



Between Cowboys and Barn Raisers

The Challenges of Explaining Child Mental Health and Development in Alberta

A FRAMEWORKS RESEARCH REPORT

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About FrameWorks Institute:

The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute's work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector, at www.frameworksinstitute.org.

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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 Canadians in the province of Alberta about child mental health and early child development. The research presented here was prepared for the Alberta Family Wellness Initiative supported by Norlien Foundation. It builds directly upon an earlier series of open-ended interviews FrameWorks conducted on these topics in Alberta in 2009.¹ In these earlier interviews FrameWorks identified the cultural models—collections of implicit but shared understandings and patterns of reasoning—that Albertans use to think about these issues. Also in past research, FrameWorks reviewed the scientific literature and conducted a series of in-depth one-on-one interviews with experts in these fields.² Comparing public and expert understandings revealed the gaps in understanding that currently exist on issues of child development and child mental health. The research described in this report also built upon existing FrameWorks’ research on child mental health and early child development in the United States.³ In the research discussed here, we combined the issues of early child development and child mental health in an effort to measure how well Albertans understand the underlying biology of children’s health and illness. In other words, we investigated issues of child mental health within the context of positive and negative child development and in this way brought together issues and drew on past research on both child mental health and child development more generally. In this way, FrameWorks confirmed and expanded upon the results of the earlier phases of research and experimented with a set of reframing strategies that will be further tested and refined in an upcoming phase of 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 development and mental health might naturally occur. These sessions are designed to capture and identify *public discourses* of early child development and child mental health. This means that, in contrast to one-on-one cultural models interviews, peer discourse sessions do not capture the aggregate of an individual’s understanding of an issue, but rather reflect the social norms and expectations cultural groups share about and use amongst each other in discussing a given issue. Peer discourse sessions allow FrameWorks to experiment with primes or prescriptive frame elements 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 metaphors—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?
- (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 the first section of the peer discourse sessions, several of the cultural models identified in earlier research on children's mental health and early child development were confirmed.

Participants were able to engage in conversations about what impacts early child development and desired developmental outcomes; however, they demonstrated a very shallow understanding of *how* children develop. In fact, most groups drew on sponge or osmosis metaphors to describe the developing brain—a common default explanation observed in FrameWorks' earlier research in the U.S.⁴ and in Alberta. In the Alberta peer discourse sessions, there was a very strong emphasis among participants on the role of parents in ensuring “normal” development or causing developmental problems. That is, what FrameWorks describes as the “family bubble” was more dominant in public conversations than it was in the one-on-one cultural models interviews where this model was one of several dominant cultural models used to understand issues of child development and mental health. This is consistent with FrameWorks' theory and expectations in that the group discussions in peer discourse sessions elicit more of the social norms that govern the society than may be seen in the privacy of individual interviews that are designed to exhaust available ways of understanding information. Put another way, while in one-on-one interviews the interviewer's goal is to elicit available ways of understanding a subject, the moderator in peer discourse sessions is tasked with fading into the background and letting group discussion veer in the directions that are most viral and dominant. As such, peer discourse sessions allow FrameWorks to weigh the availability or “relative dominance” of various cultural models and to observe their ability to “go viral” and take over conversations once raised in public discussions. In Alberta, the group dynamics served to remind people of their skepticism of experts and distrust of government, of their belief in the family as the primary determinant of a child's outcomes, and of their assumption that what doesn't kill you makes you stronger. In this way, Albertans' group dynamics more closely approximated common images of the province as a rough and hardy frontier society than did the more communitarian narratives that were, in addition to these individualist sentiments, observed in the one-on-one interviews.

The models and assumptions about children's mental health were also confirmed in the initial section of the sessions. Mental health and mental illness were discussed as two separate categories of disorder with distinct causes, treatment trajectories and outcomes. Mental health issues were characterized as emotional or behavioral problems typically caused by inadequate parenting, whereas mental illnesses were largely defined as genetic, and therefore largely incurable. Mental illnesses can be managed, but not treated or prevented, Albertans asserted. All participants acknowledged that young children do experience a thing called mental health but were unable to engage with this idea for a sustained amount of time. All groups defaulted to discussions of mental health in adolescents or young adults, rather than in very young children as primed, and all of the groups expressed skepticism about children's problems being defined as mental health problems rather than simply “bad” behavior.

To begin to shift conversations about early child development and children's mental health to more closely align with expert understandings, we tested three types of primes:

- » Metaphors or simplifying models (Effectiveness Factors, Brain Architecture and Toxic Stress)
- » Values (Interdependence, Ingenuity, Prevention and Prosperity)
- » An organizing principle, which was neither a value nor a metaphor, but rather a way of combining disparate aspects of the expert core story (the Three E's: Environments, Exposures and Experiences)

The primes were included based on their success in communicating the core story of early child development or child mental health in the U.S. or the hypothesized resonance with the Alberta public based on previous FrameWorks research in the province.

Among the simplifying models, Toxic Stress was most successful at explaining the mechanisms by which children experience mental health issues. Several additional findings emerged from the analysis of the tested primes. The first is the ineffectiveness of framing children's mental health in economic terms. The conversations that followed exposure to values such as Prosperity and Prevention (which emphasized costs) were largely unproductive as they focused on the dangers of putting "price tags" on children's health. Second, exposure to all of the values primes inoculated against the "family bubble" model, but all the conversations that followed these values primes included significant focus on the idea that childhood adversity and stress are critical to healthy development. This suggests the need to couple values with a simplifying model, such as Toxic Stress, in order to explain the mechanisms by which development can be derailed. During the negotiation sessions, which followed exposure to the primes, most groups focused on the importance of implementing systems that diagnose and identify developmental problems in children. This pattern suggests that the primes were successful in communicating a critical aspect of the core story of child mental health. That is, discussions later in the sessions succeeded in overcoming some of the entrenched models that dominated earlier relatively unprimed discussions. The group proposals that resulted from small group discussions demonstrated the "stickiness" of the primes that emphasized social, emotional and intellectual development, especially the Three E's prime. The groups charged with addressing children's overall health and development and mental health were able to speak much more broadly about children's development despite their constant reversion to discussions of parental responsibility and government malfeasance.

However, these disparate reframing elements, by themselves, were unable to completely overcome the strong, dominant and unproductive models of early child development and child mental health. These findings further confirm the necessity of a *story* of child mental health that incorporates both values and simplifying models. The relative inability of the primes to produce robust redirections may be due to the fact that the frame elements we report on here were tested in isolation from other elements of the core story. We conclude the report with communications recommendations as well as suggestions for future research.

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 development and 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,⁵ to overcome individualizing habits of thinking and talking, and to imagine public policy solutions that address child development and 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 these issues.

Subjects and Data Collection

Four peer discourse sessions were conducted with Canadian citizens in April 2010. These sessions were held in two cities in Alberta: Calgary and Edmonton.

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 suspected that participant responses and views would be particularly sensitive to variations in level of education and political identification. The groups were formed as follows: one College/University education group (some college experience), one High School education group (high school diploma or less), one liberal group and one conservative group.

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. Quotes are provided in the report to illustrate major points and are identified by the composition of the group, but identifying information has been excluded to ensure participant anonymity. For a more detailed discussion of the guide, see Appendix A.

Findings

Confirmation

During the confirmation section, participants were asked four open-ended questions: what they thought about early child development, how early child development could be derailed, what they thought about child mental health and, finally, their thoughts on child mental illness. These questions allowed us to confirm the models we identified in our earlier cultural models research on early child development and child mental health in Canada.⁶ The section that follows is organized into findings that pertain to early child development and child mental health and illness respectively.

Peer discourse sessions do not provide the same access to the depth of understanding of these issues as do in-depth cultural models interviews. What peer discourse sessions do reveal is the prevalence or strength of the models—their relative dominance. Overall, there was a narrowing effect in the peer discourse sessions. Many of the models identified in the cultural models interviews—complete parental responsibility for children’s health and mental health outcomes, populist skepticism towards the role of expertise in children’s development and mental health issues, and discomfort about the role of governmental policies in addressing children’s issues—dominate group discussions while other models largely fell out of discussion and faded into the background. Unlike the one-on-one cultural models interviews that elicit deeply held models that people use to reason about an issue, peer discourse sessions capture how participants together express and negotiate their public identity as Albertans. That is, in peer discourse sessions participants do not express their ideas about a topic in isolation from their fellow citizens but, instead, they enact social expectations that define Albertan norms around children’s development and mental health. In this way group conversations, more so than individual interviews, tend to focus narrowly on the *most dominant* cultural understandings.

