Increasing Parenting Knowledge: A Pilot Study

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Increasing Parenting Knowledge: A Pilot Study

by

Kandice Olson

Thesis submitted in partial fulfillment
of the requirements for the degree

of

Honors in University Studies with
Departmental Honors

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Abstract

Research shows that parenting interventions make a significant difference in the lives of children with behavioral and emotional problems (de Graaf et al., 2008a; de Graaf et al., 2008b; Phaneuf & McIntyre, 2011; Roberts et al., 2006; Whittingham, Sofronoff, Sheffield, & Sanders, 2009). However, not all parents need intensive interventions. There is little research that has evaluated the effectiveness of a brief parenting handout intervention on parenting knowledge. The goal of this study was to determine if a brief informational handout about parenting increased parenting knowledge in college students. Students were asked to complete the pre-intervention survey that measured their initial parenting knowledge and asked about their demographics. They were then randomly assigned to read either a handout on effective behavior management at home (intervention group) or developmental milestones (control group). Finally, they were asked to complete the post-intervention survey that measured their parenting knowledge a second time. An independent sample t-test comparing mean change between groups on Knowledge of Effective Parenting Practices (KEPS), using raw change scores, was conducted. There was no statistically significant difference between the group that received the effective behavior management handout (M=0.13; SD=1.98) and the group that received the developmental milestones handout (M=−.10; SD=2.72); t(151)=0.61, p=0.542. This indicates that the behavior management intervention handout was not effective in increasing parenting knowledge in college students. However, participants found the information in the handout to be more effective than the developmental milestones handout; t(151)=4.56, p<.001. Further research needs to be done to determine if a brief parenting handout can be effective in increasing parenting knowledge.
Acknowledgements

I would like to thank my mentor, Dr. Gretchen Peacock, for putting in the time and effort to help me from start to finish on this thesis project. I would also like to thank all the honors staff, especially Amber Summers-Graham, for helping me through all the ups and downs of this process. Additionally, I am grateful for the funds that the department of psychology provided to me to present this project at the Rocky Mountain Psychological Association (RMPA) in Salt Lake City.
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Increasing Parenting Knowledge: A Pilot Study

Kandice Olson

Utah State University
Literature Review

Child Behavioral and Emotional Problems

Child behavioral and emotional problems are significant issues that schools and families face. Common childhood behavioral problems include attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and conduct disorder (CD). One example of a study that shows the prevalence of emotional and behavioral problems was conducted by Fuchs, Klein, Otto, and von Klitzing (2013). This study looked at the prevalence of emotional and behavioral symptoms of 1,738 preschoolers (ages 3 to 5) in Germany and the impact that these symptoms have on daily life. The children were assessed via parent report for emotional symptoms, conduct problems, hyperactivity/inattention, peer problems, and prosocial behavior. The results showed that 16% of the participants were in the abnormal/borderline range for behavioral problems. When looking at both level of problems and impact of problems, 8.6% of the participants were in the abnormal/borderline range plus the problems had considerable impact on their lives. Specifically, in this study, impact was defined as having distress in at least one of the following categories: emotions, concentration, behavior, or relationships.

Similar to Fuchs and colleagues (2013), Hyland, Ní Mháille, and McGilloway (2014) examined the prevalence of conduct problems in school-aged children in Ireland via teacher reports. Eleven schools in southwest Ireland participated in the study. Of the 11 schools, seven were labeled as disadvantaged and eight were located in cities that were characterized as having high levels of social disadvantage. Four hundred and forty-five children with a mean age of 5.4 years participated. Of the participating children 26% were in the borderline/abnormal range for levels of conduct problems and socio-emotional difficulties and 18% had abnormal hyperactivity levels. Eleven percent of the children were reported having social impairment, while an
additional 38% were reported falling within the borderline/abnormal range. In summary, a significant number of the participating children were reported as having some conduct, emotional and/or social skills impairment in the first years of formal education.

