Homework and Children in Grades 3–6: Purpose, Policy and Non-Academic Impact

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Abstract

Background Increasing academic demands, including larger amounts of assigned homework, is correlated with various challenges for children. While homework stress in middle and high school has been studied, research evidence is scant concerning the effects of homework on elementary-aged children.

Objective The objective of this study was to understand rater perception of the purpose of homework, the existence of homework policy, and the relationship, if any, between homework and the emotional health, sleep habits, and parent–child relationships for children in grades 3–6.

Method Survey research was conducted in the schools examining student ($n = 397$), parent ($n = 442$), and teacher ($n = 28$) perception of homework, including purpose, existing policy, and the childrens' social and emotional well-being.

Results Preliminary findings from teacher, parent, and student surveys suggest the presence of modest impact of homework in the area of emotional health (namely, student report of *boredom* and *frustration*), parent–child relationships (with over 25% of the parent and child samples reporting homework *always* or *often* interferes with family time and *creates a power struggle*), and sleep (36.8% of the children surveyed reported they *sometimes* get less sleep) in grades 3–6. Additionally, findings suggest misperceptions surrounding the existence of homework policies among parents and teachers, the reasons teachers cite assigning homework, and a disconnect between child-reported and teacher reported emotional impact of homework.

Conclusions Preliminary findings suggest homework modestly impacts child well-being in various domains in grades 3–6, including sleep, emotional health, and parent/child relationships. School districts, educators, and parents must continue to advocate for evidence-based homework policies that support children's overall well-being.

Keywords Homework · Social emotional health · Elementary students · Policies · Sleep

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Introduction

Children's social-emotional health is moving to the forefront of attention in schools, as depression, anxiety, and suicide rates are on the rise (Bitsko et al. 2018; Child Mind Institute 2016; Horowitz and Graf 2019; Perou et al. 2013). This comes at a time when there are also intense academic demands, including an increased focus on academic achievement via grades, standardized test scores, and larger amounts of assigned homework (Pope 2010). This interplay between the rise in anxiety and depression and scholastic demands has been postulated upon frequently in the literature, and though some research has looked at homework stress as it relates to middle and high school students (Cech 2008; Galloway et al. 2013; Horowitz and Graf 2019; Kackar et al. 2011; Katz et al. 2012), research evidence is scant as to the effects of academic stress on the social and emotional health of elementary children.

Literature Review

The following review of the literature highlights areas that are most pertinent to the child, including homework as it relates to achievement, the achievement gap, mental health, sleep, and parent–child relationships. Areas of educational policy, teacher training, homework policy, and parent–teacher communication around homework are also explored.

Homework and Achievement

With the authorization of No Child Left Behind and the Common Core State Standards, teachers have felt added pressures to keep up with the tougher standards movement (Tokarski 2011). Additionally, teachers report homework is necessary in order to complete state-mandated material (Holte 2015). Misconceptions on the effectiveness of homework and student achievement have led many teachers to increase the amount of homework assigned. However, there has been little evidence to support this trend. In fact, there is a significant body of research demonstrating the lack of correlation between homework and student success, particularly at the elementary level. In a meta-analysis examining homework, grades, and standardized test scores, Cooper et al. (2006) found little correlation between the amount of homework assigned and achievement in elementary school, and only a moderate correlation in middle school. In third grade and below, there was a negative correlation found between the variables ($r = -0.04$). Other studies, too, have evidenced no relationship, and even a negative relationship in some grades, between the amount of time spent on homework and academic achievement (Horsley and Walker 2013; Trautwein and Köller 2003). High levels of homework in competitive high schools were found to hinder learning, full academic engagement, and well-being (Galloway et al. 2013). Ironically, research suggests that reducing academic pressures can actually increase children's academic success and cognitive abilities (American Psychological Association [APA] 2014).

International comparison studies of achievement show that national achievement is higher in countries that assign less homework (Baines and Slutsky 2009; Güven and Akçay 2019). In fact, in a recent international study conducted by Güven and Akçay (2019), there was no relationship found between math homework frequency and student achievement for fourth grade students in the majority of the countries studied, including the United States.

Similarly, additional homework in science, English, and history was found to have little to no impact on respective test scores in later grades (Eren and Henderson 2011). In the 2015 “Programme of International Student Assessment” results, Korea and Finland are ranked among the top countries in reading, mathematics, and writing, yet these countries are among those that assign the least amount of homework (Organization for Economic Cooperation and Development [OECD] 2016).

