



**Defense Centers of Excellence for Psychological Health
and Traumatic Brain Injury (DCoE)
Webinar Series
April 24, 2014, 1-2:30 p.m. (EDT)**

Psychological Health and Resilience of Children in Military Families

Welcome, everyone, and thank you for standing by. At this time all participant lines are in listen only mode. Following today's presentation we will provide an opportunity for questions and answers. Stand by for instructions at that time. I would like to also remind all participants that the call is being recorded. If you have any objections, please disconnect.

Now I'd like to turn the meeting over to our host, Dr. Lolita O'Donnell. Dr. O'Donnell, you may begin.

Thank you, (inaudible).

Good afternoon, and thank you for joining us today for the DCoE Psychological Health April webinar. My name is Dr. Lolita O'Donnell, and I am DCoE's Planning and Logistics Division Chief. It is my pleasure to introduce today's moderator, Navy Captain Dr. Mark Stephens. Dr. Stephens is a professor and Chair of the Department of Family Medicine at the Uniform Services University of the Health Sciences in Bethesda, Maryland. Dr. Stephens holds undergraduate and graduate degrees from Pennsylvania State University. He received his medical degree from Case Western University. He is board certified in Family Medicine and obtained added qualifications in Adolescent Medicine. Additional interests include pediatric obesity and medical informatics. It is my pleasure to introduce our moderator for this afternoon's webinar. Welcome doctor and Navy Captain Dr. Mark Stephens.

Thank you very much for that kind introduction, Dr. O'Donnell. Before we begin, let's review a few webinar details. Live closed captioning is available through Federal Relay Conference Captioning. Please see the pod beneath the presentation slides. Defense Connect Online and Adobe Connect are the technical platforms hosting today's webinar. Should you experience any technical difficulties, please visit dcoe.mil/webinars, dcoe.mil/webinars, and click on the Troubleshooting link under the Monthly Webinars heading. There may be some audio delays as we advance the slides in the presentation, don't let that bother you. Please be patient as the connection catches up with the speaker's comments. At any time during the webinar, please submit technical or content-related questions via the Question box. The event planning team will address your technical questions as soon as possible. Our presenter and I will answer content-related questions during the last 30 minutes of today's webinar. While we encourage you to identify yourself to other attendees via the Chat box, and we'll have the Chat box open for additional networking opportunities ten minutes after the webinar has concluded, please refrain from marketing your organization or your product.

Today's presentation and resource list are available for download from the Files box below.

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Throughout the webinar you are welcome to submit technical or content-related questions via the Q&A pod located on the screen. Please do not submit technical or content-related questions via the Chat pod. The Q&A pod is monitored during the webinar, and questions will be forwarded to our presenter for response during the Q&A session of the webinar. Participants may also chat amongst each other during the webinar using the Chat pod. We will keep the Chat function open ten minutes after the conclusion of the webinar.

I will now move on to today's topic, Psychological Health and Resilience of Children in Military Families. Children in military families often face a unique set of stressors, such as repeated family separations and exposure to trauma, injury and even death. Current literature notes that three out of every five service members who deploy leave families behind at home. During this post-war transition time, it is important to recognize and understand the risks and challenges ahead for families of military-connected children. This webinar will explore theoretical insights and current research related to children in military families and examine two major constructs, the importance of developmental timing of events and how multiple interdependent systems influence development and wellbeing. Discussion will include examples of lessons learned from research studies and applicability to current clinical practices. During this webinar, participants will learn to describe factors from research data indicating the wellbeing and functioning of young military children, examine stressors of young military children exposed to parental deployment, and evaluate connections between parental psychological symptoms and children's development and wellbeing.

