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## Coping Strategies of Teachers: An Inventory of Approaches and Programs and their Knowledge and Usage in German Schools

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**Abstract:** Various studies have shown that teachers are subject to an increased stress level and the associated physical and psychological consequences. In this article, the possibilities of coping of stressful situations in everyday school life are systematized. In addition, the knowledge and usage of available programs and trainings for coping with stress at school in German-speaking countries will be assessed. This is a descriptive study based on a survey of 32 teachers. Effects due to contextual variables (gender, school type, and work experience) were examined. The results indicate that only a few of the programs surveyed are known and used in schools. Effects in connection with the gender of the teachers as well as their professional experience could not be determined. Instead, significantly more special education teachers knew and used programs to strengthen protective context factors (school type effect). The fact that a high proportion of teachers are unaware of and do not use available programs, despite their high importance for healthy coping with personal job demands, suggests deficiencies in teacher education and training. In addition, lack of resources at schools may be limiting. The successful management of stressful situations must not be seen as a task for individual employees; rather, systemic solutions must be found. Particularly due to the increased stress experienced by teachers in connection with the COVID-19 pandemic, aspects of health promotion in schools should play a significant role. The aim must be to provide more detailed information about stress management approaches in schools and to support their implementation.

**Keywords:** Classroom disruptions, coping strategies, stress management, protective and risk factors, teacher burnout.

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### Introduction

The teaching profession is considered to be very stressful for the person who performs it - this is shown by the international research discourse (Cancio et al., 2018; Clipa, 2017; Herman et al., 2018; Kassymova et al., 2019; Richards, 2012; Schüle et al., 2014; Singh & Matthees, 2021). In interviews with teachers, disruptions in the classroom as well as students with behavioral problems are repeatedly named as the main reasons for the high level of stress. The importance of classroom disruptions, as the main reason for teachers leaving the profession and taking early retirement, is also undeniable (Weber, 2004; Wettstein et al., 2016). An increased sense of stress of the teacher can also have a very unfavorable impact on the quality of instruction and on the available learning time for students (Herman et al., 2018; Wettstein et al., 2016).

Schaarschmidt (2003) reports a steady increase in the stress situation of teachers in recent years, citing the increasing number and complexity of their tasks, deteriorating framework conditions, as well as behavioral problems of students and declining support from parents as the main influencing factors.

Since 2020, the pandemic spread of the SARS-CoV-2, and the COVID-19 disease it causes, have had a significant impact on fundamental processes in health, cultural and economic systems worldwide. In addition to restrictions on public contact, these strategies also include significant restrictions in education. For teachers in particular, numerous challenges arose, resulting in significantly increased stress levels (Collie, 2021; Hidalgo-Andrade et al., 2021). For Germany, the study "Teacher Health in the Corona Pandemic" (Hansen et al., 2020) found that almost one third of the teachers surveyed exhibited severe exhaustion, which can be regarded as a burnout indicator. This circumstance is particularly related to the actions taken to contain the pandemic, which led to significant changes in teachers' daily work in the short term. In addition to teaching, additional tasks now had to be taken on (regulating masking and spacing rules, communicating with

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parents, designing digital learning opportunities). It seems urgent to pay even more attention to teachers' mental health. This in terms of educational policy, however, also on the part of research.

The central concern of this paper is to address strategies and programs to reduce stress and strain for teachers. In essence, this study examines which programs and strategies for stress reduction and coping are already known to German teachers and which they use in practice.

### *On the Understanding of Stress*

Franke (2012) refers to three prominent basic understandings of the concept of stress (see also Kramis-Aebischer, 1995). According to these, stress can be understood in a reaction-related, a situational, or in an interactive or transactional understanding.

In the reaction-related understanding, stress is to be seen as a consequence to a challenging situation or event. It describes a state of exceptionally strong physical, mental, or spiritual demand in response to something threatening or unexpected, a current situation, conflict, or other interpersonal issue (Nieskens et al., 2012). In this sense, the term stress was established by the founder of stress research in the German-speaking world (Seyle, 1981).

If stress is understood according to a situational understanding, it is considered a trigger for emotional reactions due to unpleasant states of tension. Stress in this sense is primarily used in life-event research and within personality-oriented approaches (Rudow, 1997). From a biological and developmental perspective, stress reactions are stereotypical activation patterns, such as fight or flight behavior (Franzkowiak & Franke, 2018).

Stress in the sense of an interactive or transactional concept is conceived as a process that sets in whenever a person is confronted with demands to which the organism cannot spontaneously respond, which exceed its immediately available resources. This interactionist concept of stress was primarily advocated by Richard S. Lazarus and his group of researchers (Lazarus & Folkman, 1984). According to this, stress describes "a relationship between a person and his or her environment that is judged by the person to be stressful or to exceed the person's own resources and to endanger well-being" (van Dick & Stegmann, 2013, p. 46). All of the listed approaches to stress research have in common that the development of stress is always based on a completely subjective component.