Research shows that behavioral and emotional challenges are often associated with poor peer and family relationships, reduced attendance to appropriate school and non-school activities, substance misuse, involvement with the juvenile justice system, poor parental mental health, and increased financial costs to family and society (Sayal, Washbrook, & Propper, 2015). Children with behavioral and emotional problems are also negatively impacted in their academic lives. Specifically, their educational performance, class engagement, and school attendance are affected by these problems (Hyland et al., 2014). In the long run, academic achievement throughout secondary education influences employment, occupational functioning, and socioeconomic status (Sayal et al., 2015).

Alongside the impacts that children with these problems face, children with behavioral and emotional problems may also negatively impact others in the school setting. For example, children who are disruptive and non-compliant may impair their teachers’ ability to teach by overwhelming them (Hyland et al., 2014). By negatively affecting the classroom experience, other children in the classroom may have been affected and unable to learn as effectively. Teachers may have a more difficult time teaching the class as a whole when one child is being disruptive and interrupting the learning process. Relationships with teachers and peers are also often negatively affected when this type of behavior is exhibited in the classroom (Hyland et al.)

The social impact on children with behavioral and emotional problems is significant to a child’s overall wellbeing. Children with conduct problems are at greater risk for depression and low self-esteem because their behavior affects relationships, which in turn affects their social
wellbeing (Hyland et al., 2014). Peer rejection, friendship problems, fewer dyadic friendships, and loneliness are associated with symptoms of inattention and hyperactivity/impulsivity as well (Andrade & Tannock, 2014).

In summary, children and those who are close to them, are negatively impacted by child behavior problems. Studies have shown that child behavioral and emotional problems negatively impact the academic and social wellbeing of children (Hyland et al., 2014). These behavioral and emotional problems can hurt potential peer relationships and lead to significant social distress (Andrade & Tannock, 2014). One might say when a child’s behavior is irregular because of hyperactivity, inattention, conduct behavior, disruption, or defiance same-aged peers may reject that individual. Rejection may trigger depression, low self-esteem, and fewer peer relationships. Alongside the child’s social distress, other children in classroom may be affected as well. For example, teachers and peers may be negatively impacted by disruptive or inappropriate behavior. The combination of poor social and academic wellbeing can continue throughout development and into adulthood if not addressed (Hyland et al., 2014), while also affecting peers and teachers in the classroom environment.

**Parenting Interventions**

Many substantial mental health, social, and economic problems are associated with instabilities in family functioning (de Graaff, Speetjens, Smit, de Wolff, & Tavecchio, 2008a). Epidemiological studies have found that poor parenting significantly influences how children develop (de Graaf et al.). Considering the negative impact of child behavior problems, it is essential to construct interventions that are effective and efficient. Parenting interventions are an example of effective interventions for child behavior problems. Studies have found that parenting interventions significantly improve parenting strategies and decrease child behavioral
problems (de Graaf et al., 2008a; de Graaf, Speetjens, Smit, Wolff, & Tavecchio, 2008b; Phaneuf & McIntyre, 2011; Roberts et al., 2006; Whittingham, Sofronoff, Sheffield, & Sanders, 2009). Multi-tiered interventions, such as the Triple P Positive Parenting Program (de Graaf et al., 2008a; de Graaf et al., 2008b; Whittingham et al., 2009), are examples of effective parent training interventions.

The Triple P Positive Parenting Program is a multi-tiered parent training program aimed at preventing severe behavioral, emotional, and developmental problems in children by augmenting the knowledge, skills, and confidence of their parents (de Graaf et al., 2008a). The program incorporates the principles of behavioral family intervention (BFI) and parent management training, which have been shown to be effective in reducing behavior problems in many studies with an array of populations (Roberts et al., 2006). The first level is a universal prevention design that offers information about parenting skills to interested parents. Level 2 includes a small intervention consisting of one or two sessions for parents with children showing symptoms of mild behavioral problems. Level 3 is for parents of children with mild to moderate behavioral problems and includes four sessions of active skills training. Level 4 teaches parents of at-risk children a variety of behavior management skills. Lastly, level 5 is an intensive BFI designed for families for which distress has made parenting more complex (e.g., marital conflict, parental depression, or high levels of stress; de Graaf et al., 2008a).