I would now like to introduce our presenter, Dr. Shelley MacDermid Wadsworth. Dr. MacDermid Wadsworth is a professor and the Director of the Center for Families and Military Family Research Institute at Perdue University. A shout out to the Boilermakers. She is a faculty Fellow member to the Boston College Work Family Roundtable, serves on the editorial boards of several academic journals, and has authored numerous articles and book chapters. Dr. MacDermid Wadsworth holds Ph.D., M.S. and M.B.A. degrees from Penn State, she one-upped me there. And her primary research interests include the relationship between work conditions and family life. Her research has been supported by the Alfred P. Sloane Foundation, the Henry A. Murray Center, the Department of Defense, the State of Indiana and the Lilly Endowment. Additionally, a few of her many research awards and honors include those from the Groves Conference, Gamma Sigma Delta, and the Work Life Legacy Award from the Families and Work Institute.

Thank you very much for joining us, and welcome, Dr. Shelley MacDermid Wadsworth.

Thank you so much for such a warm welcome, and thank you to everyone for joining. I see some familiar names in the list, and you've come from all over the country to participate in this and maybe some people overseas, too. I didn't catch that. But I'm very happy to be here, and a shout out to some members of my own team who I saw had signed up. I'm very pleased to be able to talk with you a little bit about children and military families today, and I'm happy to share with you some of the things that we've learned and some of the things I know from the research literature and some of the things in our own experience, but I also acknowledge that most of you listening know a great deal about this population and about military families, and so I certainly don't want to suggest that I have expertise that you don't. You know many things that I don't.

So I want to just say a couple of things about the Military Family Research Institute just so that you sort of know who we are and what we do. As you were told, we are housed at Perdue University. We were created in the year 2000, and we initially were created as a research house, and we've been doing that ever since. But about six years ago we added outreach and engagement to our mission. So now we develop programs, we do publications, we do engagement work. We have a special attachment to Indiana because we're housed here and because we were funded in part to try to develop innovations that will help people in the state. But our goal also, and our mission, is to develop innovations here that can be used around the country, and so a number of our programs are in use in multiple states.

Our strategic goals are listed here. We work closely with the military community itself. In Indiana that's the Indiana National Guard, but we also work closely with the Office of Military Community and Family Policy

and other entities within DOD. We also work with civilian communities because there are a lot of civilian communities that may not have as much knowledge and awareness as they should about military and veteran families, and so we do work there.

Our third strategic goal is our research mission, and we also aim to influence policies, programs and practices on behalf of military families. So we try to educate leaders and people in positions of power about what the state of the evidence is saying about families and what that might suggest in terms of their policies.

And finally we work to sustain a vibrant learning organization, not only our own, where we try to involve students and other faculty in everything that we do, but also in sharing our work. So, for example, we help to write a textbook for undergraduates and professionals who are beginning to work with military families as a way of trying to support the learning of others.

I'm going to begin today by doing something a little unorthodox, and that is to read you a piece of prose. We're going to be spending this time talking about military children and youth, and it feels a little odd to be speaking on their behalf. And so I want to read you the words written by Michaela Copeland (sp). Michaela is a high school student. She is the daughter of two military officers. And she is the winner of a regional competition for poetry, and I heard her read this work, and I asked her if I could share it. And I thought that this session might be a very good time to share her words to kick off our discussion of this population so that we have a clear sense of their experience. So let me read to you *The Things We Carry*.

We carry their letters in our backpacks. We encase them in plastic. We try to catch grains of sand that slip from the seams. Understand. In the late afternoon, after slogging through school, we dig through our homework for these buried deserts. Spend an hour or two sifting through layers of cursive undertones. They never speak of war, instead of "miss yous" and "be home soon." Instead they offer poetry and platitudes. Advice that arrived a week too late. We press the gritty envelope flaps to our tongues, wonder if this is what they taste before they brush their teeth at night. We carry the love they use to sign their letters, hold it like a Bible to our chests, and dare God to intervene.

We carry what we have been taught to carry. Batteries, sewing kits, pens, pencils, erasers, a palm-sized journal, wrist watches, maps, shoelaces and duct tape. We carry paranoia. Sit back to the wall. Where are the exits? How many people are in this room? Stay out of crowds. Twitching. It clutters cheap diner tables. We carry pocket knives and twine. We carry, run, hide, fight, like a tattoo on our wrists. We carry an eye for anomaly, an ear for alarm, and a survivalist instinct that burrows itself into our guts. We carry walkie talkies and the NATO phonetic alphabet through the dark night of a gated base. Code names. Flashlights. We force our feet to be silent as we slip past MP stations and through curfew's closing fist. We carry each other, holding onto friendships with the ferocity of knowing that we carry even more goodbyes.