The phenomenon of stress also forms a significant topic area in health research. While in the past a pathogenetic understanding often dominated research, in which the focus was on factors and causes that lead to states of stress or disease (Reuter, 2005), in recent decades there has been a shift in thinking toward a holistic and positive concept of health (Nieskens et al., 2012). In this context, experts also speak of the so-called "salutogenesis" (Antonovsky, 1979, 1987; Becker, 1986; Ducki & Greiner, 1992; Nieskens et al., 2012; Udris, 1990; Udris et al., 1994). This refers to the "description of factors that lead to the development (genesis) and maintenance of health" (Nieskens et al., 2012). In the salutogenetic understanding, the focus is on the resources that strengthen a person's health. This means that the people concerned are not seen as victims of the stresses that affect them but are instead given an active role in helping to shape their stress conditions. Overall, the idea is that health and illness are not understood as mere and delimitable states, but as endpoints on a common health-disease continuum (Antonovsky, 1979; Wesselborg, 2015). Accordingly, the two states do not alternate, as a dichotomous understanding would suggest. Rather, the transitions between health and illness are to be seen as fluid (Wesselborg, 2015). For example, a person may simultaneously exhibit more healthy and more ill characteristics of well-being. These considerations also open up the opportunity to differentiate between physical and psychological well-being, which is a valuable perspective given teachers' sense of stress and also in the context of this paper.

The salutogenetic perspective is based on the systemic demands-resources model (Becker, 2006) and accordingly also follows a transactional approach. According to this, demands are made on persons that result either from the environment (external) or from the person (internal). In the best case, the demands are met by using one's own resources (internal) or resources originating from outside (external). Demands can overtax individual resources and then act as burdensome stressors. Health and illness (or stress) are thus seen as the result of adaptation and regulation processes within a person, but also between the person and the environment (Becker, 2006).

### *Stress in the teaching profession*

The teaching profession is one of the professions that is particularly associated with psychological stress (Bauer et al., 2007; Cramer et al., 2014; Herman et al., 2018; Hüfner, 2003; Nieskens et al., 2012; Rothland, 2013; Schaarschmidt & Fischer, 2001; Schmitz, 2001; Schmitz et al., 2002; Terhart et al., 2014; Wettstein et al., 2016). This is also supported by statistical data demonstrating that teachers are frequent patients of psychosomatic practices and clinics (Hillert et al., 1999; Skinner & Beers, 2016). Teachers in fields of special education are particularly at risk (Cancio et al., 2018; Clipa, 2017; Hüfner, 2003; John & Stein, 2008; Stein, 2007). It seems urgent to pay more attention to the mental health of teachers (Schaarschmidt, 2003), because a) it is a very large occupational group, b) teacher health is seen as closely related to the success of students at school, and c) there is a shortage of teachers in Germany, which definitely contributes to the stress situation, but which, moreover, must not be allowed to spread further.

Reasons for the stresses are seen in the role of the teacher and the job description associated with it (Clipa, 2017; Hübner & Werle, 1997; Körner, 2003; Richards, 2012). Among other things, the incomplete regulation of working time (working time in addition to the obligatory number of teaching hours is difficult to quantify; (Körner, 2003; Schmitter, 1999), the low level of feedback about the success and failure of one's own work (little feedback, if any then usually rather negatively colored), or the role as a lone fighter (rather one-sided communication from the teacher to the students, often a lack of social support in the collegium; Punch & Tuettemann, 1990) are seen as problematic.

Another serious stressor for teachers is seen in classroom disruptions. Numerous teacher stress studies show a clear relationship of classroom disruptions to teacher burnout and identify classroom disruptions as the main motive for leaving the profession as well as for early retirement (Lehr, 2014; Schaarschmidt & Kieschke, 2007, 2013; Weber, 2004; Wettstein et al., 2016). Classroom disruptions can be understood as different forms of deviant behavior that affect teaching and learning to a greater or lesser extent (Keller, 2014). Empirical studies (in particular in the German-speaking world) illustrate that instruction is highly susceptible to disruption (Keller, 2014; Lissmann, 1995; Wettstein et al., 2016). A study by Krause (2004) concludes that teachers face 20 disruptions per lesson. Keller (2014) estimates that approximately 35% of school-year instructional time is ineffective due to disruptions.

If one considers the offer-use model of teaching according to Helmke (2014) (teaching is seen as an offer realized by the teacher that is to be used by students in order to achieve learning success), then this model also provides evidence for the high susceptibility of teaching to disruption: it illustrates that teaching can be understood as a reciprocal social event in which the students and the teacher interact with each other. The characteristics of the teacher (including professional knowledge, subject matter, didactic, diagnostic, and classroom management skills, expectations, and goals) and of the individual children (family conditions, learning potential) affect instruction, thus influencing the actual learning activity and the impact of instruction. This highlights the transactional relationship of behaviors and actions of both the teacher and the students in the context of classroom disruptions (Wettstein et al., 2016).

Research on the stress situation of teachers shows that it is not the serious disruptions (e.g., aggressive behavior) that are named most frequently; rather, most distractions to teaching seem to be in the area of work behavior, followed by acoustic disruptions (Blumenthal et al., 2019; Jürgens, 2017). In particular, missing work equipment and instructional materials disturb the flow of instruction, followed by disruptions caused by heckling or unwanted conversations. Thus, it is not extreme situations that trigger a feeling of great stress. Rather, it is the "'small' everyday disturbances such as lack of concentration, inaccuracy, motor restlessness, lack of interest" (Jürgens, 2017, p. 28). Nevertheless, the studies mentioned above indicate that classroom disruptions can have serious consequences, not only in terms of the available learning time budget, but also in terms of teachers' experience of professional stress. According to the conservation of resources theory (Buchwald & Hobfoll, 2004), even minor disruptions can have serious consequences for teacher health if they cannot be compensated for by individual resources.

