

Article

Teacher Beliefs and Emotion Expression in Light of Support for Student Psychological Needs: A Qualitative Study

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Abstract: This study explored teacher beliefs and emotion expression via six semi-structured interviews with teachers, and discussed the findings in relation to the Self-Determination Theory, which addresses teacher support for autonomy, competence, and relatedness. The findings showed that teacher beliefs about their roles as educators, carers, and providers of reassurance reflected expressing clear expectation, caring for students, and considering student perspectives and feelings; teacher beliefs about equality between teachers and students appeared connected with trust in students and encouragement of their self-initiation; teacher beliefs about closeness to students reflected caring for students; teacher expression of negative emotions by discussing the problem with students conveyed explanatory rationales for expected student behaviors. This study revealed that teacher beliefs about teacher-student power relations may be connected with teacher appraisals of student misbehaviors. The findings also suggest that teachers need to discuss the problem with students rather than lose their temper or suppress their emotion when they feel a need to direct-stage anger. Future research could investigate teachers' faking a particular emotion, such as faking indifference as revealed in the present study. Future research could also explore the reason for and harmfulness of embracing beliefs, e.g., negative expression of anger as a safety belt.

Keywords: teacher beliefs; emotion expression; Self-Determination Theory; suppression; direct staging; faking

1. Introduction

The present study aimed to explore teacher beliefs and emotion expression based on teacher interviews, and to discuss the findings in relation to Self-Determination Theory, which addresses teacher support for autonomy, competence, and relatedness. Self-Determination Theory [1,2] suggests that student autonomous motivation, self-regulated learning, and engagement can be facilitated by teacher support for students' three fundamental psychological needs—autonomy, competence, and relatedness [3–5]. Since teaching is inherently an emotional practice [6] and teacher emotions play a crucial role during teaching [7–9], it is proposed that teacher support for autonomy, competence, and relatedness is interwoven with their emotions. Studies have shown that teachers with autonomy-supportive teaching styles experience less emotional exhaustion and more positive emotions than those with controlling teaching [10,11]. This finding pinpointed that teacher support for student psychological needs is connected with teacher positive emotional experience.

In addition to teacher emotions, teacher beliefs have also been found to be associated with their support for autonomy [12], competence [13] and relatedness [14]. Furthermore, it is articulated that

teacher beliefs are also tightly connected to their emotional experience and emotion expression [7]. Interestingly, teacher beliefs about authority have been found connected with their suppression of anger, a form of emotion expression [15]. Therefore, teacher support for student psychological needs (need support), teacher emotions, and beliefs appear inter-correlated with each other. Nevertheless, to our knowledge, there is a lack of research that simultaneously addresses these prominent constructs of classroom practice.

With regard to methods of investigating teacher emotions, teacher self-reports have been used almost exclusively, with quantitative questionnaires and qualitative interviews [16]. However, questionnaires can only assess the frequency and intensity of teacher emotions [17,18]. In contrast, interviews enable teachers to describe their emotional life at school, which sheds light on their professional self-understanding and identity [19,20]. Regarding the investigation into teacher beliefs, quantitative questionnaires or inventories [21] as well as qualitative interviews [14] have been used. However, questionnaires have been criticized as too restricted in scope and not validly representing teacher beliefs [22]. In addition, some questionnaires to assess teacher beliefs may fall into a self-fulfilling prophecy, in which researchers' expectations are built into the instrument so that participants are likely to fulfill those expectations as they answer the survey [23]. In contrast, interviews enable participants to reflect on their teaching experiences and therefore offer opportunities to investigate their beliefs and values [14].

Taken together, to address the research gap and our research aim, the present study explored teacher beliefs and emotion expression via semi-structured interviews, and discussed the findings in light of teacher support for student psychological needs. Theoretically, to address the research gap, this study aimed to simultaneously discuss the three prominent constructs of classroom practice, including teacher beliefs, emotions, and need support. Methodologically, in light of the advantages of qualitative studies concerning teacher emotions and their beliefs, this study focused on an exploratory or interpretive paradigm in order to provide in-depth and reflective insights into teacher emotions and their self-understanding of the teaching process.

1.1. Autonomy, Competence, and Relatedness Support

Self-Determination Theory (SDT; [1,2]) posits that self-determined or autonomous motivation—that is, the inherent tendency to seek out enjoyment and inner resources for self-regulated actions—is sustained by the satisfaction of the three fundamental psychological needs: autonomy, competence, and relatedness. The need for autonomy refers to the desire of individuals to self-govern their own actions. The need for competence represents individuals' propensity to interact effectively with their environments and display their capacities. The need for relatedness reflects the desire to feel connected with and accepted by significant others. SDT suggests that self-determined motivation and psychological well-being can be facilitated by satisfaction of these three needs, but diminished motivation and increased mental ill-being can be caused by dissatisfaction of these three needs.

SDT, as applied to educational practice, postulates that multiple teaching strategies are included in teacher support for student psychological needs. Autonomy support refers to promotion of student experiences of volition and psychological freedom, such as providing choice, encouraging self-initiation, fostering interests, providing explanatory rationales, using non-controlling language, and acknowledging student perspectives and feelings [12,24–26]. Competence support (structure) involves fostering students' sense of effectiveness to expand their academic capabilities and achieve desired outcomes, such as providing optimal challenges, competence-affirming feedback, and clear expectations [4,25,27]. Relatedness support (involvement) represents developing positive and mutually satisfying relationships with students, such as showing affection, warmth, caring, and respect to students, and displaying interest in their activities [4,28,29]. A large corpus of empirical evidence based on SDT suggests that teacher support for autonomy, competence, and relatedness is associated

with student interest in schooling [5], self-efficacy beliefs [30], goal pursuit [31], engagement [3], academic performance, and well-being [4].

1.2. Teacher Emotions

Teacher support for autonomy has been found associated with their own positive emotions [10,11]. Teacher emotions are interwoven with teaching practice [6], and also play a crucial role in student learning, teacher-student relationships and teacher well-being [7–9]. Empirical research [19,32,33] has found that recurrent teacher positive emotions, such as enjoyment, promote high-quality teaching and student autonomous motivation, while accumulative teacher negative emotions, such as anger, damage the quality of teaching and hinder student learning. Two constructs of teacher emotions, namely teacher emotional experience and emotion expression, have attracted considerable attention from researchers.