In these sessions, what becomes immediately apparent is the expression of two kinds of identities that are central to Western, frontier societies: the cowboy and the barn raiser.⁷ While the cowboy represents ideals of rugged individualism and self-sufficiency, more communitarian impulses are embodied in barn-raising traditions. The cowboy identity dominates in these peer discourse sessions, but, with priming, the barn raisers also have a voice and when that identity is tapped into, very productive conversations about children’s development ensue.

Early Child Development

When asked an open-ended question about children’s development, participants spent most of the time listing the factors that impact development. Participants were able to identify schools, genetics and socio-economic status, but all four groups focused primarily on parental responsibility for a child’s development.

It could be good values that come from the parents, really. The behaviors and values.

Edmonton Conservative

Just like having a good household, like parenting, you know, and good influences... all around. Like the people around you.

Calgary High School education

To teach them the right things to do.

Edmonton Liberal

As the above quotes illustrate, not only did the groups focus on the role of parents, but they zeroed in specifically on parental responsibility for the moral development of the child. More than skills and abilities, for these groups learning right from wrong and inculcating strong values was the most important aspect of children's development.

Participants also discussed the outcomes of children's development. Some participants talked about the goals of development as individual achievement in the form of academic or financial success. However, similar to the cultural models interviews, at least two groups talked about the *social* outcomes of children's development.

You've got cognitive development and motor development, those kind. The development is usually the pathway to being the maximum achievement possible for that person.

Edmonton Liberal

It's group effort, too. When you think of what is – it's not just the parenting, it's a whole bunch of different parameters that he can get all these little things from that they learn either indirectly or directly, so it's not just the parents, it's that it's everything. It's the school, it's friends, grandparents, it's watching somebody on the street.

Calgary College/University education

Prompting a child for life to think for our society. To be able to function as part of our society.

Edmonton Conservative

Without priming, three groups talked about the development of children's brains. Many relied on models of the developing brain as a sponge or even "mush" that is "somehow" formed by outside stimulants. In fact, while participants were able to talk about the factors related to children's development and to a

lesser extent the outcomes of development, the question of *how* children develop was very murky. The quotes below demonstrate how participants struggled to discuss the relationship between the brain and early child development.

I think it's having their brain possibly opened early in life. Like not having pathways shut down by, you know, having fears, and having environmental things that cause them to turn their brain off instead of opening up all the stimuli in their brain, and let them really be welcome to everything that's out there.

Edmonton Conservative

Children are a sponge, I think. I mean, they're all basically an empty slate coming in.

Edmonton Liberal

Participants were also asked to think about the ways in which development can go wrong or be derailed. Just as the majority of conversations about a positive sense of children's development focused on parenting, developmental problems were also largely understood as the fault or responsibility of the parents.

Development could be based on maybe when they were in vitro there was drug, there was substance abuse that is carried through to their body like fetal alcohol syndrome.

Calgary Liberal

Well, two things, I guess. One was, this other physical environment, the flipside of that is to say, you go off to school, and you learn, and I don't have to do anything anymore because someone else will teach you all of those other things that 50 years ago parents wouldn't even have thought of divorcing for what they need to do. We have kids coming up, cause I love teaching, but I mean, kids they don't know anything about toilets, never mind the rest of all the social skills, and you say, why is the parent not there?

Calgary Liberal

Also, when the parents divorce, sometimes children take a reaction to it. And they blame themselves. So they go into a depression.

Calgary High School education

Along with absentee or negative parenting, several groups discussed parents' inability to properly discipline their children, especially through corporal punishment, as an impediment to development. In fact, most of the conversation of the high school education group focused on children's lack of responsibility and heightened sense of entitlement because of lenient (i.e., non-corporal pushing) parenting. This group lamented legal mandates that restricted parents from properly disciplining their children.

Right around that time it was like the kids went off the hook, and the parents backed off and then the judges, and courts, and the lawyers, and everybody that all got involved screwed up the whole system because back in the day, and even in my day, and I'm a little bit younger than you folks, and a little bit older than some others, that if you did something wrong, you were backhanded right there. You learned that you're not gonna piss off your parents...

Calgary High School education

The assumption that parents are exclusively responsible for a child's development was highly dominant during the initial, unprimed conversations. This is in contrast to the findings from the cultural models interviews, in which parental responsibility for children's development was present but was not as dominant.⁸

Children's Mental Health and Illness

The peer discourse sessions confirmed several of the findings from cultural models research on Albertans' understandings of child mental health and illness.⁹ Perhaps most significantly, the groups relied on separate models for reasoning about child mental health and child mental illness. Mental health was largely understood as a child's ability to regulate his/her emotions and behaviors and was perceived to be primarily influenced by a child's "surroundings." In contrast, participants employed an assumption that mental illness is caused by genetic or biological "defects" for which there was no "cure."

There are two kinds of mental health. One is inherent, you know, when born, and another one is – which is constituted because of environment.

Edmonton Conservative

You also have to define what kind of "bad mental health." I mean, is it a neurological mental health? Is it something that is more psychological, a psychological impairment, something that's not medical cause many children have bad mental health through no fault of their own, or no fault of anybody but nature, and they do need special care where children with psychological health problems need entirely different entirely programs for them.

Calgary College/University education

The problems will always be there. If you're mentally ill, you will always be mentally ill. There's no mental illness that has a cure. You will always be mentally ill, and you have to cope with it.

Calgary High School education

Participants' sense of parental responsibility shifted depending on whether they were discussing mental health or mental illness. Parents were largely to blame for mental health problems. On the other hand, since mental illnesses were largely a matter of genetic fate, parents, like their children, were seen as victims of an uncontrollable and incurable illness.

The child can be disabled, but "mentally," can be relatively healthy because it's a happy child. It has everything, whatever it needs. It has possibility to develop the way, at that pace that this child can do it, and secondly, being in an environment with parents who give a lot of love, and support, it will lift to higher expectation than anybody would think, and can have almost normal life.

Calgary College/University education

I'll say spirituality is very important, and spirituality does not mean going to the church only. It's doing things right, moral and values, and things like that, and it needs to be taught at home. Parents having conflicts and things like that, that has a big, big impact on mental status of a child.

Calgary Liberal

The hard thing with "child mental illness" is that it's still up to the parents to manage and control them when they don't have the training or the expertise, and they have to be trained in order to know how to deal with that, and I think that's a handicap.

Edmonton Conservative

The above quotes also illustrate participants' ideas about the differences in outcomes among children who have mental health issues versus those identified as mentally ill. Under appropriate parental care, children with mental health problems were seen as able to live "normal" lives, whereas mental illness was largely conceptualized as an intractable state.

Participants were asked directly whether or not they thought children could "have" mental health and all participants answered with an unequivocal "yes." However, group discussions often veered away from young children and instead focused on mental health issues among adolescents or young adults, displaying an implicit understanding that mental health is less a child issue and more of an adult and adolescent one. While participants acknowledged mental health problems in young children, Albertans

were unable to discuss concretely what those issues might be, how they might be identified, or how they would be treated or prevented, again evidencing deeper understandings, or in this case a lack of understanding, about children and mental health. Participants could, however, readily consider mental health problems among adolescents.

Good and bad mental health; well, it could be something genetic, something that you're born with, but it also could be the influences in the child's life that effect their – their mental health. Maybe not early in life, it could be later in life, it could be when they were a teenager, or young adult, poor social skills, inability to have commitments and relationships, or socialize, or anything like that.

Edmonton Liberal

Parents have to be proactive and not look the other way, and pretend it isn't going on, cause they don't want to deal with the reality. Kids also have to be open to talk to the parents, though. I got a kid in grade 12 so about my kids. But if she didn't tell me what was going on in school, I wouldn't have any idea, and I think there's lots of kids that don't necessarily talk to their – I just think I'm blessed, but there's lots of kids that don't, so if you as a parent don't know, you can't step in.

Edmonton Conservative

I think there's a lot of people in here about when I look at my sons now, and they are 23 and 24, and I spoke to one of them last night. I said, "What are you doing?" And he said – he was graduating law next week – and he said, "I'm so stressed I couldn't sleep, I had a panic attack." I said, "23 years old, and you have that?"

Calgary High School education

Finally, as in both previous research in Alberta, but more notably research in the U.S.,¹⁰ all of the groups expressed skepticism about what they perceived to be the growing medicalization of children's normal emotional and behavioral problems. They also worried about the stigma attached to mental health diagnoses in young children.

But, as soon as we label things, too, that can cause an adverse effect because as soon as you label a child as something, everyone sort of believes that that's what the child is, there's a certain stigma to a behavior around that, and then the child doesn't have very much of a chance at that point to be something other than what they're being labeled.