We camouflage ourselves in black and set up command centers in empty playgrounds. We borrow strategies from the History Channel and our parents' dinner party conversations. We steal hidden flags, swear they'll never touch the ground. We laugh and run and carry the pretending that these elaborate games of manhunt are not our way of practicing for Whiskey Alpha Romeo. We carry our bag and shoes to the gym, where people say, "have a good workout," like it's, "have a good Christmas." A water bottle, a sweat towel, a playlist labeled "Workout Warrior." We unpack the gifts of our bodies on machines and tracks and benches, carrying the weight of the knowledge that self-sufficiency is strength. We carry our biceps and six-packs like a sign on a lawn reading, "security system installed here." Gatorade, deodorant, hair ties, sports bras, transience, and the nomadic need to move. We compete with ourselves and carry a list of our shortcomings like a splinter in our soul.

Textbooks, calculators, honor rolls and transcripts. We carry libraries from house to house, making the smallest cardboard boxes the heaviest ones. Notebooks and binders and mugs of late night coffee. We carry hours of study in bags under our eyes. We work so that our parents will have one less thing to worry about. We work so we'll have time to see them when they come home on leave. We carry the wanting to

do more than make them proud, the harder, sharper wanting to make ourselves proud. We carry that pride. We carry intimate knowledge of the biology of transplantation and the physics of a bullet.

We carry the practice of statistics, the rate of increase from 1,000 to 2,000 to 3,000. Percentage times three times 30 years equal X before retirement. The probability that it will be somebody we know. The probability that it will be our somebody. The knowing that there are things worse than death. We carry coffins and couches with equal force but different gravity. We carry questions, more than the paradox of a countdown clock that keeps adding time or the problem of a map without title or key. We carry who, what, when, where, why, like a piercing on our tongue. Use it to tap out messages against our teeth. The things we're afraid to ask. How many movie theater discounts does it take to buy back a childhood? We carry our silence in mouths chewed raw from lack of speaking. We carry stones, smooth and flat, picked up along the road to place on Grandpa's grave. It's hard to find him, another uniform white slab among rows of thousands, pristine and regimented as ever. He is black lettered and not yet fading, sandwiched between an emigrant and an 18-year-old. We walk home carrying the need to write a poem for every gravestone. We carry the aunts and sons, the coaches and dog lovers, bookworms and runners. The painters and preachers. Politicians and pacifists. The tough guys, philosophers, sweethearts, the parents who lie here. We carry the veterans lying on city street corners and those who never made it home. We carry the sisters and cousins that stand in their place. When the time comes, we, too, will carry the torch. We wear helmets made of stoic steel and lined with hope. We carry safety pins like bad habits and dog tags like talismans. We carry dandelions in our hands and countries on our backs. We carry on.

If you find those words as powerful as I did and you'd like to read them again, we have them posted at the MSRI website with Michaela's permission, and I'd be happy to send them to you as well.

With that as background, let me begin by telling you a little bit about the population of military children, and then we'll move into some of the specifics about their experiences.

So as of September 12, 43.6% of military personnel have children 20 or younger, or dependents 22 or younger, so a little less than 50%. There were about 1.2 million active component children and 731,000 Reserve component children. This, of course, does not represent the full population of children who have been exposed to parental deployment over the last decade or more because the military is a pipeline that's open at both ends. So every day there are people entering the military and there are people who are leaving. And so there are many more children than this who have been exposed, but those numbers are a little hard to track. So this is the current snapshot.

I'm going to show you two versions of this slide. The first shows the percentage distribution. So this makes the bars for the active component and the Reserve component the same height so you can see the distribution of children by age. And here you can see that in the active component the largest single group of children is those aged zero to five, although the percentage of children six to 11 is also substantial. And in the Reserve component, children are distributed a little more equally by age between preschool, school age, and adolescent children.