De Graaf et al. (2008a) completed a meta-analysis that looked at the effectiveness of the Triple P Positive Parenting Program. They focused on level 4 of the Triple P program because most of the applicable studies included this level in their research. Level 4 is used when the child has multiple behavioral problems in a variety of environments and parenting deficits are clear. Two meta-analyses were conducted. One focused on the effectiveness of the Triple P program on
parenting styles or competences of parents. The other focused on the extent to which post-intervention effects were retained over time. Thirteen studies met the inclusion criteria, had a control group, and assessed the effects of a Triple P level 4 intervention. Results show an improvement of parenting styles following a level 4 intervention of Triple P at post-measurement and follow-up measurement. The effects not only revealed an improvement of parental competencies at post-assessment and follow-up assessment, but also that improvements were maintained 1 year later. The meta-analysis resulted in an overall moderate effect size of 0.68 for parenting styles at post-intervention, with a 95% confidence interval of 0.48 – 0.87. There was a significant decrease in dysfunctional parenting styles (laxness, over-reactivity, and verbosity) at post-measurement the Triple P level 4 intervention, which was maintained for 3-12 months. Additionally, there was an overall moderate effect size of 0.65 for parental competencies at post-intervention with a confidence interval of 0.36 – 0.94. There were no effect sizes reported in the study for parental satisfaction; however, the authors reported a positive effect on parental satisfaction with their parenting role and feelings of efficacy soon after the Triple P level 4 intervention, which was maintained for 3-12 months.

De Graff et al. (2008b) completed an additional meta-analysis in which they assessed the effectiveness of Triple P level 4 intervention on behavioral problems in children. After searching and narrowing the articles down based on specific criteria, 15 studies were used in the meta-analysis. Results found an overall significant large effect size of 0.88 for the reduction of child behavior problems observed by parents at post-intervention. Regarding long-term measurement and child behavior problems, there was a large effect size of 1.00 found at the 4-to 6-month follow-up assessment. In conclusion, Triple P level 4 improves child behavior problems immediately following intervention and is maintained over time.
One goal of the Triple P parenting program is to increase knowledge of parenting. Research has found that increased parenting knowledge of effective parenting is associated with decreased dysfunctional parenting and problematic child behavior (Morawska, Winter, & Sanders, 2009; Winter, Morawska, & Sanders, 2012). Morawska et al. (2009) defines parental knowledge as one’s understanding of child development processes, caregiving and childrearing skills, and developmental norms. Morawska et al. (2009) conducted a study in which parent knowledge of effective parenting strategies was evaluated among 68 parents from a non-clinic sample. They found that parental knowledge was positively associated with positive child developmental outcomes and parenting competence. Parents who reported more confidence in their parenting reported less disruptive child behavior ($r = -0.43$, $p < 0.001$). Parents with lower dysfunctional parenting reported greater parenting confidence ($r = -0.59$, $p < 0.01$) and had greater parenting knowledge ($r = -0.42$, $p < 0.01$) compared to those with higher dysfunctional parenting.

One study, conducted by Winter et al. (2012), looked at a nonclinical sample of 62 parents of children between the ages of 2 and 3. The study assessed for knowledge of child development processes and milestones, knowledge of effective parenting strategies, self-reported measures of parenting dysfunction and nurturance, parental confidence, parental affective state, and problematic child behavior. It was found that knowledge of effective parenting strategies was negatively correlated with self-reported parenting dysfunction, problematic child behavior, and parental anxiety. Specifically, the greater the knowledge, the less self-reported parenting dysfunction, behavior problems, and parental anxiety. Parenting knowledge was also positively related to observed parenting competence. Knowledge of child development processes and milestones was only positively associated with knowledge of effective parenting strategies.
Winter et al. suggest that increasing knowledge of effective parenting strategies is more beneficial to parents and children than knowledge of child development processes and milestones.