In the context of research on the stress of teachers, there has also been a shift toward a salutogenetic view. Initially, stress and possible interventions in the teaching profession was predominantly studied (Rothland & Klusmann, 2012), but now a salutogenetic perspective is increasingly being adopted, which also takes into account health-preserving variables such as self-efficacy expectations, control beliefs, or social support (Abele & Candova, 2007; Buschmann & Gamsjäger, 1999; Herzog, 2007; Jerusalem, 1990; Nieskens et al., 2012; Schaarschmidt, 2003; Schaarschmidt & Kieschke, 2013; G. S. Schmitz, 1998; Schonert-Reichl & Roeser, 2016; Schüle et al., 2014; Schwarzer, 1997, 1998; Skinner & Beers, 2016; van Dick & Stegmann, 2013).

#### *Approaches to dealing with stressful situations in the teaching profession*

Originally, the term coping comes from stress research and was coined by the American psychologist Richard S. Lazarus and his team in his stress theory and is widely used today in this context in theory and research (Lazarus & Launier, 1981; Lehr, 2014; Schüle et al., 2014). According to him, it is a collective term that applies to any reactions of people in threatening or stressful situations. Coping is an important factor in the development or avoidance of adverse health effects or disease - if stresses cannot be coped with, negative consequences (e.g., a disease) could result; if they are coped with positively, disease can be avoided or health can be promoted (Lazarus & Launier, 1981). A consensus exists that coping includes cognitive as well as emotional and behavioral efforts that help the individual deal with stressful events (Kramis-Aebischer, 1995). Various classifications can be found in the literature in this regard. According to Lazarus and Folkman (Lazarus & Folkman, 1984), emotion-focused and problem-focused coping are central. Thus, emotion-focused coping aims at reducing unpleasant feelings and changing the emotional state of the individual. The intention of problem-focused coping, on the other hand, is to change the situation and thus the cause of stress. Lazarus and Launier (1981) differentiate coping even further, dividing coping modes into "changing the disturbed transaction (instrumental)" and "regulating the emotion (palliation)." Coping can also be both reactive (e.g., responding to a problem) and proactive (e.g., avoiding a feared situation). To specifically implement coping, the following strategies or approaches are indicated: seeking information (about the problem and its possible solution), taking a direct action (asking someone for help), action inhibition (such as not saying insults), or intrapsychic coping (reinterpreting a threat) (Lazarus & Launier, 1981).

No simple answer can be formulated to the question of what teachers can specifically do to avoid stressful classroom disruptions or how to deal with them properly. All of the described approaches to coping are conceivable. Empirical findings indicate that spontaneous, i.e., rather reactive solutions are sought within the situation. In a study by Özben (2010), eye contact with the child (81.0 %), reporting to the school administration (61.9 %), verbal warnings (54.7 %), verbal contact with the child (52.5 %) or contacting the parents (41.3 %) were described as common measures in stressful situations caused by classroom disruptions. However, purposeful management of classroom disruptions to prevent and intervene in stress symptoms should integrate many more strategies.

Different approaches can be derived from research lines that refer to the prevention of problematic developmental processes in school (an overview for the German-speaking area is provided by Hartke (2005) or to a transfer of approaches of workplace health promotion to the educational area (an overview for the German-speaking area is provided by Krause and Dorsewagen (2011). Prevention research sees a systematic combination of preventive and interventional measures as an opportunity to minimize or resolve problematic developments. Similarly, health research distinguishes between pathogenetic and salutogenetic approaches. According to this understanding, the following approaches to dealing with stressful situations in the classroom can be distinguished (see Figure 1).

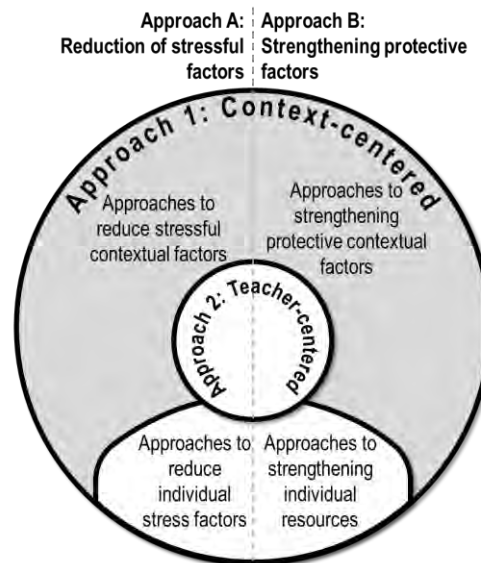


Figure 1. Approaches for preventing and dealing with stressful situations

In the sense of system-oriented prevention (Kretschmann, 2009; Mörtl, 1989; Schrottmann, 1990; Wember, 2000), contextual conditions must be taken into account as a starting point. Here, interventions to systematically reduce the stressful influences (pathogenetic approach combination 1A) are to be distinguished from approaches to strengthen situational resources (salutogenetic approach combination 1B).