Edmonton Conservative

When you don't hear expectations, and they're not doing what they're supposed to be doing, we're too quick as a society to label them with something. Oh, he is "antisocial," he's got "anxiety," and he's got this, rather than just let them go onto their own path. We've made it into a medical condition. Like they've got this, they've got ADHD, they got this because they're not doing what we thought they'd do, or he's not following my rules, so he must be defiant.

Calgary College/University education

My perspective of "bad mental health," it's the label that's the biggest issue. My children's most severe impact – severely impacted by this, his positive attitude that's making it good rather than bad. It's whatever circumstances he has, and capabilities he's learning to work with, what he is capable of, and at no time is it bad or good. What does that mean? I think it's just from your own perspective on how the society, parents, or community look at it, and they deal with it.

Calgary High School education

The two distinct models of mental health and mental illness have important communications implications. Responsibility for each condition is either completely in the hands of individual parents (mental health) or totally outside of anyone's control and beyond recourse (mental illness). In both cases, the social determinants are obscured and the possibility of positive outcomes is non-existent. The medicalization critique indicates a profound distrust in medical and expert understandings of children's mental well-being—a theme that was brought up throughout the peer discourse session. This distrust calls into question the credibility of messengers on this topic.

Experimentation

In FrameWorks' U.S. research on child development and child mental health, two primes emerged as particularly effective: Toxic Stress and Interdependence (see box below) . In the Alberta peer discourse sessions, these concepts also facilitated more productive discussions about early child development and child mental health relative to both unprimed discussions and conversations following the other, less promising primes. However, even these relatively successful primes were not wholly effective, and in some groups, on some occasions, even these primes were unable to shift discussion off of or away from the dominant, sticky and viral cultural models described above. In the following section, we discuss the effectiveness of each prime in turn.

Toxic Stress

Toxic Stress in Children’s Environments Poses Problems for Child Mental Health, Scientists Conclude - Neuroscientists are now reporting that certain kinds of stress in a child’s environment can lead to child mental health problems. They conclude that there are many different kinds of stress, but some stress is toxic. Toxic stress is extreme, frequent, and happens when children don’t have supports to buffer against these experiences. Toxic stress in early childhood can be things like extreme poverty, abuse, chronic 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 to protecting against these toxic stresses and promoting child mental health.

Toxic Stress has shown to be an important part of the core story of early child development in the United States. It has also proven quite useful in translating the science of child mental health in the United States.¹¹ We included it in these sessions to test its efficacy among Albertans.

The Toxic Stress model proved quite successful in explaining the role of chronic stressors on children’s mental health and tempering Albertans’ attribution for developmental outcomes, especially children’s mental health outcomes, to the family. That is, the idea of toxic stress encouraged participants to talk about the social—rather than individual—determinants of children’s mental health.

It’s actually telling you, yeah, there’s bad stuff out there, and we’ve got to try to find programs or other ways to deal with that so that these – extreme poverty, we’ve already talked about that, wealth being the difference in the child’s well-being, or health, whatever you want to call it, you know, abuse and all that stuff. It’s actually saying that these things are bad, and we’ve got to change it to get rid of these “toxins” that are toxicating out kid’s mental health.

Edmonton Liberal

Everybody undergoes stress, children and everybody undergoes stress, but the toxic stress, like they’re saying abuse, poverty, some of the things kids see in the home, I mean, are definitely different than somebody who’s lost a cat, or you know, that’s stressful, too for a child, but “extreme” stress, I think, is toxic, and I agree with that statement.

Edmonton Liberal

However, following exposure to the Toxic Stress idea, participant discussions had the tendency to focus on the importance of adversity and conflict in positive child development. In the following passage, the participant argues that dealing with poverty is beneficial in a child's development. This focus on the benefits of chronic stress was not a promising direction result of the prime.

It's our choice. Somebody can be very poor, nonetheless, can bring up their kids with good values, good ethical values. We can like deal with everything else because we have means to do it, except for hurt, and it depends how that poverty was materialized in kids, you know, has like can be very negative, but it can build, you know, the good life skills, as well.

Calgary College/University education

In other places, however the prime appeared to help participants diffuse the idea that adversity makes children stronger by distinguishing the difference between "tolerable" and "toxic" stress.

Participant 1: Some people, though, like you were saying, though, like I agree with you, but you know, there's those ones that are in those extreme conditions that, you know, they go to the school, and that's what helps them turn around, right? So they, you know – I – I don't disagree with what you're saying, either, right?

Participant 2: Well, toxic stress is really bad, right? Because that's where the children are in a wrong state of mind, and that's what they're growing. Imagine what they're going to contribute, or the dilemma with that negative energy they carry with them when they are young. It's really bad, you know?

Edmonton Liberal

While Toxic Stress was helpful in encouraging discussions about the social determinants of children's mental health, some of the dominant and unproductive models that were expressed in the confirmation section were also invoked in discussions following the prime. Most group discussions found their way back to the viral topic and dominant assumption about children's mental health being the sole responsibility of the family or, in some cases, that of the child.

Participant 1: How can you equip the parents to have the right skills, or be financially stable when they bring that child into the world so that they don't live in extreme poverty, so that they don't continue the cycle of abuse because they grew up in an abusive home, or whatever it might be?

Participant 2: It's hard to break that cycle.

Participant 2: Well, that's just it, you have no – society has no control over what people choose to bring children into this world.

Edmonton Liberal

Well, examples or solutions, but like it's just defining what we already know without coming out with a conclusion to what we should do about this toxic stress, so we know that good parenting is going to give you a better chance to be...protected against severe poverty – extreme poverty.

Calgary College/University education

Despite these drawbacks, the Toxic Stress prime was highly successful in communicating critical aspects of the core story of child mental health, most significantly the social determinants of children's developmental outcomes. These sessions add to FrameWorks' growing body of research on the effectiveness of this prime.

Brain Architecture

Children's Development Depends on "Brain Architecture" Scientists are now saying that the basic architecture of a human brain is constructed through a process that begins before birth and continues into adulthood. Like the construction of a home, the building process begins with laying the foundation, framing the rooms, and wiring the electrical system, and these processes have to happen in the right order. Early experiences, literally, shape how the brain gets built. A strong foundation in the very early years increases the probability of positive outcomes. A weak foundation increases the odds of later difficulties.

The cultural models research on child mental health and early child development showed that Albertans, like their American counterparts, lack an understanding of the science of these issues.¹² The Brain Architecture simplifying model has been successful in the U.S. context in explaining the mechanisms by which children's brains develop and at providing participants the cognitive tools to have more concrete discussions of child development. We included the simplifying model in these sessions to explore its effectiveness in the Canadian context.

The Brain Architecture model was highly effective in helping participants think about the impact of experiences on brain development. Unlike unprimed conversations, after exposure to this idea, participants were able to talk about the role of the brain in early child development. Unfortunately, this relationship was seen as occurring primarily in utero. As the final quote demonstrates, it was very difficult for participants to extend this conversation and think about the role of experiences in brain development after birth and in the early years of a child's life.

Participant 1: A couple of people mentioned about how things can happen in pregnancy. There are some people that don't have like the right food, or vitamins, or stuff like that, and that can make a huge difference, I think, on your child, too.

Participant 2: Or a large stressor, you know, within my husband's family. His grandmother lost her husband when she was 5 months pregnant, and that may have affected the health of the baby.

Participant 3: Yeah, a similarly, play music. It stimulates – when you're pregnant, they say like reading – literally reading to your baby when you're pregnant will have an effect after they're born.

Edmonton Conservative

Because I had my children late in life, and the minute I was pregnant – I had lost one daughter when she was young, but the minute I was pregnant with my sons, you all will think I'm nuts. I used to play them music. I mean, I was barely three months pregnant, and I read to them, and I did all of that...and I mean, my husband and I are – are both, you know, I mean we're smart enough people, but my two sons, I mean they're both graduating the top of their classes.

Calgary High School education

I think a lot happens during pregnancy because the brain begins its formation during pregnancy, and I think a lot of what this paragraph talks about is actually a foundation in biology rather than environment. Like answering your baby when crying and giving him enough milk, and all that stuff. It has an effect on them, but I think the main foundation is actually during the pregnancy.

Edmonton Conservative

The primary problem with the prime was that participants objected to the fact that adverse experiences could have detrimental effects on the developing brain and therefore on the child's life outcomes. Instead, adversity was understood to “build character” and create a “stronger” person than those who were raised in relative affluence.

The other thing, just to throw in, is “adversity.” Sometimes adversity and difficult situations will cause such a shift that the outcome after that is phenomenal. Like we look at one needs to make everything so great for our kids, and I mean, I'm not against that, but children learning how to solve their own problems I think in my generation we had to more – like our parents were so busy and we did – and then the generation like me raising my kids, it was trying to make everything so nice for them, and not giving them that opportunity to solve problems, and actually dealing with adversity.