**Conclusion**

As discussed above, research shows that parenting interventions can make a significant difference in the lives of children with behavioral and emotional problems (de Graaf et al., 2008a; de Graaf et al., 2008b; Phaneuf & McIntyre, 2011; Roberts et al., 2006; Whittingham, Sofronoff, Sheffield, & Sanders, 2009). Although evidence-based parenting interventions are effective, very few parents actually use these traditional clinic-based services (Winter, Morawska, & Sanders, 2012). Increasing the parenting knowledge of parents (or parents-to-be) may be a cost-effective prevention method given that not all parents need intensive parenting interventions to make changes. The goal of this study was to evaluate whether providing brief information on parenting can increase parenting knowledge.

**Method**

**Participants**

There were 153 participants in the study. To participate in the study, one was required to be a college student and at least 18 years of age or older. Participants were between the ages of 18 and 45, with the majority being between 18 and 22; M=21.01, SD=4.42. Sixty percent of participants identified as female (n = 91) and 40% identified as male (n = 62). See Table 1 for complete demographic information.
Table 1

Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
<th>Variable</th>
<th>N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>91 (59.5%)</td>
<td>Single/Never Married</td>
<td>124 (81.0%)</td>
</tr>
<tr>
<td>Male</td>
<td>62 (40.5%)</td>
<td>Married</td>
<td>29 (19.0%)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Black/African American</td>
<td>2 (1.3%)</td>
<td>Catholic</td>
<td>5 (3.3%)</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>4 (2.6%)</td>
<td>Protestant</td>
<td>4 (2.6%)</td>
</tr>
<tr>
<td>Asian</td>
<td>1 (0.7%)</td>
<td>Latter Day Saint</td>
<td>120 (78.4%)</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>140 (91.5%)</td>
<td>Atheist/Agnostic</td>
<td>8 (5.2%)</td>
</tr>
<tr>
<td>Native American</td>
<td>1 (0.7%)</td>
<td>Other</td>
<td>16 (10.5%)</td>
</tr>
<tr>
<td>Multi-ethnic</td>
<td>4 (2.6%)</td>
<td>Received Mental Health Services or Medication</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.7%)</td>
<td>Yes</td>
<td>44 (28.8%)</td>
</tr>
<tr>
<td>Year in School</td>
<td></td>
<td>No</td>
<td>109 (71.2%)</td>
</tr>
<tr>
<td>Freshman</td>
<td>85 (55.6%)</td>
<td>Have Children</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>46 (30.1%)</td>
<td>Yes</td>
<td>12 (7.8%)</td>
</tr>
<tr>
<td>Junior</td>
<td>13 (8.5%)</td>
<td>No</td>
<td>140 (91.5%)</td>
</tr>
<tr>
<td>Senior</td>
<td>9 (5.9%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Measures

**Knowledge of Effective Parenting Practices.**

The Knowledge of Effective Parenting Practices (KEPS; Morawska, Sanders, & Winder, 2005) is a 28-item measure used to assess knowledge of parenting practices. Each item presents a brief parenting scenario and asks respondents to select the most appropriate response from four listed responses. For every question that participants answered correctly, they received one point. Possible scores on the KEPS range from 0 to 28. There is limited information on the psychometrics of the KEPS measure. However, in one study, the KEPS was shown to have good test–retest reliability ($r = .70$) and internal consistency ($\alpha = .73$) (Winter, 2012). The KEPS measure was used to evaluate change in parenting knowledge pre- and post-intervention. The total raw score and percent correct were used.
Demographics and Social Validity

A demographic form was completed by all participants to gather basic descriptive information. In addition, participants were asked if they read the handout as well as two questions regarding their perceptions of the intervention to measure social validity. These two questions had them rate the effectiveness of the provided information and how likely they were to share the handout with others.

