Homework Stress: Construct Validation of a Measure

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This article presents 2 studies aimed at validating a measure of stress experienced by children and parents around the issue of homework, applying Benson’s program of validation (Benson, 1998). Study 1 provides external validity of the measure by supporting hypothesized relations between stress around homework and students’ and parents’ positive and negative affect, students’ sense of competence, and students’ type of motivation. In Study 2, the measure was administered to students with and without learning disability—2 groups assumed to differ in the level of stress experienced while doing homework. Results of both studies support the validity of the measure.

Keywords: assessment, emotion/emotional development, homework, motivation, stress

HOMEWORK HAS BEEN A COMMON instructional practice since the mid-19th century (Gordon, 1980). Unfortunately, homework can be a burden on both parents and students. Given that many students consider homework to be a chore (Walker, Hoover-Dempsey, Wetsel, & Green, 2004), it can be a contentious issue with parents (Cooper, 2001). Moreover, students report that their interactions with their parents around homework often involve conflicts and punishment, and that these interactions color their overall relationships with their parents (O’Rourke-Ferrara, 1998).

Despite the fact that homework is a very prevalent practice, and that the stress it induces commonly and negatively affects family relationships, research on homework has been relatively scarce. Moreover, there has been no instrument that can validly assess the level of stress that students and parents experience around homework. Such an instrument is necessary for the investigation of the processes that contribute to and might potentially alleviate this negative experience. The existence of such an instrument may also help practitioners such as teachers, school counselors, psychologists, and therapists, in their evaluation of adaptive and maladaptive processes among their students and patients.

The goal of this article is to present a measure of the level of stress around homework that is experienced by children and parents (based on Levin et al., 1997), and to support its construct validity (cf. Benson, 1998). Benson’s (1998) strong program of validation included three stages: the substantive stage (in which the researcher defines the theoretical and empirical domains of the construct); the structural stage (in which the researcher demonstrates the internal relations among the observed elements of the construct), and the external stage (in which the researcher tests the hypothesized relations of the construct with other constructs in its nomological network).

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Following Benson, this article begins with a theoretical definition and explication of a nomological network of the Stress around Homework construct. We continue with the presentation of the measure and its content validity, followed by an empirical investigation supporting its structural reliability. We end with an empirical investigation of its external validity by testing hypothesized relations of the Stress around Homework construct with other constructs in its nomological network and of the expected level of the construct in groups hypothesized to differ on that level: (a) students with learning disabilities and their parents, and (b) students without learning disabilities and their parents. These two groups differ in their level of stress around homework: Students with learning disabilities and their parents reported significantly higher levels of stress around homework than did students without learning disabilities and their parents (Epstein, Polloway, Foley, & Patton, 1993).

Homework as a Stressful Task

Ever since the mid-19th century, children have been required to supplement their learning in school by doing homework (Gill & Schlossman, 2004; Gordon, 1980). Whereas some research indicates that doing homework is associated with developing self-regulation skills and positive academic attitudes (Bempechat, 2004; Hong, Milgram, & Rowell, 2004; Schunk & Zimmerman, 1998), findings relating homework and students’ academic outcomes are not consistent. Most studies find only a modest association between time spent on homework and students’ learning and performance (Grolnick & Slowiaczek, 1994; Sénéchal & LeFevre, 2002). Despite this meager support for homework’s academic benefits, interactions around homework at home are a major source of stress and conflict between parents and children (Cooper, 2001; Pomerantz, Ng, & Wang, 2006; Walker et al., 2004). Many students consider homework a chore because it is a task that detracts from after-school time (Walker et al., 2004). Students also report conflictual interactions with their parents around homework that color their relationships with their parents overall (O’Rourke-Ferrara, 1998). Moreover, whereas some parents demand more homework for their children (Strother, 1984), in general, parents describe time spent on homework as stressful, burdensome, and undesired. Pomerantz and colleagues (2006), for example, found that mothers’ negative affect was elevated on days when they provided more homework assistance to their children. An ethnographic study by Varenne and McDermott (1999) suggested that homework may force parents into unwanted roles that strain family relations, at least temporarily. Homework may also trouble family relationships by reducing the time families have available for participating in leisure activities (Cooper, 1989; Kralovec & Buell, 2000; Samway, 1986). Many parents view homework as a curse put on parents (McDermott, Goldman, & Varenne, 1984).

