FRAME WORKS INSTITUTE

**Destiny or Destructive Environments: How Peer Discourse Sessions Toggle Between
Child Mental Health and Illness
A FrameWorks Research Report**

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Introduction

This report details findings from a series of peer discourse sessions conducted by the FrameWorks Institute with groups of civically engaged Americans about child mental health. The research discussed here builds directly upon an earlier series of open-ended interviews FrameWorks conducted on this topic.[i] These earlier interviews identified the cultural models—collections of implicit but shared understandings and patterns of reasoning—that Americans use to think about child mental health. We also conducted a review of the scientific literature on child mental health as well as a series of in-depth one-on-one interviews with experts in this field.[ii] This cumulative research revealed the gaps in understanding that currently exist between how experts understand and explain child mental health and how average Americans think about and conceptualize this topic. In the research discussed here, FrameWorks confirmed and expanded upon the results of the earlier phases of research and experimented with a set of reframing tools that will be further tested and refined in upcoming research. As the bridge between early descriptive research and the later prescriptive phases, peer discourse sessions are a vital component of the iterative Strategic Frame Analysis™ research process.

The peer discourse sessions provide an opportunity to see how cultural models function in practice by structuring conversations in settings that more closely approximate the social contexts in which discussions about child mental health might naturally occur. Peer discourse sessions allow FrameWorks to experiment with primes or prescriptive frame elements and strategic recommendations intended to redirect or create different types and patterns of group conversation. In this way, these sessions examine whether intentionally priming conversations with specific frame elements—such as values and draft simplifying models—can create a different type of conversation than those that characterized the unprimed conversations documented in earlier descriptive parts of the research process.

After a summary of the research findings and a more detailed description of the peer discourse method, we present the research findings in greater detail. Discussion of these findings is organized around the three fundamental research questions that FrameWorks answers through the analysis of peer discourse session data: (1) *confirmation*—do the findings support the cultural models identified in previous research? (2) *experimentation*—can primes informed by earlier qualitative research facilitate an improved understanding of and more robust discussion around the core scientific story of child mental health? and (3) *negotiation*—how do people work with both their default cultural models and the primes they have been provided with in making decisions as individuals and in groups?

Summary of Findings

During expert interviews, many scientists concentrated on the point that child mental illness is a *real* phenomenon and argued that the public often does not recognize that

children can experience mental health or illness. The cultural models interviews and the confirmatory section of the peer discourse sessions revealed that advocates and scientific experts' major communications hurdle is not convincing the public that children "have" mental health. Rather, our findings show that the communications challenge is in fact more complex. Research presented here and in earlier reports demonstrates that the public uses distinct models to reason about child mental *health* and child mental *illness*. According to peer discourse session participants, children's mental health comes from the "outside" and is determined by a child's home life and larger social environment. "Bad" mental *health* in children was generally conceived of as resulting from individual and moral issues (i.e., bad parenting produces mentally unstable children). In contrast, mental *illness* in children was understood as genetically determined, and many participants expressed fatalistic attitudes about these children's life outcomes. Absent from participants' understanding of mental illness in children was a sense of the interaction between genes and an individual's experiences in an environmental context. Therefore, the communications challenge identified in this report is not simply convincing the public that children can experience mental health or mental illness, but clearly communicating *how* children come to experience both positive and adverse mental conditions.

To begin to shift conversations about children's mental health to more closely align with expert understandings, peer discourse sessions tested three types of primes: scientific principles of the core story of child mental health without a simplifying model (Risk and Protective Factors), a scientific principle translated with a simplifying model (Toxic Stress), and values (Pay Now or Pay More Later, Ingenuity, and Prosperity). Overall, the findings suggest the utility of simplifying models in translating the science of mental health and the necessity of both simplifying models and values for garnering support for social policies that can both *prevent* mental health problems and *promote* good mental health in children.

Among the scientific principles, Toxic Stress performed better than Risk and Protective Factors. After exposure to the Toxic Stress simplifying model, participants engaged with the science of child mental health and the mechanisms by which mental health in children can be promoted and mental illness in children can be prevented. Some participant discussions also centered on policies to improve environments, rather than punitive actions aimed at "bad children" or "bad parents." In comparison, during group discussions of the Risk and Protective Factors prime that was not translated through a simplifying model, there was a "black box" of causation that encouraged participants to default to dominant and unproductive cultural models of child development and child rearing. Of the values tested, the Pay Now or Pay More Later concept was the most successful at stimulating conversations about potential policies, rather than individual actions that could prevent mental illness and promote mental health in children. The Ingenuity and Prosperity values were generally unsuccessful because of specific policy prescriptions included in the execution of the primes (what FrameWorks calls Level Three thinking) that overshadowed sustained engagement with the tested value. The analysis revealed that the values themselves were not necessarily unproductive, but the low performance of these primes was likely due to the presence of other factors.

Another significant finding from the peer discourse sessions was how meanings of prevention shifted whether participants were focusing their programs on children's *mental health* or *mental illness*, suggesting several implications for the use of prevention as a value in messaging about children's mental health outcomes. In the context of mental *illness*, participants advocated for policies that would occur before the child was born (i.e., parental screening) or for improved treatment for mentally unstable children so as to prevent their imagined socially disruptive or violent behavior. On the other hand, when talking about mental *health*, participants focused on policies that increased parental community supports that would prevent mental health problems in children. In sum, the effectiveness of prevention messages is highly dependent on how these messages are framed within the larger discussion and how they are linked to specific concepts like mental health versus mental illness.

Research Method

FrameWorks approaches Peer Discourse Analysis with three specific research objectives:

1) *Confirm* the presence and application of the dominant cultural models that emerge from cultural models interviews by triangulating results using a different method and *explore* variations in the models when they are used in a group setting.

2) *Experiment* with speculative reframes that emerge from other FrameWorks research or from area experts to narrow down the number, and refine the execution of, frame elements that are then taken into quantitative experimental research.

3) Engage people in a *negotiation* in which they experience efficacy and agency over a complex problem and have to debate and articulate a position as a group, observing what framing elements prove useful and pervasive in participants' interactions with their peers.

Put another way, peer discourse analysis is a way to explore the common patterns of talking—or public discourses—that people use in social settings and how they negotiate among these patterned ways of talking, using both cultural models that they naturally employ in understanding the issue as well as empirically-based "cues" or "primes" introduced by the moderator.

FrameWorks' more specific goals in these particular peer discourse sessions were to observe the specific assumptions and norms about child mental health that people employed when in social group settings; to begin to see whether the introduction of specific frame elements allows participants to understand the core scientific story of children's mental health,[iii] to overcome individualizing habits of thinking and talking, and to imagine public policy solutions that address child mental health issues; and to explore how people negotiate among and work with common cultural models and discourses in forming positions and making decisions about issues related to child mental health.

Subjects and Data Collection

Eight peer discourse sessions were conducted with United States citizens in September and October 2009. These sessions were held in three U.S. cities: Boston, Massachusetts; Phoenix, Arizona; and Chicago, Illinois.

FrameWorks recruited participants through a professional marketing firm using a screening process developed and employed in past research. At each location, 11 to 13 people were screened, selected and provided with an honorarium for their time and participation. Each group comprised nine participants who were selected to form a group representing variation in ethnicity, gender, age, educational background and political ideology (as self-reported during the screening process). FrameWorks purposefully sampled individuals who reported a strong interest in current events and an active involvement in their communities because these people are likely to have and be willing to express opinions on socio-political issues.

Based on previous FrameWorks research, we thought participant responses and views would be particularly sensitive to variations in racial background and level of education. Groups were formed to represent various permutations of race and education so that analysis could examine differences in opinions expressed and responses to primes along these variables. The groups were formed as follows: one Latino group with high education, one Latino group with low education, one mixed race group with high education, one mixed race group with low education, one African American group with high education, one African American with low education, one white group with high education, and one white group with low education.

All participants were given descriptions of the research and signed written consent forms. Peer discourse sessions lasted approximately 2 hours, were audio and video recorded, and were later transcribed. One group conducted in Boston participated in a virtual peer discourse session. These participants responded to prompts on a computer and discussed their responses on a discussion board. Quotes are provided in the report to illustrate major points, but identifying information has been excluded to ensure participant anonymity.

Session Guide and Analysis

Peer discourse sessions are directed conversations and, as such, follow a fixed guide and are facilitated by a trained moderator. These sessions begin with open-ended discussion followed by moderator-introduced framed passages or "primes" designed to influence the ensuing discussion in specific ways. The sessions end with a group negotiation exercise in which participants break out into smaller groups tasked with designing a plan to address some part of the larger issue.

Based on three objectives described above, the Peer Discourse Analysis guide was divided into three sections: *confirmation*, *experimentation*, and *negotiation*. Despite this

organization, data from all sections were used to address all three research goals. For example, data from the *negotiation* portion of the session were also used to *confirm* and triangulate the results of previous research, and data from the *experimentation* section were analyzed for patterns of *negotiation*.

Section 1: Confirmation
The first exercise used a word-association task and opened ended discussion about the nature of and causes of children's mental health and children's mental illness to confirm the dominant cultural models and public discourses attached to children's mental health issues.

Similar to the methods used to analyze data from the cultural models interviews, *social discourses*, or common, patterned, standardized ways of talking, were first identified across the eight groups. These patterns of talk were then analyzed to reveal tacit organizational assumptions, relationships, logical steps, and connections that were commonly taken for granted. In short, analysis looked at patterns both in what was said (how things were related, explained, and understood) and in what was not said (assumptions and taken for granted understandings). Anthropologists refer to these patterns of tacit understandings and assumptions that underlie and structure patterns in talk as *cultural models*.

Section 2: Experimentation
In the second exercise, the moderator introduced primes that were written as news articles. The content of the primes included a scientific principle (Risk and Protective Factors) that experts have identified as a critical element of the core story of child mental health and a simplifying model (Toxic Stress) that has been successful in previous FrameWorks research on early child development.[iv] The primes also included three values (Prosperity, Ingenuity, Pay Now or Pay More Later) that were successful in an earlier quantitative experiment.[v] We included a different messenger in each prime, such as neuroscientists, policymakers, and economists. Furthermore, we varied the order in which the primes were presented to participants in each session.