Parenting Handouts

Participants were randomly assigned to read one of two handouts. The control group was assigned to read the Developmental Milestones in Young Children handout. The handout was created based on information from the Center for Disease Control’s website (https://www.cdc.gov/ncbddd/actearly/milestones/). It describes milestones that should be achieved by ages one, two, three, four, and five. It contains information on the social-emotional, language/communication, cognitive, and movement/physical development milestones for each age group. For example, by two years of age one of the social-emotional milestones is copying others.

The intervention group was assigned to read the Effective Behavior Management at Home handout. This handout is based on a handout used in a dissertation study (Malmberg, 2011) with parents who received services in a clinical setting. Its effectiveness in increasing parent knowledge has not yet been evaluated. The handout is one page and describes positive attention and the effective use of common discipline techniques. For example, it describes steps to take and what to say when implementing timeout.
Procedure

The current study received approval from the Institutional Review Board (IRB) at Utah State University. After IRB approval, participants were recruited from SONA, Utah State University’s research participation portal. Participants completed all study activities on-line via Qualtrics. First, participants completed the demographics questionnaire and the KEPS. After completing these measures, participants were randomly assigned to read one of the two parenting handouts. Within Qualtrics, the handouts were set up so that participants could not leave the handout page until one minute elapsed (to help increase the likelihood of participants reading the handouts). If participants attempted to click off of the page, the number of clicks was recorded. Immediately after reading the handout, participants completed the KEPS a second time as well as the three questions regarding their perceptions of the handout. After data collection, a total of 195 participants had completed all or partial requirements. Participants were removed from the participation pool if they did not complete post-survey, there was a decrease between pre- and post-scores on the KEPS of 20% or greater, or they stated that they did not read the handout. Participants with a decrease of 20% or greater were removed because it is likely that they were not actively participating in the survey. Some of the participants that were removed overlapped one or more of these criteria. Forty-two participants were not included in the final sample. This resulted in a final sample size of 153 with 74 participants assigned to the intervention group (Effective Behavior Management at Home handout) and 79 participants assigned to the control group (Developmental Milestones in Young Children handout).

Results

Due to the fact that parenting influences how children develop (de Graaf et al., 2008a), it is crucial to communicate with parents about effective parenting practices. The purpose of this
study was to evaluate whether a brief parent information sheet increases parenting knowledge. This was done by testing participants’ parenting knowledge before and after reading an assigned handout. Participants were either assigned to the effective behavior management handout (intervention) or the developmental milestones handout (control). The percent correct on the knowledge of effective parenting was calculated for both groups and results are displayed in Table 2. On average, on both the pre- and post-survey, participants in both groups got more questions right than wrong on the KEPS measure, but both answered about three-quarters of the questions correct.

To address the main research question, a t-test comparing mean change between groups on the KEPS, using raw change scores, was conducted. There was no statistically significant difference between the group that received the effective behavior management handout (M=0.13; SD=1.98) and the group that received the developmental milestones handout (M=-.10; SD=2.72); t(151)=0.61, p=.542. This indicates that reading the effective behavior management handout had no more of an effect on parenting knowledge than reading the developmental milestones handout.

To further explore the results, a correlation was calculated to look at the relationship between the number of clicks to leave the handout page and the KEPS change score. There was a significant negative correlation between the number of clicks to leave the handout page and the KEPS change score for the group that read the effective behavior management handout (r=-0.321, n=74, p=.005). This indicates participants whose scores changed less spent more time trying to discontinue reviewing the handout page. However, there was no significant correlation between the number of clicks to leave the handout page and the KEPS change score for the group that read the developmental milestones handout (r=-0.048, n=79, p=.674). In contrast to
the effective behavior management handout group, the more participants attempted to click off of the handout page before the 1 minute had elapsed did not affect how much their scores changed from the pre-survey to the post-survey.