Stress Around Homework: A Definition

Stress has been a topic of interest to medical professionals, social scientists, anthropologists, and psychologists. Each profession has been interested in distinguishing between three basic types of stress: psychological, social, and systemic/physiological. Although psychological and social stress might result in physiological reactions and vice versa, much research of the past 50 years has examined each of the types of stress separately, and there is still no agreed-upon definition of stress nor of the relations between its three basic types (Monat & Lazarus, 1985). For the purposes of this study, we limit our focus to the psychological stress of students and
parents around homework and adopt Mikhail’s (1985) holistic definition of psychological stress: “Stress is a state which arises from an actual or perceived demand-capability imbalance in the organism’s vital adjustment actions and which is partially manifested by a non specific response” (p. 37). Common psychological stress reactions might include tension, irritability, the inability to concentrate, and a variety of physical symptoms that include headache and a fast heartbeat.

The transactional model of stress and coping proposed by Lazarus and Folkman (1984) has guided much of the research on this topic over the past 20 years. According to this model, cognitive processes of appraisal are central in determining whether a situation is potentially threatening. Thus, for a psychosocial situation to be stressful, it must be appraised as such. This primary appraisal includes the perception of how stressful the problem is and is affected by the realization that one has either more than or less than adequate resources to deal with the problem (Folkman, 2001). In this research project, we developed an instrument to assess the psychological stress of parents and students. According to Lazarus and Folkman’s (1984) definition of stress, we evaluated how stressful the participants perceived various interactions around homework to be.

A few decades ago, only major life events were considered potential stressors. In recent years, it has become increasingly apparent that minor, everyday stressors influence health and psychological wellbeing (DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982; Eckenrode, 1984; Kanner, Coyne, Schaefer, & Lazarus, 1981). As a result, there has been a reorientation in stress research from a nearly exclusive emphasis on major events to an appreciation of the significance of minor environmental stressors. These minor stressors are an important focus of research because they provide a means of describing the stressful features of enduring relationships and roles (Huizink, 2000). Empirical research has explored the influence of daily hassles on negative health outcome (Da Costa, Brender, & Larouche, 1998; Huizink et al., 2003; Paarlberg et al., 1999). As parent–child interactions around homework are described in the scientific and popular literature as situations that are tense and often unpleasant, we find it important to develop a reliable and valid instrument for the assessment of the stress these interactions evoke. This investigation might help researchers, parents, teachers, and students better understand what is going on during homework.

**Stress Around Homework: A Nomological Network**

In building the nomological network, we suggest possible connections between stress around homework and various emotions and psychological states.

*Positive and negative affect and stress around homework*

Heponiemi, Ravaja, Elovinio, Naatanen, and Keltikangas-Jarvinen (2006) examined the relationship of experienced positive and negative affect during varying stressful tasks to autonomic cardiac reactivity and facial muscle activity. Results showed that subjects who experienced high levels of positive affect during the challenging tasks exhibited high parasympathetic reactivity. This means that the part of the nervous system that calms the body by lowering blood pressure and heart rate was more active for subjects who experienced positive affect—resulting in lower heart rate and facial muscle activity—than it was for subjects who experienced negative affect. These
results suggest that emotional reactions are related to psychological stress and physiological stress reactions. Studies using correlational data also found relations between stressful life events and greater levels of negative affect (Kuiper & Martin, 1998), as well as between perceived stress and negative affect among students (Renwick, Vosvick, & Chng, 2008). Stress in itself involves negative affect and should be positively correlated with more general measures of negative affect. The stress-inducing appraisal of a situation as overtaxing the person’s resources (Lazarus, 1993) is likely also to be negatively related to experiences of positive affect. Indeed, under some stressful situations, the inverse relation between positive and negative affect is intensified (Reich & Zautra, 1981; Zautra, Reich, Davis, Potter, & Nicolson, 2000).

Homework situations may be considered a minor daily stressor. Yet, its enduring nature and accumulating influence might cause emotional reactions that are greater than situational occasional stress (Pope & Simon, 2005). Accordingly, we would expect that high levels of stress around homework among both students and parents would be accompanied by experiences of high negative affect and low positive affect.