1.2.1. Teacher Emotional Experience

Emotional experience is grounded in appraisal theory, which advocates that emotions are responses to evaluations or judgments (i.e., appraisals) of events, rather than events themselves [34,35]. In primary appraisal, people evaluate whether the situation is relevant or important to their needs or well-being and whether the situation is consistent with their goals. Thus, relevance and goal congruence are the most important components in the significance of an emotional stimulus [34]. In the classroom context, Chang [7] argued that the more a teacher cares about his or her students, the more likely an emotional encounter will be judged as important; a student's disruptive behaviors might threaten a teacher's goal achievement if the teacher's goal is to teach students academic skills. Consequently, according to Chang, teacher-student relationships and goal congruence are important components in teacher primary appraisals and contribute greatly to teacher daily emotional experiences. The appraisal theory explains why the same classroom event elicits different emotions in individual teachers and why individual teachers experience different emotions in response to the same student behavior [9].

In everyday teaching, teachers experience positive (pleasant) and negative (unpleasant) emotions in general, as well as discrete emotions (e.g., enjoyment, anger, and anxiety) [17,32]. Empirical evidence has demonstrated that the discrete emotions teachers frequently experience include enjoyment (happiness), enthusiasm (inspiration), warmth (friendliness), affection, caring, anger, anxiety (worry/nervousness), frustration (annoyance), and fatigue (tiredness) [9,36–39]. Other discrete emotions, such as relaxation (calmness), pride (confidence), distractedness, and indifference have also been found useful in discerning teacher emotions, although less frequently reported experiencing [7,9].

1.2.2. Teacher Emotion Expression

Emotion expression may occur during or after individuals consciously or unconsciously influence how emotion is experienced and expressed. Therefore, emotion expression is a dimension of emotion regulation [40,41], and may be part of the process or outcome of emotion regulation. In other words, teacher expression of emotion may be different from the emotion that is actually experienced by the teacher because of emotion regulation.

The expression of emotions involves verbal and nonverbal domains: verbal display refers to utterances or languages [42], and nonverbal display includes voice, intonation, posture, gesture, body movement, and facial expression [43]. It has been reported that teachers express their positive emotions by verbally addressing their positive emotional state ("I am really excited that . . ."), and by praising students ("I am proud that . . .") [44]; and express their negative emotions (e.g., anger) by criticizing students or discussing their anger with them [45]. It has also been found that teachers display their joy nonverbally by hugging students [44], and their anger by hitting the desk or raising their voice [46].

Patterns of teacher emotion expression, supported by empirical evidence, include natural expression, direct staging, suppression, and faking [15,18,44,46,47]. First, natural expression or genuine expression refers to sincere and spontaneous responses to an emotion-eliciting situation

without trying to regulate (alter or hide) an experienced emotion, and this process occurs naturally even without being noticed by individuals themselves sometimes [48]. Natural expression has been reported by teachers who value authenticity without role play [44]. Second, direct staging involves consciously or intentionally expressing an emotion after down-regulating an undesirable emotion or up-regulating a desirable emotion [46,49]. Teachers have been found to direct-stage their joy by consciously dramatizing words or making joyful facial expressions even if they are not experiencing significant joy [46]. Third, suppression is defined as the inhibition of emotion expression, such as hiding an experienced emotion or masking a negative emotion with a positive one [50]. Teachers have reported suppressing anger to maintain their authority in front of students [15]. Fourth, faking is defined as intentionally expressing an unfelt emotion [51]. Happiness, liking, enthusiasm, and pride are the most frequently faked emotions during teaching [18]. Faking sadness has also been reported by teachers after students' failure to follow a class rule instead of directly rejecting their misbehavior [46].

1.3. Teacher Beliefs

Teacher beliefs may play a significant role in their autonomy support [12] and may influence teacher emotional experience and emotion expression [7]. Therefore, it is important to include teacher beliefs when investigating teacher support for student psychological needs and teacher emotions. Beliefs are defined as conceptions, personal ideologies, and values that impact practice and shape knowledge [52]. The most outstanding distinction between beliefs and knowledge is that beliefs are typically accepted to be true by individuals who hold them, while knowledge is not necessarily [53]. Teacher beliefs are considered to be greatly influential in their setting of goals and their teaching practices or pedagogical decisions in the long run [19,54].

A number of studies have examined teacher beliefs about teaching and learning in general, subject matter, self-efficacy, identity, and teaching roles [19,55–57]. Pajares [58] recommends that teacher beliefs be narrowed further to specify their meanings. For instance, this specificity may include teacher beliefs about their roles as friends, protectors, mentors, carers, controllers, gatekeepers, among others [55,59]; teacher beliefs about teacher-student power relations, e.g., teacher authority [60]; teacher beliefs about their professional distance, i.e., close or detached emotional understanding about students [61]; and teacher beliefs about their negative emotion expression, e.g., whether displays of negative emotions serve a purpose or are performative [55,60]. Educational research has shed light on relationships between teacher beliefs, teaching practices, and teacher emotions.

1.4. Interplay between Teacher Beliefs, Need Support, and Emotions

It is important to note that SDT researchers tend to label support for autonomy, competence and relatedness as need support [62,63]. The relationships between teacher beliefs and teaching practices have attracted researchers' attention, but very few researchers have discussed these relations explicitly from the perspective of need support. Reeve and colleagues [12] argued that teacher beliefs about effectiveness of autonomy-supportive versus controlling teaching style are connected with teacher preferences for either style. Warfield and colleagues [13] found that teacher beliefs about students as autonomous learners are more likely connected with the use of inquiry pedagogies. O'Connor [14] found that teacher beliefs about teaching roles are associated with their caring for students. Despite the above-mentioned studies, to our knowledge, there is a lack of empirical research that investigates the relationship between teacher beliefs and need support.

The relationship between teacher beliefs and emotions is grounded in appraisals of emotions. Appraisal theory [34] postulates that the experience of an emotion depends on the interpretation of its stimulus, and goal congruence or incongruence affects whether an emotion is triggered. For example, Chang [7] argued that one teacher may feel threatened by disruptive student behavior, while another teacher may not be affected by the same behavior, partially because teacher beliefs and goals mediate their own emotional experience process. Furthermore, teacher beliefs are also associated with their emotion expression. Zembylas [60] argued that teacher beliefs about teacher-student power relations

or teacher roles shape their emotion expression, for example by permitting to show some emotions while prohibiting others. Interestingly, Jiang and colleagues [15] found that teacher beliefs about authority are related to suppression of anger.