Homework and Mental Wellness

Academic stress has been found to play a role in the mental well-being of children. In a study conducted by Conner et al. (2009), students reported feeling overwhelmed and burdened by their exceeding homework loads, even when they viewed homework as meaningful. Academic stress, specifically the amount of homework assigned, has been identified as a common risk factor for children’s increased anxiety levels (APA 2009; Galloway et al. 2013; Leung et al. 2010), in addition to somatic complaints and sleep disturbance (Galloway et al. 2013). Stress also negatively impacts cognition, including memory, executive functioning, motor skills, and immune response (Westheimer et al. 2011). Consequently, excessive stress impacts one’s ability to think critically, recall information, and make decisions (Carrion and Wong 2012).

Homework and Sleep

Sleep, including quantity and quality, is one life domain commonly impacted by homework and stress. Zhou et al. (2015) analyzed the prevalence of unhealthy sleep behaviors in school-aged children, with findings suggesting that staying up late to study was one of the leading risk factors most associated with severe tiredness and depression. According to the National Sleep Foundation (2017), the recommended amount of sleep for elementary school-aged children is 9–11 h per night; however, approximately 70% of youth do not get these recommended hours. According to the MetLife American Teacher Survey (2008), elementary-aged children also acknowledge lack of sleep. Perfect et al. (2014) found that sleep problems predict lower grades and negative student attitudes toward teachers and school. Eide and Showalter (2012) conducted a national study that examined the relationship between optimum amounts of sleep and student performance on standardized tests, with results indicating significant correlations ($r=0.285\text{--}0.593$) between sleep and student performance. Therefore, sleep is not only impacted by academic stress and homework, but lack of sleep can also impact academic functioning.

Homework and the Achievement Gap

Homework creates increasing achievement variability among privileged learners and those who are not. For example, learners with more resources, increased parental education, and family support are likely to have higher achievement on homework (Hofferth and Sandberg 2001; Moore et al. 2018; Ndebele 2015; OECD 2016). Learners coming from a lower socioeconomic status may not have access to quiet, well-lit environments, computers, and books necessary to complete their homework (Cooper 2001; Kralovec and Buell 2000). Additionally, many homework assignments require materials that may be limited for some families, including supplies for projects, technology, and transportation. Based on the

research to date, the phrase “the homework gap” has been coined to describe those learners who lack the resources necessary to complete assigned homework (Moore et al. 2018).

Parent–Teacher Communication Around Homework

Communication between caregivers and teachers is essential. Unfortunately, research suggests parents and teachers often have limited communication regarding homework assignments. Markow et al. (2007) found most parents (73%) report communicating with their child’s teacher regarding homework assignments less than once a month. Pressman et al. (2015) indicated children in primary grades spend substantially more time on homework than predicted by educators. For example, they found first grade students had three times more homework than the National Education Association’s recommendation of up to 20 min of homework per night for first graders. While the same homework assignment may take some learners 30 min to complete, it may take others up to 2 or 3 h. However, until parents and teachers have better communication around homework, including time completion and learning styles for individual learners, these misperceptions and disparities will likely persist.

Parent–Child Relationships and Homework

Trautwein et al. (2009) defined homework as a “double-edged sword” when it comes to the parent–child relationship. While some parental support can be construed as beneficial, parental support can also be experienced as intrusive or detrimental. When examining parental homework styles, a controlling approach was negatively associated with student effort and emotions toward homework (Trautwein et al. 2009). Research suggests that homework is a primary source of stress, power struggle, and disagreement among families (Cameron and Bartel 2009), with many families struggling with nightly homework battles, including serious arguments between parents and their children over homework (Bennett and Kalish 2006). Often, parents are not only held accountable for monitoring homework completion, they may also be accountable for teaching, re-teaching, and providing materials. This is particularly challenging due to the economic and educational diversity of families. Pressman et al. (2015) found that as parents’ personal perceptions of their abilities to assist their children with homework declined, family-related stressors increased.

Teacher Training

As homework plays a significant role in today’s public education system, an assumption would be made that teachers are trained to design homework tasks to promote learning. However, only 12% of teacher training programs prepare teachers for using homework as an assessment tool (Greenberg and Walsh 2012), and only one out of 300 teachers reported ever taking a course regarding homework during their training (Bennett and Kalish 2006). The lack of training with regard to homework is evidenced by the differences in teachers’ perspectives. According to the MetLife American Teacher Survey (2008), less experienced teachers (i.e., those with 5 years or less years of experience) are less likely to believe homework is important and that homework supports student learning compared to more experienced teachers (i.e., those with 21 plus years of experience). There is no universal

system or rule regarding homework; consequently, homework practices reflect individual teacher beliefs and school philosophies.