Group discussions following each prime were analyzed for patterns across groups in how each prime shaped the specific direction of conversation. In addition, as the primes represent different frame elements, we expected that they would accomplish different communications goals. Risk and Protective Factors and Toxic Stress both communicate elements of the science of child mental health. We therefore expected these elements to give participants new ways of thinking and the ability to use previously inaccessible information in talking about child mental health as compared to both discussions prior to exposure to the primes and conversations observed in previous cultural models research. Values were designed to provide different ways for participants to orient to the issue—generating different ideas of who is responsible for child mental health, the social ramifications of this issue as well as what might be done to address and improve child mental health issues. We expected that the values would lead to more policy productive

thinking about societal responsibilities to promote child mental health and to prevent child mental illness.

We also analyzed the impact that various messengers exert in tempering these results. We documented patterns in participants' response to the messengers, including participants' sense of their credibility as well as negative or positive comments about the messengers' expertise.

The primes were also measured by their ability to meet some or all of the following criteria:

User friendliness: We look at whether primes are "user friendly"—if participants are able to use the language of the primes in subsequent discussions. User-friendly primes are also more likely to appear in other areas of the peer discourse sessions, such as in the discussions of subsequent primes and during the final negotiation exercise.

Shifting away from the dominant models: Successful primes are also relatively effective in "loosening the grip" or inoculating against the dominant cultural models and conversational patterns. We look at whether, after being exposed to successful primes, group discussions are measurably different than both unprimed conversations and discussions following exposure to some of the less successful primes.

Float time: Related to the ability to shift off of the dominant default patterns of thinking and talking, FrameWorks looks at the "float time." Float time refers to the time from the introduction of the prime (when the moderator finished reading the prompt), to the point at which the group conversation makes its inevitable way back to one of the dominant default discourses.

Filling gaps in understanding: Successful primes are also relatively successful in filling what FrameWorks calls "gaps in understanding" or gaps between the ways that the public understands a concept and the way that experts do. We measure this by referencing previous phases of the research that identified these gaps and analyzing whether discussions that follow the primes engage with elements of the core scientific story of children's mental health.

Section 3: Negotiation
In the third exercise, each nine-person session was broken into three groups of three participants. Each group was tasked with designing a program that would address children's mental health, children's mental illness or children's overall health, respectively. FrameWorks used small handheld digital recorders to capture the discussions and negotiations within the small groups and, in analysis, examined the arguments that people used to rationalize choices and convince others in the group of specific positions and how multiple perspectives are negotiated in decision making. In this exercise, we were interested in participants' patterns of talk and process of negotiation, but also in whether their active engagement in the exercise could diffuse the

dominant models that structured unprimed conversation about children's mental health issues. We were, therefore, not as interested in the specific policies that each group proposed as in how they arrived at their solutions, the rationales they employed in constructing arguments for their specific issues and plans, and shifts in the tone and general attitude toward the issue that emerged as a result of inter and intra-group discussions.

Results

I. Confirmation

The initial section of the peer discourse session confirmed an important finding from the cultural models report. There is a wide expanse in how the public thinks about mental health versus mental illness. The group setting also provided new insights into the public's unprimed assumptions and patterns of thinking about children's mental health.

Mental Health versus Mental Illness

Expert interviews and review of relevant scientific literature revealed a powerful assumption. Experts were working under the assumption that the public does not think that children can have mental health or suffer from a mental illness and that this perception lies at the heart of past problems translating the science and its policy implications. Contrary to this belief, the peer discourse sessions revealed that most participants, when asked directly, affirmed that children do experience mental health and can suffer from mental illnesses. The following excerpt exemplifies the widespread acceptance of children's mental health issues.

> *Absolutely. I think that any illnesses, mental or otherwise, can manifest at any age. Like any medical condition, any patient experience is specific to the individual and should be treated as such. Disease and affliction doesn't have to discriminate based on age, and just because there is a stigma attached to most mental health issues and problems, the majority of the population would like to believe that children are somehow immune, or underdeveloped, and imagine a sort of idealistic hope that they are always okay.*

> *Boston, White, High Education*

Where the public differs from expert understandings is in their assessment of the differences between mental health and mental illness and in their ideas about how children come to experience mental health problems. The cultural models interviews demonstrated that [vi] the public holds two very different models for understanding mental health and mental illness in children (and in the population more generally). In these one-on-one interviews, informants reported that mental illness was caused by a child's genetic make-up and, because genes were conceptualized as determining life outcomes, there was no sense that mental illness in children could be cured or prevented. This model was clearly in play when participants in the peer discourse sessions reasoned about the differences between mental health and mental illness in children.

Mental health is just basically the upbringing of a child. Making sure that all their needs are being taken care of properly; the way we all want our kids to be. "Mental illness" is something that maybe a child is born with, and that actually needs to be addressed medically. Those are two different things. I mean, I'm speaking again, like as a parent, and a professional, those are two different things. I could be very abusive to my son, and he could grow up in a very abusive environment; that would affect his mental health, but if he was born with something that needed to be taken care of medically, that would have to be taken care of…

Arizona, Latino, High Education

Has to do with an "illness" of some sort. It can be medically treated, but there's some that are brought on by society – by their surroundings, by their exposure to – I'll use my son for example. Not that we knew this, let's say that you have two working parents and they spend a lot of time alone, or not closely supervised, and they spend a lot of their time on the Internet doing whatever they do, playing games or whatever, they're exposed today to the Internet, to opinions, and to stuff that may not be healthy for them, based on your personal beliefs. So that creates that type of mental health problem, or whatever you call it. But it's not even a medical illness – medical mental illness, but it's a social – there you go, there's medical, and there's social.

Arizona, Latino, Low Education

Mental illness - genetic

Mental health - might be more environment & surroundings

Boston, White, High Education

In fact, mental illness was discussed as genetically determined and immutable to either positive or negative environments. Several participants told stories of children who came from "good" or middle class families who nonetheless suffered from mental illness.

Well, when you say "good mental health," I guess what comes to mind, I mean, although it is how they're raised, and their upbringing, what about the cases where there's maybe some children that come from a, you know, a family background, raised properly, but still seemed to have mental issues, as if they maybe have grown up in an environment where the child, you know, that had to see abuse, or that sorts of things?

Arizona, Latino, Low Education

Fatalism characterized many of the unprimed discussions of mental illness; if mental illness was in a child's genetic destiny, these participants concluded, there was nothing to be done to prevent it.

While mental illnesses were defined as a child's genetic destiny, the participants' conception of what determines mental health was much more focused on events and experiences external to the child. The cultural models interviews revealed that people think mental health *is* emotional health *caused* by deeply embedded negative experiences *for which* the individual is responsible. The peer discourse sessions revealed a slightly different understanding, as both good and bad mental health were envisioned as working from the outside in. According to group participants, mental health was determined most significantly by the type of care they were given by their parents and frequently discussed in highly moralistic terms. As exemplified by the above quotes, children experienced good mental health when they were raised "properly."

There was, however, a deeper sense of environmental impacts on a child and person's mental well-being, and this sense was especially prominent in the focus groups of color. Mental health problems caused by a child's surroundings or environments were also considered to be transient. Once a child was removed from a poor situation, participants reasoned that they could regain their mental health. This idea was expressed clearly by a participant who explained the difference between schizophrenia and post-traumatic stress disorder as a way to talk about the environmental impacts on children's mental health.

> *You could be schizophrenic, or born schizophrenic, you know? You have a predisposition for it, whereas, you have PTSD, which is another form of mental health, that's a reaction to a trauma that you might have experienced: a car accident or something. That can be much easier treated and even you can, eventually, be free of PTSD, but with schizophrenia it just doesn't go away. It's something that has to do with the wiring.*
>
> *Boston, African American, High Education*

In the unprimed conversations, participants reasoned that mental health issues were determined by environmental factors, such as car accidents or violent experiences. Furthermore, these external events or circumstances were not perceived as having lasting or somatic impacts.

Diagnosis and Power

While agreeing almost universally that children experience mental health and can suffer from mental illness, several group participants expressed cynicism as to why certain children were diagnosed with disorders, the implications of prescribing medications for young children, and vested financial interests in the diagnosis of such disorders.

> *Participant 1: If, you know, Jimmy fidgets in class, well should we look and see whether there's an ADHD problem? That's the only valid...to me, that's a valid thing to investigate...*
>
> *Participant 2: Yeah, but it could be...you know, whether or not he's wearing ...he's Black, and racism, too.*

Boston, African American, High Education

And sometimes they get labeled, too when they're…so hyper – they won't sit down and be still, then they get labeled as ADD or they have Attention Deficit, and…they want to medicate them and you know, and I think that's you know that's a problem, to me, you want to medicate a child so much and especially if they're just hyper like 6 year olds. You know, how many 6 year olds do you know who will be still, really?

Chicago, African American, Low Education

Well, how many more kids…are being born autistic than when our parents were having kids? How many more are just diagnosed because there's a giant autism industry?

Chicago, Mixed Race, Low Education

The peer discourse sessions revealed that the public does understand that children have something called mental health, but their evaluation of the diagnosis of some form of disorder is dependent on who defines or measures the extent of children's mental health problems. Authority figures in the child's life who are just trying to get them to "sit still" or groups that stand to make a profit from children's mental health problems are not credible sources of information about these disorders.

Approximating Expert Understandings

Although the majority of conversations rested on the assumption that mental health was determined by the environment and mental illness by genetics, a few participants talked about the relationship between environments and mental illness and discussed understandings of the relationship between genes and environments that more closely approximated expert understandings. In fact, one participant discussed epigenetics during the unprimed section of the peer discourse sessions.

But you know like say it's hard to me to really know when it crossed that load, from a healthy environment to there is some type of imbalance going on. If it's not treated properly, it just keeps going on and on to the point that, well yes, it just turned into some kind of mental illness.

Chicago, African American, Low Education

I believe if you have environmental thing, it messes up the genes, and that's a genetic issue. If there's poisons, toxins, that are ingested, so you know, there's issues. I think there's been mention of like certain diseases like Asperger's, or

autism, and it seems like autism is like one of the pop diagnosis these days. You didn't hear about autism 20 years ago…

Boston, White, Low Education

By the time you hit like 3 years old, a lot of your hard wiring's been done and research into the epigenome has been showing that how you're treated as an infant, actually goes and switches on and off various dormant parts of the epigenome, and it can actually – if you're treated poorly, if you are neglected, if you were abused as a very, very young child, it not only permanently hard wires and it physically can alter, and up your chances of cancer, diabetes, and mental illness that goes above and beyond your genetic predisposition, which is inherited from your parents.