If I change it so that the height of the bar represents the number of children, you can see that the active component children number 1.2 million, as I told you, and Reserve component children a little over 700,000, and you can also see, then, the distribution of ages that I just explained.

Something that I'm guessing most of you know because you all look to be people with a lot of military connections and knowledge, but sometimes people don't know these things, particularly in the civilian community, military children are very embedded in civilian communities. So most military families, and therefore their children, live not on installations but off of installations, at least two-thirds and sometimes more. And with privatization it becomes more common. Most military children attend school in civilian communities. DOD does have schools, but they are mostly overseas and don't serve most of the population.

The structure of the military healthcare system is such that most children receive their medical care from civilian providers in civilian communities. They can be seen at MTFs when the MTFs have capacity, but for many conditions and issues the care is expected to be provided on the economy.

Children's parents, of course their military parent work son the installation, usually. Not always. We have recruiters all over the country, for example, who are embedded in civilian communities. But they have a civilian parent, too, in most cases, and that person very likely works for a civilian employer in a civilian community. And, of course, then children's friends are very tied to where they spend the bulk of their time.

Another way of looking at this is to look at the distribution of folks across the country. And data from the Citizen Soldier Support Program, that maps the presence of military dependents and service members by geographic location in the U.S., shows that virtually every city, town or rural area in the country is home to a Reserve component member of an active component member. So all around us are service members and family members, in both the active and Reserve component, but particularly the Reserve component. They're often in very low density. There may not be many of them in a particularly geographic area, but they are very thoroughly distributed around the country.

So I'm often asked, and I'm sure you are too, are military kids doing better or worse off than civilian kids? Who's doing better? And I would argue that that's really not the right question. That every child exists in a network of systems and conditions that mean that they face a unique configuration of risk factors and protective factors. And the reality for military children is that they are provided with a number of benefits that we might all wish could be provided for all civilian children, that represent for civilian children the avoidance of really significant risks that have the potential to change the course of their lives. And so the way that, at MFRI, we've been trying to think about military children is to think about the configuration of risks and protective factors that they confront and how that might relate to their wellbeing.

So let me give you some examples. So if we think about protective factors, the kinds of things that we can think about for military children are, for example, the strong sense of mission and purpose that they have about their parents' military service. Every military child has at least one parent with a high school education, a parent who is employed, with excellent pay and benefits given their educational level, particularly children of enlisted parents. Compared to what's available to civilian employees with high school educations, the pay and benefits for military parents stack up pretty well.

Drug testing in the military means that at least one parent is largely drug free, although alcohol is a struggle, I know, for many military populations. Military families have assistance to obtain housing. They have access to healthcare, and they have access to high-quality child care with subsidies. Those are all significant advantages. If we were to identify the top three things that we wish every child would have access to to maximize their chances in life, chances are those top three things would appear somewhere on this list.

It's also true, however, that military children are exposed at systematically higher levels to certain kinds of risks than civilian children. Not all civilian children, of course, but on average. And so military children are more likely to move at higher rates than civilian children. They are exposed to separation from their parents. There's some speculation that whether they serve in the active or Reserve component, that serving in the Reserve component may constitute a risk to the extent that they're isolated from some important military supports. Military service sometimes involves a certain lack of privacy for parents or their family, and that may cause some pressure for kids.

Substance use. There are substance use problems in the military. Military spouses are, on average, under employed. There are some military families who experience financial difficulties. Obviously you can see the rest of the list.

Maltreatment levels among children are more comparable to those in the civilian community than for spouses. Rates in the military of intimate partner violence are higher than in the civilian community. Deployments and separations can mean that children have to change healthcare providers. And deployments may also mean, of course, that parents are exposed to trauma and bring those

consequences home. Or the children are called upon to take upon themselves grownup roles that they may not be quite ready for, or they may choose to do it themselves without their parents even knowing, and that can be a risk factor for their healthy development.

As specific examples, active component families move about two-and-a-half times as much as often as civilians do, and they're much more likely to move to international locations. Recent data that we've been involved with show that children aged zero to ten over the past decade have spent about 20% of their lives separated from at least one of their parents. So that's a pretty hefty dose of separation that these children now have in their lives going forward.