**Self-efficacy and stress around homework**

Self-efficacy is defined as the person’s sense of competence and confidence in executing behaviors that would achieve a desired outcome (Bandura, 1997). Self-efficacy beliefs are strongly related to adaptive functioning in important life domains including education, career, social relationships, and physical health (Bandura, 1997; Maddux, 2002). Self-efficacy has been found to influence the individual’s thought processes and emotional reactions. People with low self-efficacy often perceive situations as more difficult than they are, experience negative emotions including stress, anxiety, and depression, and manifest limited cognitive-behavioral coping (Pajares, 1996, 2002). In contrast, perceptions of high self-efficacy have been associated with reduced stress when coping with difficult tasks, an increased motivation to face challenges, and enhanced overall well-being (Bandura, 1997; Fogle, Huebner, & Laughlin, 2002; Huebner, Gilman, & Laughlin, 1999; Pajares & Schunk, 2001; Saarni, 2000; Zimmerman, 2000). It is likely that self-efficacy beliefs contribute to a more positive appraisal of one’s resources and control in a challenging situation and, hence, to reduced feeling of stress.

Self-efficacy has been found to influence the individual’s thought processes and emotional reactions. It is likely that self-efficacy beliefs contribute to a more positive appraisal of one’s resources and control in a challenging situation and, hence, to reduced feeling of stress. In interactions around homework, the self-efficacy of the child and of the parent are likely to be related to their sense of stress around homework.

**Type of motivation and stress around homework**

Another important construct that has been related to people’s emotions and sense of stress in an activity is the person’s type of motivation for the task. One of the prominent theoretical frameworks of motivation in educational settings is self-determination theory (Deci & Ryan, 1985, 2000). Self-determination theory specifies a continuum of motivational orientations for activities, ranging from extrinsic/controlled regulation (engagement out of coercion or for achieving a reward) to intrinsic/autonomous motivation (engagement out of pleasure, interest, and enjoyment). Research
results are consistent in suggesting that the more autonomous the motivation—or the locus of regulation of action—the higher the quality of engagement, the emotional experience, and the overall well-being of the person (Deci & Ryan, 2000).

Students’ motivational orientation may change their appraisal of stressful situations and thus affect their level of stress. Boggiano and colleagues (1992; Boggiano, 1998) found, for example, that when teachers used controlling and stress-inducing practices, extrinsically oriented students—but not intrinsically oriented students—demonstrated lowered perceived competence. Similarly, Katz, Assor, and Kanat-Maymon (2008) found that students’ interest (a proxy for intrinsic motivation) provided students with a personal resource for coping with nonoptimal and stress-inducing learning conditions.

In the interaction between parents and students around homework, both sides need the best coping resources. Autonomous motivation is considered an intrinsic resource for coping; we would expect to find relations between students’ and parents’ types of motivation and their experienced level of stress. In particular, we would expect extrinsic/controlled types of motivation to be related to higher levels of stress, and intrinsic/autonomous types of motivation to be related to lower levels of stress.

Assessing Stress Around Homework: Constructing a Measure

The prevalence of homework as an educational practice, and the unfortunate finding that it is commonly associated with stress in the family calls for research that would investigate the processes underlying this stress and provide insights for its alleviation. Such research needs a valid measure of the level of stress around homework among children and parents, yet a search of the literature found only one measure for assessing stress around homework (Levin et al., 1997). This measure was designed to assess the level of tension around homework using three scales: child’s self-reported tension, child’s tension as reported by mother, and maternal self-reported tension. The three scales each used the same technique of composing items of two parts. In the first part, children or mothers were asked to rank the frequency with which they did certain things on a 5-point scale ranging from 1 (almost never) to 5 (always). In the second part, children or mothers were asked to indicate to what extent these behaviors caused them tension. A tension score was derived by multiplying the ranked frequency by the ranked degree of tension. In Levin et al.’s (1997) article, no validation tests were produced and reliability tests were not sufficient (Sharp et al., 2001). As we see the importance of a validated instrument to assess the stress around homework, we decided to use the structure of Levin et al.’s (1997) instrument while improving it, and to provide a strong assessment program of its construct validity so that it can be used in future research and practice.