Educational and Homework Policy

Policy implementation occurs on a daily basis in public schools and classrooms. While some policies are made at the federal level, states, counties, school districts, and even individual school sites often manage education policy (Mullis et al. 2012). Thus, educators are left with the responsibility to implement multi-level policies, such as curriculum selection, curriculum standards, and disability policy (Rigby et al. 2016). Despite educational reforms occurring on an almost daily basis, little has been initiated with regard to homework policies and practices.

To date, few schools provide specific guidelines regarding homework practices. District policies that do exist are not typically driven by research, using vague terminology regarding the quantity and quality of assignments. Greater variations among homework practices exist when comparing schools in the private sector. For example, Montessori education practices the philosophy of no examinations and no homework for students aged 3–18 (O'Donnell 2013). Abeles and Rubenstein (2015) note that many public school districts advocate for the premise of 10 min of homework per night per grade level. However, there is no research supporting this premise and the guideline fails to recognize that time spent on homework varies based on the individual student. Sartain et al. (2015) analyzed and evaluated homework policies of multiple school districts, finding the policies examined were outdated, vague, and not student-focused.

The reasons cited for homework assignment, as identified by teachers, are varied, such as enhancing academic achievement through practice or teaching self-discipline. However, not all types of practice are equally effective, particularly if the student is practicing the skill incorrectly (Dean et al. 2012; Trautwein et al. 2009). The practice of reading is one of the only assignments consistently supported by research to be associated with increased academic achievement (Hofferth and Sandberg 2001). Current literature supports 15–20 min of daily allocated time for reading practice (Reutzel and Juth 2017). Additionally, research supports project-based learning to deepen learners' practice and understanding of academic material (Williams 2018).

Research also shows that homework only teaches responsibility and self-discipline when parents have that goal in mind and systematically structure and supervise homework (Kralovec and Buell 2000). Non-academic activities, such as participating in chores (University of Minnesota 2002) and sports (Hofferth and Sandberg 2001) were found to be greater predictors of later success and effective problem-solving.

Consistent with the pre-existing research literature, the following hypotheses are offered:

Hypotheses

1. Homework will have some negative correlation with children's social-emotional well-being.
2. The purposes cited for the assignment of homework will be varied between parents and teachers.
3. Schools will lack well-formulated and understood homework policies.

4. Homework will have some negative correlation with children's sleep and parent–child relationships.

Purpose

This quantitative study explored, via perception-based survey research, the social and emotional health of elementary children in grades 3–6 and the scholastic pressures they face, namely homework. The researchers implemented newly developed questionnaires addressing student, teacher, and parent perspectives on homework and on children's social-emotional well-being. Researchers also examined perspectives on the purpose of homework, the existence of school homework policies, and the perceived impact of homework on children's sleep and family relationships. Given the dearth of prior research in this area, a major goal of this study was to explore associations between academic demands and child well-being with sufficient breadth to allow for identification of potential associations that may be examined more thoroughly by future research. These preliminary associations and item-response tendencies can serve as foundation for future studies with causal, experimental, or more psychometrically focused designs. A conceptual framework for this study is offered in Fig. 1.

Research Questions

1. What is the perceived impact of homework on children's social-emotional well-being across teachers, parents, and the children themselves?
2. What are the primary purposes of homework according to parents and teachers?
3. How many schools have homework policies, and of those, how many parents and teachers know what the policy is?
4. What is the perceived impact of homework on children's sleep and parent–child relationships?

Fig. 1 Conceptual framework

Method

The present quantitative descriptive study is based on researcher developed instruments designed to explore the perceptions of children, teachers and parents on homework and its impact on social-emotional well-being. The use of previously untested instruments and a convenience sample preclude any causal interpretations being drawn from our results. This study is primarily an initial foray into the sparsely researched area of the relationship of homework and social-emotional health, examining an elementary school sample and incorporating multiple perspectives of the parents, teachers, and the children themselves.

Participants

The participants in this study were children in six Northern California schools in grades third through sixth ($n = 397$), their parents ($n = 442$), and their teachers ($n = 28$). The mean grade among children was 4.56 (minimum third grade/maximum sixth grade) with a mean age of 9.97 (minimum 8 years old/maximum 12 years old). Approximately 54% of the children were male and 45% were female, with White being the most common ethnicity (61%), followed by Hispanic (30%), and Pacific Islander (12%). Subjects were able to mark more than one ethnicity. Detailed participant demographics are available upon request.

Instruments

The instruments used in this research include newly developed student, parent, and teacher surveys. The research team formulated a number of survey items that, based on existing research and their own professional experience in the schools, have high face validity in measuring workload, policies, and attitudes surrounding homework. Further psychometric development of these surveys and ascertainment of construct and content validity is warranted, with the first step being their use in this initial perception-based study. Each of the surveys, developed specifically for this study, are discussed below.

