Abstract: An age-paced newsletter for parents of toddlers was evaluated. Mothers reported the newsletters were as useful as information from doctors or nurses and more useful than other sources of information. We hypothesized and found that first-time mothers reported the newsletters more useful than experienced mothers—reading more of the newsletters and sharing them more often with their social networks. More first-time mothers also reported making positive changes in their behaviors as a result of reading the newsletters. Two strategies were employed to increase the validity of the self-report data. Implications for parent education are discussed.

Introduction and Background

Parents want to raise their children well and seek information on how to do so. Providing parents with useful information on childrearing may be crucial, because research has shown that parents’ knowledge of child development predicts better child development outcomes (Benasich & Brooks-Gunn, 1996).

But where do parents turn for childrearing advice? Parents often look to their social networks of family and friends (Cochran & Niego, 2002), but most parents also regularly use printed materials for parenting advice. While 35% of parents in a large national survey reported attending parenting classes, over twice as many (74%) reported using mass media (books, magazines, television or videos) for childrearing information (Schuster, Duan, Regalado, & Klein, 2000). Surprisingly, the preference for written parenting materials even extends to audiences thought to have low educational levels (Schultz & Vaughn, 1999).
Age-Paced Newsletters for Parents

Given that parents of young children often use printed materials for childrearing information, age-paced parenting newsletters have been produced by university Extension services and tested with promising results.

- Parents have rated first-year newsletters highly useful for childrearing advice more often than any other source of information (Dickinson & Cudaback, 1992; Riley, Meinhardt, Nelson, Salisbury, & Winnett, 1991).

- At-risk parents were most likely to report changes in their childrearing beliefs and behaviors, as a result of reading parenting newsletters (Riley et al., 1991).

- The newsletters were shared within parents' social networks, averaging two readers per newsletter, including over two-thirds of fathers (Nelson & Cudaback, 1985). Moreover, mothers discussed newsletters with almost double the number of people they shared them with and reported more changes in beliefs and behaviors when they discussed newsletter content (Walker & Riley, 2001).

- Many of these research findings have been replicated in an interview study with Spanish-speaking mothers who read a Spanish edition of parenting newsletters (Weatherspoon, Bowman, Hernandez & Pratt, 2006).

- Parenting newsletters designed for parents of kindergarten-age children (Garton et al., 2003) and for fathers (Brotherson & Bouwhuis, 2007) were also shown to be useful sources of parenting information, as was the newsletter Guide for New Parents that addresses both current and future parenting and family issues (Futris & Stone, 2011).

- A study utilizing a no-treatment comparison group and a well-validated measure of parental beliefs found that parents receiving monthly age-paced newsletters for a year, compared to parents who did not, had beliefs about children significantly less like those of child-abusing parents (Riley, 1997). Parents who received the newsletters also reported spanking or slapping their babies significantly fewer times in the previous week.

- A randomized clinical trial of a British version of the same newsletter found that parents who received the newsletters for a year had more appropriate expectations of their infants' behavior and reported a significantly greater reduction in the frequency and intensity of perceived “daily hassles” (Waterston et al., 2009).

Experimental designs such as ones used by Waterston and colleagues (2009) and Riley (1997) provide a strong inference that the newsletters are effective in causing changes in parents' expectations, attitudes, and behavior toward their children.

Evaluations of this form of intervention have, so far, tested only newsletters written for the first year of parenting. A recent study suggests that continuing a parenting education program beyond infancy and into the early childhood years may enhance its impact (Landry, Smith, Swank, & Guttentag, 2008). Following this logic, the study reported here extends the earlier work by evaluating an age-paced, parenting newsletter covering the second and third years of a child's life.

The tested intervention includes 12 age-paced newsletters, each covering a 2-month span in the age range from 12 months to 36 months, and written at a 5th grade reading level. A newsletter geared toward the
second and third years of the child's life brings useful new information to parents as the salient developmental issues for their children shift. For example, the explosion of language development and autonomy-socialization conflicts of the toddler years require that parents learn new developmental expectations and parenting skills. We investigated six parenting practices, each selected because prior research has established their importance to child development and each was emphasized by the intervention:

- Talking more with children (Hart & Risley, 1995),
- Involving children more in household chores (Felsman & Vaillant, 1987),
- Setting limits (Bornstein, 2006),
- Explaining the reasons for rules (Bornstein, 2006),
- Making the house safer (Scheidt et al., 1995), and
- Reducing the use of physical punishment (Larzelere & Kuhn, 2005).