Another possible approach sees the teacher as the starting point for actions to reduce stress symptoms (behavioral prevention or person-oriented prevention (Kretschmann, 2009; Mörtl, 1989; Schrottmann, 1990; Wember, 2000). Here, too, a distinction can be made between possibilities to reduce individual stress factors (pathogenetic approach combination 2A) and to strengthen individual competencies for coping with stressful situations (salutogenetic approach combination 2B).

#### *Approaches to reduce individual stress factors*

In the field of personal interventions, there is a wide range of approaches, programs and interventions to reduce and manage stress (Hedderich, 2011). The so-called stress coping and stress management trainings mainly fall into this area. There is no consensus on how such training should be structured, but the following elements can be identified, which are included in varying composition in most programs (Lehr et al., 2013): psychoeducation, relaxation and cognitive interventions. An overview of stress management training programs available in Germany and their central content can be found in Table 1.

Table 1. Programs to reduce individual stress factors.

Program	Contents / Modules
Work and Health in the Teaching Profession (Hillert et al., 2011)	Sensitivity to stress symptoms, recognizing and defusing stress-reinforcing patterns, reflecting on and, if necessary, modifying strategies and skills for coping with stress as well as individual recovery behavior.
Stress Management for Teachers (Kretschmann, 2006)	The stresses of a school day, family - leisure - preparation, stress-reducing measures in school, stress prevention in the classroom, mental lesson preparation, stress prevention through the formation of a professional self-image, stress reduction through enjoyment of life.
Stress Management Training for Teachers (Rudow, 1997)	Progressive muscle relaxation, identification of stresses in the teacher's job, identification of stress reactions, coping with acute stressful situations in the classroom, reflection on attitudes relevant to the profession, development of self-confidence, systematic problem solving, balancing stress in free time, transfer session
Potsdam Training Model (Abujatum et al., 2007)	Diagnostics of stress and its cause, for the technique of systematic problem solving, time and self-management, communication and social skills, goal setting and goal planning, and relaxation.
The Rational-Emotive Therapy (Schelp et al., 1997)	Basic modules, emotion modules, cognition modules, behavior modules, excessive behaviors, addiction, avoidance behaviors / postponement behaviors, partnership problems, chronic stress.
Stress Inoculation Training (Meichenbaum, 2002)	Information phase (problem analysis, models of stress development), practice phase (teaching methods of stress control), application phase (testing acquired coping skills in real stressful situations).
Calm and Confident under Stress (Kaluza, 2015)	Basic modules: entry module, relaxation training, mental training, problem-solving training, enjoyment training, final module. Supplementary modules: sports and exercise, social network, vision for the future, time planning, acute case strategy.
Behavioral Therapy for Stress Management (Wagner-Link, 2010)	Individual stress analysis, approaches to stress management, short-term relief, long-term stress management, additional module: health psychology approaches

#### *Approaches to reduce stressful contextual factors*

According to Bronfenbrenner (1977), several levels can be distinguished in terms of reducing stressful contextual factors in the teaching profession. These can be located in the dyad teacher-student as well as on the level of the entire class or school. Accordingly, the following approaches to reduce stressful contextual factors refer to different levels:

- Classroom management (Evertson & Emmer, 2013) is the term used to describe the totality of a teacher's classroom activities and behaviors with the goal of creating an optimal learning environment and coexistence for students. Classroom management is arguably one of the most well-known and significant approaches to instructional development. Evertson and Emmer (2013) understand effective classroom management as a combination of proactive (i.e., preventive) and reactive (i.e., intervening) strategies.
- The Training Room Method of Bründel and Simon (2013) is an adapted and supplemented version of the Responsible Thinking Program by Edward E. Ford (1997, 1999) for German conditions. The goals of the program are to reduce the level of classroom disruptions, for teachers to respond respectfully to disruptions, and for students to reflect on their own behavior (and adapt their behavior if necessary).
- The program Conflict Resolution without Defeats in Six Steps (Gordon, 2012) is based on the conversation model of Thomas Gordon and enables the joint finding of a solution that satisfies the needs of both conflict parties and thus does not negatively affect interpersonal relationships. In the program, this is done by going through 6 steps (identifying the problem and defining it, developing solutions - brainstorming, evaluating the proposed solutions, making a decision, executing the decision, re-evaluating and reviewing).
- The program Constructive Conflict Culture by Kaletsch (2003) aims at developing a good class community and a constructive conflict culture. The training program, which is designed to last two years, helps classroom teachers to show students ways to deal with conflicts on their own.
- Many research findings show that school organization or cooperation with colleagues and the school management can be experienced as stressful and that continuous joint development of the school is thus indispensable for maintaining teacher health (Schumacher, 2012). The concept of organizational development towards a "Good Healthy School" presented by Schumacher (2012) aims to show ways in which a joint design of a health-promoting working environment in schools can succeed. The concept is based on procedures of organizational development in companies and tries to transfer them to schools.