Chicago, Mixed Race, Low Education

Despite these promising threads of conversations, the first section of the peer discourse sessions confirmed results from previous research suggesting that Americans understand that environmental conditions could impact a child's mental *health,* but that there is little understanding that environmental contexts can determine a child's vulnerability to mental illness. In the peer discourse sessions described here, this was a result of participants' understanding that child mental illnesses are genetic issues, that genes are set in stone and that environments have no impacts on these genes. As we will explore in the following sections, participants' cultural model of mental illness was easily activated and difficult to overcome.

II. Experimentation

Analysis of peer discourse data revealed two primes that were relatively effective in shifting conversations from dominant cultural models documented in FrameWorks previous research on child mental health and early child development. Toxic Stress and Pay Now or Pay More Later facilitated more productive discussions about child mental health relative to both unprimed discussions and conversations following the other, less promising primes. However, even these more relatively more successful primes were not completely effective and in some groups, on some occasions, even these primes were unable to shift off of or away from the dominant, sticky and viral cultural models described above. In the following section, we analyze the results of each prime.

1. Risk and Protective Factors

> *Children's Environments Pose Risks, Offer Protective Factors for Mental Health*
>
> *Scientists are now saying that there are specific things in environments that affect young children's brains and can put them at risk for mental health problems. These scientists have also found that there is another set of factors that can actually encourage development and protect the brains and mental health in young children. They say that both these risk and protective factors are in the environments in which children live. Some examples of risk factors would include things like community violence, abuse and low quality childcare. Protective factors would be things like stable relationships with caregivers and having access to things like low cost childcare options. Scientists say that what we need to do is devote resources to reduce the risk factors and promote the protective factors in young children's environments. What do you think about this idea?*

A critical aspect of the expert story of child mental health is that there are risk and protective factors that combine to determine a child's vulnerability to developing mental illnesses. Risk factors are those aspects of a child's environment that increase the likelihood of *negative* mental health outcomes. Protective factors, on the other hand, are those aspects of either the child or her environment that promote *positive* mental health. We noted in our expert materials review that mechanisms of causation by which risk and protective factors protect or enhance a child's susceptibility to mental illness were "fuzzy" in the literature and noted that the "black box" of causation would constitute a communications challenge.[vii] The prime developed for the peer discourse sessions discussed how risk and protective factors impact children's development, gave examples of certain kinds of risk and protective factors, and argued for more societal resources for reducing risk factors and promoting protective factors. In the prime, the risk and protective factors message was delivered by and attributed to "scientists."

A few participants were able to use the prime generatively to talk about specific risk and protective factors and how these factors influence a child's mental and socio-emotional development. For example, one woman with a history of mental illness in her family explained why her daughter, despite a potential genetic proclivity, did not display symptoms of mental illness:

> *I agree, especially about the "protective" issues because I believe that genetics plays an important part in my family's issues, you know? My daughter – I'm a single parent. My daughter is 27 now…I think she has good mental health but I do believe that I kept her in the family, I kept her in church. She had a village that contributed to her and I think the risk factors were there, but I haven't seen any*

kind of mental illness exhibited in her, and I think that that relates to the fact that she had all of that support.

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Boston, African American, High Education

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This participant talked about her parenting, but also pointed to wider community supports (i.e., the church and the village) that acted as protective factors against the onset of mental illness in her child.

While this participant began to engage with the scientific principle (that supportive environments can prevent mental illness), the majority of discussions centered on the *solution* implications of the prime without engaging with how risk and protective environments impact children's mental well-being. Like the above participant, the solutions discussions focused on the importance of protective or disruptive impacts of environments in which caregivers are embedded. It should be noted that these discussions were more likely to occur in groups of color, where participants engaged more deeply with the idea that community supports and community violence could deeply affect a child's mental well-being.

I'm assuming it's the parents, and maybe guardians, or whatever. So if one can produce a race of these people, for example, a stable relationship for parents, the provider, enough incomes that you could take care of his – or she could take care of her kids without being overstretched all over the place, give the proper attention to her children, then the chances are that there is definitely a correlation between the sources available for the parents, and the caretaker, and there's a lack of half the time, so there's a bad relationship.

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Arizona, Latino, Low Education

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Community violence, I think, is one that would definitely have a risk – pose a risk on the little child's mental health. You see somebody get shot when you're 3 or 4 versus when you're maybe 11 or 12, continually, you know, one incident after another, I think it's gonna have a pretty severe effect on you. The low cost childcare, that would help. That would be beneficial. Obviously, with two parents working, and being able to make ends meet, and things of that nature.

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Boston, African American, High Education

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Despite these promising threads, the majority of discussions that followed from the Risk and Protective Factors prime ended up in dead-end conversations that either blamed poor parenting for a child's troubles or focused on the inappropriateness or ineffectiveness of social policies in addressing these troubles. The following participant, for example, defined what he meant when he used the term "environment." The basic implication of his statement is that a child can overcome any social circumstances if he or she has loving parents:

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Environment, to me, is your house. No matter where that house is. With that kid in Barrington, or 79ᵗʰ and Stony, if you grow up with two parents who love you, and you're healthy, happy, and loved…If they treat you in a way where you grew up healthy, happy, and loved, it's your environment, and that can't change, because once you leave, you always know that when you go home, mommy and daddy love you, and support you, and daddy works, mommy works, well that's – that's the "environment," and it doesn't have to be a neighborhood. Your environment is how you're growing, I mean, in the house, the nuclear family, you know, and brothers and sisters, and the little dog, and you know what I mean? That's an environment.

Chicago, Mixed Race, Low Education

Other group conversations confirmed this tendency to view parents as the child's environment and, therefore, to judge community-based supports as ineffective. There was a missing understanding that parents are embedded in communities and that the quality of those communities impacts their ability to care for their children.

I don't completely agree with it because they said like the risk factors are community, violence, abuse, and low quality childcare, and I know a lot of people are saying that we have more low cost childcare programs – one of the solutions where scientists would say it would be one of the solutions for, you know, minimizing their mental health risk, but I mean, I've worked at a school before, and I guess a low income community where there was tons of programs for these kids, whether it was on campus, whether it was surrounding the neighborhoods, and I think it really falls back to the environment that's at the home. It's you can provide so much, but if they're not gonna take advantage of that – or even if they do take advantage of it, when they go home, they're in a totally different environment that you can't control. So whether it's low cost, or free, or whatnot, we can't control the environment that's happening at home.

Arizona, Latino, High Education

Shouldn't we be working to educate the adults at this point? The root of the problems in children generally stems with the parent or caregiver, perhaps more adults should be better educated in the impact they have on their child's life and mental health.

Boston, White, High Education

The above excerpts show the tendency of the Risk and Protective Factors prime to default to what FrameWorks call the Family Bubble cultural model. The "family bubble" is a dominant assumption that child rearing and responsibility for children's mental development occurs primarily, if not solely, in the family while things that occur outside that family are difficult to see and conceptualize.

Although less prevalent than the Family Bubble, unproductive cultural models of government, where the government is understood as an impossibly large, tangled and complicated mass of indistinct workings, were also invoked by the risk and protective factors prime.[viii] In this context, several participants expressed the idea that the government should not take a role in promoting quality environments for children, as the following quote demonstrates.

> *The one thing I have a little problem with it, at the bottom, is where it says "scientists say that what we need is to devote resources to reduce the risk factors and….promote the protective factors." We've been doing that for 40 years now. They started a war on poverty in the 60's, how's that working for us? You can only pour so much money down a rat hole, you know, and it just doesn't work… It's got to start with the families, and in the neighborhoods…It's tough for me to wrap my head around the idea that somebody wants to reach into my pocket and take some more money, and spend it. It just creates a couple more levels of bureaucracy to not accomplish solving the problem.*

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Chicago, Mixed Race, Low Education

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The Risk and Protective Factors prime resulted in a few promising conversations, but in the majority of cases the prime fell victim to a set of dominant and unproductive cultural models that blocked participants from engaging with this critical aspect of the core story of child mental health. The likely explanation of its unproductive tendencies is that the prime did not include a simplifying model or explanation of causation. A few participants agreed that there were risk and protective factors in environments that could either promote a child's mental health or make them more vulnerable to mental illness, but none could engage with *how* risk and protective factors shape the mental health of a developing child. Because of this "black box," participants reverted to an assumption about child mental health that was easier to think: that parents are solely responsible and are the only source of solutions to children's mental health problems. The benefits of using a simplifying model to translate a scientific principle are most clearly illustrated when we compare the results of the Risk and Protective Factors prime with Toxic Stress.

2. Toxic Stress

> ***Toxic Stress in Children's Environments Pose Problems for Child Mental Health, Scientists Conclude***
>
> *Neuroscientists are now reporting that certain kinds of stress in a child's environment are what lead to child mental health problems. There are many different kinds of stress, but some stress is toxic, they conclude. Toxic stress is extreme, frequent and is when children don't have supports to buffer against these experiences. Toxic stress in early childhood can be things like extreme poverty, abuse, chronic neglect, or severe maternal depression, all of which can disrupt the developing brain. In this way toxic stress can lead to lifelong problems in learning, behavior, and both physical and mental health. Being surrounded by environments with supports and resources is key in protecting against these toxic stresses and promoting child mental health. What do you think about this idea?*

Toxic Stress is a simplifying model that, in previous FrameWorks' research has proven effective in communicating the core story of early child development.[ix] In the peer discourse sessions discussed here, Toxic Stress was tested as a prime in order to gauge the effectiveness of this simplifying model in communicating the science of child mental health and in structuring more robust conversations around this issue.

Overall, the Toxic Stress prime was successful in improving participants' understanding of the fact that stressful environments impact mental health outcomes in children. After exposure to the Toxic Stress model, participants were willing to engage with the idea that inordinately stressful environments can impact the developing brain of a child and lead to mental health problems. Furthermore, participants were able to talk in concrete terms about *how* stressful experiences in childhood could impact a person's mental (and physical) health throughout the life course.

> *And sometimes it [stress] will come out in different ways, not necessarily in behavior; it could affect your speech. It could affect your memory, it could affect all different types of parts of you, not just that you become an abuser, or anything like that. Not necessarily physical. I mean, it could be more like mental like it says here.*
>
> *Arizona, Latino, High Education*
>
> *Like you have the perfect mental health situation. So the things that they say to keep out, you could have other factors that creep in…like the losing of the job, or*

one of the parents getting sick or something that…Or peer pressure. We already talked about peer pressure. Or that affects that, so who's responsible for that economy, the unemployment, these other things that break in the family?