Research Questions

The study reported here asked:

- To what extent do parents read the newsletters, and share them with members of their social network?
- How useful do parents find the newsletters compared to other sources of parenting information?
- Do parents report positive changes in their behaviors, as a result of reading the newsletters, in the six key areas we identified?

Research on newsletters for parents of infants has found greater, self-reported behavior changes in first-time parents than in experienced parents (Riley et al., 1991). In fact, first-time mothers tend to have less accurate beliefs about child development (Weigel & Martin, 1996). We therefore hypothesized that first-time mothers would find the toddler newsletters more useful and would report more behavior changes compared to experienced parents.

Methods

Participants and Procedure

Participants were mothers of 13 to 36 month old children in eight counties of a Midwest state. They received an age-paced newsletter series free through the mail, monthly for the first year and then on a bi-monthly basis through child's age of 3. Newsletter distribution in each county was accomplished through partnerships between Extension county offices and local hospitals, health departments, and service organizations. Local hospitals or health departments generated the mailing list of new parents, which included all parents giving birth in the hospital or county in the study period. The project received the approval of a land grant university Institutional Review Board.

For data collection, a self-report questionnaire was sent through the mail to mothers who had received the
newsletters on a regular basis. At the time of the survey, mothers had received between six and 12 newsletters (of the 12-issue series) with children aged 2 to 3 years old. Of the 1,967 questionnaires mailed, 1,079 were returned, for a 55% response rate. Ten questionnaires were removed because of potential bias (see lie scale information), 24 because of incomplete data, and 43 because fathers or “others” completed them (who are likely to differ systematically from mothers in their responses). This resulted in a final sample of 1,002 mothers, with 47% (n=466) first-time mothers and 53% (n=535) experienced.

Mothers ranged in age from 17 to 47 years ($M=31.53, SD=4.82$). Eight percent reported incomes below $20,000, 40% had incomes in the $20,000 to $49,999 range, and 52% had incomes of $50,000 or more. Most of the mothers lived with their spouse or partner (94%). Not surprisingly, t-tests showed that experienced mothers were older than first-time mothers ($M=32.98, SD=4.54$ vs. $M=29.83, SD=4.59$), had larger incomes (e.g. 6% vs. 11% had incomes below $20,000), and were more likely to live with their spouse or partner (96% vs. 92%), with these contrasts significant at $p \leq .05$.

Measures

All data were derived from self-report questionnaires. Mothers were asked if the target child was their first, to distinguish first-time from experienced parents. A global, open-ended question (“Has reading the newsletter led you to do anything differently with your child?”) was asked prior to questions about specific parenting practices. If parents reported changing their parenting practices in response to reading the newsletters, they were asked to describe the change.

Strategies were taken to reduce potential bias. The use of a “through the mail” survey tends to reduce the influence of social desirability bias, perhaps by creating greater anonymity (Podsakoff, MacKenzie, & Podsakoff, 2003). Two additional strategies were used. First, two lie scale questions were used to estimate the intrusion of bias in the self-reports. If a respondent reported having learned about both of these topics in the newsletters, this would raise a strong suspicion that their answers were biased. Only 10 respondents (1%) answered “yes” to both lie scale questions, suggesting a low intrusion of bias into our results. Data for these respondents were deleted prior to analyses. A second strategy to reduce bias was to make contrasts between groups (first-time versus experienced parents) who were hypothesized to experience different levels of impact from the intervention, but whose data should not differ in susceptibility to bias.

Analyses

Comparisons between first-time and experienced mothers on the six reported behavior changes were computed using Chi square analyses. With six contrasts being made, an adjustment in the alpha level was required to control for the probability of type one errors. The Dunn a Priori Multiple Comparison Test was used, with an alpha level of .01 for tests of significance. Since this method requires the a priori designation of planned contrasts, no omnibus test was necessary.