Edmonton Conservative

Growing up, I had a very, very weak foundation, as far as my family was concerned. It was very, very dysfunctional, and I remember, I was about 13 or 14 years old, and reading a book, some kind of comic book and all of a sudden I looked up, and I don't want to live the way my family lives right now. I want to go out there and I want to do something that's – gonna try to make a difference. Even as far as close to the year 2000, I never, ever thought that I would ever have any interest in any kind of computers or anything like that. I just thought it was a geeky, you know, expensive video game, and then Internet comes along, and I'm going, oh my God...So, as far as a weak foundation is concerned, it increasing the odds of later difficulties? It depends on whether or not you want it.

Calgary High School education

The emphasis on adversity in young children's lives quickly defaulted to conversations about how excessive coddling of young people today has led to a generation of children who are entitled and unable to manage life's daily tasks.

Finally, even after exposure to the prime, participants still had difficulty discussing any determinants of children's outcomes and focused instead on the random occurrences of children's mental health issues. While the above quotes invoked a sense of children "wanting" to overcome difficult life circumstances, some participants still described children's developmental outcomes as a crapshoot, outside of the control of any individual or social intervention.

Participant 1: Like how do you know if it's right? Cause some women were still smoking while their kid's pregnant – or while they're pregnant, and then later there's no health things, I guess, like I don't know. Everybody's buying different strengths and it misses, and we can handle things differently, and stuff like that, so I mean, I totally bought into the singing and talking, and classical music, and all that stuff with the pregnancy. I believe it 100%, cause why not? You know, it's what you hear, but how could you possibly measure it? That's the bizarre thing about it. How would you know what's right and wrong?

Participant 2: Well, and that goes to show you that it really – like you can have two situations where one was sung to, and the child ends up having tons of difficulties in other areas, and one that had the smoker, you know, all the other different things, maybe didn't eat well, and then ended up with a rocket scientist.

Edmonton Conservative

Effectiveness Factors

Quality Is Critical in Child Mental Health and Preventions Recent science points to the fact that all programs that focus on treating children’s mental health issues are not the same. Scientists report that there are some programs that are dramatically more effective than others. Furthermore, these scientists can now explain why this is, why some programs are higher quality than others. Scientists point to the specific parts of effective treatments that account for their success and explain why other programs are ineffective. Scientists call these specific things “effectiveness factors.” When we focus on and pay attention to these effectiveness factors, we can make smart decisions, choosing to fund and replicate programs that have these factors. If we want to address child mental health issues in our society, we need to pay serious attention to, and invest in, what science now shows about why some programs work and others don’t.

Cultural models research showed that Albertans do not share Americans’ antipathy towards government intervention in child mental health issues. However, the interviews also demonstrated that average Albertans have no means by which to reason about program quality and do not understand *how* interventions actually work to address these issues.¹³ The Effectiveness Factors prime was designed to get people out of this “more is better” way of thinking and to encourage conversations about the need for the quality of interventions to be assessed and measured.

The prime was effective in structuring conversations about the quality of certain programs and interventions as well as the need for continuous evaluation of available interventions.

I think they just approach things differently now and through school system where I’ve seen it, and sometimes it’s just like in everything you do, just constantly evolving. You try it, and after a few years you discover this isn’t working. It just really makes sense that it has to change. I don’t know how they determine theirs.

Edmonton Conservative

I do like the idea that there is science involved. That’s good. At least some of it is scientific research, and decided to come up with something rather than just pulling something out of the air.

Edmonton Liberal

Well, it makes sense when scientists are involved, and they found a avenue that is working, and they can look back into history and decide which avenues are working and which are not,

and there's always gonna be some that come to mind, and they'll try to figure out why those won't work, and you can try, you know, to work on those areas, but overall I think it's a good investment to build in an area that seems to be working overall.

Calgary College/University education

Despite these promising conversations, the majority of participants responded to this prime with a high degree of skepticism. First, all of the groups asked questions about the methods used to determine “these effectiveness factors,” but also displayed a lack of understanding of the use of scientific methods to determine programmatic quality.

I was just gonna say, how do they determine it? Is it a small group, is it a large group? Like, there's so many factors and just figuring out what's effective? Do they just test so many groups, and what part of the world was that in, and what, you know...

Edmonton Conservative

It's a curious statement, though, that science points to the fact that all programs – I mean, what – what science is that? I mean, seems to me that what they're talking about is statistics, not necessarily science. That they're measuring a program, it's effectiveness on...children. It's a statistical analysis of what's working and what's not. It's not science that is at work here.

Edmonton Liberal

They say science what, is a best guess, right? It's not 100%. So who's to say one way or the other who is right and who is wrong?

Calgary High School education

In many of the groups there was concern about the lack of attention to “everyday,” “real world” knowledge and experience in favor of expert knowledge. That is, several participants felt that scientific knowledge was no more valuable than the experience of parents. Because parents were understood as the primary, if not sole, influence on children’s development and mental health, participants reacted negatively to what was perceived to be an encroachment on parental knowledge and “common sense.” This sentiment was particularly pronounced in the high school education group.

I think, too, that you that they don't necessarily involve the lay person, the public, the parents, that type of thing. Like science does their studies, but sometimes just having a discussion with parents, they can tell you what's effective, and get some ideas from that end. So science is good, but there's other things, too, so let's support...real life.

Edmonton Conservative

Participant 1: But when you get a group of people together like this, why can't a group of peers like this decide what happens with a child? Why do you have to have a degree to decide?

Participant 2: Well, they won't allow that.

Participant 3: Real people decide things.

Calgary High School education

They're trying to quantify something that's not quantifiable, and how many times the scientists on their own – well, at one point we thought the planet was flat. So, like how do we know like 10 years from now they're not gonna be like, oh...[SNAPPING FINGERS], you know, darn it, that program did work.

Calgary College/University education

The groups all expressed concern about the role of the government in determining which factors are effective in treating children's mental health problems. This distrust stemmed from the bureaucratic and, therefore, in the minds of some participants, inefficient nature of governmental research and intervention. But the skepticism also resulted from the sense that government and other institutions, like businesses, put financial considerations before the needs of children.

I see a lot of money being spent on something that they're gonna be going around in circles for the same effect. I believe that it's necessary to find out what works and try to make that be part of your curriculum, and make it part of the solution to things, but I believe there's a lot of bureaucracy and politics, and money, and big corporations, and stuff that all get involved in that same process. So I'm a little skeptical when I see that.

Edmonton Conservative

Personally, I think it all comes down to the government, cause I don't think that the scientists, and anybody else that want to do this, I believe it's the government, cause I think they're the biggest ripoff in the world. And I believe that they're the head of this federation, and it's called "secrets," and we're all idiots...

Calgary High School education

It sounds like a logical argument for someone who is trying to make an investment. Trying to make a business decision, and placing it on priority, but as well, if you have limited resources, you can't do everything, and so from my perspective, child development, child mental health is a government fantasy. If you go to put the money where you can when you have it. From that perspective it makes sense, but I also agree not everything works for everyone, so you got to figure out how to bandage the people that fall through the hole and the gaps.

Calgary College/University education

Finally, several groups felt that the prime was advocating blanket solutions for problems that were understood to be multifaceted and complex. Several participants reasoned that each child is a unique individual and therefore interventions would need to be tailored to individual needs.

I think finding out something you're studying, that something works, is a good idea but I think everything also has to be dealt with on an individual basis. I think you can't lump it together and say this is gonna work for every kid.

Edmonton Conservative

But what if – what if that one, two programs that they have is only gonna work for 70% of the population, and the other 30% of the population it does diddly squat for them.

Edmonton Liberal

Or...do these effective factors say, we're able to evenly figure out who needs to be in what program. All programs can be available. If there's still 50 people that respond well to this treatment out of a group of 100 and 50 respond to this treatment, why can't – it seems like the effectiveness factor would say that we can figure out how to operate both programs to accommodate all people because nobody – not everyone is the same. We're not all cookie cutters, and come from the same dye, right?

Edmonton Liberal

In sum, in its current iteration, the Effectiveness Factor prime did not help Albertans overcome their fundamental mistrust of scientific or expert knowledge and government action when dealing with children's issues.

Interdependence

Children’s Advocates Focus on Interdependence – A report raised by a coalition of children’s advocates argues that now is a great time to work on ensuring children’s healthy development because what affects one part of Alberta affects us all. According to this view, we need to have programs that get people to work together to solve our social problems. We also need programs that promote the factors that encourage development and protect children’s brains and mental health, and prevent the things that put children at risk for mental health problems. The advocates ask that we give greater support to all children to ensure we all thrive. This helps to bond our communities together and deal effectively with problems. It also illuminates the ways that we depend on each other to succeed. In essence, promoting policies like this recognizes that we only succeed as a province when all children can thrive.