Boston, African American, High Education

Well, I think it's pretty obvious, to me anyway, that anything that you ignore, or that you don't provide support for, through the mental state, or medical condition, or a broken leg, or hunger, I mean, if you ignore it, and let it go on, obviously, it's going to affect you negatively for a long time. So yeah, it makes sense that if this particular scenario, if someone has long term poverty, or abuse, or any of these items, and doesn't have the proper support system to get them through that, or out of there, yeah, they're going to suffer long term. I agree with that.

Arizona, Latino, Low Education

The execution of the Toxic Stress prime included extreme poverty as a stressor in a child's environment. In discussions that followed this prime, some participants objected to the notion that living in poverty always has negative impacts on a child's development. These participants, who identified as having grown up in impoverished conditions, argued that poverty actually leads to stronger mental fortitude and inner strength when compared to children growing up in more affluent conditions. However, other participants drew on the prime to counter the "poverty makes you stronger" argument, pointing to the differing levels of stress that result from extreme poverty.

Participant 1: If you're brought up in it [poverty], you're used to it, but I think if you're not brought up, then you're thrown in a situation like that, that's an added – that's a big stress on people.

Participant 2: Yeah, but it probably even makes you stronger.

Participant 1: It doesn't play – it does, it makes you stronger.

Participant 3: No, I mean, it's very, it touches other people, of what toxic stress can fall into, and poverty can go either way. I think it can go either way because there's certain people who just can't deal with it, or you know, and certain people like yourself, you can – you rise about that, but there's people…could be the extreme ones, like he was saying, that don't have any food, and it's an extreme, with everything combined.

Arizona, Latino, High Education

Participant A: This is kind of like one of those thesis where you could either let yourself fall into it, or overcome it, you know? Cause you can have two kids, in two similar circumstances, and one's gonna grow up and sell drugs; the other one's gonna grow up and become a doctor.…It says that these can be things like

extreme poverty, abuse, chronic neglect. Is this always going to affect the kid in a bad way, or could it affect them in a positive way that the kid wants to overcome it?

Participant B: But, at an early age, he – he or she wouldn't know enough about overcoming…I just think they're saying that the potential is there.

<div align="right">Boston, White, Low Education</div>

In fact, several participants used the prime to make the point that child mental health outcomes are dependent on the "dosage" of exposure to toxic stress and were able to engage with the scientific principles the model was attempting to translate.

The word "toxic," though, basically says that it's an amount higher than normal. ..If you compare it to something like a flu shot, you're getting a small amount of the virus your body can handle; that's good because you're learning to cope with it. A "toxic" amount was when you actually get the flu…A little bit of stress is necessary for day-to-day life. You need that to survive, to learn, and whatnot; otherwise you're going to become, phew, you know, and do whatever. "Toxic" amount is just unimaginable. It's just too much. Your body just can't take it.

<div align="right">Chicago, Mixed Race, Low Education</div>

I mean, cause it seems like a one time thing, or the event. Some people can bounce right back quickly, and not – I mean, I could think of a few events in my life where you just bounce back, but if it was ongoing then that might have had a different toll on my well-being, but a lot of it, too, it depends on the individual. I mean, the ongoing abuse, some people turn out just fine. I mean, there's things from some people's past. It's just the way they absorb it, and the way they can just move on, and what kind of support after the ongoing, or one time trauma, or event.

<div align="right">Arizona, Latino, Low Education</div>

What I particularly would like here that we haven't discussed was that it points out that this toxic stress disrupts the developing brain. We've been talking a lot about "behavior," or how "environment" affects the behavior, but I think what this is saying, what I agree with, is that these toxic stressors is actually either stopping the developing of the brain, not creating synapses. I mean there's a direct link between these toxic environments, how you're treated as a child, and how your brain is not growing fruitfully…I think this is the ultimate getting to, the root of the problem, and it's not gonna help every single child who experiences toxic stress, but I think if you can identify certain things – poverty, abuse, neglect—if there are ways in which you can treat those as early on as possible, and take preventative measures, then I think the results will be that there are fewer children with mental health problems.

Chicago, Mixed Race, High Education

While simplifying models are mechanisms that help people grasp complex scientific concepts through the use of familiar metaphors, the final quote illustrates an additional function of these frame elements. The quote shows that the participant's grasp of the scientific concept through the use of the simplifying model actually lead to more policy-oriented, rather than individualistic, thinking about how to address child mental health problems. When it is clear to people that toxic environments can actually change the developing brain and lead to mental health issues, they are able to focus on how we should fix environments—not individual children or their parents—to improve mental health in children.

Although generally successful, some of the dominant and unproductive models did appear in discussions following the Toxic Stress prime. These dominant cultural models lead group conversations in familiar, dead-end patterns of thinking. For example, in several groups, the idea that children can overcome anything with the support of a loving family became active and dominant in group discussions of toxic stress.

> *Participant 1: He needs to apply himself to the job, which is raising their kid. They put the job of – of raising their kid first, you know, and everything else is just gonna fall in place.*

> *Participant 2: I'm with you on that. If you are determined to be a good parent, no matter what the time, what year it is, you're probably gonna be able to push through, and you know, be that good parent, hopefully.*

Boston, White, Low Education

Furthermore, the notion of toxicity in the prime was in some circumstances narrowly defined as fetal exposure to maternal drug use. While this undoubtedly contributes to poor brain development, when individuals adopt this literal interpretation and toxic stress is limited to substances mothers ingest while pregnant, the conversation quickly turns to bad mothers and their inexcusable behavior.

> *I think a lot of the mental illness. Now they're injecting a chemical to make it worse, or that they were born from, you know, crack babies, and stuff like that that are born, and they are born with something that's gone wrong in their development before they're even, you know, are born.*

Arizona, Latino, Low Education

> *Participant 1: I think this is true, and these stresses are one of the main causes for the country's biggest problem to me, in which is gang violence, and gangs in general. These kids have no resources, and nowhere to turn, so they go to gangs.*

> *Participant 2: Mama's passed out; you'll find your family elsewhere.*

Chicago, Mixed Race, Low Education

Finally, there was some pushback about the neuroscientists who served as messengers in this prime. A few participants felt that the information in the prime was something that they already knew, that other kinds of people could have given them this information, and that neuroscientists are too concerned with getting the science right and not sufficiently invested in laying out solutions.

> *You know, teachers being very important role players here in this environment, okay? Probably if you pay attention carefully to what I've been saying is that don't put too much faith in these professionals with their MRIs, and CAT scans…and all of that. All those things could be helpful, but your local witch doctor could be just as helpful, okay?*

> *Boston, African American, High Education*

> *They're saying that neuroscientists are now reporting. [SARCASM] I mean, we already know this. Stuff we already know. It's like do something about it then, you know? It's been around for so long, and nothing has really changed.*

> *Chicago, Mixed Race, Low Education*

When compared with the Risk and Protective Factors prime, Toxic Stress was highly effective at inoculating group conversation against unproductive models about child rearing and in facilitating more robust and positive discussions about the science of child mental health. The prime helped participants engage with the idea that there are stressors in environments that impact a child's developing brain, which can lead to mental health issues and even that elimination of these stressors can promote more positive mental health.

3. Pay Now or Pay More Later

> ***Pay Now or Pay More Later Is Theme of Debate Over Child Mental Health Policies***
> *You may have heard talk about the important role that all of us in society play in making sure children have good mental well-being. In particular, people are talking about how important it is to put some of our resources early on into making sure that children in the early stages of life have good mental health. Researchers now believe that one reason this is so important is because trying to fix mental health problems in adults requires more work and money, and is actually less effective than focusing on the mental health of young children and getting it right the first time. According to this view, clinical treatment and other interventions are more costly than making sure young children have strong protective relation-ships, appropriate experiences and that they get the right inputs from their environments from the start. What do you think about this idea?*

In early quantitative testing on early child development, the values of Prosperity, Ingenuity and Pay Now or Pay More Later were successful in orientating participants towards a perspective in which policy played a role in improving children's mental health outcomes, shifted responsibility from an individual to a collective sense of responsibility, and inoculated against crisis mode thinking by creating a pragmatic sense of efficacy and a solutions orientation.[x] We included these values in the peer discourse sessions as a way to better understand *why* they were effective and to gauge people's responses to more elaborated and detailed executions of these values.

Of the three values tested in the peer discourse sessions, Pay Now or Pay More Later was the most successful in helping people think about policy solutions to children's mental health issues. Participants engaged with the fundamental concept of the value and, as the following excerpt illustrates, connected it to other familiar domains.

> *The line says on top that it's a theme, a debate over child mental health, and according to the view is the term that's used in there. So as a point of view, or a theory, I think it's no different than how you take care of your house, or you take care of your car, you take care of your health, and you should, as he pointed out earlier, you know, it's a hell of a lot cheaper, and easier to take care of something in the beginning, as opposed to procrastinating, and having to deal with it after the fact, and later on.*

> *Chicago, Mixed Race, Low Education*

More than any other prime, discussions following the Pay Now or Pay More Later prime focused on the *social policies* that may prevent mental health problems later on in life. Participants discussed improved mental health care access for parents of young children and the provision of community supports to both treat children with mental illness and, in a few cases, promote mental health for all children.

> *When a parent notices that there might be something wrong with their child, they have to go through like acts of God to get them tested for certain things to try to figure out what it is, and a lot of the times…their medical insurance doesn't cover it, and there's no sliding fee scale, or there's a year-long waiting list at the St. Joseph's Hospital to see if they have any form of mental illness, or whatever. So it's kind of hard for them to diagnose it, or to see if they're on the right track. It just takes a long time. I think if maybe they found a way to get them easier access to certain things to eliminate certain things to try to narrow down the situation as soon as possible, that that child would stand a better chance.*

> *Arizona, Latino, Low Education*

In my opinion, what this is speaking on is not testing for mental illness, or taking your children to psychiatrists at early ages. It's talking about spending their money to implement resources into the community that will provide the strong protective relationships, appropriate experiences, and whatnot, that from the start that…will help to develop good mental health. That's what I'm reading from this.

Arizona, Latino, Low Education

Participant 1: I mean, I don't know if it's very realistic because there's a lot of other social factors that requires funding, and not just this particular issue. So you can't say that we did all of this. But the one thing that I wrote down here was, well I don't know if it will require giving medicine to younger people, and I don't know if there's any long term research on the long term effects that that has upon the developing brain.

Participant 2: I was thinking more along the lines of support, school psychologies, and those kinds of things rather than meds right away. And not to say that meds don't have a place, but that would be secondary or last resort.