Student Survey

The Student Survey is a 15-item questionnaire wherein the child was asked closed- and open-ended questions regarding their perspectives on homework, including how homework makes them feel.

Parent Survey

The Parent Survey is a 23-item questionnaire wherein the children's parents were asked to respond to items regarding their perspectives on their child's homework, as well as their child's social-emotional health. Additionally, parents were asked whether their child's school has a homework policy and, if so, if they know what that policy specifies.

Teacher Survey

The Teacher Survey is a 22-item questionnaire wherein the children's teacher was asked to respond to items regarding their perspectives of the primary purposes of homework, as well as the impact of homework on children's social-emotional health. Additionally, teachers were asked whether their school has a homework policy and, if so, what that policy specifies.

Procedure

Data was collected by the researchers after following Institutional Review Board procedures from the sponsoring university. School district approval was obtained by the lead researcher. Upon district approval, individual school approval was requested by the researchers by contacting site principals, after which, teachers of grades 3–6 at those schools were asked to voluntarily participate. Each participating teacher was provided a packet including the following: a manila envelope, Teacher Instructions, Administration Guide, Teacher Survey, Parent Packet, and Student Survey. Surveys and classrooms were de-identified via number assignment. Teachers then distributed the Parent Packet to each child's guardian, which included the Parent Consent and Parent Survey, corresponding with the child's assigned number. A coded envelope was also enclosed for parents/guardians to return their completed consent form and survey, if they agreed to participate. The Parent Consent form detailed the purpose of the research, the benefits and risks of participating in the research, confidentiality, and the voluntary nature of completing the survey. Parents who completed the consent form and survey sent the completed materials in the enclosed envelope, sealed, to their child's teacher. After obtaining returned envelopes, with parent consent, teachers were instructed to administer the corresponding numbered survey to the children during a class period. Teachers were also asked to complete their Teacher Survey. All completed materials were to be placed in envelopes provided to each teacher and returned to the researchers once data was collected.

Analysis of Data

This descriptive and quantitative research design utilized the Statistical Package for the Social Sciences (SPSS) to analyze data. The researchers developed coding keys for the parent, teacher, and student surveys to facilitate data entry into SPSS. Items were also coded based on the type of data, such as nominal or ordinal, and qualitative responses were coded and translated where applicable and transcribed onto a response sheet. Some variables were transformed for more accurate comparison across raters. Parent, teacher, and student ratings were analyzed, and frequency counts and percentages were generated for each item. Items were then compared across and within rater groups to explore the research questions. The data analysis of this study is primarily descriptive and exploratory, not seeking to imply causal relationships between variables. Survey item response results associated with each research questionnaire are summarized in their respective sections below.

Table 1 Descriptive statistics for student and parent responses: student feelings towards homework

Student reported feeling created by homework	<i>f</i>	%
Bored	176	44.3
Annoyed	104	26.2
Frustrated	98	24.7
Smart	90	22.7
Happy	67	16.9
Dedicated	64	16.1
Upset	57	14.4
Sad	29	7.3
Not Smart	16	4.0
Missing	1	.3
Other	23	5.8
Total	724	–
Parent reported student feeling created by homework	<i>f</i>	%
Frustration	175	39.6
Stress/anxiety	163	36.9
Competence	162	36.7
Boredom	136	30.7
Curiosity	128	29.0
Tiredness	92	20.8
Excitement/happiness	85	19.2
Distraction	75	17.0
Anger	71	16.1
Disappointment	44	10
Incompetence	25	5.7
Depression/sadness	23	5.2
Missing	5	1.1
Other	34	7.7
Total	1,213	–

Results

The first research question investigated in this study was: “What is the perceived impact of homework on children’s social-emotional well-being across teachers, parents, and children?” For this question the examiners looked at children’s responses to how homework makes them feel from a list of feelings. As demonstrated in Table 1, approximately 44% of children feel “Bored” and about 25% feel “Annoyed” and “Frustrated” toward homework. Frequencies and percentages are reported in Table 1. Similar to the student survey, parents also responded to a question regarding their child’s emotional experience surrounding homework. Based on parent reports, approximately 40% of parents perceive their child as “Frustrated” and about 37% acknowledge their child feeling “Stress/Anxiety.” Conversely, about 37% also report their child feels “Competence.” These results are reported in Table 1.