The cultural models interviews showed that Albertans conceptualize the goal of development in very different ways from their American counterparts.¹⁴ Whereas Americans talk about healthy development as producing financially independent individuals, developmental goals for Albertans are more focused on a person’s ability to contribute to society. As a result, FrameWorks researchers included Interdependence to test how well Albertans were practiced in thinking this way.

The Interdependence prime encouraged conversations about the importance of ensuring the healthy development of all children in the province. Furthermore, following exposure to this values prime, participants stressed the role of communities, and not just parents, on children’s developmental outcomes. In this way the prime seemed to shift group discussion off of the dominant “family bubble” cultural model.

Participant 1: But I like a world where we could have programs set up where that isn’t not available just cause they don’t have a budget there. Because their poor city....you don’t have the same facilities. I think that’s what they’re trying to get to. They have a very broad political selling something that’s sounds good.

Participant 2: That’s such a unrealistic approach to life.

Participant 1: I wouldn’t say it’s unrealistic. You got to start somewhere.

Edmonton Conservative

I only have one thing to say about that, just one. I'm gonna say it, and I'm gonna shut up. I have, from childhood, I have always been taught that it take a village to raise a child, and if they're going to say it takes a province to raise a child, I'll agree with them.

Edmonton Liberal

Despite this promise, there were several drawbacks to this prime. First, discussions of interdependence led, in a counterintuitive way, to “us vs. them” thinking. This direction appeared to be precipitated by the discussion of resources, which led to conversations around the limited nature of resources, which then structured a zero sum mentality in relation to discussing different communities. Several participants talked about the province’s limited resources and the dangers of using resources to the detriment of “other communities”:

Who's gonna mention the need, and I also believe that um...certain areas, like you've said, where there may be a lot of children with that fetal alcohol syndrome. They're going to be lumped together, and saying that, okay, Edmonton is doing great. Most of those kids are mentally healthy, let's take the money from Edmonton and put it on this Indian reserve where most of the parents drink, then Edmonton's gonna suffer.

Edmonton Conservative

What I'd rather see happen is, every kid regardless of area gets equal opportunity at the resources, rather than saying okay, we can pull the money away from over here because those people live in River Band, and they've got enough money to pay their own support, so we're gonna ship it downtown to McCauley because they need – they need more money down there.

Edmonton Liberal

Concerns over the distribution of finite resources also incited conversation about the government’s role in allocating resources. In this case, government ineptitude was the focus of these conversations:

That's a broad statement. You know, that's not to say not to try for it. To try different things, and implement more programs, and there's a lot of ways we waste money in the government, and it's just always determine how it – how to waste it in the better way.

Edmonton Conservative

Because of the prime’s focus on provincial success, participants also lamented the ways in which children are being raised in Alberta currently. Women working outside of the home or parents’ perceived overemphasis on achievement were both discussed as detrimental to children’s development.

My generation is a direct, I believe, flaw in the fact that we were women that wanted to have

everything. We wanted to have our children, we wanted to have our careers, we wanted to have our family, and that whole thing broke down, the whole thing, cause now we've got spoiled children that are walking into the workforce because we overcompensated for our absence of being in the office, or being at the job, we overcompensated by giving them everything they could possibly want. Now they don't know how to – now they think – they walk into offices, and they think business owes them a living rather than wanting to work to make that difference, and that's where the village comes in, is that the family unit broke down when women – and I'm not saying it's just women – when both parents chose to work outside the home. I wouldn't care if it's one – if it's the father or the mother that stayed home. The children need more guidance within their own parent – within their own home.

Edmonton Liberal

Number one wins in our culture. Gotta be the best. Gotta be better. Gotta be faster. Gotta be quicker, and got to be, you know, we're creating all these super stars, all these brainiacs, all these elite children, and our schools are promoting it. They're talking grade point averages to grade 2 and 3 year olds. We have a grade point average in our schools better than that school. We're the highest. Some of the provinces, it's like they don't give a crap, they just want to go out and play football outside, or go play tag, you know? They don't care, they just want to goof around and have fun, right?

Edmonton Conservative

Finally, participants expressed a limited sense of the preventative measures that might be implemented to ensure healthy development. That is, while they could discuss in depth how to ensure better parenting, they were less clear about ways in which the province could be involved in promoting children's mental health.

The only thing I don't like about that one is that it says "prevent the things that put children at risk for mental health problems," well...it can be anything that – what are you gonna do, lock the kid in a bubble so they don't have any?

Edmonton Liberal

Everybody who rides an ATV should have a helmet; that's exactly what it's saying, but I mean, that sentence, just – just go straight to "mental health." Don't include children's brains. I mean, people are going, oh geez, you know, cause there's an element – there's a pill for everything now, and what parents will end up looking for is a pill to fix brains, and that's not what we're talking right here.

Edmonton Liberal

Prevention

Pay Now or Pay More Later Is the Theme of Policy Debate over Child Mental Health

People are talking about how important it is to put some of our resources early on into making sure that children in their early stages of life have good mental health. Researchers now believe that one reason this is so important is because trying to fix the mental health problems in adults requires more work and money, and it's actually less effective than focusing on promoting positive mental health in 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 good mental health by assuring that they have strong protective relationships, appropriate experiences, and that they get the right inputs in their environments from the start.

FrameWorks' experience with leaders in the fields of early child development and child mental health in Alberta has yielded ample evidence that these groups were already using forms of the Prevention value in their communications materials.¹⁵ This value was also effective in child mental health peer discourse sessions conducted in the United States.¹⁶

Results of peer discourse sessions suggested, however, that for Albertans, the prime may be problematic. First, several participants objected to discussing child mental health in monetary terms. This was also true of the Prosperity value, analyzed below. The main objection hinged around the idea that children's health is more important than "the bottom line."

The "money" issue to fix mental health really bothers me.

Calgary High School education

Whether you have to pay for it or not, she's taking corrective action, right? So when – when you have a 5-, 6-, 7-, 8-year-old child, they don't know. They don't have the tools to understand exactly what's going on with them, and that's why it's so important that early diagnosis is taken – proper diagnosis is done, and proper steps are taken without – without worrying about what the cost is.

Calgary High School education

In addition, some participants interpreted the Prevention prime as absolving parents of responsibility for their children. Since parents were largely understood as the most significant factor in a child's development, they reasoned that social interventions that relieve or subvert this responsibility are ineffective and misguided measures. Once this objection had been voiced, and the family bubble model

had been set, groups went on to discuss how the most effective and, in some cases, the only effective intervention was to address parenting:

All of it because I can tell you, growing up the way I did, and the state of my mental health from grade 1 to grade 12, that I never had any of this going on. And that's saying that they're going to go into every child's life at a very young age, and make sure nothing bad happens. It's not reality. People go home to their homes, and their parents, whether their parents be good parents, or crack addicts, or whatever, you know? You still have to go home from school, or daycare, whatever it is, and go back to reality, your horrible life.

Calgary High School education

It's the chicken or the egg thing, you know, that a lot of the mental health issues often are associated to parents, you know, so um...perhaps it goes even before the early stages of life. [CHUCKLE] You know, to where it began, and um...so there's that part of it, too.

Calgary College/University education

Participants also argued that the Prevention prime did not represent “reality.” Recognizing prevention as ideal but not real, participants reasoned that eliminating stresses from children’s lives was actually a futile endeavor. Once they had placed prevention outside of the realm of “reality,” they drew on the “stress does the body good” model that has emerged from previous FrameWorks’ research and engaged in robust discussions of the fact that adversity or stress was critical for development.¹⁷ The focus on the benefits also led participants to a critique of overmedicalization.

Over here it says things like the ADD. As a young child I was diagnosed with that, and we didn't have the money, so – but I would think that I've grown up to be quite the normal person aside from what they're saying that if you come up in a broken home that you're gonna be a terrible person, well, I think I'm a pretty damned good person myself.

Calgary High School education

Well, no, but I'm not just saying that, but we're trying to fix everything, that's the problem. We can't – if a kid, at one point of his life, the brain hasn't developed as much as another kid at the same point in his life, why are we trying to fix the kid whose brain hasn't developed the same as another kid? The guy – why can't a kid be a late bloomer?

Calgary High School education

Finally, participants struggled to understand what early identification or diagnosis means in the context of children's mental health. Participants wondered who the appropriate adults in children's lives were to take on this kind of assessment, but they also worried that focusing on child mental health would preclude attention to adult mental health issues, which were perceived to be more serious.