Finally, the relation between teachers' need support and emotions is informed by the term *emotional support* [64], which refers to teachers' displays of genuine care about their students, respect for them, and willingness to understand them. The three constructs of emotional support include emotional positive climate (e.g., positive feedback), teacher sensitivity (e.g., caring for student difficulties), and regard for student perspectives (e.g., acknowledging negative feelings), which reflect teachers' support for students' competence, relatedness, and autonomy, respectively [4]. Therefore, the concept of emotional support indicates that teachers' need support is interwoven with their emotions. Empirical studies have also found that teachers who display high autonomy support experience less emotional exhaustion and more positive emotions than those who display low autonomy support or controlling teaching [10,11].

In sum, teacher beliefs have a great impact on, and are intertwined with, their need support, emotional experience, and emotion expression. This conceptualization provides the theoretical backbone for the present study. Nevertheless, to our knowledge, there is a lack of empirical research that simultaneously investigates the relationship between these variables.

2. Research Questions

As noted in the introduction, teacher beliefs, teacher emotions, and support for student psychological needs are inter-correlated with each other, but there is a lack of empirical studies that simultaneously address these prominent constructs of classroom practice. Furthermore, concerning the methodology, this study is grounded in an exploratory or interpretive paradigm to provide reflective insights into teacher beliefs and emotion expression. It is also important to note that beliefs are abstract and explicit representations, so they can be inferred from teachers' narratives about what they do or experience during teaching [23,65]. Taken together, the present study focused on the following research questions:

- (1) What are teachers' self-reports of emotion expression?
- (2) What are teachers' beliefs inferred from their accounts of experiences during teaching?

The answers to these research questions will be discussed from the perspective of Self-Determination Theory regarding teacher support for autonomy, competence, and relatedness.

3. Method

3.1. Participants

The participants comprised six teachers in grades 7 and 9 from a multicultural school in Finland. The teachers consisted of three males and three females, of whom five were Finnish, and one was North American. The participating teachers taught math and English, and their years of teaching experience ranged from three to thirty. Four were only subject teachers, while two were both subject and homeroom teachers and thus had more responsibilities than other teachers regarding student presence and safety at school, as well as contact with parents. Table 1 provides demographic information about these teachers. Their pseudonyms were used instead of their real names.

Table 1. Demographic information about the teachers.

Teacher	Gender	Teaching Subject	Teaching Class	Years of Teaching Experience	Homeroom Teacher (Yes/No)
Kirsi	female	math	7a	3	Yes (7a)
Oliver	male	math	7d	8	Yes (7d)
Sam	male	English	7g	22	No
Risto	male	English	7f	26	No
Jenni	female	English	9b	30	No
Milla	female	English	9v	12	No

3.2. Procedures

Prior to data collection, the principal of the school was contacted to obtain general demographic information about the teachers at this school. Purposive sampling strategy was used to ensure variation in gender, teaching subject, school level, teaching experience, and job responsibility of participating teachers. The rationale for this sampling method was to provide access to particular representation of a diversity of conception or experiences from teachers in relation to teacher beliefs and emotions. The potential candidates were informed of the aim of this study. Finally, six teachers were recruited and took part in this study voluntarily.

During data collection, each teacher participated in a semi-structured interview lasting approximately 30 minutes. Each interview took place in a quiet classroom after students had left, and all the interviews were audio recorded. The teachers were asked central questions concerning their emotional experiences and emotional expression when teaching a particular class. The researcher occasionally asked follow-up probes to clarify the teachers' answers or obtain additional information. The teachers were free to answer each question as they wished.

3.3. Measures

In the semi-structured interviews, the teachers were first presented with a list of emotions, including calm, confident, affectionate, inspired, friendly, caring, relaxed, happy, nervous, annoyed, worried, tired, displeased, angry, distracted, and indifferent. These emotions have been shown to be frequently experienced by teachers or prominent in discerning teacher emotions [7,9,36]. The teachers were then asked to use the list to select the positive and negative emotions they experienced during teaching a particular class, and to reflect on their emotional experience and emotion expression while teaching that class. The core interview questions, shown below, were adapted from those used by Hagenauer and Volet [44].

- (1) Which emotions in the list do you experience when teaching Class X? (The list included calm, confident, affectionate, inspired, friendly, caring, relaxed, happy, nervous, annoyed, worried, tired, displeased, angry, distracted, and indifferent.)
- (2) Do you show (or hide) them? How do you show (or hide) them?
- (3) Could you describe a situation in which you experienced and showed (or hid) an emotion? What happened at that time?

3.4. Data Analysis

Teacher emotion expression was coded using deductive thematic analysis [66], in which an analytical scheme was developed *a priori* based on the theoretical constructs from a systematic literature review. As elaborated earlier in the Introduction, the categories of teacher emotion expression include natural expression, direct staging, suppression, and faking [15,18,44,46,47]. The coding scheme of teacher emotion expression is presented in Table 2.

Teacher beliefs were coded combining both deductive [66] and inductive thematic analysis [67]. This approach initiated theory-driven coding while allowing for themes to emerge from the data during the analysis. Therefore, the coding scheme was developed both before and during the analytic

process. Specifically, beliefs about teacher roles were summarized by previous literature [55,59], so this theme was identified *a priori*. The other three themes regarding teacher beliefs were emergent throughout the analysis from the data. Then the researchers of the present study attempted to seek links between these data-driven themes and the existing literature that implicitly addressed the essence of these themes. For example, no previous literature directly talked about teacher beliefs about their professional distance, but this theme can be connected with the term *professional distance* proposed by Hargreaves [61]. The coding scheme of teacher beliefs is displayed in Table 3.

Table 2. Coding scheme of teacher emotion expression.

Category	Definition	Example
Natural expression	Sincere and spontaneous responses to an emotion-eliciting situation without trying to regulate (alter or hide) an experienced emotion	"It's my real genuine feeling. I don't praise them because I know it has a good effect. I need to be sincere."
Direct staging	Consciously or intentionally expressing an emotion after down-regulating an undesirable emotion or up-regulating a desirable emotion	"I praise them and show it on my face. It is very important that we teachers don't just simply say 'yes', but we say 'very good', 'that is an excellent point'."
Suppression	Inhibition of emotion expression, such as hiding an experienced emotion or masking a negative emotion with a positive one	"It's very important not to show that you actually got me there by saying that 'you made me angry'. It's such good to hide that and keep inside."
Faking	Intentionally expressing an unfelt emotion	"You say and use a strict voice ... You're not angry but you're making the show of it."

