

## **Text-Based Parenting Interventions: Unanswered Questions and Future Directions**

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Text-based intervention strategies have been shown to be [cost-efficient and efficacious](#). Is text messaging the *most* effective and ethical intervention strategy suited to mirror the rapidly evolving world of digital communications for 21<sup>st</sup> century parents?

When designing any intervention study, the explications of the mechanisms of action that lead to the final impact are important. Asking and seeking answers to hard questions about whether the proposed solution is best matched to resolve the problem is essential and requires not only understanding the specific problem, but also being disciplined enough to ask the right questions. A behavioral economics (BE) framework paves the way for this type of assessment and thinking: BE focuses on the unspoken decision-points between the provision of an intervention and long-term changes to parenting habits that are often taken for granted in the classical intervention evaluation literature.

### **Identifying the Problem**

Intervention development sometimes overlooks a complete holistic picture of the problem that needs to be solved. Problems are defined too broadly, or problems are defined in isolation from the broader context. Can the problem be realistically solved using a different modality to convey the same information, or do larger issues about efficacy need to be addressed? Is this a problem that requires a deep dive as opposed to a light touch, or is it some combination of the two?

### **The Drop Off Challenge**

Many well-designed parenting interventions fail to find significant impact because parents do not enroll into or actively engage with the messaging from interventionists. The myriad of decision points along the presumed sequence chain from provision of an intervention to changing parental behaviors is predicated on the previous step and do not *necessarily* lead to subsequent steps or ultimate impact. The predicated series of decision points is especially salient to the success of text-based interventions. A parent may not sign up for a texting program; a parent may sign up, but never receive any messages due to clerical errors or technical disruptions; a parent may receive but not read a text; the text may be read but the information not absorbed or retained; the information may be absorbed but not acted upon; or the information may be acted upon once or twice but then forgotten or discarded without habit formation.

BE studies can inform strategies to minimize drop off at each step in the process. We know that [automatic enrollment](#) into interventions can dramatically increase engagement and impacts. We know that using [personalization](#) on digital communications can lead to improvements in message retention and action. We know that [habit formation](#) is often linked to the social and environmental context in which a behavior occurs.

There are also major gaps in our knowledge. Is real-time attention to messages more or less effective than encouraging a parent to plan a time and place to concentrate on a string of messages all at once? How many texts are too many, and can parents become saturated

with parenting advice through electronic modalities? Timing of the *receipt* of the information might be important for impact, but how does this intersect with the timing of *sending* the texts (given our lack of control over network carriers and technological glitches)? Implementing interventions across texting platforms add another layer of complexity. Are app-based programs, which may provide more utility overall, a better choice even if they require opting-in to receive point-in-time, or “pushed”, messages? Does it matter if the parenting advice comes from a known, named source, like a preschool teacher or home visitor, versus a random phone number? Is there a novelty effect of this implementation modality such that fade-out is likely to occur over time, or will the process be recursive and lead to a sustained developmental advantage?

Each of these domains – timing, origination point, message framing, and saturation – deserve our careful attention as interventionists and researchers.

### **The Future of Text Interventions**

Texting as a strategy for parenting interventions has picked up considerable steam in recent years, but still represents the Wild West of intervention strategies. At [beELL](#), we are currently undertaking 3 experiments to test the role of factors that might lead to smaller or larger impacts for text-based interventions. We encourage BE researchers to look for answers to these questions along with us, and to push the frontier further. How might we incorporate the norms of social support using group texts? Is it effective – or even ethical – to leverage smartphone addiction in service of better parenting? How much do we even want parents looking at their phones and not their kids?

Tech-based interventions are unlikely to be effective if they are designed in a vacuum. The contexts in which these interventions take place *matter*. This includes the technological marketplace. Scalable texting platforms—that offer all of the features for smart behavioral design—are still limited and glitchy. Here’s an example. We are using an app-based texting program in one of beELL’s collaborating parenting intervention studies. Two days after reminder messages were pushed out we learned that they never got sent. Originally timed for early evening delivery, another set of messages, instead got delivered at 5am, surprising and frustrating recipients.

We hope that when we write an update to this piece in a few years, some of these questions will have satisfactory answers, and we will be nearer to using text-based interventions in a reliable, effective, and responsible way.