Chicago, Mixed Race, High Education

While the Pay Now or Pay More Later prime encouraged policy productive conversations and, although limited, sparked conversations about the promotion of mental health, the idea of prevention embedded in the value did have some negative consequences. In some groups, the prime further entrenched the very dominant assumption that mental "health" is really about *problems* to be "prevented" and that mental illnesses are problems to be treated. When focusing on preventative measures, some participants used the cultural models of mental illness and assumed that these problems are genetically determined and therefore that *treatment* rather than prevention or promotion is the only appropriate recourse. The activation of this cultural model of mental illness was most clearly exemplified by objections to the prime that were based on the assumption that focusing on children with mental illnesses would take resources away from mentally ill adults.

Yeah, I mean, I have a buddy who, when he turned 18 became a schizophrenic, you know, and you can't – although it's good you got to put the money for the kids, and helping with nutrition, and you know, vaccinations, even, you know, spreading those apart a little bit, it will help, but you know, there's people who do get affected later on in life, and you got to be able to make sure you can take care of them, also. You can't leave them out in the cold just because you want to help the younger kids eventually, you know? These kids may hold things in, but once they turn 21 or get fired from a job, they may blow. And you gotta deal with them.

Chicago Mixed Race, High Education

My whole premise is...they're kind of leaving the adults with the mental illness, kind of...pushing them to the side a little bit, whereas, if you want to talk about

"society," you want to talk about everyone in it because adults and children are alike. We all make up this society.

<div align="right">

Chicago, African American, Low Education

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An ounce of prevention is worth a pound of cure, right? Of course it's going to be easier to make sure "it's done right the first time" just like brushing your teeth every night is easier than getting cavities filled. But that doesn't mean that as adults, we should just let our teeth go on rotting.

<div align="right">

Boston, White, High Education

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These quotes reflect the idea that certain people are predestined for mental illness and no amount of prevention will be able to shape their genetic fates. Because the Pay Now or Pay More Later prime did not contain an important scientific principle (i.e., that there are protective factors in children's environments that can shape children's mental health outcomes), the idea of prevention inherent in the prime was not interpreted as things that can be done to actually prevent the onset of mental illness. Rather, several participants interpreted prevention as the provision of better treatment for children and adults who are already mentally ill. That is, when prevention is talked about in the context of mental illness, people default to discussions of treatment and management of the mentally ill, because they assess mental illness to be a purely genetic process.

4. Ingenuity

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States Pioneering Ingenious Approaches to Child Mental Health
The National Association of Governors has issued a report that shows the need for society to invent more effective solutions to address mental well-being in young children. Some innovative states have been able to design highly effective solutions to address child mental health. Examples of these changes include better coordination between places where children go to get medical care so that when they show up once in one place, their records follow them when they show up later at other facilities. These innovations have solved problems in how we provide care for child mental health and have shown significant improvements for children. What do you think about this idea?

</div>

In the context of child mental health, the Ingenuity prime was constructed to show how we as a society could create better coordinated systems to promote good mental health

and prevent mental illness among children. One policy solution included in the prime was to create better record keeping systems so that when children with identified mental health issues present at medical and social agencies, professionals in those settings have the information needed to address their problems. Unfortunately, this detail became the primary focus of ensuing discussions and activated unproductive models of government that participants drew on to express their distrust in instituting such a record-keeping system. Moreover, skepticism about the durability, viability or abundance of solutions also eroded this prime's potential.

> *A different issue is isn't there still some arguments about the whole universal medical record system? I mean, aren't there still like a lot of people that are like vehemently opposed to it because of concerns about you know, breeches of security and privacy, you know, privacy wise, and leaks, and all that sort of thing? So that – I mean, doesn't that, in essence, potentially throw a monkey wrench into this at the present time?*
>
> *Boston, White, Low Education*

> *Well certainly technology can work in our favor. When you first read this to us, I had vision of people, you know, inserting chips in children with their medical history, or…something like we do our dogs…*
>
> *Chicago, Mixed Race, High Education*

> *Participant 1: This whole paragraph only adjusts one thing about the changes with better coordination between place to place, and then the rest of it is state sponsored. Now, state sponsored, I mean, to me, is just another, like he says, we need less government than more government. Because, it's gonna be so much paperwork, so many people getting into this, that it's just gonna get so diluted, and they've only given one example, and that's not a ground breaking of an idea.*
>
> *Participant 2: I actually agree with him on that. Yeah. It only says, "medical records following you," and what does that have to do with your mental health?*
>
> *Chicago, Mixed Race, Low Education*

Fears about records were based on worries about too much government power and the inability to ensure privacy, but also that children would be unfairly labeled as a result of one doctor's quick assessment. Several participants of color worried about how the diagnosis of a mental disorder might be disproportionately applied to children of color or particularly harmful for children without resources.

> *I don't like if they're going to follow you no matter what, because if one doctor deemed you this, just like he said, the teacher told him he was that, that means for all the kid's life he's gonna be that. He's not gonna be able to run away from that*

because it's gonna follow him everywhere that he goes. So if he had a problem when he was a little bit younger, and he's never gonna be able to live that down because it's gonna be following him, and I don't like it.

Arizona, Latino, High Education

Participant 1: How do you prevent records from demonizing kids, particularly Black kids?

Participant 2: I'd be afraid of that.

Boston, Black, High Education

As illustrated in one of the above quotes, the fundamental problem was that participants were unable to conceptualize how better coordinated systems might lead to better mental health outcomes in children. Because the dominant models that people use to think about mental health or mental illness are primarily cast in moral terms (mental health is about overcoming) or characterized by fatalism (genetics as destiny), systemic solutions were difficult to conceptualize.

I don't see the relationship between administrative responsibilities, and mental health responsibilities – how an administrative operation can affect and meet their condition. This is more administrative, to me, than this record keeping. It's secured information. What's that got to do with – as a bank account…The only – the only way I can relate it to how it would affect it is better service…

Arizona, Latino, Low Education

Some participants were able to articulate how better coordinated systems could lead to better care for children and improve mental health outcomes, as the following quotes illustrate. However, these examples of systemic understandings were both infrequent and did not "float" as they were quickly shut down by dominant models of mistrust of government discussed above.

Now, if a kid has mental health issues, or he's mentally ill, why can't another doctor go about it immediately…and he could be watched immediately, and make sure everything works out right. I think here there's nothing wrong.

Boston, Black, High Education

I think it's a good idea. I mean, for kids on Ritalin, you know, for some reason he's on a field trip to San Diego doing a, you know, ocean study, he gets sick, they can access his what dose he's on, what he's doing, how much he's taking, and the last time he was at the doctors. I mean, if you look at it not negatively, but "Big Brother" wise, well you could always find a problem with that but you're looking at it in it's a good thing.

Arizona, Latino Low Education

Participants were receptive to the idea of using ingenuity to solve problems, but several asked for more concrete information about specific programs that were actually working. This is mostly because many did not think that better coordinated systems were a particularly innovative solution.

> *Because well, cause that's good to know, cause when it says that they've issued a report that says – and studies to invent more, you know, effective solutions to address this what are they thinking, you know? And actually on a lot of this, it's vague to the point that it's hard for me to offer a real concrete opinion when it's so open ended. You know, a lot of these ideas, in theory, are great if they're really done the right way, and it takes a lot of care, and a lot of attention to make them as great as they need to be to be worth it. That's my problem with it, but it's potentially good.*

> *Boston, White, Low Education*

> *Again this is stating the obvious. Of course we should be monitoring/observing a child's progress through different places. What ways are they coming up with to be innovative – what are the solutions?*

> *Boston, White, High Education*

> *We should have these to address child mental health. Like it's stating, what the scenario is about, but it would be nice to know, where the facts to support this statement because if it's so innovative, I would like to know how. Like getting more details. It's kind of like solutions, what are they, yeah?*

> *Arizona, Latino High Education*

> *Yeah, this sort of sounds, sort of, vague to me. You know, it says, "examples of these changes," and then it goes to list one, and then it says, "these innovations," and I'm like okay, so they gave us one example. And they probably have intended on giving some more.*

> *Boston, African American, High Education*

5. Prosperity

> **Prosperity of Country Linked to Child Mental Health and Workforce Competitiveness**
> *People who study workplace competitiveness believe that child mental well-being is important for community development and economic development. They say that young children with strong mental health are prepared and equipped to develop important skills and abilities that begin developing in early childhood. These children then become the basis of a prosperous and sustainable society – contributing to things like good school achievement, solid work force skills and being strong citizens. What do you think about this idea?*

Similar to Ingenuity, conversations following the introduction of the Prosperity prime focused on a specific aspect of the prime and not on the more general value conveyed. The title of the prime, read to participants as a newspaper headline, was "*Prosperity of country linked to child mental health and workforce competitiveness.*" Workforce competitiveness became the primary focus of most of the resulting conversations and, although interpreted in different ways, the focus on competition overshadowed discussions of how ensuring children's mental health was important to create a more productive and prosperous society.

Several participants argued that competition could actually hinder a child's mental health, especially if ill equipped to deal with the stress of competition or if a child did not "win" the competition.

> *I'm looking at the word "competitiveness," and I don't think that's something that every kid can deal with on a fair level. Some kids are prepared for it, some kids aren't. Some kids don't even know how to deal with it. Quite frankly, some adults don't know how, either. That's a big one right there, and I'm not sure that putting all of that competitiveness on a child, even though I do condone it, cause I think it is important that our kids learn how to compete and deal with it. They need to learn how to win, they need to learn how to lose, you know? You live by family – or – or you learn by family. Um…it's just the preparedness of that competitiveness is what I'm not sure about.*

> *Arizona, Latino, High Education*

> *Because you've got kids in there who's got $500 designer shoes, and you've kids in there with no shoes, and the competitiveness is that the kids who have nothing hate the kids that do, and the kids who have something look down on the kids that don't. So prosperity in this country and competitiveness has actually hurt people*

because people are graduating from college now, and there's no jobs. You've worked all those years to graduate, and you're walking out here, and you've got to live with mom. So you give up. Some people can keep going, and hoping, but after enough door slamming in your face, you give up…

Chicago, Mixed Race, High Education

This prime was also interpreted as an appeal for better competition in the global economy and lead to largely unproductive conversations about fears of the Chinese out-competing the U.S., a finding that is corroborated in FrameWorks research on the American education system.[xi] For participants who focused on global competition, many concluded that the United States was facing a losing battle and relied on stereotypic conceptions of child-rearing in Asian countries.