Table 3. Coding scheme of teacher beliefs.

Theme	Description	Example
Beliefs about teacher roles	Teachers have multiple roles e.g., friends, protectors, mentors, carers, controllers, and gatekeepers	"I want to be there for them and also guide them and be their mother or sometimes the father."
Beliefs about negative emotion expression	Whether displays of negative emotions serve a purpose or have specific consequences	"If I show any of the negative emotions, it would destroy the atmosphere in the class."
Beliefs about professional distance	Close or detached emotional understanding about students	"I got them paper to draw something; they drew guns and airplanes that were bombing, and things like that they have experienced before."
Beliefs about teacher-student power relations	Emphasis of teacher authority or equality between teachers and students	"They have to be in my control all the time, so they know they have to do what they are asked to do."

It is important to note that teachers' beliefs were not directly addressed in the interviews but were inferred through the accounts of their emotional experiences during teaching. What teachers experienced while teaching was included in the core interview questions. The rationale for this design was based on the following propositions. First, in contrast with espoused or explicit beliefs, implicit beliefs are held unconsciously and can only be inferred indirectly [65]. Second, inferences from teachers' narratives about what they do or experience during teaching can help to uncover teacher beliefs that are abstract and tacit representations [23]. Third, teachers' beliefs might be accessed by reporting on their emotions, because their emotions might reflect beliefs about how a particular situation during teaching influences their emotional experiences [68].

The coding process was developed in six phases. First, the audio-recorded interviews were transcribed verbatim, and two educational researchers read and re-read the transcripts thoroughly. Second, the categories of emotion expression were identified based on the theoretical constructs extracted from the literature. Third, the researchers independently applied the categories of emotion expression to the text units. Fourth, the researchers independently summarized the meanings of the texts into themes of teacher beliefs about a specific aspect of teaching. Fifth, the researchers engaged in discussion and compared their independent coding. Sixth, discrepancies between their independent coding were reconciled and the final coding was agreed on. The coding was considered to be in agreement only if both coders assigned the same code to the same text unit. In the end, a high level of agreement was reached between the two coders and the inter-coder reliability was 90%.

4. Findings

4.1. Teacher Emotion Expression

In regard to the first research question, four categories of teacher emotion expression were identified: natural expression, direct staging, suppression, and faking. These categories are reported below regarding specific ways in which experienced emotions were expressed (also see Table 4).

Table 4. Categories and specific ways of teacher emotion expression.

Categories of Emotion Expression	Specific Ways of Emotion Expression	Emotions Experienced by Teachers
Natural expression	Being there for students Being in a good mood Being genuine	Affectionate (Kirsi) Happy (Oliver) Happy (Risto)
Direct staging	Helping and guiding students Talking about it Telling a joke and laughing Checking students' learning materials and showing concern for their physical health Stopping teaching Keeping silent In equilibrium Adjusting student behaviors Giving positive personal feedback, praising students, and showing it on his face Giving a negative signal (dropping a book on the table) Taking care of student feelings Discussing the issue with students Discussing the issue with students outside the classroom Giving students instructions Addressing her emotional state, hitting her fist on the table and staring, and keeping silent	Affectionate and friendly (Kirsi) Displeased (Kirsi) Happy (Oliver) Caring (Oliver) Distracted (Oliver) Annoyed (Oliver) Calm, relaxed, and friendly (Sam) Annoyed (Sam) Inspired and happy (Risto) Angry (Risto) Caring (Jenni) Worried (Jenni) Distracted (Jenni) Annoyed (Milla) Angry (Milla)
Suppression	Taking a breath Masking it with his own humor Hiding it	Displeased (Oliver) Annoyed (Risto) Angry (Milla)
Faking	Not reacting immediately Using strict words and tones	No indifference (Kirsi) No angry (Milla)

4.1.1. Natural Expression

Natural expression refers to sincere and spontaneous responses to an emotion-eliciting situation without trying to regulate an experienced emotion [48]. Teachers reported that they naturally or sincerely expressed their emotions when they were there for students as their parent (“be there for them and be their mother or sometimes the father” [Kirsil]), in a good mood in the class (“everybody is in a good mood” [Oliver]), and being genuine (“it’s my real genuine feeling” [Risto]).

4.1.2. Direct Staging

Direct staging involves consciously or intentionally expressing an emotion after down-regulating an undesirable emotion or up-regulating a desirable emotion [46,49]. Direct staging was reported by all teachers, using multiple and specific ways of emotional expression.

Kirsi reported that she expressed her affection and friendliness to students by helping and guiding them:

Well, my class, they could ask anything . . . If they have problems with something in school, I'll try to help them . . . I want to be there for them and also guide them and be their mother or sometimes the father.

She also felt displeased about students’ lack of patience or independence while solving math problems, and she expressed her displeasure by talking about this problem with students:

I feel displeased because they don’t have patience. They ask me to come here, and they don’t try to solve the problem by themselves or together in a group, and that makes me displeased . . . sometimes I have to talk about that. I tell them “Try to solve it by yourself first, look at the theory, ask friends to help you” and so on.

In contrast, Oliver reported that he showed his caring for students through concern for their physical health, due to his role as a homeroom teacher. However, his interpretation of caring and how he displayed it also involved checking students’ learning materials (e.g., textbooks, notebooks, and exercises):

I care that they have their equipment with them, they have their textbooks, they have their notebooks. So, the caring is taking care of all of these things. Of course, students should take care of them on their own, but teachers should also check that students have their textbooks and they have done their exercises or homework, and things like that. I think that’s all caring . . . and of course because I’m the home class teacher as well, the caring expands to that, so I’ll be caring about whether or not they’re sick.

Sam revealed that he relieved his annoyance with students’ misbehaviors or lack of participation in the lesson by adjusting their behaviors:

Let’s say there’re two kids at the back talking together and making you annoyed, you just put them up, so “Tommy, you sit there,” as simple as that. Or whatever—I mean, let’s say there’s a kid that looks tired, and he’s not participating, and I get a little bit annoyed. “Ok, Tommy, can you put something on the board? Can you write that answer and put that word on the board for us?” So he has to get up and walk around a bit and get some fresh air, and maybe you wake up someone.