Additionally, parents and teachers both responded to the question, “How does homework affect your student’s social and emotional health?” One notable finding from parent

Table 2 Descriptive statistics for parent and teacher responses, “How does homework affect your students’ social and emotional health?”

Parent responses	<i>f</i>	%
Positive	113	25.6
Negative	64	14.5
No Effect	202	45.7
Other	35	7.9
Missing	28	6.4
Total	442	100
Teacher responses	<i>f</i>	%
Positive	9	32.1
Negative	0	0
No Effect	12	42.9
Other	7	25.0
Missing	0	0
Total	28	100

and teacher reports is that nearly half of both parents and teachers reported homework has “No Effect” on children’s social and emotional health. Frequencies and percentages are reported in Table 2.

The second research question investigated in this study was: “What are parent and teacher perspectives on the primary purposes of homework?” For this question the

Table 3 Descriptive statistics for parent responses, “Does homework relate to your child’s learning?” and “How often is homework busy work?”

Homework relate to child’s learning		
Responses	<i>f</i>	%
Always	199	45.0
Often	174	39.4
Rarely	50	11.3
Never	6	1.4
Missing	13	2.9
Total	442	100.00
Homework is often busy work		
Responses	<i>f</i>	%
Always	31	7.0
Often	127	28.7
Rarely	175	39.6
Never	75	17.0
Missing	34	7.7
Total	442	100.0

examiners looked at three specific questions across parent and teacher surveys. Parents responded to the questions, “Does homework relate to your child’s learning?” and “How often is homework busy work?” While the majority of parents reported homework “Always” (45%) or “Often” (39%) relates to their child’s learning, parents also feel homework is “Often” (29%) busy work. The corresponding frequencies and percentages are summarized in Table 3. Additionally, teachers were asked, “What are the primary reasons you assign homework?” The primary purposes of homework according to the teachers in this sample are “Skill Practice” (82%), “Develop Work Ethic” (61%), and “Teach Independence and Responsibility” (50%). The frequencies and percentages of teacher responses are displayed in Table 4. Notably, on this survey item, teachers were instructed to choose one response (item), but the majority of teachers chose multiple items. This suggests teachers perceive themselves as assigning homework for a variety of reasons.

The third research question investigated was, “How many schools have homework policies, and of those, how many parents and teachers know what the policy is?” For this question the examiners analyzed parent and teacher responses to the question, “Does your school have a homework policy?” Frequencies and percentages are displayed in Table 5. Notably, only two out of the six schools included in this study had homework policies. Results indicate that both parents and teachers are uncertain regarding whether or not their school had a homework policy.

The fourth research question investigated was, “What is the perceived impact of homework on children’s sleep and parent–child relationships?” Children were asked if they get less sleep because of homework and parents were asked if their child gets less sleep because of homework. Finally, teachers were asked about the impact of sleep on academic performance. Frequencies and percentages of student, parent, and teacher data is reported in Table 6. Results indicate disagreement among parents and children on the impact of homework on sleep. While the majority of parents do not feel their child gets less sleep because of homework (77%), approximately 37% of children report *sometimes* getting less sleep because of homework. On the other hand, teachers acknowledge

Table 4 Frequencies and percentages for teachers responses to, “What are the primary reasons you assign homework?”

Reason	<i>f</i>	%
Skill practice	23	82.1
Develop work ethic	17	60.7
Teach independence and responsibility	14	50.0
Create Home–School Link	11	39.3
Check for understanding	9	32.1
Prepare for standardized testing	6	21.4
Pressure from parents	5	17.9
Introduce upcoming content	2	7.1
School policy	2	7.1
Pressure from administration	1	3.6
Pressure from teachers	1	3.6
Keep students occupied	0	0.0
Other	3	10.7
Missing	1	3.6

n = 28

Table 5 Descriptive statistics for parent and teacher responses, “Does your school have a homework policy?”

Parent responses	<i>f</i>	%
Yes	141	31.9
No	59	13.3
Doesn't Know	232	52.5
Other	9	2.0
Missing	1	.2
Total	442	100
Teacher responses	<i>f</i>	%
Yes	15	53.6
No	6	21.4
Doesn't Know	6	21.4
Other	1	3.6
Missing	0	0
Total	28	100

Table 6 Descriptive statistics for students responses, “Do you get less sleep because of homework?”, Parent Responses, “Does your student get less sleep because of homework?”, and Teacher Responses, “Does amount of sleep have an impact on academic performance?”