STUDY 1

To develop and validate the measure of stress around homework, our first study examined the correlation between children’s and parents’ stress around homework with well-known self-report scales that theoretically assess correlated variables. This study was constructed to follow Benson’s second and third stages for validation (1998): the structural stage and the external stage.
We assessed the correlation of the students’ measure of stress with the autonomous motivation in the academic domain scale (based on Ryan & Connell, 1989), an affectivity scale (Positive and Negative Affect Schedule–C; Laurent, Potter, & Catanzaro, 1994; Laurent et al., 1999), and a measure of competence in the task (Bandura, 1997; Eccles, Wigfield, Harold, & Blumenfeld, 1993). We assessed the correlation of the parents’ measure with ‘Parents’ Motivation for Help in Homework’ scale (Katz, Kaplan, & Buzukashvili, 2011; based on Ryan & Connell, 1989), and an affectivity scale (based on Watson, Clark, & Tellegen, 1988). As a second step in the validation of our measure, the correlations between students’ and parents’ reports of stress and their components were assessed.

The students’ homework stress measure was expected to correlate negatively with students’ autonomous motivation and positively with students’ controlled motivation while doing homework. The students’ homework stress measure was expected to correlate negatively with positive affect and positively with negative affect while doing homework. The students’ homework stress measure was expected to correlate negatively with the measure of task competence. The parents’ homework stress measure was expected to correlate negatively with parents’ autonomous motivation and positively with parents’ controlled motivation while involved in homework. The parents’ homework stress measure was expected to correlate negatively with positive affect and positively with negative affect while involved in homework. The students’ homework stress measure and its components were expected to correlate positively with the parents’ homework stress measure and its components.

METHOD

Participants

Participants were 300 Israeli fourth-grade students (152 girls, 148 boys) from schools in a middle-class neighborhood in southern Israel.\(^1\) Parents of all students were asked to participate; 135 did (45%)—a relatively high response rate for a study involving parental response on surveys through mail.

Procedure

The study was conducted in the participants’ classes during school time. An experimenter entered each class and instructed the children in how to complete the questionnaires. The questionnaires assessed stress around homework, autonomous-controlled motivation for homework, positive and negative feelings while doing homework, and competence in homework. After completing the surveys, the students received sealed envelopes with surveys to take home to their parents. Both parents were asked to complete the surveys at home, but the present study used only the survey of the parent that the student reported to be more involved with his or her homework. Parents completed questionnaires assessing stress around homework, feelings while involved in homework and type of motivation for involvement in homework. Parents were encouraged to call the researcher with questions about any item that they found to be unclear.

\(^1\)The data for this study were collected as part of a larger study.
Measures

The measure of child and parent homework stress was created for this study following the measure by Levin et al. (1997). The items were retrieved from interviews conducted with parents and children of different ages regarding their experiences around homework as well as from relevant literature describing parent–child interaction around homework (Levin et al., 1997).

The questionnaires were similar for parents and children and included 20 items, each composed of two parts. In the first part, children and parents were asked to rank the frequency with which a certain behavior occurs while interacting around homework using a 5-point Likert-type scale ranging from 1 (almost never) to 5 (always). Of the described behaviors, 10 referred to the child’s action (e.g., “I put off homework until later”; “My child puts off homework until later”), and 10 of the items described behaviors involving a parental action (e.g., “My parent erases answers that seem wrong to him”; “I erase answers that seem wrong to me”).

In the second part, children and parents were asked to indicate to what extent these behaviors caused them stress, on a 5-point scale ranging from 1 (not at all) to 5 (very much). The internal reliability between the various items assessing the frequency with which a certain behavior occurs while interacting around homework was high (for students, \( \alpha = .82 \); for parents, \( \alpha = .87 \)). The internal reliability between the items assessing the stress evoked by these behaviors was very high (for students, \( \alpha = .91 \); for parents, \( \alpha = .95 \)). The correlations between the frequency and the stress of each item were high (for students, \( r = .61 \); for parents, \( r = .81 \)).