There's a woeful lack of mental health awareness in many teachers. Many of them don't recognize the signs of certain very common issues, such as ADD or ADHD or Turret Syndrome early, and catching disorders like that early is very important. It's a job for both the teachers and the parents that it's a coordinated effort – communication is very important between both parents and the teachers, as well as the other educational professionals, such as the principal who could arrange for special accommodations, and special funding, and special um...special classes that feed input.

Calgary College/University education

So, you know, more than just pay now or pay later, right? You may pay now, and you may pay later, right? It doesn't matter, the health can come later, but having more people who know about it, more people are agitated about it, workplace, or school, you know, you can pick up on the signs, and you know, get people the help that they need.

Calgary College/University education

In sum, research showed that the Prevention prime, while successful in the United States and widely used by advocates in Alberta, is somewhat problematic in the Albertan context. These problems suggest specific refinements of the idea in future empirical testing. For example, part of the derailing opposition to framing child mental health as a monetary issue might be alleviated by stressing other non-economic benefits associated with preventative measures.

Prosperity

Early Child Development Leading to Alberta's Prosperity – Economists believe that children's well-being is important to 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 began developing in early childhood. These children then become the basis of a prosperous and sustainable society contributing to things like school achievement, solid workforce skills, and being strong citizens.

Prosperity was another value imported by FrameWorks from its U.S. trials.¹⁸ A few participants in the Alberta sessions used the prime to argue that more attention be paid to children's mental health and articulated the importance of helping *all* children become contributing members of society:

Everything, not just health, well-being and mental health. What they're saying is, you know, we're gonna make certain that they have good mental health, good attitude when they don't, and they'll have the opportunity to learn, it goes a long way. And certainly your life skills, and development age has a better chance of contributing to society.

Calgary College/University education

Absolutely, you have a better foundation. If your children are educated, and cared for, and mentally strong to deal with what's going on in the economy, they're prepared to be a contributing factor. We've contributed to our parent's well-being as they age, and why shouldn't our children be able to do the same, as we age, right? I mean, this is just my opinion, but it makes sense because I would rather see children contribute to society....than pull from it.

Calgary Liberal

Despite this promising trend, group conversations following the prime quickly turned to discussions about how large institutions—namely, government and big business—are more concerned about the bottom line than children's health. These types of conversations often undermined more solutions-oriented talk, and the perceived inherence and insidiousness of “bottom line” motivations created a powerful sense of disengagement and the futility of efforts to change these systems in the groups.

Participant 1: Alberta's prosperity is, I think a lot have a very gluttonous nature. Alberta wants money, and we need to have all of these bad buildings, and all these things. It doesn't explain that prospering money. A lower economy, or people are happier, or less homeless, or to talk “money,” and they said that good school achievement, solid workforce, building them to be a strong citizen, and then you know, all these other kids are gonna be denied these things?

Participant 2: So, so bring up our kids to turn a profit?

Participant 3: That's right; they're economic pawns.

Edmonton Liberal

Finally, while we included several kinds of messengers in the primes, the economist as messenger incited the most forceful opposition. Again, economists were perceived to care more about money than children and were therefore not credible messengers on this issue.

He's exactly right. If you accept that right now, we're all up at metrics and with economics and profit margins, and yes we convince the people who are in that mindset that investing in child development would be a good thing.

Calgary College/University education

Ingenuity

Canadian Mental Health Association Is Promoting Ingenious Solutions for Child Mental Health –The Canadian Mental Health Association issued a report recently to demonstrate the need for society to invent more effective solutions to address mental well-being in young children. Innovative provinces have been able to design highly effective solutions to address children's mental health. Examples of these programs include better coordination between places where children go to get medical care, so that wherever they go, healthcare providers have access to the child's medical records.

Ingenuity is another value that has proven successful in reframing child mental health and early child development in the U.S. In the prime, we included one of the solutions proposed by experts that would aid in early identification and diagnosis and better treatment for children with mental health issues: coordination of health records.¹⁹ This was one solution that addressed systemic issues that often hinder the efficacy of children's mental health treatment. Groups focused on the importance of finding effective solutions and some participants also discussed the benefits of record tracking systems:

And the same thing, is it working? And if it is working, then it's good. I don't know how many resources are required to make that happen...but if it's working, obviously, we have to agree with this.

Edmonton Conservative

Participant 1: What I wanted to say was that in such type of mental health illness, this medical information is very important, and what happened when he was a kid of four years, and he could be given at 14 years...and if he's still developing, then it can be through a detected frequency.

Participant 2: I think the tracking system is good.

Edmonton Conservative

However, far more common were conversations about the potential problems with coordinated medical records systems. Participants' fears ranged from worries about "big brother" or unnecessary governmental intrusion into private issues, to concerns about the perceived ineptitude of administrators charged with coordinating the files. Group discussions also focused on the role of stigma and labeling if a child is identified as suffering from a mental health problem. Discussions of the problems with the specific example (i.e., reforming record-keeping practices) dominated group discussions of the primes and left little room for participants to talk about ingenuity as a value itself.

It's just more paper trail. It's more and more confusion, and I think everything ideally should be centralized just like I said, you know, just like for convictions, a database for convictions, or if everybody has – everybody has their own little microchip on their health card, and all the information is input at the end of the session, and it goes into a central database, that would be good. But what I think the part of the problem would be –well who are the people that are gonna be administering?

Calgary High School education

Participant 1: And I worked in medical records, and I can tell you a lot about that. I mean, we've been working years and years to try and get the standard piece of information, but you will go into someone brand new, and they will want to start all over again because just the way they do it. The system may not get the report to them, and most physicians have – and it's improving in hospitals like...

Participant 2: I thought that was supposed to be finished?

Edmonton Conservative

I have it here where it says "healthcare providers have access to the child's mental – or a child's medical records." I think that's a stigma that you're gonna stick to a child. Here you've been labeled as ADD, or you've been labeled as you've been abused sexually, physically, whatever. So you're gonna be this kind of a person, and it goes to the records where you yourself don't have a chance to correct because you're constantly being tagged with this, and – and you may be changing things as your world starts to change, but because somebody keeps going back into your records, they're gonna persist to you, you still have this problem even though you might have fixed it within yourself.

Calgary High School education

Participant critiques of the centralization of medical records then cascaded into now familiar critiques of child mental health interventions, including the increased medicalization of childhood and the role

of parents, rather than other groups, to ensure children's healthy development.

You know, why do you got to put these kids under a microscope? Why can't the kid be a kid? Why can't he get his knees scraped on the ground?

Calgary High School education

See, also the other thing is, when they say "mental health," a lot of times the mental health, in my perception, is subtle things that kids have a problem with right now that's a subtle problem, and that it evolves into something. It's really hard to sometimes see, you know, like when a kid's acting out sometimes. There's a problem at home, or a problem somewhere else, but because he doesn't know how to communicate, he has problems; he acts up in a different way. So it's hard to communicate this information or grasp what's happening. Say one person sees it, I see it, and then Bill sees it, we might see two different things from what's happening with that kid. I see the kid's hyper, and he sees the kid's distraught.

Edmonton Conservative

Because I read this, I just think the one common factor in all these situations is the parent. So, if the parent gets a copy of everything from the – all the different caregivers, and actually carries that with them when they're going to another appointment, and you know...

Edmonton Conservative

The Three E's

Teachers Shift Focus to the Three E's: Environments, Exposures, and Experiences

Teachers are now broadening their focus from basic skills like reading, writing, and arithmetic, what is often referred to as the three R's to the three E's: environments, exposures, and experiences. Children's ability to master the three R's explains some part of how children perform academically, but we now know that children's intellectual, social, and emotional development cannot be insured by focusing narrowly on academic skills and drills. What we have to pay attention to are the three E's. Environments need to be rich, stable, and stimulating; exposures need to be positive and reinforcing, and not destructive or disruptive, and the negative exposures need to be buffered by the presence of supportive adults. And experiences need to be age appropriate, coordinated, and promote exploration. The child must be an active, not passive, participant and be guided by adults.

The Three E's is a new prime created to broaden the public's sense of the goals and outcomes of early child development. Our previous research both in the U.S. and Canada shows that the public sense of the outcomes of child development are often constrained to the acquisition of basic academic skills, such as reading, writing and arithmetic.²⁰ The Three E's, in contrast to the Three R's, was designed to show the contextual factors that shape children's development and also to emphasize the intertwined nature of children's social, emotional and intellectual development. This idea, executed somewhat differently here, has proven extremely powerful with U.S. informants²¹. FrameWorks researchers chose to include teachers as the messenger because we hypothesized they would be most credible in expanding the significant outcomes of children's development beyond observable, cognitive skills.

Several group discussions focused on how ensuring enriched environments, exposures and experiences was beyond the scope of a teacher's duties and quite difficult for them to achieve given the state of the education system.