Participants were asked to rate how likely they were to share the handout and how informative they found the handout that they were assigned to read. They rated the effectiveness on a Likert scale with ratings from 1 (“extremely effective”) to 5 (“extremely ineffective”), and the likelihood to recommend on a Likert scale with ratings from 1 (“extremely likely”) to 7 (“extremely unlikely”). Overall, participants rated the effective behavior management handout (M=2.39, SD=.79) as more effective than the developmental milestones handout (M=2.96; SD=.76). They also reported they were more likely to share the effective behavior management handout (M=3.09; SD=1.67) than the developmental milestones handout (M=3.87; SD=1.60). A t-test was conducted for each of these comparisons. For the “effectiveness” variable, there was a significant difference in rating scores between the effective behavior management handout and the developmental milestones handout; t(151)=4.56, p<.001. For the “likely to share” variable, there was also a significant difference in rating scores between the effective behavior management handout and the developmental milestones handout; t(151)=3.00, p<.001.

Participants were also asked an open-ended question of whether they had any further comments or suggestions. From the intervention group that read the behavior management handout, 11 participants provided feedback. Of those participants, three said that they felt like they knew most of the information from the handout before participating. An additional three participants said that the information on the handout did not help them answer the questions on the survey. Five participants stated that they found the information helpful and informative. From the control group that read the developmental milestones handout, three participants
provided feedback. One said that “some open-ended questions would be useful, rather than have possible answers provided.” Another said they thought that the questions were good to start thinking about how to handle their own children. The last participant said that the information sheet “offered no advice on how to answer the questions.”

Table 2

Knowledge of Effective Parenting Practice Percentage Correct

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parenting Handout</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Survey</td>
<td>74</td>
<td>75.77</td>
<td>13.88</td>
<td>3.57 – 100</td>
</tr>
<tr>
<td>Post-Survey</td>
<td>74</td>
<td>76.25</td>
<td>13.41</td>
<td>7.14 – 100</td>
</tr>
<tr>
<td>Development Milestones</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Survey</td>
<td>79</td>
<td>72.19</td>
<td>13.85</td>
<td>25 – 92.86</td>
</tr>
<tr>
<td>Post-Survey</td>
<td>79</td>
<td>71.75</td>
<td>12.88</td>
<td>35.71 – 92.86</td>
</tr>
</tbody>
</table>
Table 3

**Participant Feedback**

<table>
<thead>
<tr>
<th>Rating of 1 is “extremely effective” to 5 “extremely ineffective”</th>
<th>Rating of 1 is “extremely likely” to 5 “extremely unlikely”</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Mean</td>
</tr>
<tr>
<td>---</td>
<td>------</td>
</tr>
<tr>
<td>Parenting Handout</td>
<td>How effective do you believe the information on this handout was overall?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>How likely are you to share the information that you learned from the handout to family and friends?</td>
</tr>
<tr>
<td>Development Milestones Handout</td>
<td>How effective do you believe the information on this handout was overall?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>How likely are you to share the information that you learned from the handout to family and friends?</td>
</tr>
</tbody>
</table>

**Discussion**

The purpose of the current study was to determine whether a brief parenting information sheet increases parenting knowledge in college students. By increasing parenting knowledge with a population of parents-to-be, poor parenting in the future could decrease. Studies show that parenting significantly influences how children develop (de Graaf et al., 2008a). By communicating effective parenting strategies with parents-to-be, child behavior problems and other problems that are brought on by poor parenting can be prevented. There is limited research that looks at parenting knowledge or evaluates the effectiveness of brief interventions on
parenting knowledge. Typically, prevention practices are preferred over interventions practices because they can correct the problem before it occurs rather than trying to fix it when it has already become a problem. If brief parenting interventions are effective prevention methods, there are many advantages over more intensive approaches. One, it addresses general behavior problems that most parents experience, rather than being focused on a specific more severe behavior problem. Also, by providing a brief handout it makes access and attending to the information easier. The current study addresses the question of whether a brief parenting handout increases parenting knowledge.