Student responses	<i>f</i>	%
Yes	57	14.4
No	179	45.1
Sometimes	146	36.8
Missing	15	3.8
Total	397	100
Parent responses	<i>f</i>	%
Yes	14	3.2
No	342	77.4
Sometimes	80	18.1
Missing	6	1.4
Total	442	100
Teacher responses	<i>f</i>	%
Always	19	67.9
Often	7	25.0
Rarely	1	3.6
Never	1	3.6
Total	28	100

Table 7 Descriptive statistics for parent and student responses on: homework gets in the way of family time and frequencies and percentages for parent responses to, “how does homework impact your child’s relationships?”

Homework gets in the way of family time	<i>f</i>	%
<i>Parent Response</i>		
Always	31	7.0
Often	82	18.6
Rarely	195	44.1
Never	119	26.9
Missing	15	3.4
Total	442	100.0
<i>Student Response</i>		
Always	48	12.1
Often	89	22.4
Rarely	151	38.0
Never	102	25.7
Missing	7	1.8
Total	397	100.0
Impact of homework on parent–child relationship		
Parent Response	<i>f</i>	%
Brings us Together	132	29.9
Interferes with Family Time	79	17.9
Interferes with Peer Time	35	7.9
Creates a Power Struggle	106	24.0
No Impact	178	40.3
Other	26	5.9
Missing	14	3.2
Total	442	100.0

the importance of sleep in relation to academic performance, as nearly 93% of teachers report sleep *always* or *often* impacts academic performance.

To investigate the perceived impact of homework on the parent–child relationship, parents were asked “How does homework impact your child’s relationships?” Almost 30% of parents report homework “Brings us Together”; however, 24% report homework “Creates a Power Struggle” and nearly 18% report homework “Interferes with Family Time.” Additionally, parents and children were both asked to report if homework gets in the way of family time. Frequencies and percentages are reported in Table 7. Data was further analyzed to explore potentially significant differences between parents and children on this perception as described below.

In order to prepare for analysis of significant differences between parent and child perceptions regarding homework and family time, a Levene’s test for equality of variances was conducted. Results of the Levene’s test showed that equal variances could not be assumed, and results should be interpreted with caution. Despite this, a difference in mean responses on a Likert-type scale (where higher scores equal greater perceived interference with family time) indicate a disparity in parent ($M = 2.95$, $SD = 0.88$) and child ($M = 2.77$,

$SD=0.99$) perceptions, $t(785)=2.65$, $p=0.008$. Results suggest that children were more likely to feel that homework interferes with family time than their parents. However, follow up testing where equal variances can be assumed is warranted upon further data collection.

Discussion

The purpose of this research was to explore perceptions of homework by parents, children, and teachers of grades 3–6, including how homework relates to child well-being, awareness of school homework policies and the perceived purpose of homework. A discussion of the results as it relates to each research question is explored.

Perceived Impact of Homework on Children's Social-Emotional Well-Being Across Teachers, Parents, and Students

According to self-report survey data, children in grades 3–6 reported that completing homework at home generates various feelings. The majority of responses indicated that children felt uncomfortable emotions such as bored, annoyed, and frustrated; however, a subset of children also reported feeling smart when completing homework. While parent and teacher responses suggest parents and teachers do not feel homework affects children's social-emotional health, children reported that homework does affect how they feel. Specifically, many children in this study reported experiencing feelings of boredom and frustration when thinking about completing homework at home. If the purpose of homework is to enhance children's engagement in their learning outside of school, educators must re-evaluate homework assignments to align with best practices, as indicated by the researchers Dean et al. (2012), Vatterott (2018), and Sartain et al. (2015). Specifically, educators should consider effects of the amount and type of homework assigned, balancing the goal of increased practice and learning with potential effects on children's social-emotional health. Future research could incorporate a control group and/or test scores or other measures of academic achievement to isolate and better understand the relationships between homework, health, and scholastic achievement.

According to parent survey data, the perceived effects of homework on their child's social and emotional well-being appear strikingly different compared to student perceptions. Nearly half of the parents who participated in the survey reported that homework does not impact their child's social-emotional health. Additionally, more parents indicated that homework had a positive effect on child well-being compared to a negative one. However, parents also acknowledge that homework generates negative emotions such as frustration, stress and anxiety in their children.

Teacher data indicates that, overall, teachers do not appear to see a negative impact on their students' social-emotional health from homework. Similar to parent responses, nearly half of teachers report that homework has no impact on children's social-emotional health, and almost one third of teachers reported a positive effect. These results are consistent with related research which indicates that teachers often believe that homework has positive impacts on student development, such as developing good study habits and a sense of responsibility (Bembenutty 2011). It should also be noted, not a single teacher reported the belief that homework negatively impacts children's social and emotional well-being, which indicates clear discrepancies between teachers' perceptions and children's feelings. Further research is warranted to explore and clarify these discrepancies.