The Asian countries where they in very small ways, they kind of mold their children into workers, if you will, and so it's to develop skills to be – what did it say here, "solid workforce skills, and being strong citizens," they kind of do that at a very young age, I think, to make their country and society stronger, you know from a very early age. So immediately, I thought about that, and I mean, I can see it as being true, but it's if you're starting out with poor work skills, and chances are it's gonna be harder to, kind of, change that as you develop through life.

Arizona, Latino, Low Education

Participant: We're inundating children at a very early age for socialist – for a socialist's America everybody's going, we're an idiot, but I think we are, and I think this is a way to sneak it in there.

Moderator: So tell me, I'm interested in this. How does it sneak it in there?

Participant: Well, by saying like in China, they'll take your kid away if it has athletic abilities; put it in the Chinese Olympic village, and grow it with growth hormones, and whatever, and if your kid is mechanically inclined he's going to be an engineer. If the kid is scientifically inclined, he's gonna be a chemist. If your kid is nothing, well he's working on the chain gang.

Chicago, Mixed Race, Low Education

Others interpreted the prime as an indictment on increased technology in children's lives. Several participants blamed children's socio-emotional and mental health problems on their access to technologies, like video games and the internet. These types of conversations were typically structured by "kids these days" statements and exaltation of the participants' own, technology-free childhoods.

I think kids nowadays with the rapid growth in technology, and economic development, and stuff, I think that the grasp of what the real world is, is not there, and they can't cope with their skills in dealing with the world. I mean, all they think about is they got a new video game, and it's everything is, you know, that's to them that's the real world. They don't know how to deal with talking to people, and communicating. I don't know how many times I've walked down the street, on the elevators and stuff, and people are there texting. They don't even look up and say hi. That's why I won't get a Blackberry cause I don't text anyway, but it's kids nowadays; they don't communicate. They don't talk to the adults. They don't talk, explain, and they're in their own little world, and as a parent, I wasn't raised with all this technology. I mean, I just started getting a computer in my first year of college. I won't tell you how long it is.

Arizona, Latino, High Education

As demonstrated in the above quotes, when participants zeroed in on competitiveness and technological innovations, they typically lamented the inevitability and intractability of the decline of children's mental health in contemporary society. Embedded in the participants' statements is the notion that changing social contexts may have impacts on mental health. However, the perceived hopelessness of the situation impeded conversations about potential policy solutions.

Participants were able to grasp the underlying value of Prosperity when they focused on the prime as a *theory* or a *plan* that might guide future action. The following was one of the few productive articulations of the Prosperity value.

I think two key words in the whole thing are "prepared" and "equipped" to develop the important skills. It's not saying that it's a foolproof plan or anything like that. It's just saying that a child with strong mental health is gonna be more susceptible to being able to learn those skills and become, you know, the good student, and the good worker, and good part of the community, but it's obviously not definitive. There's nothing definitive about this to me.

Arizona, Latino, Low Education

However, engagement with the value itself was limited in these sessions. In short, it was difficult for participants to assess the impacts of the Prosperity and Ingenuity primes because they were overwhelmed by specific aspects of the way these values were executed in the prime. A particular caution is the early insertion of specific policy examples into the conversation before the value is fully explored and allowed to exert its potentially redirective power.

III. Negotiation

In the negotiation exercise, participants were asked to develop programs that would address children's mental illness, children's mental health, or children's overall health. Each group was assigned one of these goals. The small groups developed in some cases

specific proposals about how to improve each issue area. In this section, we discuss the primary focus of participants' discussion during this exercise: the multiple meanings of prevention in their proposals and the inclusion of mental health in participants' conversations about overall health.

1. Multiple Meanings of Prevention

Most subgroups who were given the instruction to develop programs to address child mental *health* or child mental *illness* talked about creating preventative measures for children's mental health outcomes. However, the participants' conceptions of prevention varied depending on whether they were advocating programs to address children's mental *illness* or children's mental *health*.

Groups tasked with addressing mental *illness* tended to design programs that increased money for research or screening parents before they had children in order to prevent mental illnesses in children.

> *For those who've had children that would fall under one of those categories with mental illness to kind of walk them in the right direction to combat it. Parental support to help them learn about what's going on with their child so they can actively raise their child in the way to, again, combat the mental illness. And more research on the illnesses, cause I mean obviously, as she was saying earlier, how you're giving speed to these kids with certain illnesses, which may or may not work, or-or-or be good or bad for them, so you know, let's look at different areas or realms of, you know, combating these illnesses.*
>
> *Chicago, Mixed Race, Low Education*

> *Resources in mental illness, I guess we gave it a completion that we mention have some research for centers or something to find out the cause, and diagnose the problems of the actual illness so that we can deal with it, so that we can have instructors, parents, teachers, all of the treatments...so we know how to deal with the next ones that come around, or whatever...*
>
> *Arizona, Latino, Low Education*

> *We decided to take the "preventative approach" which we decided one of the focuses would be on mental health checkups for expectant parents at the hospital. No, not at the hospital. I don't know, actually before the hospital, and... if there is anything identified – if there's something wrong with them, or they need some help in some way or another, there would be programs to provide that for them. Like if they have mental issues already, maybe we can, probably not medicate them if they're pregnant...[LAUGHTER]...but maybe they could identify the problem.*
>
> *Arizona, Latino, High Education*

As the last passage demonstrates, preventative measures taken to address children's mental illness were assumed only to be possible before birth. Underlying all of these statements is the assumption that certain children are destined to become mentally ill, and research and other types of measures will possibly help "the next ones that come around." In fact, one group argued that prevention was simply not possible for mental illness in children, as the following excerpt demonstrates.

> *It's nice to talk about "prevention," and it's nice to talk about many things, but there are some undeniable truths, and one of them is, as human beings, we have illnesses, and they're real, and if there's only so many dollars to go around, you can treat things that are, kind of, out in there in the ether, or you can, you know, treat things that are right in front of you and verifiable, and so that's why we should actually receive the funding because these are verifiable, right in front of you, real life people.*

> *Boston, White, Low Education*

For most of the mental illness subgroups, treatment was the only way to address mental illnesses in children. But even in discussions of treatment, prevention was a major point of focus. However, the idea of prevention in these discussions concentrated on how a society protects itself from the potential dangers of mentally ill children. The reference to the Columbine shootings exemplifies the violent image of the mentally ill child.

> *We're addressing "child mental illness," and the basis of our argument is that there's an immediate need with "illness" that needs to be addressed, just like if you have cancer, or another type of illness, you have to seek treatment. And while it's important to have policy to get to the root of the problems, that could take years, you know, thinking of how long our congressmen, and whatever, argue the major issues of society…what are we gonna do to address a problem immediately to prevent more disasters? I mean, think about Columbine. Think about other, you know, things that maybe, you know, if you don't fix these – these ill people, you know, these – these mass killings, or horrible things can happen.*

> *Chicago, Mixed Race, High Education*

> *So, we decided to first define the problem, which is "mental illness in children." Mental illnesses in children are going undiagnosed. They are misdiagnosed. They are improperly treated. We all suffer when this happens, so the state of Illinois pays a huge financial cost. We all pay a huge emotional cost with family breakdowns and a breakdown in personal relationships. We also pay a huge – I think we said "societal cost"…*

> *Chicago, African American, Low Education*

In these discussions, participants' rationale for designing a treatment program was not necessarily aimed at improving the quality of life for mentally ill children and their families. Rather, participants attempted to convince other group members to support their

programs based on the financial and social problems posed by mentally ill children. In this mode of thinking, prevention was interpreted as protection from those people diagnosed as mentally ill.

The mental illness subgroups operated under the dominant assumption that mental illness in children was simply part of their genetic destiny. Interestingly, the mental health subgroups used this same assumption to advocate for their programs. Mentally ill children were often constructed as "lost causes" and used as justification to implement preventative policies to promote mental health in children. While often basing their arguments on the idea that mentally ill children are beyond social interventions, the majority of their proposals centered on creating strong communities and healthy environments to support the development of "healthy brains." Many described their programs as getting "to the root of the problem" by promoting mental health. Even more interesting was that none of the proposals advocated ways to "fix" bad parents but instead included more social supports to make parenting easier.

> *We believe that's creating a healthy environment in order to avoid all those issues, creating a healthy environment from the beginning. If it will ensure...the creation of a healthy brain, a well being of a child for mental health...we believe like creating a healthy environment. So, the $10 million would be for decreasing violence in neighborhoods that have high crime, high violence. We talk about violence; we talk about affordable daycare and childcare. The money would go to communities that the parents – they would not be able to afford healthcare. We want the money for mental health versus their mental illness. Not that it's too late for them...we want it now.*

> *Arizona, Latino, Low Education*

> *Well, I think when you start with mental illness, you've already kind of missed a good population. I guess I'm going back to preventative. Let's support good mental health. I'm not saying we shouldn't allot money to identifying mental illness that's in the community, but let's start with supporting good mental health first. It's going back to the "pay now or pay more later," still wanting to pay some later, but feeling like, you know, the $10 million, a small amount of resources, will go a lot further if I do more preventative stuff, and training families and caregivers rather than identifying later.*

> *Chicago, Mixed Race, High Education*

> *Pharmaceutical companies spend a hell of a lot of money on drugs, and...just looking at what we came up with, it seems to be a little bit more on the "health" side than the "illness" side. And I think it makes sense because if we have this money to use, what is maybe more lacking, and I think, you know, advances...in preventing illness, by promoting health. I don't think that there's nearly...[CHUCKLE]... as much money being pumped into that because there's not some industry that's pumping that money into it like there is with the*

pharmaceutical companies. So, it's not that we're abandoning the need for drugs to help, because like you said…there are miracles that drugs do for kids. But … we came up with a program for parents and kids together, where it's focused on… "child wellness."

<div align="right">Boston, White, Low Education</div>

I think the facility's gonna surround the children, and going back to the toxic stresses to where we're providing a positive environment so the children are learning skills. Some of the other ideas that we had discussed is, you want to prepare your kid for different stages of where they're at in their life, and so you get kids when they go to kindergarten, they never went to preschool because they can't afford it, so this would offer those kids some kind of training.

<div align="right">Arizona, Latino, High Education</div>

In the above quotes, two participants reference Toxic Stress and Pay Now or Pay More Later primes, indicating that the focus on environments and preventative measures were at least partially structured by the introduction of the primes introduced in the earlier sections. That is, these particular primes "stuck" with participants and they felt some degree of comfort using the primes to argue for their proposals.