Following Levin et al. (1997), a stress score was derived by multiplying the ranked frequency (Part 1) by the ranking of degree of stress (Part 2) to arrive at the best description of the situation. We tried to capture in one measure the frequency and intensity of the stress. The internal reliability of the doubled scores was high (for students, \( \alpha = .88 \); for parents, \( \alpha = .92 \)).

We assessed the students’ motivation for doing homework measure with items constructed by Katz and colleagues (2011) according to the approach developed by Ryan, Connell, and their colleagues (Grolnick & Ryan, 1989; Grolnick, Ryan, & Deci, 1991; Ryan & Connell, 1989). Items were phrased to focus on homework. Participants indicated the extent to which they engage in homework for autonomous reasons (identified or intrinsic reasons that reflect endorsing the value of the task or enjoying doing it; e.g., “I do homework in order to improve my understanding of this subject;” “I do my homework because it is fun”) or controlled reasons (external or introjected forces or pressures, e.g., “I do my homework because I want to get a better grade”; “I do my homework because I’ll feel ashamed if the teacher finds out I didn’t do it”; see Katz & Assor, 2007; Katz, Kaplan, & Buzukashvili, 2011; Katz, Kaplan, & Gueta, 2010).

We created an indicator of autonomous motivation by averaging the scores on the 10 items pertaining to intrinsic and identified motivation (\( \alpha = .93 \)) and an indicator of controlled motivation by averaging the scores on the 6 items pertaining to external and introjected motivations (\( \alpha = .85 \)).

The students’ affects while doing homework were measured by the version of the Positive and Negative Affect Schedule–C developed by Laurent et al. (1994, 1999). This measure is composed of two scales: positive affect and negative affect. Participants were asked to indicate, on a 5-point Likert-type scale, how often they experienced 10 positive-affect adjectives and 10 negative-affect adjectives. Summary scores were then computed for the positive affect and negative affect scales (for positive affect, \( \alpha = .86 \); for negative affect, \( \alpha = .79 \); see Katz et al., 2008).

Students’ self efficacy in homework was measured by items retrieved from various scales assessing this concept (Bandura, 1997; Eccles et al., 1993). The items assessed students’
self-concept of ability and expectations for success in doing homework (e.g., “I can always manage to solve difficult problems in homework if I try hard enough”). We created an indicator of students’ self-efficacy in homework by averaging the scores on the seven items pertaining to students self-efficacy ($\alpha = .80$).

We assessed the parents’ motivation to help in homework measure with two scales constructed by Katz et al. (2011), on the basis of the scales developed by Ryan and Connell (1989). Items were phrased to focus on parents’ motivation to be involved in their child’s homework. Participants indicated the extent to which they engaged in their child’s homework out of autonomous reasons (identified or intrinsic reasons that reflect endorsing the value of the task or enjoyment; e.g., “I am involved in my child’s homework because I enjoy it”; “I am involved in my child’s homework because I see the importance of my involvement”), or controlled reasons (external or introjected forces or pressures, e.g., “I am involved in my child’s homework because I want him to be the first in class”; “I am involved in my child’s homework because I’ll feel bad about myself if the teacher finds out he didn’t do it”).

Parents’ emotions while involved in homework were assessed with 20 items modified for this study from the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988b). Negative affect and positive affect reflect dispositional dimensions, with high negative affect epitomized by subjective distress and unpleasant engagement, and low negative affect by the absence of these feelings. By contrast, positive affect represents the extent to which an individual experiences pleasurable engagement with the environment. Thus, emotions such as enthusiasm and alertness are indicative of high positive affect, whereas lethargy and sadness characterize low positive affect (Watson & Clark, 1984).

RESULTS AND BRIEF DISCUSSION

Our preliminary analyses indicated that the order of instrument administration to parents or students had no effect on the size of the correlations between the measures. Table 1 presents means, standard deviations and correlations between the various measures administrated to the students and to the parents.

As presented in Table 1, the students’ homework stress measure, as expected, correlated negatively with students’ autonomous motivation and positively with students’ controlled motivation. The students’ homework stress measure correlated positively with students’ negative affect but didn’t correlate negatively with students’ positive affect. As expected, the students’ homework stress measure correlated negatively with students’ self-efficacy in homework. Regarding the parents’ measures, the parents’ homework stress measure correlated positively with parents’ controlled motivation as expected. Yet, no negative correlation was found between parents’ stress and parents’ autonomous motivation for involvement. The parents’ homework stress measure correlated positively with parents’ negative affect but didn’t correlate negatively with parents’ positive affect.