I think it's a challenge for teachers. You're asking them to step beyond the 6 hours where they're actually in class with kids, and "exposure needs to be positive and reinforcing and not destructive and disruptive, and the negative exposures need to be buffered by the presence of supportive adults." I mean, you can't just guarantee that in 6 hours. I mean, that's something that has to be there 24 hours a day.

Edmonton Liberal

Doing this is great as long as you have the resources, you have enough teachers, you have enough helpers to be in there. Class sizes are so huge, 1 teacher and 30 students, it's not the best. I remember when I was in school, that was what it was. Our class sizes were 23 to 30 with 1 teacher there's no real one on one if a student has an issue. There should be some backup.

Edmonton Conservative

Ironically, including teachers as messengers reinforced participants' notion of the family bubble. Because many argued the ensuring the Three E's was outside the responsibility of teachers, this further entrenched notions that the site of development was the home. In fact, at least one participant narrowly defined environments as the home.

Participant 1: Well, no. I was just gonna say that, I mean, they can only do so much in the classroom, and a big part of these three E's come from home, right, and their influence is only 6 hours, like you said. The influence that I have in my child is far less, you know, as compared to the teacher's standpoint, and I...

Participant 2: Just time wise, right?

Participant 3: Yeah, just time wise, yeah, absolutely, and it's great that the teachers think that these things will help, but what do you do if they can't get this at home, you know?

Edmonton Conservative

I met a lady that was a teacher recently, and she was telling me how many parents that don't send lunch with their little kids to school, that are not showing up afterwards, after school, to pick them up, you know, for a couple of hours. So what it is, is there's lack of parenting on some people that we have. So, if you look at this, how is – how are you gonna achieve these things if there's a cultural problem elsewhere, not only in the school? But this is a great idea. I've seen things like this in different levels in my years and experience with my kids at school, but it's one class, one teacher for a while, and it's not like something that I've seen straight across the board.

Edmonton Conservative

I really agree with it. Like if you have a stable good home then you'll do better in school, and in your other social environments, and if like what you're exposed to, like your parents are around, and you're like age 8, to watch something that is for 18. Now you're gonna be kind of screwed up, you know? Just bring it back on experiences if you always have a good experience, I really agree with them. That makes sense like that.

Calgary High School education

For two of the groups, advocating for the Three E's was interpreted as deemphasizing the Three R's. That is, the prime also reinforced the notion among some participants that the most critical outcome of children's development was the acquisition of intellectual skills.

I'd be very encouraged by the discussion because the first thing I thought of when I see this is, what you've moved to – if he said, I don't want to do the three R's anymore; I want to do the three E's, well, talk about measured outcomes rather than advocating No Child Left Behind. If I don't ever have to measure the children coming out of that, it's much easier for the teacher to say, we're doing okay, we're all happy here, as opposed to saying at the end of it, they graduate able to read, write, and actually work in the world.

Edmonton Liberal

We need both. We can't really totally rely on it because there's so much only that you can do. You can't provide the buffer. The children are going to have negative exposure from dating, from Internet, from – I mean, you can't really provide that buffer, so there has to be focus on reading – the three R's, as well as, and of course in line with believing in only doing so much there.

Edmonton Conservative

I thought of it as a “reward.” What you’ve learned, reading, writing, and arithmetic, which is what school was instituted for, then you can take the other half of the year, and do projects go to Randall Park and pretend you’re an Indian, and making the medicine wheel, and a tepee, and having the parents join in on days like that to help so that the groups like the children can be small like 5 or 6 students...and then uh...then the parents can be properly actively involved, and it can be something planned, but the child isn’t sacrificing any of the three R’s in order to have experience.

Edmonton Conservative

As the last quote illustrates, the Three E’s were interpreted as “extras” like art curriculums which should only come after mastery of the Three R’s. In a similar vein, some groups interpreted the prime as creating a “perfect” world for children without stresses or any kinds of challenges or obstacles. This type of interpretation of the prime led to familiar talk about the importance of adversity for young children and also to the dangers of overprotective parenting. “Sheltered” children were understood as ill-equipped to deal with the demands and rejections of the “real world.”

It is good to a point, but you know, it almost looks like you’ll want to set this goal of a dream world for the children, almost like it’d be like that perfect peaceful world. As much as it sounds like that would be good, we don’t live in that society yet, and to be honest, kids need to know what else is bad in the world, too.

Calgary College/University education

Now they’re handling everything. I think it’s about parenting. I mean, my sons, ...they worked all the way through university, you know? One used to ride his bike after university, and shovel and I mean, in real life things happen, and you can’t control that, and I think it makes them stronger to know that there are adversities, and there are hard times, and it’s just not all a big party out there.

Calgary High School education

But just trying to, okay, you have your time, and I won’t even look, you know, behind your shoulder, or anything like that, but the child has to learn how to manage himself, and that would be a self discipline. If we control – if we’re always there, and trying to make that environment nice, and pretty, and rosy, and so on, they won’t ever learn those skill because they won’t need to.

Calgary College/University education

Negotiation

In the final negotiation exercise, participants in each session broke into three smaller groups and were asked to develop programs and allot funding to address the following issues: children's mental states, children's development, and children's overall health. Each group was assigned one of these three goals. In this section, we discuss the primary focus of participants' discussion during this exercise.

The groups charged with designing programs to address children's mental states focused at least some of their finances on creating and implementing direct services to treat mental illness. Proposed programs ranged from in-school counseling to greater access to psychiatric and psychological services. These groups took children's mental health issues very seriously. However, this suggests that despite the primes and discussions in the second part of the peer discourse sessions, participants retained a sense that mental states are about mental health *problems*, which could be seen to structure their focus on treatment.

So we just think that we need more money there because there's lots of mental illness out there, and we have to address the mental illness in kids so that they don't grow up to be mentally ill adults, and all our hospitals are full....

Edmonton Conservative

However, the groups charged with addressing children's mental states also looked to ways to prevent children's mental health issues or to find ways to identify these issues earlier. Most groups proposed early identification programs in schools and increased training for teachers to become aware of children's mental health issues.

So mental health isn't just about children; it's about the mental health of the parent, first and foremost, and in the prenatal classes, right at the beginning, that's where um...it starts, and in that class, I mean, you're learning about how to deliver a baby, but the "prenatal" classes could be developed more to educate – I think we've got to start educating everyone, on all levels. So we had prenatal classes, right to the daycare involvement.

Edmonton Conservative

I think for us to be able to address these issues, it needs to start way back at the beginning, and I think we need to teach the teachers how to – to teach children, and to – to also – for the teachers to be able to see you end up having a child in your classroom that he's either autistic or – or a child – or his family is with all the drugs, or alcohol, or abuse, or there's divorce happening. I think instead of teaching children in kindergarten or grade 1, 1+1, I think we teach children how to be normal human beings.

Calgary High School education

So we said that what we would do, or what program we would create is something within the school because, obviously, every kid goes to school, so that's when you're gonna identify a lot of these problems. Now, the problem is, being that we do not have enough psychologists, but recognizing that at an early age, saying in age group of grade 2 to grade 4, and pulling these kids out, either within the school, or an after school program where all of them entirely come together with somebody that can help them deal with some of these developmental problems, social problems, emotional problems, and have them all together so that we can say, you know what, how are you feeling, or I'm feeling this, or if you had a shy kid who's having a real hard time interacting with other kids, you bring them there, and he gets to see I'm not the only one.

Calgary College/University education

The centrality of parental responsibility was not completely diminished in these exercises. Two groups proposed to spend their money on programs that addressed parenting, rather than children.

I believe this is gonna address a lot of people's interests because I believe there should be more support for moms to stay at home until their children go to school. I think that a lot of times we're depending on our society, and going through systems that are requiring other people's opinion for their training. I feel a lot of times if a parent could stay home, and there was not the pressure of having to work to afford to be able to take care of that child, that would relieve some of this stress and give that exposure of the kid directly to the parent.

Edmonton Conservative

Finally, the group proposals demonstrate the “stickiness” of the primes that emphasized social, emotional and intellectual development, most clearly articulated in the Three E's prime. The children's overall health and development group and mental health group were able to speak much more broadly about children's development than in the earlier unprimed conversations.

Teachers don't get that education that's needed to really develop the aspects of – not just like child development, nutrition, huge in that area. Emotional aspects of children, it's unbelievable how we don't deal with the emotions of children, and then, of course, the mind, as well. So, looking at it more from a holistic perspective, that it's about the parent with the child, keeping in community, the prenatal classes, the schools, and daycares, everyone.

Edmonton Conservative

And I believe that the over – well, the better over well-being for the children in this province would be better spent on social skills, teaching the kids how to be in a social situation instead of trying to fix them all the time.