In contrast, Risto reported that he was angry about the noise students made and would give them a negative signal: dropping a book on the table. This negative signal, together with his posture and staring, meant that he had had enough of the noise:

If they are making a lot of noise, and I've told them a couple of times, then I might take my book and drop it on the table, and that's a signal: had enough. (Q: When you make this signal, are they clear that you are angry?) Yes, it's both, the noise it makes, and it's my posture and the way I look at them.

Jenni revealed that she showed her caring for students by taking care of their feelings: for example, talking with them about their problems and fears:

If they have worries, we talk about those. If they have quarrels between female and male students, we try to be there for them and talk with them as adults . . . I always ask if there's something I can help them with. It's important to educate, talk with them about their fears too, not just teach.

She also indicated that she felt worried about students' future and their immaturity, and she tried to discuss those problems with them:

I am worried about their future because they should be more mature . . . We discuss how you speak with people, with friends, how you speak in class. If they swear, I always complain, no swearing, not those words. I said my ears ache; I can't listen to them.

In contrast, Milla revealed that when she was extremely angry, she would release it by hitting her fist on the table, and by staring and keeping silent.

With one class, they used the racist card for each other, and they started calling each other's mums. Then I just hit my fist on the table, "This is the last time I hear. I will never want to, and nobody in my class can behave like that." When I'm really angry, I'm usually beyond words, I can't say anything, I just look at people, and this is what people have said to me; they say that "It can be very scary."

4.1.3. Suppression

Suppression is defined as the inhibition of emotion expression, such as hiding an experienced emotion or masking a negative emotion with a positive one [50]. Suppression was reported by Oliver, Milla, and Risto.

Oliver revealed that he was displeased when students ignored his explanation of math problems but later requested him to repeat his explanation. Then he had to suppress his displeasure by taking a breath and explaining the math problem again:

You realize after that you have mentioned the whole story at least twice, even sometimes three times. Then someone who has been talking or doing something else after that asks you, "Teacher, I didn't understand. Could you explain again?" . . . Well, usually I'll just take a breath, and then I'll repeat the things again for the third or the fourth time.

Milla reported that she would hide her anger when she realized that students were deliberately making her lose control:

There are some students who sort of look for, in a teacher or teacher trainee, something that they can use to make them sort of lose control or get nervous or something . . . And then it's very important not to show that you actually got me there by saying that "you make me angry" or something because then they know that they can use it again . . . It's good to hide that, to keep inside.

Risto reported that he masked his annoyance with his own way of humor, which would make students confused:

What happens to me is that I try to turn it and express it in a humorous way. Most of the time when I am . . . (sighing) . . . My sense of humor is very strange, and many of the students don't actually realize that I am making a joke, and I am not being serious. It takes them a couple of months; some of them never learn. I tell them, "Never take me seriously and expect that I am serious." Then they are puzzled, "How am I going to know?"

4.1.4. Faking

Faking is defined as intentionally expressing an unfelt emotion [51]. In the present study, faking was reported by Milla, who faked her anger, and Kirsi, who faked her indifference.

Milla indicated that she used strict words and tones to make students think she was angry when she was not:

I think it's very important sometimes for teachers to be fake angry. You say and use a strict voice, and people say, "Now she's angry." But you're not angry, but you're making a show of it.

Kirsi faked her indifference about students' request for help by delaying her reaction, to make them try to solve problems by themselves first:

I just thought maybe sometimes I'm indifferent. I don't mean thinking about humans, but just because I want them to try by themselves, I mean my actions are indifferent . . . only my behavior or action . . . I kind of try to educate them to think by themselves first, so I don't react immediately. I just do something else or stay with somebody else there.

4.2. Teacher Beliefs

Concerning the second research question, four themes of teacher beliefs were found, including beliefs about teacher roles, about teachers' negative emotion expression, about professional distance, and about teacher-student power relations (see Table 5). Some beliefs held by one teacher involved different categories but were consistent with each other; while some beliefs held by one teacher were contradictory to each other but existed simultaneously.

Table 5. Teacher beliefs.

Themes of Teacher Beliefs	What the Belief Is	Teachers Who Hold This Belief
Beliefs about teacher roles	Students' carer	Kirsi, Oliver, Risto, and Jenni
	Students' checker	Oliver
	Provider of reassurance	Sam
	Students' controller	Risto
	Students' educator	Jenni
	Students' tutor	Milla
Beliefs about teacher negative emotion expression	Not effective for desirable goals and outcomes	Oliver
	Destructive for teaching	Sam
	Understandable	Sam
	Destructive for teacher-student relationship and classroom atmosphere	Risto
	Teachers' safety belts	Risto
	Hurtful for students	Milla
Beliefs about professional distance	Helpful to maintain classroom discipline	Milla
	Closeness to students	Jenni
	Keeping a certain distance from students	Milla
Beliefs about power relations	Equality between teachers and students	Kirsi
	Authority of teachers	Risto
	Students competing for power with teachers	Milla

4.2.1. Teacher Beliefs about Their Roles

Teacher roles have been classified into multiple categories: e.g., friends, protectors, mentors, carers, controllers, gatekeepers, and so on [55,59]. Regarding beliefs about teacher roles in the present study, Kirsi thought that she was a carer for students, similar to the role of a parent, since she was a homeroom teacher:

I want to be there for them and also guide them and be their mother or sometimes the father.

Oliver believed that he acted as a carer concerned about students' physical health since he was also a homeroom teacher:

And of course, because I'm the home class teacher as well, the caring expands to that, so I'll be caring about whether or not they're sick. Or, during the lesson, if I realize that someone is not feeling very well, of course, I'll try to care about that, to see how or could he or she go to see a nurse or things like that.

However, his interpretation and expression of caring also involved concern about the presence of learning materials (e.g., textbooks, notebook, and exercise books) of the students who were already teenagers, and this role of his was coded as a checker:

I care that they do have their equipment with them, they have their textbooks, they have their notebooks. So the caring is taking care of all of these things. Of course, students should take care of them on their own, but teachers should also check that students have their textbooks and they have done their exercises or homework, and things like that. I think that's all caring.