Table 2 presents the correlations between the two components of each scale (the frequency and level of stress components).

As presented in Table 2, the students’ homework stress measure correlated positively with parents’ homework stress measure. Moreover, parents’ description of frequency correlated positively with students’ descriptions of frequency, and parents’ description of level of stress correlated positively with students’ description of level of stress.
TABLE 1
Mean Standard Deviation and Correlations Between Various Students’ and Parents’ Measures

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<td>1. Students’ Stress</td>
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<td>2. Students’ autonomous</td>
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<td>3. Students’ controlled</td>
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<td>1.00</td>
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<td>6. Students’ negative</td>
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Note. N = 300 for students and 135 for parents.

*p < .05, **p < .01, ***p < .001.
In conclusion, the findings of Study 1 suggest that the students’ homework stress measure and the parents’ homework stress measure show construct validity as it correlates with various measures that assess theoretically correlating concepts. Because stress is a negative emotional construct, it is clear that this measure correlates better with the negative components of the various measures than with the positive components of these measures. Some of the intercorrelations between the various independent measures are surprising, as they do not correlate as theoretically expected (e.g., the relatively high correlation between parents’ autonomous and controlled motivation). A correlation between autonomous and controlled components has been found before in other studies (e.g., Katz et al., 2010; Roth, Kanat-Maymon, Assor, & Kaplan, 2006). However, self-determination theory does not provide a ready explanation for such an occurrence. It is possible, for example, that a high positive correlation between autonomous and controlled motivation would be found in certain tasks more than in others. Future research should pursue this issue and its implications.

As these correlations are seen between the independent measures of this study, they are less crucial for the purpose of the validation of the stress measure, as the stress measure shows significant correlation with each of them separately.

**STUDY 2**

The purpose of this study is to assess the sensitivity of the students’ homework stress measure and the parents’ homework stress measure in determining expected differences in stress around homework for two different groups: (a) students with learning disabilities and their parents and (b) students without learning disabilities and their parents. This study follows Benson’s third stage (1998), the external stage, or relations among constructs, and asks whether the measure is sensitive and can capture differences in parent and child stress around homework in two different but related groups.

Students and parents of students with learning disabilities are reported in the literature as having a wide variety of difficulties with homework assignments, experiencing higher levels of stress, in general, and in learning-related tasks, in particular (Dudley-Marling, 2003; Epstein et al., 1993; Polloway, Epstein & Foley, 1992; Salend & Schliff, 1989; Schumm & Vaughn, 1991). For example, students with various types of learning disabilities were found to be less persistent, spend less time, and avoid homework more frequently than students without learning disabilities (Polloway et al., 1992). Some of the intensity of the difficulties experienced by
students with learning disabilities might stem from the cognitive deficiencies associated with learning disabilities such as deficits in language, attention, memory, and organizational skills that might be responsible for difficulty completing or persisting with homework (Bryan, Burstein, & Bryan, 2001). Another reason for the difficulty around homework might be attributable to the specific motivational qualities of students with learning disabilities, as they demonstrate extrinsic types of motivation to learn, high competitiveness and high fear of failure (Gadeyne, Ghesquiere, & Onghena, 2004). Moreover, most commonly, teachers assign homework to the whole class without differentiating between students with different levels of ability (Salend & Schliff, 1989; Schumm & Vaughn, 1991). This can be problematic for students with learning disabilities who spend most of the day in general education classes. These students are held to and evaluated by similar standards to those applied to the rest of the class. All together, various reasons cause students with learning disabilities and their parents to report significantly higher levels of stress around homework than students without learning disabilities and their parents (Epstein et al., 1993).

In the present study, students with learning disabilities and their parents complete the students’ homework stress measure and the parents’ homework stress measure. The sensitivity of these measures and their ability to differentiate between students and parents with or without learning disabilities is assessed.

