relationships can also be helpful (Spilt et al., 2012).

Implications for Research

Although the field of social-emotional need satisfaction is a growing area of research, it is still a nascent field compared with the well-established need satisfaction literature within academic and occupational contexts. Accordingly, there is broad scope for future research to expand the knowledge base. In this section, we highlight some key avenues we believe are essential to consider for advancing knowledge about social-emotional need satisfaction in particular, as well as social-emotional motivation.

The first area for future research is to expand understanding of social-emotional need satisfaction, determine the most appropriate structure of this construct, and demonstrate links with a wider array of outcomes. For example, approaches examining both overarching (i.e., general perceived SEC) and specific factors appear to offer nuanced insight into perceived SEC. Additional research is needed to determine whether such specifications are supported among other student samples and populations. In addition, researchers have linked social-emotional need satisfaction with a range of behaviors (e.g., prosocial behavior, less externalizing behavior; Bigman et al., 2016; Parise et al., 2019), as well as emotional well-being (e.g., lower psychological distress; Kristensen et al., 2021). Now, research is needed to ascertain the extent to which social-emotional need satisfaction is relevant for other social-emotional behaviors, such as students' cognitive reappraisal, which involves shifting one's thinking in order to change one's emotional experiences (Gross & John, 2003). Research examining social-emotional need satisfaction with respect to other well-being constructs would also be helpful to better understand its role for students, such as life or school satisfaction, sense of meaning and purpose, subjective vitality, or school-related anxiety. Examining different types of social-emotional need satisfaction, including various dimensions of perceived SEC (such as those proposed by Collie, 2022b), will also have practice implications including identifying the most salient dimensions to target for particular outcomes.

A second important area for research is to examine these issues among a broader range of student samples and populations and using multilevel approaches. The research summarized in the present chapter largely focused on secondary school students, with some research among university students. Moreover, prior research in this area appears focused on the students, rather than also considering the classroom

or school. Future research is needed to investigate the social-emotional processes proposed by the SEC School Model (Collie, 2020) within early childhood education and primary (elementary) school contexts. Notably, directing attention to these earlier settings has the potential to yield salient information about students' SEC at a critical developmental stage prior to the onset of adolescence. The primary school years represent an important opportunity for early interventions aimed at curtailing the downward trajectory of students' SEC noted to occur during adolescence (Chernyshenko et al., 2018). Furthermore, the typical classroom structure with primary classrooms means that students have one main teacher. This presents a different context to secondary schools (where students have several teachers across different subjects), and thus, research is needed to ascertain the role of need-support for SEC within this different setting. Beyond considering students' age and education level, future research that investigates other individual differences is also essential, such as potential differences by gender, language background, socio-economic status, and neurodevelopmental diversity (e.g., for students with ADHD or autism spectrum disorder). In terms of multilevel research, such approaches are necessary for determining the extent to which differences in social-emotional need satisfaction (or social-emotional motivation) are mostly evident between students, or whether these also occur between classrooms and schools. Multilevel modeling involves disentangling associations among factors at the student-level from those at the classroom- or school-level. In doing so, findings hold relevance for directing intervention, in particular, yielding knowledge about whether efforts should be focused on the student level and/or more broadly at classrooms and schools.

Another area for future research is person-centered analyses. In order to comprehensively understand motivation and related phenomena, person-centered approaches are being increasingly employed to complement variable-centered research. Whereas variable-centered research yields important understanding about associations between variables for a whole population (e.g., the link between social-emotional need satisfaction and social-emotional motivation across a sample), person-centered research involves identifying homogenous subpopulations that report similar patterns of experiences. These profiles may vary on how they experience need satisfaction. For example, one profile may experience high perceived social-emotional autonomy and perceived relatedness, but low perceived SEC such as in the case of a student who feels self-determined in their social-emotional interactions and a sense of belonging at school, but who lacks confidence for their social-emotional abilities. Another profile might display high perceived autonomy and perceived SEC, but low perceived relatedness such as in the case of a student who feels self-determined and confident in their social-emotional interactions, but who does not feel a sense of belonging at school. Person-centered analyses may also be relevant for examining social-emotional motivation. Indeed, recent research in academic motivation has revealed different motivation profiles among students that vary in terms of the types of motivation as per SDT (e.g., Bureau et al., 2022; Litalien et al., 2019). The extent to which the same is true for social-emotional motivation remains unknown. By examining social-emotional need satisfaction (and motivation) profiles, research findings have the potential to offer a more nuanced understanding of

social-emotional processes and may also help to inform practice such that strategies can be better targeted to specific types of students.

Conclusion

Extending from the well-established SDT (Ryan & Deci, 2017) literature and related research and practice within educational contexts, this chapter has considered associations between need satisfaction and autonomous motivation within the social-emotional domain and how these factors promote adaptive behavioral and well-being outcomes among students. Uniting SDT (Ryan & Deci, 2017) with conceptual understanding of students' social-emotional behaviors, the SEC School Model (see Fig. 2.1; Collie, 2020) provides a comprehensive framework from which emerging empirical research is revealing greater specification of social-emotional need satisfaction as a construct and demonstrating links with students' motivation and social-emotional outcomes. Emerging research within school settings demonstrates that students' social-emotional need satisfaction is linked with more adaptive forms of social-emotional motivation, which, in turn, is associated with enhanced well-being and greater prosocial behavior. As a nascent research area, we draw from this emerging literature to highlight key priorities for future research to advance the field. In the present chapter, we have discussed strategies for teachers to promote social-emotional need satisfaction by way of autonomy-, competence-, and relatedness-support for SEC. In summary, social-emotional motivation represents an important mechanism underpinning the development of students' SEC. Given that social-emotional functioning is critical for success and thriving during the school years and into adulthood (Goodman et al., 2015; Jones et al., 2015), continued research into social-emotional need satisfaction is important to inform effective social-emotional learning curriculum and need-supportive instructional practices for optimal outcomes among students.

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