I'd like to share some kind of theoretical ideas with you. The first is the notion of cumulative risk. And the literature about cumulative risk suggests that under some circumstances it may not be any particular risk factor that is particularly more important than others, but the accumulation of risk factors. And so studies of civilian children have shown over and over again that even when the exact configuration of risk factors that's being studied varies, children may do relatively well until they accumulate a certain level and then the curve starts to accelerate so that two risk factors is okay, but three is a pretty big problem, and four is even more. And so in some ways trying to minimize all risk factors is good, and it may not matter so much which one you're targeting first or second if you can reduce the overall total. I don't think the story is completely finished about that, but as we think about our work. Another thing that we noticed is that risk and protective factors tend to be related to each other, so as you are able to eliminate one thing, you can eliminate some other things along with it. As schools become safer and better functioning, then some other things might improve like children's behavior or the presence of bullying or grades. So this notion of cumulative risk is something that is very important. And it also applies to children's cumulative exposure so that any one thing may be manageable, but over time the children's exposure to risks may accumulate and that may be a concern.

We can also talk about hierarchy of risk, particularly as it relates to parents' military experience. So the last bullet on this slide mentions positive, tolerable and toxic levels of risk. This comes from an article in a recent issue of *The Future of Children*, which did a special issue on military children that is available on the web for anyone who would like it. But the notion here is that we want children to experience some stress. We want them to have the experience in their lives of being challenged and learning how to deal with that challenge. With a baby it might be so simple as the stress of self-soothing when they wake up in the middle of the night. With older children it might take a different form.

There are other forms of stress that might not be desirable but they're tolerable. Children survive divorce. Or children survive changes in schools. But there are also levels of stress that can be toxic, so divorces where spouses can never – or ex-spouses – can never co-parent effectively, or families that are full of conflict or violence can be toxic for children and present levels of stress that children are unlikely to have the capacity to deal with. And what we see in the data about deployment or military service among parents is that the likelihood of negative outcomes for family members, including children, rises with the level of exposure to the items listed in the other bullets on this screen.

So during peace time military service doesn't really have any predictable impact on children's outcomes or spouses' outcomes or families' outcomes. And war time military service may not either, although there might be a slight increase or something of an increase because of the overload and the heavy work pressures that's come into play in recent discussions about suicide rates, for example, that the pressure for everybody of the high op tempo is problematic even if you haven't been deployed. Deployment during war time is somewhat more likely to generate negative outcomes in family members. Exposure to trauma by a parent ramps it up further. When parents are wounded or injured, even more, and if the family is bereaved by the death of the service member, then there are almost certainly going to be at least some negative impact on families. And so we have accumulations of risk and we have hierarchies of risk that we can talk about with regard to children.

Another key idea which I'm sure you all are familiar with is the notion of thinking about families as systems. And we talk about this quite a bit. I think it's a well-accepted idea in the military and in the veteran community. But we don't always operate fully as though we get that idea. So sometimes the way

that we handle reintegration, education, or pre-deployment education, or design our programs may not fully embrace this idea that families are systems. What we always remind ourselves of is that deployments and other aspects of military life happen to family systems. Each person may be affected both directly and indirectly. So it's not just that a child is affected by what their military parent experiences, but the child him or herself experiences the separation directly and makes decisions about how they are going to respond. And the dynamics between family members can then reverberate within the family for extended periods. So symptoms in one family member might spur symptoms in the other. Or expressions of anger by one family member may ramp up negativity in other relationships, and so the systemic properties of families are very important, both because they can extend risks, but also because they are opportunities that good things happening in one relationship might help another relationship in the family. Or if you shift something in one part, something positive might happen in another. So these systemic properties of families are very important and have a lot of power in a variety of ways in families.