Participants in this study completed the pre-intervention measure that assessed their parenting knowledge, read one of the two handouts, and then again completed the parenting knowledge measure. Parenting knowledge scores were compared from pre- to post-intervention. There was no more of an effect on parenting knowledge by reading the effective behavior management handout than reading the developmental milestones handout. Although parenting knowledge did not change between the two groups, beneficial effects may have still been produced by reading the handouts. For example, participant feedback shows that participants believed that the behavior management handout was more effective than the developmental milestones handout. It also shows that participants are more likely to share the effective behavior management handout with family and friends than the developmental milestones handout. In addition, participants whose scores changed less between the pre-intervention survey and the post-intervention survey spent more time trying to get off the handout page. From this result, it seems likely that many participants were not actively reading the handout. Additionally, since scores changed more for participants who stayed on the handout for the full minute without
attempted to leave, it may be that the information on the handout was being effectively communicated and did lead to changes for those who read the information.

In addition to the parenting knowledge and handout rating questions, participants were also asked an open-ended question of whether they had any comments and recommendations. A number of participants indicated that the information on the handout did not help them answer the questions on the survey about parenting knowledge. This could mean that the effective behavior management handout is helpful, but that the KEPS measure did not accurately measure the information from the handout.

If the results from the study are valid, it may mean that the behavior management handout does not increase parenting knowledge or the KEPS does not measure the information on the behavior management handout as expected. However, participant feedback on the handout shows that participants found it to be beneficial. How the handout is beneficial is not clear from the current data.

Limitations

One limitation to this study was using college students rather than a group of parents. College students were used due to the pilot nature of the study. This way the effectiveness of the brief parenting handout could be analyzed. The college student population was also easier to access and more convenient for this pilot study.

Another limitation to this study was the lack of intrinsic motivation to read and apply the information from the handout. Because college students were extrinsically motivated by receiving course credit rather than intrinsically motivated, they had no real reason to actively read or apply the information from the handout. One way that lack of motivation was measured
was by recording the number of attempts to click off of the handout page before one minute had elapsed.

Additionally, participant response was inconsistent. Many participants did not complete all study requirements. Specifically, participant data was removed from the data analysis if they did not complete either the pre-intervention survey or the post-intervention survey. Additionally, some participants did not attend to all parts of the study. When participants’ overall percent correct on the KEPS measure dropped more than 20% from pre- to post-test they were removed from data analysis because it is unlikely that they read the handout thoroughly and their scores decreased that significantly. In general, participants may have been randomly responding and not making any effort to read or answer the questions correctly.

**Future Research**

For future research, replicating the current study with parents, rather than college students, is encouraged. This way the results from the survey would more likely be due to intrinsic motivation rather than extrinsic. Those who already have children would most likely be more interested in learning about how to handle child behavior problems than those who do not have their own children.

As mentioned before, some participants indicated that they felt like the behavior management handout did not help them answer the questions on the KEPS measure. Therefore, future research may need to look into a measure that better represents the parenting knowledge on the behavior management handout or change the handout to one that matches what is tested on the KEPS measure. Along with that measure, adding a measure to compare child behavior before and after the intervention handout would be another step. This way it could be determine
whether increasing parenting knowledge through a brief intervention handout would decrease child behavior problems.