Primary Purposes of Homework According to Teachers and Parents

Results from this study suggest that the majority of parents believe that homework relates and contributes to their child's learning. This finding supports prior research which indicates that parents often believe that homework has long-term positive effects and builds academic competencies in students (Cooper et al. 2006). Notably, however, nearly one third of parents also indicate that homework is often given as busy work by teachers. Teachers reported that they assigned homework to develop students' academic skills, work ethic, and teach students responsibility and promote independence. While teachers appear to have good intentions regarding the purpose of homework, research suggests that homework is not an effective nor recommended practice to achieve these goals. Household chores, cooking, volunteer experiences, and sports may create more conducive learning opportunities wherein children acquire work ethic, responsibility, independence, and problem-solving skills (Hofferth and Sandberg 2001; University of Minnesota 2002). Educators should leverage the use of homework in tandem with other student life experiences to best foster both academic achievement and positive youth development more broadly.

Homework Policies

As evident from parent responses, the majority of parents are unaware if their child's school has a homework policy and many teachers are also uncertain as to whether their school provides restrictions or guidelines for homework (e.g., amount, type, and purpose). Upon contacting school principals, it was determined that only two of the six schools have a school-wide homework policy. Current data indicates the professionals responsible for assigning homework appear to be unclear about whether their school has policies for homework. Additionally, there appears to be a disconnect between parents and teachers regarding whether homework policies do exist among the sampled schools. The research in the current study is consistent with previous research indicating that policies, if they do exist, are often vague and not communicated clearly to parents (Sartain et al. 2015). This study suggests that homework policies in these districts require improved communication between administrators, teachers, and parents.

Perceived Impact of Homework on Children's Sleep and Parent–Child Relationships

Regarding the importance of sleep on academic performance, nearly all of the teachers included in this study acknowledged the impact that sleep has on academic performance. There was disagreement among children and parents on the actual impact that homework has on children's sleep. Over one third of children report that homework occasionally detracts from their sleep; however, many parents may be unaware of this impact as more than three quarters of parents surveyed reported that homework does not impact their child's sleep. Thus, while sleep is recognized as highly important for academic achievement, homework may be adversely interfering with students' full academic potential by compromising their sleep.

In regard to homework's impact on the parent child-relationship, parents in this survey largely indicated that homework does not interfere in their parent–child relationship. However, among the parents who do notice an impact, the majority report that

homework can create a power struggle and diminish their overall family time. These results are consistent with Cameron and Bartell's (2009) research which found that parents often believe that excessive amounts of homework often cause unnecessary family stress. Likewise, nearly one third of children in this study reported that homework has an impact on their family time.

Conclusion

This study provides the foundation for additional research regarding the impact of academic demands, specifically homework, on children's social-emotional well-being, including sleep, according to children, parents, and teachers. Additionally, the research provides some information on reasons teachers assign homework and a documentation of the lack of school homework policies, as well as the misguided knowledge among parents and teachers about such policies.

The preexisting literature and meta-analyses indicate homework has little to no positive effect on elementary-aged learners' academic achievement (Cooper et al. 2006; Trautwein and Köller 2003; Wolchover 2012). This led to the question, if homework is not conducive to academic achievement at this level, how might it impact other areas of children's lives? This study provides preliminary information regarding the possible impact of homework on the social-emotional health of elementary children. The preliminary conclusions from this perception research may guide districts, educators, and parents to advocate for evidence-based homework policies that support children's academic and social-emotional health. If homework is to be assigned at the elementary level, Table 8 contains recommended best practices for such assignment, along with a sample of specific guidelines for districts, educators, and parents (Holland et al. 2015).

Limitations and Recommendations for Future Research

Due to the preliminary nature of this research, some limitations must be addressed. First, research was conducted using newly developed parent, teacher, and student questionnaires, which were not pilot tested or formally validated. Upon analyzing the data, the researchers discovered limitations within the surveys. For example, due to the nature of the survey items, the variables produced were not always consistently scaled. This created challenges when making direct comparisons. Additionally, this limited the sophistication of the statistical procedures that could be used, and reliability could not be calculated in typical psychometric fashion (e.g., Cronbach's Alpha). Secondly, the small sample size may limit the generalizability of the results, especially in regard to the limited number of teachers ($n=28$) we were able to survey. Although numerous districts and schools were contacted within the region, only three districts granted permission. These schools may systematically differ from other schools in the region and therefore do not necessarily represent the general population. Third, this research is based on perception, and determining the actual impacts of homework on child wellness would necessitate a larger scale, better controlled study, examining variables beyond simple perception and eliminating potentially confounding factors. It is possible that individuals within and across rater groups interpreted survey items in different ways, leading to inconsistencies in the underlying constructs apparently being measured. Some phrases such as "social-emotional health" can be understood to mean different things by

Table 8 Principles and suggestions for districts, educators and parent advisory groups on homework for elementary-aged students(Adapted from Holland et al. 2015)**1. Homework Should Advance a Spirit of Learning**

Educators at all grade levels should assign homework only when:

Such assignments demonstrably advance a spirit of learning, curiosity and inquiry among students.