Results

Newsletter Utilization

The majority of respondents (88%) reported reading "most or all articles" in all newsletter issues. Nearly two-thirds of the mothers (62%) reported sharing the newsletter with someone else. In most families (60%) the spouse or partner read the newsletters. The child's grandparents read the newsletters 12% of the time, slightly more often than other relatives and friends (11%). When asked what they usually do with the newsletters, 42% of mothers said they "keep and file them," while 10% "give them to someone." Almost half (48%) responded that they "throw them away."
As predicted, first-time mothers reported reading significantly more of the newsletters than experienced parents $\chi^2 (3, n = 1001) = 16.43, p \leq .001$, with 52% of first-time parents indicating they read all articles, compared to 41% of experienced parents (response options were "none", "one/two articles," "most articles," "all articles"). First-time mothers also shared the newsletters with others significantly more than experienced parents ($p \leq .01$), in particular with their spouses (68% vs. 52%, $p \leq .001$) and their child’s grandparents (16% vs. 10%, $p \leq .01$). Interestingly, experienced parents shared more often with "other relatives and friends" (13% vs. 9%, $p < .05$). While about the same percentage of first-time and experienced mothers reported they "give them to someone," significantly more first-time mothers said they "keep and file them" to refer to later (50% vs. 35%, $p \leq .001$).

**Reported Usefulness of Newsletters**

Participants were asked to rate the usefulness of eight sources of parenting advice on a four-point scale (do not use - not useful - somewhat useful - very useful). The newsletter was included last in this list, so that its usefulness would be clearly gauged (by respondents) in relation to their answers about other sources of information. The parenting newsletter was rated "very useful" more frequently than any other source (51%) with the exception of doctors and nurses (52%), with no significant difference between these two sources (Figure 1). The ratings of different advice sources were compared by paired t-tests, showing that sources differing by 3% or greater were significantly different ($p < .01$). However, the newsletters were significantly more likely to be rated "very useful" compared to every other source included on the list. As predicted, first-time mothers found the newsletters "very useful" more frequently (56%) than experienced mothers (47%), $p \leq .001$.

![Figure 1. Usefulness of Each Source of Parenting Information for Parents](image)

Note: Other possible responses were "do not use," "not useful" and "somewhat useful." Sources with bars that are 3% or more apart differ significantly at $p < .01$.

**Self-Reported Changes in Parenting Behaviors**

Prior to any questionnaire items on specific parenting behaviors, an open-ended prompt asked respondents to describe, in their own words, any childrearing changes they made after reading the newsletters. About two-thirds of the respondents (65%) described changes they had made in their childrearing methods, as a
result of reading the newsletters, which were consistent with their responses to the six outcome questions, and also with the advice given in the newsletters. For example, mothers made these comments:

- "I sit and play simple games to help her learn. I also read to her all the time. I don't think I would have done this as much if I hadn't read the newsletter."

- "Helped us change some discipline strategies and helped us to understand why she sometimes does the things she does."

- "Involving her in daily chores. It has really made me see that she isn't just being defiant. Rather she is just testing her limits. I try to look at things from her point of view."

In answer to yes/no questions (Table 1), approximately half to three-quarters of mothers reported making positive changes in the six parenting outcome behaviors as a result of reading the newsletters. If they answered "yes" to any of these items, they were asked to give a concrete example. As predicted, first-time mothers reported changing their behaviors more often than did experienced mothers, with three of the six contrasts attaining statistical significance.

### Table 1.
Percentages of Self-Reported Behavior Change by Experienced and First-time Parents

<table>
<thead>
<tr>
<th>Self-Report: &quot;Reading the newsletter caused me to...&quot;</th>
<th>Percentages by Parental Experience</th>
<th>$\chi^2$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experienced</strong></td>
<td><strong>First-time</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk more with my child.&quot;</td>
<td>66</td>
<td>71</td>
<td>2.48</td>
</tr>
<tr>
<td>Involve my child when we are doing household tasks.&quot;</td>
<td>73</td>
<td>82</td>
<td>10.71</td>
</tr>
<tr>
<td>Set rules and firm limits with my child.&quot;</td>
<td>54</td>
<td>56</td>
<td>.78</td>
</tr>
<tr>
<td>Explain why when I tell my child to do something.&quot;</td>
<td>69</td>
<td>76</td>
<td>6.74</td>
</tr>
<tr>
<td>Make the house safer for my child.&quot;</td>
<td>47</td>
<td>57</td>
<td>10.44</td>
</tr>
<tr>
<td>Slap or spank my child Less often.&quot;</td>
<td>46</td>
<td>46</td>
<td>.00</td>
</tr>
</tbody>
</table>

* $p \leq .01$

### Discussion

The results suggest that mothers find an age-paced newsletter geared toward the toddler years of their child's life very useful. Mothers rated the newsletters very useful for parenting advice as frequently as the advice they received from their physician and more frequently than other sources of information about which we asked. This finding is consistent with previous research on the first-year newsletter series (Riley et al., 1991). Moreover, almost two-thirds of mothers reported sharing the newsletters with members of...
their social networks, including (most often) their spouse or partner. A number of mothers commented on sharing with their husband. One remarked: "There have been many times that my husband and I will discuss some of the issues, and the information has helped us come to agreement about an issue or topic."