And the final idea, the final key idea, I'll share with you is this notion of contextual factors, and so what goes on inside families is important, but what goes on outside families is also important. So if you look at the left side of your screen, you see deployment as a seminal feature of military life. If you look at the right side you see child outcomes. And the purple line reflects that we might expect there to be a direct relationship between deployment, a parent's deployment, and children's outcomes. The green line reflects that we might see an indirect relationship, so that deployments affect family functioning and parents' own wellbeing, which in turn affects children. So that's an indirect or mediated pathway.

The orange lines, the dotted lines, reflect moderated relationships where outside conditions could change the strength of other relationships in the model. So, for example, we operate with the idea, as a community, I'll call myself part of the military community for the purposes of this talk, we operate with the idea that the supports that we provide on installations are really beneficial to children and youth. And the goal of those programs, essentially, is to weaken the purple arrows, to make the connection between deployments and children's outcomes weaker. And so the programs that we provide for children and youth are moderators of that direct relationship. And so this conceptual model, this diagram, is a way of trying to incorporate the variety of sources of influence that we can think of with children. Now I didn't put peers here, but peers would be another potential mediating or moderating factor that might change the strengths of other relationships that I've shown in the diagram here.

Now strangely we don't have a lot of really good information about, in general, the wellbeing of military children. In a number of surveys conducted by the military of military parents, information has been gathered about how military children are doing. But that is parent report, it's not direct observation of children. And civilian studies don't often include enough military children to be able to say very much by age, and that's an issue. You can't use the same measurement tools with children of every age, and so it's logistically complicated and expensive sometimes to gather kind of gold-standard information from children of a variety of ages.

But there are a number of studies that have looked at children at different ages, and the findings tend to be fairly consistent. So Rand did a study several years ago of children who had applied to attend Operation Purple Camp. These are adolescent children. And these children showed elevated levels of developmental difficulties on the strengths and difficulties measure and elevated levels of anxiety. I'm going to show you a couple of slides that reflect that.

So here you see a slide that Anita Shandra (sp) prepared. This simply shows that if you look at the lighter-colored bars, you see data from national samples in the general population. And if you look at the darker-colored bars, you see the representation of military children. And what you see is that military children, higher percentages in military children are reporting problematic levels of emotional and behavioral difficulties. These are significant differences, they're important differences. On the other hand they're not, you know, double the other children. It's elevations. And, of course, here we're looking at reports of behavior. These are not diagnoses.

Here's another look at it. These are data with regard to anxiety. And what you see here, if you look at the dark-colored segments of the bars, the percentage of military children reporting problematic levels of

anxiety symptoms is about double the percentage of civilian children or children in the general population. So here, the findings are a little stronger or the difference is a little bigger, and obviously that is a concern for all of us.

I've one more slide I can show you. These come from Washington State, as it says, in 2008. This was a study done in the civilian school system, so they're military children in this system, Washington State has a very high presence of military folks. And what was interesting here was that they included children in civilian families or children with two civilian parents, children with a military parent who had not been deployed, and children with a military parent who had been deployed. And what you see here is that the bars where the deployed families were higher than the bars for either of the other two groups. And these differences are largely significant. So the children who had been exposed to deployment were significantly more likely to report low quality of life, depressed mood, and thoughts of suicide. Data with similar findings have come out from California in recent months.

So we certainly have reason for concern, and there's some sense that that is tied to exposure, not just to military service but to parental deployment.

So let's talk a little bit about deployment. Again, many of these things are things you already know. Deployments occur for many reasons, and many of the studies that have been done in the last ten years about children have focused primarily on lengthy combat deployments, particularly of male service members in the Army who have civilian spouses. So our knowledge base comes from actually a subset of the military and a subset of deployments. But we don't actually know whether it's the case that that distinction matters for children. For children it may be that all that matters is the separation unless the parent returns with symptoms that they sort of bring with them.

Deployments do have key structural elements that are common. Every deployment has a before and a during and an after. But some of the experiential elements that we think are predictable, we don't actually have a lot of evidence for, so there's a lot of talk about a honeymoon period, for example, following deployment, and many of us think we see that, but it doesn't come through in the empirical data as much as we might think. So there's more diversity in the family experiences surrounding deployment than maybe we think sometimes.