*Approaches to strengthen individual resources*

The main selection criterion for the individual resource strengthening programs is a focus on person-centered primary prevention or health promotion of teachers. A total of 6 programs were identified:

- The Zurich Resource Model (Storch et al., 2013) is a resource-oriented self-management training for the targeted development of action potential. It integrates cognitive, emotive and physiological elements in an alternation of phases of systemic analysis, coaching, theoretical impulses and the practice of self-help techniques. The training has been tried and tested many times and, as an open-source project, is continuously being further developed.
- In order to prevent stress in later professional life, the Holistic Stress Prevention Training by Košinár and Leineweber (2010) already starts in teacher education. It was developed for student teachers and can also be used in a modified form for the second phase of teacher training as well as for those entering the profession. The training program consists of four modules (stress prevention and coping, self-esteem as a basis for stress resistance, coping strategies, application in everyday life) and promotes reflection, social-communicative, self-regulation and self-competence.
- The Emotional Competency Training (Berking, 2015) is a group-based intensive program designed to improve participants' stress, self-esteem, and emotion regulation and to strengthen their emotional competencies. It includes muscle and breathing relaxation exercises, nonjudgmental awareness, accepting and tolerating all feelings, effective self-support, analyzing triggers and maintaining factors, and actively changing an emotional response.
- Kaltwasser's (2018) Mindful 8-Week Program is based on the Mindfulness-Based Stress Reduction approach (Baer, 2006), which can have a positive impact on a person's psychological constitution (Bohlmeijer et al., 2010). The starting point of mindfulness training is content-neutral observation. Through exercises (e.g., breathing exercises, meditations on a theme, qigong exercises) and observation of everyday life, the ability to sharpen awareness of ingrained personal patterns is developed.
- The Resilience Training developed from workplace health promotion (Wellensiek, 2011) is based on the Human Balance Training. The content of the training is divided into ten steps (pausing, determining one's position and clarifying one's role, balancing one's energy, dealing with personal burdens, dealing with inner drives, setting, maintaining, and opening boundaries, dealing with conflicts, room for maneuver, the importance of social networks, anchoring in one's own strength and calm).
- The Competence Training for Teachers (Kliebisch & Ludden, 2018) enables systematic examination of concrete situations oriented to the demands of everyday school life. The goal is to rethink and, if necessary, change one's own behavior.

*Approaches to strengthen protective contextual factors*

When it comes to strengthening situational resources, teacher cooperation is a key ingredient for job satisfaction. Various study findings suggest that a lack of integration and cooperation within the college as well as a lack of social support are among the factors that promote burnout (Christ et al., 2004; Körner, 2003). The approaches described below to strengthen protective contextual factors therefore refer to communication and interaction within the college in the sense of mutual help and social support:

- The program Communicative Practice Training in Groups (Schmidt, 2001) is designed to facilitate mutual exchange in small groups and tandems. The goal is specific mutual support in optimizing professional action through regular, moderated and structured meetings in which specific concerns are analyzed and solution strategies are developed (Schmidt & Wahl, 2008).
- In Collegial Supervision (Mutzeck, 2008), four to six teachers meet regularly to discuss mainly professional cases. By means of an external supervisor, the participants are supposed to come to their own explanations and approaches to the discussed problems. In this way, a continuous, systematic reflection on work is made possible.
- Collegial Consultation according to Schlee (2008) is a consulting approach in a self-directed group of equal members with defined roles. The approach is based on the systemic assumption of subjective theories, which are seen as the starting point of human actions. In the demanding and firmly structured consulting process, these theories are addressed in order to arrive at independent problem-solving approaches.
- The Reflective Team Approach (Connemann & Geiselbrecht, 2008) can be traced back to the work of Tom Andersen in the 1980s (Andersen, 1987). He developed a method of reflective conversation in the spirit of systemic therapy. In the school setting, the approach takes the form of a counseling interview under the observation of the reflective team. By means of a change of positions and a structured exchange under predefined rules, possible approaches to solutions are worked out.
- The program Cooperative Developmental Counseling to Strengthen Self-Direction (Tarnowski & Sieland, 2009) helps with changes in experience and behavior in complex social settings and with the change from old behavioral routines to new behavioral options. It combines self-directed and cooperative learning in groups of three with additional internet support. The method consists of four stages (problem analysis, self-directed learning, group exchange, multiprofessional learning community).

- The Constance Training Model (Dann & Humpert, 2002) is a primary and secondary preventive program for the further training of teachers and educators and is intended to facilitate the prevention as well as the management of disturbances and aggressive actions. The central element of the training is the work in tandems and functions as a self-help program, with an extensive collection of training elements. The goal is to increase pedagogical competence by building a reflective and appropriate repertoire of actions and to increase the academic well-being of students as well as teachers.

### Research question

In German-speaking countries, there is a lack of research on coping behavior of teachers (van Dick, 2006). Existing studies mostly date back to the 1980s and 1990s (Krause et al., 2013; Krause & Dorsewagen, 2011). In context of the present study, the knowledge of German teachers about possible programs or strategies for coping with job-related stress was investigated.

In addition, the study investigated which of the programs or strategies find concrete application in everyday school life. The study was exploratory, i.e., a descriptive analysis of the respondents' data was conducted. Possible influences of the teacher-related variables of professional experience and professional field (regular education teacher vs. special education teacher) were examined. The findings are intended to provide a starting point for further research, in the sense of generating hypotheses about factors and constellations influencing the knowledge and benefits of programs and strategies for dealing with stress in the teaching profession.