METHOD

Participants

Participants were 17 fourth- through sixth-grade students diagnosed with learning disabilities and their parents, as well as 17 fourth- through sixth-grade students without learning disabilities and their parents. All of the students attend mainstream classes in public schools in the southern part of Israel. According to school records, the students with learning disabilities have been officially diagnosed by a registered psychologist as having various kinds of learning disabilities (dyslexia, dysgraphia, dyscalculia, attention deficit disorder), and receive special classes by a professional learning disabilities teacher and paramedical treatment (speech therapy, occupational therapy, art therapy). Students with learning disabilities completed the questionnaire with the help of a research assistant, who helped, if needed, in reading the questions, explaining the meaning of words, and so forth.

The questionnaires assessed the level of stress experienced by students while interacting with their parents around homework. The parents completed a questionnaire assessing their level of stress while involved in their child’s homework.

RESULTS

We conducted two one-way analyses of variance to assess the hypotheses that students with learning disabilities would report significantly higher levels of stress around homework than students without, and that parents of students with learning disabilities would report higher levels of stress around homework than parents of students without.
The results supported the validity of the instrument to assess students’ stress around homework, \( F(1, 33) = 5.7, p < .05 \). As expected, students with learning disabilities reported higher levels of stress around homework (\( M = 5.9, SD = 2.9 \)) than did students without (\( M = 3.7, SD = 2.0 \)).

The results also supported the validity of the instrument to assess parents’ stress around homework, \( F(1, 33) = 12.00, p < .005 \). As expected, parents of students with learning disabilities reported higher levels of stress around homework (\( M = 8.4, SD = 3.2 \)) than did parents of students without (\( M = 4.9, SD = 2.4 \)).

**DISCUSSION**

The results of the two studies suggest that students’ and parents’ homework stress can be validly measured by the Child’s Inventory for Homework Stress and the Parent’s Inventory for Homework Stress. The findings of Study 1 suggest that the new measures show construct validity as they correlate with various measures that assess theoretically correlating concepts. Study 2 supports the validity of the Child’s Inventory for Homework Stress and the Parent’s Inventory for Homework Stress by providing experimental evidence of their sensitivity to variations in homework stress in different populations with expected different levels of stress.

Although both studies validate the instrument, some unexpected results raise questions that should be addressed in future studies. It is clear that the parents’ and students’ measures correlate better with the negative components of the various measures than with the positive components of these measures. For example, while the correlation between the level of stress and negative affect was medium (\( r = .45, p < .001 \)), the correlation between the level of stress and positive emotion was low (\( r = -.16, p < .05 \)) same pattern of correlation is obtained for the parents. These different levels of correlational strength might be due to the similarity in the psychological constructs of stress and other negative emotional constructs. Moreover, there is disagreement regarding the question of whether emotional constructs such as positive affect and negative affect are opposite poles of the same dimension (Watson et al., 1988), or two distinct scales assessing moderately negatively correlated factors (Green, Goldman, & Salovey, 1993). The various responses to this argument might provide some insight into the results obtained in this study. It is possible that homework stress is psychologically associated with the negative emotional constructs of the Positive and Negative Affect Schedule and both of them are valence affects activated out of the same stimulus. Yet, lack of stress does not evoke higher levels of positive emotional responses, as these two emotions are independent (Crawford & Henry, 2004). Thus, lower levels of stress are not strongly associated with higher levels of positive emoting. According to motivational theories such as self-determination theory (Deci & Ryan, 2000), the best emotional state for parents and children while doing homework would be positive emotions and autonomous motivation. According to the results of this study, it might be concluded that reducing stress is a necessary but insufficient condition for creating positive emotions and motivation. Some other steps or actions should be considered after reducing the stress in order to move to the next step or facilitate positive emotions and motivation.

It is also evident that some of the intercorrelations among the various independent measures are not as theoretically expected (e.g., the correlation between parents’ autonomous and controlled motivation, and the correlation between parents’ controlled motivation and positive feelings).
The first correlation (between parents’ autonomous and controlled aspects of motivation) is known in the self-determination theory literature (see Katz et al., 2011; Williams, McGregor, Zeldman, Freedman, & Deci, 2004). Yet, a deeper investigation of the various types of tasks in which autonomous and controlled aspects of motivation correlates, is needed. It should be asked whether the nature of the task contributes to this correlation. More specifically, future studies should investigate whether tasks like homework, which are implied and encourage external types of motivation, contribute to the correlation found between autonomous and controlled motivation in this and previous research. It is possible that because of the basic implied external nature of the task, even those who do feel interested and autonomously motivated also have the external controlled motive in their behavior and thus high correlation is found.