Sam believed that his role was a provider of reassurance so that students could have visibility and certainty outside the turbulence in their lives. He played this role by showing up, doing his job, caring, keeping his promises, and giving students clear feedback:

Nowadays, you know, kids—they have so much turbulence in their lives. There's much uncertainty. They just have a person that shows up when he's supposed to show up, does his job, he's caring. If I promise that I'm going to have their homework corrected by Thursday, they would be corrected by Thursday. They know how I evaluate their work, it's very clear to them . . . The evaluation is very straightforward. So just this kind of visibility and certainty . . . Yeah, these are important for young people nowadays.

Risto's roles were both a carer for students to trust and a controller for their behaviors, which seem contradictory to each other but exist simultaneously:

Many of the students come from families that are very troubled families, so we adults might be the only adults who treat them properly. And if we don't treat them properly, then they'll have no adults that they can trust.

I have to be like a radar; I have to observe the class all the time. Even if they are working in groups or pairs, I have to . . . if somebody looks at me, I would look back. They have to be in my control all the time, so they know they have to do what they are asked to do.

Jenni believed that she was both a carer for students' problems and worries and an educator to influence students to choose information and develop their values in life, which appear to be consistent roles:

If they have worries, we talk about those. If they have quarrels between female and male students, we try to be there for them and talk with them as adults . . . They don't talk about it if they have a problem or when they are worried about something. Perhaps they discuss with their girlfriends and go to the toilet and cry there. I always ask if there's something I can help them with.

That's why I think it's important to educate, talk with them about their fears too, not just teach. I think these days we are more educators than teachers, and how to choose information, because so many things come from the computers, from TV, from everywhere, newspapers, and they hear a lot of stuff.

4.2.2. Teacher Beliefs about Their Negative Emotion Expression

Teacher negative emotion expression, e.g., whether displays of negative emotions serve a purpose or are performative, have been considered important in discerning teacher emotions [55,60]. With regard to the present study, teachers realized the negative impact of negative emotion displays on learning and teaching. Nevertheless, Milla and Risto thought that, on one hand, their negative emotion expression could be hurtful for students ("you can really hurt somebody") and destructive for the teacher-student relationship ("I might destroy my relationship with the students") and classroom atmosphere ("it would destroy the atmosphere in the class"). However, on the other hand, these two teachers believed that negative emotion expression could be beneficial for student discipline management and teacher emotions. In this sense, both teachers believed that negative emotion displays serve a specific purpose.

Milla explained how her fake anger could help to calm students and maintain student discipline:

But usually I think it's also good when you have a class that is like ... that they're all sort of "what has happened today", "why are you like that" ... very often they had an exam, or they will have a test in the next lesson, or they had been playing football for two hours or something, and they're still in that mood, and then you understand that now we have to calm down. So just shouting the "shut up and ..." doesn't help ever.

Risto believed that his negative signal of anger (dropping a book on the table) could be a safety belt to secure him against the offensiveness of student misbehaviors, and it could reduce his anger as well:

Of course, it's like a safety belt for me. It shows the students that I don't like what's going on.
It reduces my anger.

In contrast, Sam had a unique belief about negative emotion expression. He thought it understandable because everybody could have a bad day. He also suggested that teachers accept it, change it if possible, and move forward:

If a teacher has a bad day, it shouldn't worry them because the next day is a new start ...
That's my attitude ... You don't want to get too serious, I mean. They see I'm human. I have good days and bad days. They have good days and bad days. We just accept that. Change what we can move forward.

4.2.3. Teacher Beliefs about Professional Distance

Teacher professional distance, i.e., close or detached emotional understanding about students, have been explored by mapping emotional geographies, which emphasize the spatial and experiential patterns of closeness or distance in human interactions or relationships within the school [61]. In the present study, Jenni and Milla had different thoughts about their professional distance. Jenni's accounts of her roles as a carer and an educator showed that she was close to students. Furthermore, when she was talking about refugee students' fear of war, she was nearly in tears showing closely emotional understanding about their experiences:

When I had them in the 7th grade, I got them paper to draw something; they drew guns and airplanes that were bombing, and things like that they have experienced before. That's why I think it's important to educate, talk with them about their fears too, not just teach.

In contrast, Milla preferred to keep a certain distance from students so that she could control her emotions, similar to the distance which service employees keep from their customers:

Because in my life before becoming a teacher . . . if you're in customer service, you can't always say, "Oh, you . . . ", just have to sort of keep it, so it actually helps a teacher to . . . you can sort of take a bit of distance.

4.2.4. Teacher Beliefs about Teacher-Student Power Relations

Teacher-student power relations, e.g., teacher authority, have been conceptualized as embedded in teacher emotions [60]. In the present study, Kirsi believed in equality between teachers and students and did not want to exert any authority over students. She also emphasized that she preferred to trust students' self-regulation of their behaviors and studies:

I want to think that we're equal as human beings. I am their teacher, but I don't want to be higher than them—just tell them to do this and do that. I want to be so normal, so equal, that they can ask me for help in anything if they want to, if they think that I am worthy of trust . . . I don't want to be normative, like just have the authority in everything. I don't want to be like that. I want to trust them that they can behave and they want to study.

In contrast, Risto held a belief about teacher authority and thought that students had to obey what the teacher asked them to do:

They have to be in my control all the time, so they know they have to do what they are asked to do.

Similarly, Milla thought that, sometimes, students deliberately competed for power with teachers:

They do something because they want to have the audience and the power, so then it's very important not to go into that . . . for the teacher to take part in that and sort of feed him with the attention and the power.

5. Discussion

5.1. Teacher Emotion Expression

Regarding expression of negative emotions, this study found that teachers used direct staging by losing their temper (e.g., dropping a book or pounding their fists on the table), by suppression, and by discussing the problem with students. Previous research has also found that teachers lose their temper by hitting the desk and yelling [46]. However, these extreme and aggressive ways of expressing anger were perceived as inappropriate or unacceptable by students [45]. With regard to suppression, a previous study has found that suppressing anger should be discouraged, given that it may decrease positive-emotion expression and increase negative emotion expression, and may hinder the development of positive teacher-student relationships [15]. Hence, it is indicated that losing one's temper or suppressing anger may not be a good solution when teachers feel a need to direct-stage anger.