## Methodology

### Sample

Schools in the state of Mecklenburg-Western Pomerania, Germany were asked to participate in the survey. In respect of the limited school operation due to the Corona pandemic and the associated additional workload for teachers during the survey period, 32 schools agreed that one teacher each could participate in the survey. Thus, the sample consisted of  $N = 32$  teachers (71.2 % of whom were female). The teachers surveyed had a mean age of 47;5 years with a standard deviation of 11;0 years. The youngest of the surveyed teachers was aged 24 and the oldest 62. Of the respondents,  $N = 12$  (37.5 %) taught at an elementary school,  $N = 1$  (3.1 %) at a secondary school,  $N = 8$  (25.0 %) at a Gymnasium, and  $N = 10$  (31.3 %) at a school for special educational support. For the analysis of the survey data, teachers at a mainstream school (elementary school, secondary school, and Gymnasium) were considered as a cohesive group ( $N = 21$ ). For one person, the information on the place of employment was missing. There was also one abstention regarding the information on professional experience, so that the data for this refer to  $N = 31$  teachers. The average number of years of professional experience is 20;6 years (standard deviation of 12;7 years). The longest professional activity is 40 years, the shortest one year.

Table 2. Characteristics of the sample ( $N = 32$ ).

Characteristics	M	SD	N	%
Age	47;5	11;0		
Teaching experience (years)	20;6	12;7		
Gender				
Female			23	71.9
Male			9	28.1
School type				
Elementary school			12	37.5
Secondary school			1	3.1
Gymnasium			8	25.0
school for special educational support			10	31.3
No answer			1	3.1

### Design and Instruments

The study used a cross-sectional design. Due to the Corona pandemic, the survey was conducted online. Data was collected using the electronic survey tool EvaSys. The survey was open on the online portal from the beginning of August 2020 to the beginning of October 2020. All participants consented to participation during the initial interaction with the survey. The survey referred to the four coping approaches described previously. For each program and strategy listed above, participants provided information regarding their knowledge and usage. To do this, teachers had to mark those programs they knew and in addition mark those programs they used to cope with occupational stress. In an open-ended question, participants were able to name further possible programs or strategies to cope with occupational stress, which were not listed in the survey. Finally, the personal variables age and gender as well as the context variables work experience and school type were asked.

*Analyzing of Data*

Data analysis was mainly descriptive (absolute and relative frequencies about knowledge and use of the programs). Influences of age, type of school, or work experience were calculated using additional chi2 tests. Due to the small sample size, Fisher's exact test was used. In addition, a continuity correction according to Yates was performed. The classification according to Cohen (1988) was used to assess the effect sizes of significant correlations. Accordingly, values from  $\varphi = 0.1$  are classified as small, values from  $\varphi = 0.3$  as medium, and values from  $\varphi = 0.5$  as large.

**Results**

The results of the survey are shown in Table 3, with the findings listed separately according to the four coping strategies. It is very striking that the programs for the reduction of individual stress factors are hardly known and are not used at all in practice. The situation is similar for approaches that serve to strengthen individual resources.

Rather little known, but comparatively frequently used by those who know them, are the programs Training Room Method (Bründel & Simon, 2013) and Conflict Resolution without Defeats in Six Steps (Gordon, 2012) or Reflective Team Approach, Cooperative Developmental Counseling to Strengthen Self-Direction (Tarnowski & Sieland, 2009), and Communicative Practice Training in Groups (Schmidt, 2001).

*Table 3. Survey results separated by the four coping strategies (sorted in descending order of knowledge and usage).*

<b>Coping strategy</b>	<b>Program</b>	<b>Knowledge N (%)</b>	<b>Usage N (%)</b>
Reduction of individual stress factors	Work and Health in the Teaching Profession (Hillert et al., 2011)	1 (3.1 %)	0 (0.0 %)
	Stress Management for Teachers (Kretschmann, 2006)	1 (3.1 %)	0 (0.0 %)
	Stress Management Training for Teachers (Rudow, 1997)	0 (0.0 %)	0 (0.0 %)
	Potsdam Training Model (Abujatum et al., 2007)	0 (0.0 %)	0 (0.0 %)
	The Rational-Emotive Therapy (Schelp et al., 1997)	0 (0.0 %)	0 (0.0 %)
	Stress Inoculation Training (Meichenbaum, 2002)	0 (0.0 %)	0 (0.0 %)
	Calm and Confident under Stress (Kaluza, 2015)	0 (0.0 %)	0 (0.0 %)
	Behavioral Therapy for Stress Management (Wagner-Link, 2010)	0 (0.0 %)	0 (0.0 %)
Reduction of stressful contextual factors	Classroom Management (Evertson & Emmer, 2013)	27 (84.4 %)	20 (62.5 %)
	Conflict Resolution without Defeats in Six Steps (Gordon, 2012)	7 (21.9 %)	3 (9.4 %)
	Training Room Method (Bründel & Simon, 2013)	4 (12.5 %)	3 (9.4 %)
	Good Healthy School (Schumacher, 2012)	4 (12.5 %)	1 (3.1 %)
Strengthening individual resources	Constructive Conflict Culture (Kaletsch, 2003)	0 (0.0 %)	0 (0.0 %)
	Resilience Training (Wellensiek, 2011)	3 (9.4 %)	0 (0.0 %)
	Zurich Resource Model (Storch et al., 2013)	1 (3.1 %)	0 (0.0 %)
	Mindful 8-Week Program (Kaltwasser, 2018)	1 (3.1 %)	0 (0.0 %)
	Holistic Stress Prevention Training (Košinár & Leineweber, 2010)	0 (0.0 %)	0 (0.0 %)
	Emotional Competency Training (Berking, 2015)	0 (0.0 %)	0 (0.0 %)
Strengthening of protective context factors	Competence Training for Teachers (Kliebisch & Ludden, 2018)	0 (0.0 %)	0 (0.0 %)
	Collegial Supervision (Mutzeck, 2008)	23 (71.9 %)	4 (12.5 %)
	Collegial Consultation (Schlee, 2008)	24 (75.0 %)	7 (21.9 %)
	Reflective Team Approach (Connemann & Geiselbrecht, 2008)	8 (25.0 %)	3 (9.4 %)
	Cooperative Developmental Counseling to Strengthen Self-Direction (Tarnowski & Sieland, 2009)	4 (12.5 %)	2 (6.3 %)
	Communicative Practice Training in Groups (Schmidt, 2001)	2 (6.2 %)	1 (3.1 %)
	Constance Training Model (Dann & Humpert, 2002)	1 (3.1 %)	0 (0.0 %)