Future investigations of the Child’s Inventory for Homework Stress and Parent’s Inventory for Homework Stress should aim to expand external validity through increasing the populations with which these measures has been used successfully. Further study of the Child’s Inventory for Homework Stress and Parent’s Inventory for Homework Stress with representative samples of students of other age groups and their parents, as well as of students and parents from different racial and ethnic groups, are needed because the present study primarily supports its use with Israeli, secular Jewish students. Moreover, it will be interesting to assess students’ and parents’ responses to the Child’s Inventory for Homework Stress and Parent’s Inventory for Homework Stress in different homework subjects (math, language, science). Last, studies that include methods other than self-report (e.g., observations, teachers’ reports) and that purposefully include constructs not hypothesized to relate to stress are needed to control for method bias and to establish discriminate validity of the Child’s Inventory for Homework Stress and Parent’s Inventory for Homework Stress.

AUTHOR NOTES

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REFERENCES


Samway, K. (1986). And you run and you run to catch up with the sun, but it’s sinking. Language Arts, 63, 352–357.


<table>
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<tr>
<th>Parent’s Inventory for Homework Stress</th>
<th>Child’s Inventory for Homework Stress</th>
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<tbody>
<tr>
<td>1. I tell my child to sit properly while doing homework.</td>
<td>1. My parent tells me to sit properly while doing homework.</td>
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<tr>
<td>2. I check my child’s homework.</td>
<td>2. My parent checks my homework.</td>
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<tr>
<td>3. I tell my child that he finished his homework too quickly.</td>
<td>3. My parent tells me that I finish my homework too quickly.</td>
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<tr>
<td>4. I tell my child that it takes him too much time to finish homework.</td>
<td>4. My parent tells me that it takes me too much time to finish homework.</td>
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<tr>
<td>5. I tell my child how to phrase the answer.</td>
<td>5. My parent tells me how to phrase the answer.</td>
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<tr>
<td>6. I tell my child to finish homework before doing other things.</td>
<td>6. My parent tells me to finish homework before doing other things.</td>
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<tr>
<td>7. I erase answers that seems wrong to me.</td>
<td>7. My parent erases answers that seem wrong to him.</td>
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<tr>
<td>8. I refuse to answer instead of my child.</td>
<td>8. My parent refuses to answer instead of me.</td>
</tr>
<tr>
<td>9. I remind my child to do homework.</td>
<td>9. My parent reminds me to do homework.</td>
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<tr>
<td>10. I comment on my child’s handwriting while he is doing homework.</td>
<td>10. My parent comments on my handwriting while I am doing homework.</td>
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<tr>
<td>11. My child does not listen to the explanation I give him.</td>
<td>11. I do not listen to the explanation my parent gives me.</td>
</tr>
<tr>
<td>12. My child says he finished his homework and I find out he didn’t.</td>
<td>12. I say I finished my homework and my parent finds out I didn’t.</td>
</tr>
<tr>
<td>13. My child puts off homework until later.</td>
<td>13. I put off homework until later.</td>
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<tr>
<td>14. While doing homework, my child is busy with other things.</td>
<td>14. While doing homework, I am busy with other things.</td>
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<tr>
<td>15. My child doesn’t remember what homework his teacher assigned.</td>
<td>15. I do not remember what homework my teacher assigned.</td>
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<tr>
<td>16. My child doesn’t do his homework at the desk.</td>
<td>16. I do not do my homework at the desk.</td>
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<tr>
<td>17. My child doesn’t take homework seriously.</td>
<td>17. I do not take homework seriously.</td>
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<tr>
<td>18. My child asks me to sit near him while he is doing homework.</td>
<td>18. I ask my parent to sit near me while I am doing homework.</td>
</tr>
<tr>
<td>19. My child argues with me regarding the right answer.</td>
<td>19. I argue with my parent regarding the right answer.</td>
</tr>
<tr>
<td>20. My child remembers in the morning that he has homework.</td>
<td>20. I remember in the morning that I have homework.</td>
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