Parenting interventions significantly improve parenting strategies and decrease child behavior problems (de Graaf et al., 2008a; de Graaf et al., 2008b; Phaneuf & McIntyre, 2011; Robert et al., 2006; Whittingham et al., 2009). Not all parents need intensive interventions to increase parenting strategies. Further research must be done to determine whether a brief parenting information sheet can increase parenting knowledge and be used as a prevention technique. By preventing poor parenting, child behavior problems and other problems can possibly be prevented altogether.
References


Reflective Writing

Completing this Honors Thesis has been such an amazing experience. There have been quite a few of ups and downs, but I have learned a lot. During the Spring of 2016 I was taking the Honors Capstone Prep Class. I was having a hard time finding a mentor to work with me. I had decided that semester that I wanted to continue on to study school psychology after my bachelor’s degree. With that said, I decided to contact Dr. Gretchen Peacock, a school psychologist and head of the psychology department, about potential research projects that I could build my honors thesis off of. Fortunately, she was happy to help me. I worked on two honors contracts with her: annotated bibliography and a literature review to prepare for my thesis.

I started off my thesis working with Dr. Peacock and a graduate student, Trisha Chase. Our initial plan was to implement a parenting intervention in elementary schools. Fall of 2016, we began to contact school psychologists at different elementary schools in northern Utah. A few of them said that they were interested but unfortunately didn’t follow through. Because of the time constraint, we decided to start a back up study. We designed a study that used the same design as the parenting intervention but on college students. This population was looked at because they could be considered soon to be parents. By increasing parenting knowledge in soon to be parents, we thought it was possible to decrease poor parenting and child behavior problems in the future.

While working on our college student study, we were still reaching out to elementary schools for participation in the parenting study. The difficulty in working with elementary schools lead us to reach out to preschools. One preschool in Cache Valley agreed to work with
us. Unfortunately, we didn’t get enough parent participation. In Spring of 2017 we decided to use the college student study as my thesis project.

We used SONA, the Utah State University research portal to recruit participants. There were over 200 people who participated in the study. However, as we analyzed the data we realized that there wasn’t any significance in the data. There was too much variability. Considering that this was a pilot study, we are using the information that we found to think of better ways to approach this in the future.

I had the great opportunity of presenting my thesis at the Rocky Mountain Psychological Association (RMPA) in Salt Lake City. This was a great opportunity because the people that I spoke with were actually interested in what my study was looking at. They gave me constructive feedback and suggestions for future research in that area.

Overall, there were a lot of ups and downs in my project. I learned so much through these trials, though. If it weren’t for honors or my thesis project, I don’t think I would have discovered my love for research. In the past I had thought I wanted nothing to do with research, but now I see it’s potential and how rewarding the whole research process is. I feel prepared and excited to start my thesis for graduate school now that I know what to expect.

My entire honors experience has helped me recognize the importance of undergraduate students getting involved while they are in college. I have had the opportunity to serve as an ambassador for the college of education, the president of the honors student council, volunteer in multiple research labs with multiple faculty, and conduct my own research. All of these experiences have helped me grow in some many ways. Through different honors contracts I was able to explore different avenues of psychology so that I could decide what I wanted to further pursue. By volunteering in different research labs, I had more than enough faculty members that
were willing to write me letters of recommendation for graduate school. Most importantly, I was able to gear by honors thesis project towards school psychology, the area I wanted to pursue in graduate school. My thesis mentor was the head of the psychology department and one of the core faculty members in Utah State’s school psychology program. Without a doubt I know that this helped me in my graduate school application to Utah State and many other schools.

I know for a fact that if it weren’t for the honors program I would not be where I am at today. I would not have gained research experience or build so many beneficial relationships with faculty members. I am so grateful for the experience that I have received in the honors program and at Utah State University. The relationships and experience that I have received through the honors program are priceless. The whole process through the honors program was very challenging but I am so glad that I did it.
Author Bio

Kandice Olson studied Psychology with a minor in Family Consumer Health Development (FCHD). She had the opportunity to volunteer in Sri Lanka for four weeks working in a mental health institution, teaching English, and working with the special needs population in the community. She spent two and a half years of college volunteering in multiple research labs with multiple faculty. She received the Helen B. Cannon scholarship her senior year. Kandice is continuing on to graduate school at Utah State University to pursue an EdS in School Psychology. She hopes to work as a School Psychologist for a few years and go back to graduate school to pursue a PhD in School Psychology.