Edmonton High School education

Conclusion and Implications

Many of the dominant and unproductive frames FrameWorks identified in earlier cultural models research were very dominant during the peer discourse sessions. Albertans, however, were much better practiced, in comparison to their American counterparts, at thinking about the social outcomes and social benefits of policies that promote child development and child mental health and the importance of having systems in place to address mental health issues. By comparison with the U.S., Albertans were also able to attribute greater responsibility to the government for supporting children's well-being. This means that convincing Albertans of collective responsibility and the benefits of early child development and child mental health programs and policies was not as significant a communications hurdle as it was in our American research. Where these Canadians appeared to be more like their American counterparts was in their lack of depth of understanding of the mechanisms by which children develop and by which development can be derailed. That is, the communications challenge identified in FrameWorks' map the gaps reports for Canadian early childhood advocates and experts was to translate the science of early child development and child mental health. These peer discourse sessions confirm this finding: the simplifying models, which explain child development and child mental health, were far more impactful than the values, which communicate the shared responsibilities and benefits of these issues. More specifically, in these sessions, Toxic Stress was very effective in communicating the social determinants of adverse mental health and developmental outcomes in children.

While this technically was not a comparative analysis with the peer discourse sessions conducted in the United States, it is interesting to point out similarities and differences. The most significant is that, while the simplifying models seemed to yield similar results in both contexts, the effective values appear quite different. Values such as Prevention and Prosperity were effective in allowing Americans to understand the importance of children's mental health for everyone, whereas these primes, because of their connection to potential financial gains, were largely unproductive for Albertans. Instead, Interdependence was effective at helping Albertan participants understand why early child development and children's mental well-being is important for all. The variation of frame effects for simplifying models but not values makes sense, as values are intimately tied to national cultures and historical experiences.²²

The success of Interdependence is significant in the context of these sessions. Unprimed group conversations were dominated by individualist conceptions of child development and mental health, or the "cowboy" dimension of Albertan culture. When the primes were unsuccessful, this "cowboy" mentality and palpable individualism was easily accessed and led to conversations that obscured the role and importance of public policy in these issues. However, Interdependence was able to tap into the less dominant, but still active, "barn raising" Albertan ethos and demonstrated an alternative way that Albertans have to think about issues of children's health and illness. Successful communications should strive to activate this more communitarian impulse among members of the province.

Moving forward with FrameWorks' multi-method iterative process, we will further explore the value of Interdependence as a promising direction for orienting Albertans to the goals of early child development and child mental health. And, while Brain Architecture and Toxic Stress also appeared to perform certain cognitive tasks, the need for an additional simplifying model to overcome the "sponge in the family bubble" pattern of thinking, in which a child is shaped entirely by his or her family origins, seems paramount. Finally, we recognize here the need to create a richer narrative than was possible within the constraints of this qualitative research, where testing frame elements separately prevents more artful storytelling. It seems apparent that Albertans can warm to and benefit from a more explanatory framework for early child development and child mental health, one that uses metaphor to the advantage of the science translation without stepping into the problems observed with a cult of expertise. We look to future research to add new narrative elements that avoid some of the pitfalls observed in the direct importing of American values.

Appendix: 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 open-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. These primes were designed to address issues related to early child development and child mental health. The content of the primes included three simplifying models (Toxic Stress, Brain Architecture and Effectiveness Factors) and a scientific principle (Risk and Protective Factors) that experts have identified as a critical element of the core story of child mental health.²³ The primes also included three values (Prosperity, Prevention and Interdependence) that were successful in an earlier quantitative experiment conducted in the United States.²⁴ Finally, we experimented with a new prime, the Three E's: Environments, Exposures and Experiences. Only five primes were tested with each session. Therefore, not every group was exposed to all of the primes. We included a different messenger in each prime, such as neuroscientists, policy makers, 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. Toxic Stress, Brain Architecture, and Effectiveness Factors 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.

ENDNOTES

¹ Kendall-Taylor, N. (2010). *“Kids Must Have Mental Health ... but They Can’t, Can They?”: How Albertans Think About Child Mental Health*. Washington, D.C.: FrameWorks Institute. See also: Kendall-Taylor, Nathaniel (2010). *How Albertans Think About Early Child Development: Comparing Cultural Models and Mapping the Gaps*. Washington, D.C.: FrameWorks Institute.

² Kendall-Taylor, Nathaniel and Anna Mikulak (2009). *Child Mental Health: A Review of the Scientific Discourse*. Washington, D.C.: FrameWorks Institute. A summary of the results from the expert interviews appears in Appendix B.

³ See Manuel, T. & Gilliam, Jr., F. (2009). *Advancing support for early child mental health policies: Early results from Strategic Frame Analysis™ experimental research*. Washington, D.C.: FrameWorks Institute.

⁴ FrameWorks Institute (2005). *Talking Early Child Development and Exploring the Consequences of Frame Choices*. Washington D.C.: FrameWorks Institute.

⁵ Kendall-Taylor, Nathaniel and Anna Mikulak (2009). *Child Mental Health: A Review of the Scientific Discourse*. Washington, D.C.: FrameWorks Institute.

⁶ Kendall-Taylor, N. (2010). *“Kids Must Have Mental Health ... but They Can’t, Can They?”: How Albertans Think About Child Mental Health*. Washington, D.C.: FrameWorks Institute.

⁷ Turner, Frederick Jackson (1935). *The Significance of the Frontier in American Society*. Holt and Company: New York, New York.

⁸ Kendall-Taylor, Nathaniel (2010). *How Albertans Think About Early Child Development: Comparing Cultural Models and Mapping the Gaps*. Washington, D.C.: FrameWorks Institute.

⁹ Kendall-Taylor, N. (2010). *“Kids Must Have Mental Health ... but They Can’t, Can They?”: How Albertans Think About Child Mental Health*. Washington, D.C.: FrameWorks Institute.

¹⁰ Kendall-Taylor, N. (2009). *A Viewer’s Guide to Simplifying Models Research on Child Mental Health: On-the-Street Interviews with Ordinary Americans*. Washington, D.C.: FrameWorks Institute.

¹¹ O’Neil, Moira. (2009). *Destiny or Destructive Environments: How Peer Discourse Sessions Toggle Between Child Mental Health and Child Mental Illness*. Washington, D.C.: FrameWorks Institute.

¹² Kendall-Taylor, N. (2010). *“Kids Must Have Mental Health ... but They Can’t, Can They?”: How Albertans Think About Child Mental Health*. Washington, D.C.: FrameWorks Institute.

¹³ Kendall-Taylor, N. (2010). *“Kids Must Have Mental Health ... but They Can’t, Can They?”: How Albertans Think About Child Mental Health*. Washington, D.C.: FrameWorks Institute.

¹⁴ Kendall-Taylor, Nathaniel (2010). *How Albertans Think About Early Child Development: Comparing Cultural Models and Mapping the Gaps*. Washington, D.C.: FrameWorks Institute.

¹⁵ This observation is based on FrameWorks’ participation in an early child development and child mental health study circle engagement with ECD experts and advocates in Alberta in 2010 as well as FrameWorks’ participation in the Early Brain and Biological Development: A Science and Society Symposium in May 2010.

¹⁶ O'Neil, Moira. (2009). *Destiny or Destructive Environments: How Peer Discourse Sessions Toggle Between Child Mental Health and Child Mental Illness*. Washington, D.C.: FrameWorks Institute.

¹⁷ Kendall-Taylor, Nathaniel (2010). *How Albertans Think About Early Child Development: Comparing Cultural Models and Mapping the Gaps*. Washington, D.C.: FrameWorks Institute.

¹⁸ Manuel, T. & Gilliam, Jr., F. (2009). *Advancing Support for Early Child Mental Health Policies: Early Results from Strategic Frame Analysis™ Experimental Research*. Washington, D.C.: FrameWorks Institute.

¹⁹ Kendall-Taylor, Nathaniel and Anna Mikulak (2009). *Child Mental Health: A Review of the Scientific Discourse*. Washington, D.C.: FrameWorks Institute. A summary of the results from the expert interviews appears in Appendix B.

²⁰ Kendall-Taylor, Nathaniel (2010). *How Albertans Think About Early Child Development: Comparing Cultural Models and Mapping the Gaps*. Washington, D.C.: FrameWorks Institute.

²¹ FrameWorks Institute (2005). *Talking Early Child Development and Exploring the Consequences of Frame Choices*. Washington, D.C.: FrameWorks Institute.

²² See Adams, Michael (2003). *Fire and Ice: United States, Canada and the Myth of Converging Values*. Ontario: The Penguin Group.

²³ Manuel, Tiffany (2009). *Refining the Core Story of Early Childhood Development: The Effects of Science and Health Frames*. Washington, D.C.: FrameWorks Institute.

²⁴ Ibid.