The present study, thus, suggests that anger can be better expressed by discussing the problem with students rather than losing or suppressing one's temper. The cases of Kirsi and Jenni provided evidence that discussion involved taking into account students' perspectives and feelings. In contrast, losing temper in the cases of Risto and Milla indicated a lack of explanatory rationales for expected student behaviors. Further, suppression in Milla's case was connected with keeping a certain distance from students, similar to the distance which service employees keep from their customers. Therefore, losing temper or suppression cannot make students understand the reason for teachers' anger or develop close teacher-student relationships. Contrastingly, expressing anger by discussing the problem

with students may convey the importance or personal utility of expected student behaviors. Future research could also explore whether discussing the problem with students can reduce teachers' anger.

Another interesting finding about emotion expression in this study is that teachers used faking to achieve a particular teaching goal. For example, Milla reported faking anger by deliberately using strict words and tones to make students think she was angry, so that she could maintain discipline in class. Similar findings from previous studies show that teachers fake their anger or sadness when students fail to follow a class rule [18,46]. However, previous research has also found that teachers who report faking anger suffer from physical and mental health problems, and are emotional exhausted [18]. In relation to the present study, even if Milla could maintain discipline in class through faking her anger, she might suffer the detrimental effect of this strategy on her wellbeing. Thus, faking anger is not recommended for teachers even though it may be used to enforce classroom rules.

A novel finding about faking in this study is that teachers faked their indifference to make students solve problems independently. Kirsi reported faking indifference by delaying her reaction to students' request for help, so that they could try to solve problems by themselves first. However, no previous research has reported teachers faking indifference, so its effect remains unknown. Yet, it is possible that teachers' faking indifference may harm students' ego [69] or create conditional regard [70], so that students are pressured to perform by internal feelings of shame or anxiety. As proposed by Taxer and Frenzel [18], it is valuable for future research to investigate which discrete emotions teachers fake and the effect of faking a particular emotion, such as faking indifference revealed in the present study.

5.2. Teacher Beliefs

This study found that teachers held contradictory beliefs about their negative emotion expression. On the one hand, teachers realized that expression of negative emotions could be harmful to teaching, learning, teacher-student relationships, and classroom atmosphere. On the other hand, they believed that teacher expression of negative emotions could be beneficial for student discipline and teacher emotions. For example, Risto believed that his negative expression of anger could be a safety belt to secure him against the offensiveness of student misbehaviors and could reduce his anger as well. These results are consistent with previous finding that displays of negative emotions serve a purpose, that is, performative [55,60]. Hence, it is probable that teachers can realize the detrimental effect of negative emotion displays but at the same time they prefer to direct-stage negative emotions to achieve a goal. Therefore, the present study, by discerning teacher beliefs, provides insight into why teachers direct-stage their negative emotions. Future research could further explore why teachers believe negative expression of anger as a safety belt, for example, whether such a belief connects with teachers' previous experiences in life. Future research could also investigate the harmfulness of embracing such a belief.

Another important finding of this study is that teacher beliefs about teacher-student power relations may be connected with teachers' appraisals of student misbehaviors. For instance, Milla held a belief about students competing with her for power and deliberately making her lose control. This belief guided her to take student misbehaviors personally rather than attribute them to internal student-related factors. Previous research has found that teachers who take student misbehaviors personally are more likely to experience burnout [71]. In the present study, Milla's belief about students competing with her for power was also found to connect with the suppression of her anger, which may be harmful for her wellbeing in the long term. Thus, the present study suggests that beliefs about students competing with teachers for power appear unhealthy and should be discouraged. This study also indicates that the investigation into teacher beliefs can facilitate the understanding of teachers' appraisals of student misbehaviors.

5.3. Insights into Teacher Beliefs and Emotion Expression in Relation to Need Support

As evidenced by the six cases presented in the results section and discussed in depth below, this study found that teacher beliefs about their roles as educators, carers, and providers of reassurance

reflected expressing clear expectation, caring for students, and considering student perspectives and feelings; teacher beliefs about equality between teachers and students appeared connected with trust in students and encouragement of their self-initiation; teacher beliefs about closeness to students reflected caring for students; teacher expression of negative emotions by discussing the problem with students conveyed explanatory rationales for expected student behaviors. These findings of the present study indicate that teacher beliefs and emotion expression can be discussed in light of the prominent constructs of autonomy, competence, and relatedness support, highlighted in the SDT literature [12,24–26,28]. By being more comprehensive than previous studies, this study can facilitate further development of SDT research by integrating need support with its concomitant factors: teacher beliefs and emotional expression.

Kirsi and Oliver, who taught seventh-grade math in different classes and were homeroom teachers, reported clear differences in ways of expressing caring and beliefs about their roles. Both teachers used direct staging to show their caring or affection to students. The difference between their specific ways of direct staging is that Kirsi helped and guided students with their problems to show affection, while Oliver checked whether students had their learning materials (e.g., textbooks and notebooks) in addition to concern for their physical health. These two teachers' approaches to caring or affection can be reflected in their beliefs about teacher roles. They both believed that their roles were carers for students due to their responsibility as a homeroom teacher. For example, Kirsi acted like her students' parent, while Oliver cared about their physical wellbeing. However, Oliver believed that checking students' learning materials was also caring, and this belief revealed that he did not sufficiently trust that teenaged students could take care of those materials independently. In contrast, Kirsi's beliefs about equality between teachers and students regarding power relations revealed that she trusted students' behavior and their self-regulation. In sum, Kirsi's beliefs about equality between teachers and students reflected trusting students and encouraging their self-initiation, and her expression of affection by helping students with their problems conveyed acknowledgement of student perspectives and feelings. In contrast, Oliver's beliefs about his caring roles which involved a checker about student learning materials, and his expression of caring by checking these materials reflected insufficient trust in students or lack of encouraging their self-initiation.

Sam and Risto, who taught seventh-grade English in different classes, reported clear differences in ways of negative emotion expression and beliefs about their roles. Both teachers used direct staging to express their negative emotions. Sam released his annoyance about student misbehaviors by adjusting the situation, for example, separating two students who were talking together at the back of the classroom. In contrast, Risto showed his anger about the noise students made by dropping a book on the table as a negative signal. Sam's expression of annoyance by adjusting the situation can be associated with his beliefs about his role as a provider of reassurance for students' certainty outside the turbulence of their lives. It appeared that he thought it important to provide a learning environment with certainty rather than turbulence for students, so he attempted to adjust the situation to reach this goal. In contrast, Risto's expression of anger by dropping a book on the table can be connected with his beliefs about his role as a controller for student behaviors as well as about teacher authority. It appeared that he attempted to maintain his authority by giving a negative signal to the misbehaving students. In sum, Sam's beliefs about his role as a provider of reassurance and his expression of negative emotion by adjusting the situation rather than losing temper reflected acknowledgement of student perspectives and feelings. In contrast, Risto's beliefs about his role as a controller and about teacher authority, and his expression of negative emotion by losing temper reflected lack of considering student perspectives and feelings.