Although discussed by groups working on mental health and mental illness issues, the idea of prevention was interpreted quite differently among the subgroups assigned to these two domains. Differences between understandings of prevention based on mental health versus those structured by mental illness had significant impacts on the types of policies that participants defined as appropriate preventative measures. For the mental *illness* groups, prevention either happens before the child is born or targets the mentally ill child to prevent them from harming others. For mental *health* groups, in contrast, prevention was a way of creating better environments to promote children's mental and socio-emotional development.

2. Mental Health as Overall Health

The groups charged with designing programs to address children's *overall* health included a mental *health* component in their proposals. This was interpreted as a measure of the success of the primes included in the experimental section because participants began to connect the relationship between overall health and mental states, rather than conceptualizing them as distinct domains. That is, for these subgroups, mental *health* was prioritized as an important issue in children's overall well-being.

And I think our argument was that the reason why we deserve all $10 million is because we're looking at it as one approach, as a big package rather than separate –focusing on mental illness, or mental health. We believe that ensuring that these services are given, good quality insurance will help hopefully give good mental health to children…and maybe be able to treat mental illness more effectively. So that's why we want the $10 million.

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Arizona Latino, Low Education

The overall health of the child, I think because they're so intertwined. I mean, if you have a handicapped person, they get so depressed they can relapse into a mental situation, and I think it's traded all at once, and if you build them up, do the physical, as well as mental, as well as what…What comes first, the chicken or the egg.

Arizona, Latino, High Education

Similar to the groups tasked with designing *mental health* programs, the *overall health* groups designed programs to improve children's environments and envisioned a wider range of people and places outside of children's parents and their homes that were responsible for ensuring children's health.

So, we discussed having after school programs for all the schools and elongating the timeframe so kids would be in an environment where they could continue to learn and play and be safe. And, obviously, we'd need more educators and resources to elongate the programs. These were my words, sort of, setting up a one-stop shop for schools, and where you could have clinics right in the facility and children could get instant healthcare right there, and be a part of it; be proactive learning.

Boston, White, Low Education

Well, first thought was "vaccines," but you know, there's already stuff for that. Kind of started to think more of a "social form," in terms of the general health, and we discussed a lot on like the before and after school programs, keeping them active, and having professionals on site for the before and after school programs where they would get to know the kids, get to know what their regular behavior is, be able to spot if there's any major differences, whether it be, you know, they're having issues with the boyfriend, girlfriend, too you know, maybe opening up that they're getting abused at home, or maybe not the most ideal situation. Basically, just creating an environment where they're with a trusted adult. There were food programs…whether it be for schools, or the community.

Arizona, Latino, Low Education

I'd go with ours because nothing happens in a vacuum. Every stage is the result of something else, so you have to go after the situation as a whole with education, nutritional programs, community support, cause if you leave off any one of those, the whole thing falls apart. But it boils down to personal responsibility for how you raise your children if you decide to have some children. If you want to be selfish, don't have kids.

Chicago, Mixed Race, Low Education

Although ideas of familial responsibility crept into several of the overall health groups' conversations, as illustrated by the last quote above, these conversations were tempered by a wider focus on the multiple contexts where children's mental and physical health happens. The results from these groups demonstrate that, when primed, public conversations can include social, rather than individualistic, analyses of children's mental and overall health.

Conclusion and Communications Implications

Results of the peer discourse sessions present clear communications implications. The first lesson is that the dominant cultural models that structure public thinking about child mental health and child mental illness are extremely powerful. Our research shows conclusively that the public has complex ways of reasoning about children's mental health and illness. Although the public applies fundamentally different models to think about these issues, there is a general lack of understanding, especially about causes, on both of these issues. The assumption that mental health is largely a result of willpower or lack thereof and mental illness is genetically and inalterably determined are easily accessed by most Americans and are highly effective in derailing conversations of how policies can shape child mental health outcomes. Without being explicitly aware of the existence of these patterns and the use of specific reframing strategies, messages about child mental health are destined to be eaten by the cultural models that currently lurk in the swamp of public thinking.

Toxic Stress and the Pay Now or Pay More Later were the most successful primes tested in these peer discourse sessions. The Toxic Stress simplifying model clarified and explained key causal mechanisms in children's mental health and encouraged a sense of the social responsibility for this issue. The Pay Now or Pay More Later value encouraged participants to engage with *social policies* such as improved mental health care access for parents of young children and the provision of community supports to both treat children with mental illness and promote mental health for all children. The positive and distinct effects of these two primes suggest that these elements may be particularly powerful when coupled in communications. That is, our research suggests that communications that employ the Toxic Stress simplifying model *with* the Pay Now or Pay More Later value would be particularly effective in shifting away from dominant models and encouraging more policy-centered conversations about potential solutions.

There are also more general communications lessons that emerged from these sessions. Advocates are increasingly relying on messages framed around prevention in communicating children's mental health issues. The analyses of these peer discourse data demonstrate that understandings of prevention are very much dependent on the communications context. When participants thought about prevention in terms of child mental *health*, their conversations were more closely aligned with how advocates and experts think about the issue of prevention. Participants were able to conceptualize how contextual factors impact the infant-caregiver relationship and the child's mental health

more generally. As a result, they advocated programs and policies that would strengthen child-rearing resources in certain communities. In contrast, when people thought about preventative strategies in relation to child mental *illness*, the only types of prevention they could see were measures occurring *before* a child was born (i.e., by screening potential parents) or in terms of preventing damage to society from stereotyped images of dangerous and violent mentally ill children. As such, they advocated increased treatment not necessarily to help mentally ill children, but to keep them from endangering others. The findings from the peer discourse sessions and other FrameWorks research on child mental health have shown that people tend to default to their models of child mental illness unless asked specifically to differentiate between child mental *health* and child mental *illness*.[xii] It is therefore likely that, if not sufficiently contextualized, prevention messages will be understood within people's models of child mental illness, which may not lead to public engagement with the types of policies that experts support.

Peer discourse sessions represent the bridge between the descriptive and prescriptive sections of Strategic Frame Analysis. As such, the results from these sessions have important implications for FrameWorks' future research on child mental health. The peer discourse sessions demonstrated the importance of simplifying models in the processes of science translation. Toxic Stress is part of the core story of early child development and, as the data described in this report show, is also effective in improving public understanding of child mental health. The Risk and Protective Factors prime was successful relative to other primes but was less effective than Toxic Stress. However, the idea that there are risk and protective factors that can shape child mental health outcomes—including vulnerability to mental illness—is critical to the core scientific story of child mental health. New ways of understanding the relationship between mental illness and environments can facilitate more productive perspectives on how risk and protective factors shape outcomes and, subsequently, how policies can address such factors. Future stages of the research process should identify simplifying models that can translate the science of risk and protective factors and overcome the genetic determinism that dominates the public's thinking about child mental illness.

Finally, the Ingenuity and Prosperity values were shown to be very effective in early quantitative testing on early child development, but were unsuccessful in this qualitative test. This suggests that these primes should not be thrown out, but that future executions should not include elements that block substantive conversations about the value itself. These revised primes should then be subjected to further testing.

The peer discourse sessions suggest that reframing the conversation about child mental health *is* possible. However, this research highlights the difficulty of this task and the need for further refinement of specific frame elements and reframing techniques.

About the Institute

The FrameWorks Institute is an independent nonprofit research organization founded in 1999 to advance the nonprofit sector's communications capacity by identifying, translating and modeling relevant scholarly research for framing the public discourse about social problems. It has become known for its development of Strategic Frame Analysis ™, which roots communications practice in the cognitive and social sciences. FrameWorks designs, commissions, manages and publishes multi-method, multi-disciplinary communications research to prepare nonprofit organizations to expand their constituency base, to build public will, and to further public understanding of specific social issues. In addition to working closely with scientists and social policy experts familiar with the specific issue, its work is informed by communications scholars and practitioners who are convened to discuss the research problem, and to work together in outlining potential strategies for advancing public understanding of remedial policies. The Institute publishes its research and recommendations at www.frameworksinstitute.org.

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[i] Kendall-Taylor N (2009). Conflicting Models of Mind in Mind: Mapping the Gaps Between the Expert and the Public Understandings of Child Mental Health as Part of Strategic Frame Analysis.™ Washington, DC: FrameWorks Institute. A summary of the key research findings appears in Appendix A.

[ii] Kendall-Taylor, Nathaniel and Anna Mikulak (2009). Child Mental Health: A Review of the Scientific Discourse. Washington, DC: FrameWorks Institute. A summary of the results from the expert interviews appears in Appendix B.

[iii] Ibid.

iv Manuel, Tiffany (2009). Refining the Core Story of Early Childhood Development: The Effects of Science and Health Frames. Washington, DC: FrameWorks Institute.

v Ibid.

vi Kendall- Taylor, Nathaniel (2009). Conflicting Models of Mind in Mind: Mapping the Gaps Between the Expert and the Public Understandings of Child Mental Health as Part of Strategic Frame Analysis™, Washington, DC: FrameWorks Institute.

vii Kendall-Taylor, Nathaniel and Anna Mikulak (2009). Child Mental Health: A Review of the Scientific Discourse. Washington, DC: FrameWorks Institute.

viii Mind and Monolith: Findings from Cognitive Interviews about Government. Washington, DC: FrameWorks Institute, July 2004.

ix Manuel, Tiffany (2009). Refining the Core Story of Early Childhood Development: The Effects of Science and Health Frames. Washington, DC: FrameWorks Institute.

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Appendix A: Summary of Findings of Public Understandings of Child Mental Health from the Cultural Models Interviews (by Nathaniel Kendall-Taylor)

1. The most important finding from this research is that the public's understandings of, and approaches to, mental health and illness in general and child mental health more specifically are dramatically different from the scientific explanations of these same issues. For example, unlike the scientists, who defaulted to mental *illness* when asked about mental *health*, lay informants discussed mental health when asked about it and relied on a very different set of assumptions and understandings when asked more specifically about mental illness. Differences between expert and public understandings have science translation and communication implications, as they "set up" very different ways of understanding appropriate approaches treatments. Communications must not only be cognizant that different assumptions structure different perceptions of appropriate and effective treatment, but also must try to shift these assumptions so that the public can think about the new types of treatments, policies and programs — for example those that focus on prevention rather than treatment or on the larger context into which children are embedded rather than just parents.