In all, 1,822 individuals were reported as having read the 1,002 newsletter series, indicating that readership nearly doubled by sharing. These findings suggest a multiplicative effect for this type of parenting education, both because the newsletters reached nearly twice as many people and because sharing increases the likelihood mothers discussed newsletter content within their social networks, which is associated with greater impact (Walker & Riley, 2001).

As hypothesized, first-time mothers found the newsletters more useful than experienced mothers. A greater percentage of first-time mothers reported changed parenting practices in three of the six key areas: involving their child more in chores, explaining "why" when telling the child to do something, and making the house safer for their toddler. This result extends to the toddler years the finding of greater self-reported behavioral change for first-time parents who received a first-year newsletter series.

**Limitations and Future Research**

A 55% response rate, which is excellent for any questionnaire survey, still leaves 45% of the sample unmeasured. Thus, we must caution that estimates of the rate of utilization and impacts of this intervention in the population are very likely to be lower than in this sample.

As parents begin to use the Internet more frequently for information, delivery of parenting newsletters through this electronic medium may become more common and is certainly more efficient. This is especially true now that a multi-state Extension Community of Practice has launched a Web-based service for free Internet delivery of age-paced parenting newsletters <http://www.extension.org/parenting>. Future research might compare the relative benefits of parenting newsletters delivered through the mail to those delivered electronically. Randomized, experimental designs (e.g. Waterston et al., 2009) are especially needed in future research.

**Implications for Practice**

The study reported here extends into the toddler years the earlier studies of age-paced, parenting newsletters for the infancy period. While parents of infants are especially eager for information, parents of toddlers remain receptive to advice for issues that crop up during the toddler years. One mother made just such a comment:

> Even though the first year is the toughest and when you look for lots of advice, the 2nd and 3rd years become especially challenging relative to behavior issues, picky eating, tantrums, etc. Though I do lots of reading on parenting, it's great to read these articles and be reminded of things that might help or work better.

We tested the newsletters as a "stand alone" intervention, and they can be used this way by any organization wishing to engage in population-wide parenting education at a relatively low cost per-family. On the other hand, we suspect their optimum use is in support of existing parenting education efforts. For example, some scholars have suggested that physicians might supplement their verbal advice with written materials, given the limited time available in pediatric settings and parents' need for more information on behavioral issues (Glascoe, Oberklaid, Dworkin, & Trimm, 1998). The newsletters tested in the study reported here are, in fact, utilized by a variety of face-to-face programs, including intensive home visitation...
programs and WIC clinics that deliver the newsletters by hand, child care programs that provide them as a form of parent involvement and education, and school-age maternity programs that use them as curricula.

The use of parenting newsletters for outreach with parents of young children is likely to be of interest to Extension professionals working in the area of Family and Consumer Education. In particular, parenting newsletters create an opportunity for Extension offices that lack a Family & Consumer Sciences educator to add this content area to their offerings. Newsletters provide a way to reach large numbers of families with a research-based resource developed by university Extension, which may increase parents’ awareness of Extension as a resource for parenting and family information (Futris & Stone, 2011). The newsletters may be accessed at <http://parenting.uwex.edu/>. A website of resources for Extension educators who use the newsletters is also available <http://fyi.uwex.edu/using-parenting-newsletters/>.

Although most mothers who responded found the newsletters useful and reported positive changes in their behaviors, first-time parents appeared to benefit most. This finding suggests that when constrained by tight budgets, the newsletters could be targeted to just the new parents. This would help new parents establish competent parenting styles right from the start, which is easier than making changes to established patterns of behavior. Nevertheless, since even experienced mothers benefited from the newsletters, the newsletters may be a cost-effective way to provide parenting education for an entire population of parents with young children.

References