Such assignments demonstrably provide a unique learning opportunity or experience that cannot be had within the confines of the school setting or school day.

Such assignments are not intended to enhance rote skill rehearsal or mastery. Rehearsal and repetition assignments should be completed within the confines of the school day, if they are required at all.

Such assignments are not intended as a disciplinary or punitive measure, nor as a means of fostering competition among or assessment of students.

2. Homework Should Be Student-Directed

Educators at all grade levels, but particularly in elementary and middle grades, should limit take-home assignments to:

At-home reading chosen by the student.

Project-based work chosen by the student.

Experiential learning that integrates the student's existing interests and family commitments.

Work that can be completed without the assistance of a sibling, caregiver or parent.

3. Homework Should Promote a Balanced Schedule

Educators at all grade levels should avoid assigning or requiring homework:

On non-school nights, including weekends, school holidays, or winter or summer breaks.

On the nights of major or all-school events, concerts, or sports.

When a child is sick or absent from school.

When it conflicts with a child's parental, family, religious or community beliefs.

When a parent opts a child out of homework.

Such support and restructuring will help us to ensure that homework policies can better:

Support the learning and engagement among students, regardless of family background, income level, or caregivers' educational status.

Narrow the achievement gap by ensuring that instruction, rehearsal, mastery and remediation occur primarily at school and in the classroom, rather than at home, where resources and instructional support are less equitably distributed.

Enhance family engagement with schools and students by providing parents and caregivers more opportunities to influence and collaborate on homework policy and practice.

Provide time for students to develop a rich array of extra-curricular personal interests and to engage in meaningful family, religious, community, creative or athletic activities outside of school.

Districts

Create research-based homework policies that can be applied as guidelines for schools.

Educators

Reduce/eliminate homework at the elementary school level.

If homework is to be assigned, focus on quality over quantity.

No homework assigned over weekends or school breaks.

Create study periods during the day for students to get "outside" classwork completed.

Experiment with different modalities for communication around homework, as well as ways to support children's overall wellbeing, including email, phone calls, texting, blogs, group chats, monthly morning coffee with parents, teachers, and principal.

Invite parents to events to learn about how their child can be successful in and outside of school by teaching them techniques and strategies, such as the role of chores and extracurriculars in their student's learning.

Table 8 (continued)

Educators can set time limits on the amount of time students spend completing homework. Parents can sign-off on homework once a certain amount of time has been completed.
Parents
Monitor the amount of time students are spending on homework.
Advocate for the balance between student health and academic achievement.
Communicate with teachers regarding their expectations for homework.
Have a voice – parents should talk with their child’s teacher about what the parent’s homework policy is.
Set limits on time allowed on homework (if assigned).

different raters, which could have affected the way raters responded and thus the results of this study. Relatedly, causal links between homework and student social-emotional well-being cannot be established through the present research design and future research should employ the use of matched control groups who do not receive homework to better delineate the direct impact of homework on well-being. Finally, interpretations of the results are limited by the nested nature of the data (parent and student by teacher). The teachers, parents, and students are not truly independent groups, as student and parent perceptions on the impact of homework likely differ as a function of the classroom (teacher) that they are in, as well as the characteristics of the school they attend, their family environment, and more. The previously mentioned challenge of making direct comparisons across raters due to the design of the surveys, as well as small sample size of teachers, limited the researchers’ ability to address this issue. Future research may address this limitation by collecting data and formulating related lines of inquiry that are more conducive to the analysis of nested data. At this time, this survey research is preliminary. An increased sample size and replication of results is necessary before further conclusions can be made. Researchers should also consider obtaining data from a geographically diverse population that mirrors the population in the United States, and using revised surveys that have undergone a rigorous validation process.

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Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

Ethics Approval Ethics approval was granted by the Institutional Review Board at the sponsoring university. This research was approved by the Institutional Review Board (IRB) at the sponsoring university. Data was collected by the researchers after following the IRB procedures. This study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments.

Consent to Participate Consent forms used in this research available upon request addressed to the corresponding author.

Access to Data and Material Available upon request addressed to the corresponding author.

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