The analysis of the relationship of the survey results with the teacher variables school type, gender and professional experience led almost exclusively to non-significant findings, indicating that there were no differences between the statements of the special education teachers and the regular teachers. Only for coping strategies to strengthen protective contextual factors, influences of school type were found. The approach of Collegial Supervision (Mutzeck, 2008) is more known among special education teachers (10 out of 10 mentions) than among regular teachers (12 out of 21 mentions) ( $\chi^2(1) = 6.04, p = .015, \varphi = 0.01$ ). There is also a significant effect of school type with regard to practical implementation. While 4 special education teachers implement Collegial Supervision in their daily school routine, this is not true for any of the surveyed regular teachers ( $\chi^2(1) = 9.64, p = .007, \varphi < 0.01$ ).



The situation is analogous for the Reflective Team Approach (Connemann & Geiselbrecht, 2008). 5 out of 10 special education teachers are aware of the program, whereas only 2 out of 21 regular teachers are ( $\chi^2(1) = 6.35, p = .022, \phi = 0.01$ ), but the program is used by only 3 special education teachers and 2 regular teachers, respectively ( $\chi^2(1) = 7.00, p = .022, \phi = 0.01$ ).

Collegial Consultation (Schlee, 2008) was known by all special education teachers surveyed, but only by 13 regular teachers. This influence of school type is also significant ( $\chi^2(1) = 5.14, p = .032, \phi = 0.02$ ). There is no significant relationship of school type with the usefulness of Collegial Consultation (Schlee, 2008) in school practice; in both groups, the approach is rarely used.

Only two teachers responded to the open question about other known coping programs. While one person named rather general strategies for stress prevention (healthy lifestyle, good family climate, good circle of friends, life attitude), the other person pointed to a program for collegial classroom reflection that is regionally widespread in Hamburg, Germany.

### Discussion

Current research is dominated by studies on the health situation of teachers and the evaluation of stress management programs (Cancio et al., 2018; Clipa, 2017; Cramer et al., 2014; Herman et al., 2018; Hüfner, 2003; Kassymova et al., 2019; Nieskens et al., 2012; Richards, 2012; Rothland, 2013; Schüle et al., 2014; Terhart et al., 2014; Wettstein et al., 2016). There is a lack of studies that systematically assess teachers' knowledge of the existing range of stress management training (e.g. Clipa, 2017; Richards, 2012).

The first aim of this study was to systematize coping approaches for dealing with stress in the teaching profession and to compile possible support programs and approaches. The second goal of this study was to capture the tension between theory and practice and to find out to what extent teachers already know and use specific strategies and the presented programs for dealing with stress and strain in their work as teachers. Within the framework of a teacher survey, data on knowledge and use in school practice were collected.

Against the background of the protective influence of coping strategies against pathological stress or burnout (Herman et al., 2018), the results presented here are alarming. Although the teaching profession is considered to be very stressful and often associated with high stress levels and high burnout rates, the results indicate that only a few of the programs surveyed are actually known and even more rarely if ever are they used in everyday school life. A total of 10 of the 25 approaches, i. e. almost half, were not known to the respondents. One explanation for the lack of knowledge of most of the programs in the sample could be seen in the scientific disciplines from which the individual programs originate. For example, a large proportion of the stress management programs listed are in the fields of cognitive behavioral therapy and psychotherapy and are rather unspecific with regard to their target group and in some cases have no direct reference to schools.

This is also supported by the fact that the knowledge and active use of classroom management techniques – thus an approach with a primarily school-oriented character – was named by the teachers most frequently. Classroom management is not a fixed program but comprises various individual strategies that do not exclusively refer to the reduction of stressful contextual factors in the sense of reactive disruption management (Evertson & Emmer, 2013), but also proactive measures that would rather be assigned to strengthen of protective contextual factors. In this combination, the use of classroom management is not only conducive to instruction, but also offers the opportunity to reduce teachers' sense of stress and is rather common among practitioners (Helmke, 2014; Hennemann & Hillenbrand, 2010).