Jenni and Milla, who taught ninth-grade English in different classes, reported clear differences in ways of negative emotion expression and beliefs about professional distance. Both teachers used direct staging to express their negative emotions. Jenni showed her worry about students' future by discussing the issue with them, for example, their inappropriate manners of speaking to people. In contrast, Milla showed her anger with student misbehaviors by hitting her fist on the table. Milla

also reported that she would hide her anger when she realized that students were deliberately making her lose control. Jenni's negative emotion expression by discussing the problem with students can be related to her beliefs about her role as a carer for students' problems and fears, and an educator for the development of students' values in life, as well as her beliefs about closeness to students. In contrast, Milla's suppression of her anger can be related to her beliefs about students competing for power with her and deliberately making her lose control, as well as her beliefs about keeping a certain distance from students to control her emotions. In sum, Jenni's beliefs about her role as a carer for students' problems and her negative emotion expression by discussing the problem with students conveyed acknowledgement of student perspectives and feelings; her beliefs about her role as an educator for the development of students' values in life was connected with expressing clear expectations; her beliefs about closeness to students and her expression of caring communicated care for students' feelings. In contrast, Milla's expression of anger by losing her temper rather than discussing the problem with students was linked to a lack of providing explanatory rationales; her beliefs about keeping a certain distance from students appeared to reflect her dilemma about teacher-student relatedness.

5.4. Implications

The present study validated the use of semi-structured interviews to explore teacher beliefs and emotion expression, and inferring teacher beliefs from their accounts of their emotional and teaching experiences. These methodological strategies provide valuable implications for future research. First, by using semi-structured interviews, researchers in future studies can develop core interview questions based on established theories concerning teacher beliefs and emotions and synthesize the emergent conception from teachers' self-reports to elucidate teacher beliefs and emotions. Second, instead of just evaluating the frequency and intensity of teacher emotions through questionnaires, teachers' narratives of their emotional experiences during teaching can facilitate in-depth insights into their emotional life in school in relation to their professional self-understanding and identity. Third, teacher beliefs can be inferred from their accounts of emotional and teaching experiences, rather than by directly asking what beliefs teachers hold or using restricted questionnaire items that may not validly represent teacher beliefs.

The findings of this study concerning the interplay of teacher beliefs, emotion expression, and need support have important implications for teaching and teacher education. First, teacher education programs could help teachers to foster beliefs connected with need support. Teachers could be helped to self-reflect on their beliefs about a specific element of teaching, e.g., beliefs about teacher roles. Then they could be presented with the promising effects of beliefs that may facilitate support for student psychological needs, e.g., beliefs about teacher roles as educators or carers. They could also be presented with the detrimental consequences of beliefs that may undermine satisfaction of student psychological needs, e.g., beliefs about teacher roles as controllers or checkers. Second, teachers could be guided to appropriate ways of emotion expression. They could be presented with the benefits and harms of specific ways of emotion expression, in relation to teacher support for student psychological needs. They could also be encouraged to discuss the problem with students when they feel a need to direct-stage their anger, and discouraged to lose their temper or suppress their anger.

5.5. Strengths and Limitations

To ensure reliability and validity, the present qualitative study employed the following strategies. (1) A coding system was developed, which was both theory grounded and data driven, and the inter-coder agreement process was employed to demonstrate the consistency of the coding. (2) The data was collected from school-teachers with varied teaching backgrounds, e.g., teaching subject, school level, and teaching experience, so that a diversity of conception or experiences regarding their beliefs and emotions could be obtained. (3) In-depth illustrations and interpretations of the findings were provided together with the verbatim quotes of the interviews, so that particular representation of the findings could be contextualized and clarified to facilitate transferability of the findings to

other settings. These strategies contributed to supporting the methodological integrity or rigor of the present study.

Nevertheless, one may be concerned about the sample size in relation to generalizability. Whether relying on six interviews is adequate can be discussed from the perspective of *information power*, which suggests that the more information the sample provides, the lower number of participants is needed [72]. In light of information power, the present study was grounded in established theories, recruited participating teachers with characteristics that were highly relevant for the aim of this study, conducted strong and clear interviews based on core interview questions, and included in-depth analysis of teacher narratives. Therefore, the sample size of the present study was deemed adequate for the analysis and derived findings. Furthermore, it has been argued that the transferability of findings in qualitative research to other contexts is based on developing deep and contextualized understandings that can be applied by readers, rather than generalizing findings to a particular population [73]. In sum, the sample size of the present exploratory study was considered adequate in relation to transferability, since the six interviews provided sufficient information power to offer new and substantial insights into teacher emotions and beliefs that could be applied by researchers or educators.

The limitations of this study are related to the one-time investigation, the only use of teacher self-reports, and the data collection from a single school. Longitudinal studies should be employed in future research to explore stability and change in teacher emotions and beliefs. In addition, students' perceptions and researchers' observations could also be integrated to teachers' self-reports in order to gain a full picture of the interplay between teacher beliefs, emotions, and need support, from diverse perspectives. Further, data should be collected from different schools and schools from different regions and countries in future research in order to extend the scope of data sources.

6. Conclusions

This study explored teacher beliefs and emotion expression and discussed them in light of teacher support for autonomy, competence, and relatedness, via six semi-structured interviews with teachers. This comprehensive investigation may facilitate SDT research to develop further by intertwining need support with its concomitant constructs: teacher beliefs and emotion expression. This study also validated using semi-structured interviews to explore teacher beliefs and emotion expression, and inferring teacher beliefs from their accounts of their emotional and teaching experiences. These methodological strategies have valuable implications for future research. Importantly, based on a well-established theoretical framework and in-depth analysis of teacher self-reports, findings from this study could provide researchers or teachers with insights into the fostering of positive teacher beliefs, appropriate emotion expression, and effective teaching strategies.

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