2. This analysis shows that Americans bring very different sets of assumptions to understanding mental *health* versus mental *illness*. During interviews, informants implicitly applied these concepts to adults, and when asked more specifically about *child* mental health and illness, there was a tendency to "age-up" the concept — informants tended to talk about older children and adolescents despite specific probing about these concepts in very young children. In addition, research suggests that, while Americans have conceptualizations of mental *illness* in children that are similar to their ways of understanding this concept in adults, thinking on child mental *health* is more complex than in adults; there are two seemingly contradictory sets of implicit assumptions used to understand the issue. Using the first set of assumptions, informants reasoned that children don't have mental health, because their minds work in such fundamentally different ways than those of adults. Employing a second and distinct set of assumptions, informants explained that, because children are "really just little adults," they too *must* experience states of mental health.

3. The interviews revealed a cultural model of mental health in which mental health *is* emotional health *caused* by deeply embedded negative experiences *for which* the individual is responsible. A very different cultural model of mental illness

emerged from these interviews. Informants' discussions and explanations of mental illness can be understood by applying the following assumptions: that mental illness is caused by chemicals, that chemicals are the result of genes and that genes are set in stone. Together, these assumptions constitute a cultural model of mental illness.

4. The interviews with the general public revealed two different and conflicting dominant cultural models through which informants reasoned and understood child mental health: 1) that children simply cannot experience mental health because of their limited emotional capacities, but at the same time, 2) that they *must* have states of mental health because they are "really just little grown-ups," but that because a child's reality has "fewer variables" than an adult's, states of mental health exist but are simpler.

5. Four less pervasive patterns of assumptions and understandings — what we call "recessive models" — also emerged from the cultural models interviews: 1) *environments are important determinants of child mental health;* 2) *prolonged stress affects mental health;* 3) *poor foundations cause poor child mental health;* and 4) *functioning is the key to child mental health.* These models represent more promising directions to explore in subsequent communications research.

6. Six gaps — or cognitive holes — emerged between expert and public understandings. These areas represent promising locations for the development of simplifying models: 1) concepts and causes; 2) connections and boundaries; 3) appropriate treatment; 4) the reality of child mental health; 5) contexts/environments of importance; and 6) the impact of genes.

Appendix B: More Information about Expert Interviews

RESEARCH METHOD

Subjects
Seven child mental health experts were identified by surveying prominent specialists in the field of early child development. A FrameWorks researcher conducted one-on-one interviews with these experts over the phone in December 2008 and January 2009. Interviews lasted approximately one hour and were recorded and transcribed with participants' permission.

Interviews
In past FrameWorks research, we have found talking to experts in a particular issue or area of study to be an invaluable addition to a more traditional review of the literature, particularly in revealing the major tenets of the expert discourse — that is, the common and standardized themes and currents in how experts talk about and conceptualize the relevant subject.

We aimed to use these interviews to reveal the gaps, or what we call "cognitive holes," that currently exist between how experts understand and explain child mental health and how average Americans think about and conceptualize this topic. Coupling these expert interviews with a series of cultural models interviews with members of the general public enables FrameWorks to locate cognitive holes. In other words, during the analysis of and comparison between the data derived from these two methods (expert and lay-cultural models interviews), the cognitive holes become powerfully and readily apparent. These cognitive holes then represent targets to address in our efforts to reframe the issue of child mental health. Because of this goal, we designed these expert interviews to elicit the "story" of child mental health from the scientists who were positioned, because of ongoing research and academic interests, to give us a general account of what the science has to tell us about this topic.

A FrameWorks researcher guided expert informants through a series of prompts and hypothetical scenarios designed to challenge them to explain their research; break down complicated relationships; and simplify concepts, methods and findings. For example, in one exercise, experts were asked to imagine that they were speaking to a room of policy makers and were tasked with explaining what mental health is in young children, and the implications of this concept for "average" Americans. In addition to the preset questions, the researcher probed with additional questions that members of the hypothetical audience might ask in response to the initial explanations offered by the informant. In this way, the interviews were semi-structured collaborative discussions with frequent requests for clarification, elaboration and explanation.

Analysis

Analysis of the expert interviews was conducted using a basic grounded theory approach. Common themes were pulled from each interview, but the themes comprising the final list presented below are consistent with and representative of *each* scientist's account. This is a hallmark of the grounded theory approach in which data is analyzed to generate categories and themes, which are modified and refined during analysis to accommodate negative cases — resulting in a set of categories and statements that are consonant and account for the *entire* data set. In addition to pulling out the science "story" of child mental health, analysis focused on identifying both overt/explicit and covert/implicit metaphors that the experts used in the interviews. These metaphors are invaluable in FrameWorks' communications research and will be subjected to empirical qualitative and quantitative testing as we move forward with our iterative research process.

The core themes that emerged from the analysis of these expert interview data are presented below.

CORE THEMES

1. Child Mental Illness *Is* a Real Thing

In our interviews, experts concentrated on the point that child mental illness is a *real* phenomenon — that children really can experience mental illness and that there are variable degrees, or levels, of this state. To make this point, experts relied on three lines of reasoning. When asked to defend the position that children can really experience poor mental health, experts explained that there are distinct patterns in the symptoms of children experiencing mental illness. Experts explained that this suggests that children with these symptoms are actually experiencing *something* — that when scientists talk about child mental health, they are talking about a discrete and definable phenomenon. They explained that symptoms are manifest as patterned deviations from "normal" abilities and behavior. Secondly, experts explained that because these common patterns of symptoms across individuals respond in similar and predictable ways to treatment, symptoms are in fact characteristic of an observable and treatable phenomenon, similar to mental illness in adults. Finally, experts responded to probes about whether or not children really could experience mental illness and mental health by citing the *outcomes* of mental illness in children. Experts discussed epidemiological research that has shown the "costs to society" derived from child mental illness. In other words, if something causes real outcomes, it in turn must also be real. In summary, the logic used by experts to explain why mental illness does in fact exist in children was that there are patterns of symptoms, these symptoms respond to treatment in similar ways, and that the presence of this phenomenon is apparent in its clear effects on both individuals and society more broadly.

2. Life-Long Effects

Scientists emphasized that what happens in childhood affects an individual for their *whole life*. In short, children who experience persistent symptoms of mental illness are

impacted in a wide range of areas, from school to social abilities, to proficiency in dealing with issues and challenges of everyday life. Experts explained that child mental illness affects the success of the individual for the rest of their lives.

3. Functioning

Experts employed a concept of *functioning* to explain what child mental illness is and how it manifests. At points during all interviews, experts explained that mental illness could be conceptualized as an *inability for children to function* in culturally standard developmental patterns. Experts used this concept both explicitly, in explaining what child mental health is, and more implicitly in discussing diagnosis and treatment. When used explicitly, the concept of functioning was employed to explain child mental health to audiences who would be reluctant to realize and/or understand the concept and would be resistant to its existence at all. According to experts' hypotheses, even if people are resistant to recognizing certain diagnoses in kids (depression for example), they would be less resistant to thinking about limits in functioning (i.e., what it means for a child to have mental illness). Child mental illness, therefore, can be conceptualized as something that affects the way kids function and can or can't do "normal" things. "Treatments" for child mental illness can be similarly conceptualized as ways of helping kids function — rather than as treating an illness.

4. Genes and Environment

In our interviews, experts discussed the causes of mental illness in children by focusing on the interaction between genes and an individual's experiences in an environmental context. Scientists employed this interaction to formulate four different combinations of influences that ranged from least to most predictive of child mental illness. On the least predictive side was the scenario where a child has a predisposed resistance to threats of mental illness *and* is situated in an environment that supports positive mental health. On the other extreme was the scenario where the child has a predisposition to mental illness and experiences a stressful and unsupportive environment. The other two combinations of these factors lay between these extremes (genetic resiliency and unsupportive environment, and genetic predisposition and supportive environment).

5. The "Family" in Child Mental Health

Experts were resolute and unequivocal in making the connection between the mental health of the family, particularly of the child's mother, and that of the child. Experts explained that, if parents' functioning is limited by symptoms of mental illness, they cannot respond to the child's needs. Consequently, when physical and socio-emotional needs are not met, dysfunctional responses in the child, impaired development of functional responses, and an increased likelihood that the child will develop mental illness are likely to precipitate.

6. Child *Mental* and *Physical* Health Are Inseparable

The idea that mental and physical health are closely related and intertwined was a dominant theme in our expert interviews. For the experts, mental illness was rooted in the

body in the same way as physical health. Physical illness was explained as occurring when trauma or disease acts upon some area of the body, and is then manifest as physical symptoms. Mental illness was explained using the same underlying model, logic and causal sequence — occurring as the result of some physical change in the brain. Because of its roots in the body, mental illness can be understood from the same perspective as physical illness — it is located in the body and is the result of physical changes to that body in much the same way as when someone gets the flu or breaks an arm.

7. Child Mental Health Is "Fuzzy"
A dominant feature, both explicitly recognized and implicit in shaping conversations in expert interviews, was a lack of clarity on the science of some key issues in the field of child mental health. Experts explained that diagnosing the symptoms of child mental health remains contentious because adult models cannot simply be "aged down" to fit the symptoms and experiences of children. Because children are so developmentally different from the adults on whom diagnostic models are based, diagnosing child mental illness is an area where the science remains inconclusive. Further complicating this issue is the fact that there is no one "child" model of mental illness or health because of the vast differences between both individual children and children at different developmental "windows." "The child" was described as a moving target. Experts also explained that much of the scientific understanding of adult mental illness is based on self-report data, which for obvious reasons is less readily available, detailed and reliable for young children. Another reason for the imprecise nature of the scientific understanding of diagnoses in child mental health is the lack of significant case history when dealing with young children. Quite simply, young children have not been alive long enough to have the extended, detailed and heavily patterned case histories of symptom presentation as their adult counterparts. Such case histories are influential in diagnosing mental illness in adults and the absence of these data creates diagnostic difficulties in children. Finally, experts explained that the relative scientific fuzziness of the concept of child mental health and illness is due to the newness of this area of scientific research and clinical practices. In other words, the discipline is relatively under-conceptualized and poorly understood because scientists have only recently begun to focus on mental illness in young children.

8. No Concept of Child Mental *Heath* and an Implicit Blurring of the Concepts of Mental *Illness* and Mental *Health*
Surprisingly absent from our interviews with experts was a working concept of child mental *health* or a positive conception of the issue. For each scientist we spoke with, child mental health was largely defined as *the absence of mental illness*. Implicit in each of our interviews (our questions were broad at the outset to see how experts oriented towards the concept that we introduced as "child mental health"), experts focused on child mental *illness*, with little to no mention of what it means for children to have mental *health*. The implicit assumption made by our informants was, therefore, that child mental health is the absence of the aggregate of child mental illnesses.