Classroom management, however, should be seen as only one part in dealing with stressful situations in a teacher's everyday life. A combination of the described approaches seems promising when it comes to dealing with stress in the teaching profession (Clipa, 2017; Richards, 2012). However, as the data show, the multitude of programs for stress reduction and health promotion that exist in theory seem to be known and accepted only to a small extent in practice. This also applies to programs developed specifically for teachers, such as Work and Health in the Teaching Profession (Hillert et al., 2011) and Stress Management for Teachers (Kretschmann, 2006); only a few people stated that they were aware of these approaches, and accordingly they were almost never used. An exception to the otherwise rather uniform findings are counseling concepts such as Collegial Supervision (Schlee, 2008) or Collegial Consultation (Mutzeck, 2008). Many of the respondents know these approaches, but according to the data they also find little application in practice.

A further analysis on the influence of contextual factors of the teachers revealed no significant correlations of the survey data with gender, and teaching experience. This contradicts the findings of Antoniou et al. (2006), Ho (2017), and Klassen and Chiu (2010), according to which female teachers in particular tend to have higher levels of job stress. At this point, it remains open whether the contradictory findings are due to the different cultural areas (Germany vs. Greece / Canada / Hong Kong) or whether they are even artifacts within the data presented here. In order to assess this, further future research activities are necessary.

Significant influences of school type were found for coping strategies to strengthen protective contextual factors. These arise due to high proportion of knowledge about the programs Collegial Consultation (Mutzeck, 2008), Collegial Supervision (Schlee, 2008), and Reflective Team Approach (Connemann & Geiselbrecht, 2008) in the present data.

Accordingly, significantly more special education teachers knew and used these programs than regular teachers. An explanation for this can be found in the curriculum of special education teacher training in the state of Mecklenburg-Western Pomerania, that includes a counseling module in which Collegial Counseling and Collegial Supervision are central components (Carnein et al., 2022). This may explain differences in knowledge, but it remains open why these programs are used comparatively rarely. It can be assumed that the time required for the implementation of counseling concepts in practice, in conjunction with the necessary trust and openness in the college, represent significant hurdles here.

### **Conclusion**

By analogy with occupational health management, it can be concluded that dealing with stressful situations in schools is not exclusively an individual task of individual school actors, but rather a systemic challenge (Nieskens et al., 2012). Krause and Dorsemagen (2011) postulate as a central prerequisite that "individual schools or school administrators integrate health promotion and the development of joint strategies for dealing with stress and strengthening resources as a natural part of school development - and are supported in this by the relevant decision-makers" (p. 157). This support applies to dealing with school stress in general, but also to classroom disruptions in particular. Especially now, in times that evoke even higher levels of stress among teachers due to the pandemic (Collie, 2021; Hidalgo-Andrade et al., 2021), support systems are of particular importance.

### **Recommendations**

A major barrier appears to be the lack of information about available programs and approaches to stress management. Accordingly, special attention should be paid to job-related stress situations and coping skills in teacher education and training. The starting point for this could be seen in the already available programs listed above. However, another and possibly the significantly greater hurdle is to be seen in the practical implementation of stress reduction measures. The findings described here reveal a theory-practice gap. Difficulties in application probably arise due to the limited time resources in teachers' daily work. Measures to reduce stress should become a topic at schools and be given space (in terms of time and place), ideally as a preventive measure rather than reactively in the event of a clear experience of stress in the teaching staff. In this respect, the current implementation of a state program for workplace health promotion for employees at public schools, as is currently being implemented in Mecklenburg-Western Pomerania, for example, is very welcome. In this context, material, financial and personnel resources are made available so that about 40 schools per school year can take advantage of special counseling, support, and guidance services.

Future research should address the issue of low implementation of specific programs and strategies to deal with work-related stress. In addition to aspects of teachers' attitudes towards such approaches, particular attention should be paid to framing factors at the level of the school system (cross-district training and coaching programs), the school (cooperation within the teaching staff, health-promoting school management) and the classroom (classroom-integrated programs to minimize stress).

### **Limitations**

Overall, a regional effect can be derived from the present findings, which makes it difficult to generalize the findings to other German states. With regard to representativeness, it must also be noted that the results can only be meaningful to a limited extent for the entirety of teachers due to the sample size, although it can be assumed that the statements of the teachers surveyed here can be considered representative of the respective school to a certain extent. Finally, it remains questionable whether it is really possible to come to general statements, as the literature reveals clear school-related differences in the health situation of active teachers (Altenstein, 2010). These differences are explained in particular by the respective social support, the climate in the collegium as well as the teacher-school principal relationship. In addition, there are interpersonal differences that influence the perception, extent, and handling of stress in the teaching profession in different ways. Thus, Franzkowiak and Franke (2018) also explain that not only the type of coping is decisive for the reduction of stress, but the flexible and situation-appropriate use of it. Flexibility, they say, is in turn dependent on a person's personal and social resources. These refer to all the reserves and forces in the person's immediate living environment that he or she can activate to reduce stress.

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