And many of the structural elements differ across people and vary within people, so every deployment has unique elements. They last for different lengths of time. People have different military jobs. Deployments are in different places and that can affect children very directly because of time zone differences and so on.

Much of the research about children of military folks focuses on fathers who have PTSD and the implications for children. So our understanding of deployment remains incomplete. There are some large studies under way that will probably help us with a number of these questions, but we don't have results yet.

I don't know how legible this is for you, but it comes from a report to Congress on children and deployment which is included in the reference list. It is available on the web at the OneSource website. This is a summary of studies that have been done in the recent decade about impact of deployment on children by age group. And what you can see is that externalizing behavior like aggression, behavior problems, pretty much is consistent across age groups. It's mentioned at every age group. Anxiety or depression or other internalizing symptoms, that also shows up. And academic performance tends to show up more with older children.

Another common pattern of findings across studies is that cumulative duration appears to be more important than frequency. So, you know, I speculated a little while ago that maybe it's just the number of deployments that matters and the characteristics of the deployments don't matter. This suggests that I'm wrong. It's good that I can be wrong sometimes, otherwise there would be no point to my academic life. So I'm happy to be wrong. But it also says that cumulative duration appears to be more important than frequency. And that has come out in a number of studies. It's not clear that there's any sort of ideal

duration of deployment for children. The dosage does appear to matter, and most studies have not been able to look at timing of deployment in children's lives because that requires having data about the entire deployment history, and there aren't that many studies that have had that, so the jury is still out about timing and we have some data that we'll be publishing over the next few months, hopefully, that will shed a little bit of light on that.

Alyssa Mansfield did a very nice study of healthcare records of over 300,000 children age five to 17, so this is a record of diagnoses and treatment, not just symptoms, and here she estimated that deployment generated between 19 and 50 excess cases per 1,000 deployed personnel of diagnosed psychological health problems in children, and this was particularly true for boys, older children, and children whose parents had deployed longer. In her data, it looked like 11 months might be a cut point for duration of deployment, but she did not look at the timing of deployment, deployment history, so there's still a little more to look at there.

I'm sure that if you work with children you know that how children express their difficulties varies by development stage and developmental paths, so anxiety can look very different in different children even though the underlying cause is the same. In terms of developmental tasks, for infants and preschoolers people are very concerned about potential disruptions in the formation of children's attachment systems, their internal working models of attachment, the potential for those to be disrupted by deployments during that period.

For school-age children, anxiety is a concern in performance in school. Groundwork is being laid there for many important things.

For adolescents I think there are special concerns about parentification of the children and also risky behavior because children are orienting more toward peers at this period and so it's a time that they could make some choices that would have long-lasting negative consequences.

There's not a lot of consistency yet, I don't think, about age and gender. There's some speculation that younger children would be more vulnerable than older children. I don't think there are enough studies yet to say yes, it's definitely coming out that way or it's definitely not coming out that way. It's mixed. So I wouldn't be too hasty to think that this age group is okay and that age group is a problem. Definitely mixed.

Now you'll remember from the diagram that I showed you earlier that parent functioning is very important, and the civilian literature has shown for decades that how children do is largely a function of how their parents do. And here we see that it's, I think, very well established that a substantial minority of service members experience significant elevations in symptoms as a result of deployment, which can also be problematic for spouses. PTSD and other mental health issues are related to relationship problems, and the Institute of Medicine concluded a number of years ago that although they couldn't conclude a causal connection, the evidence hadn't gotten to that point yet, they certainly could conclude a strong correlation between exposure to combat deployment and later relationship problems.

There's some evidence to suggest that the attributions of spouses might matter. So Keith Renshaw's work has shown that to the extent that spouses feel that there is an understandable basis for the level of symptoms expressed by service members, they're a little more able to adapt to their circumstances without suffering declines in marital satisfaction.

Levels of symptomology among spouses, however, are higher than we might expect, more similar to those of service members, I think, than many people have expected. And we see similar sorts of things. Depression, anxiety, sleep disorders and so on. There are also a number of studies that highlight stress during pregnancy related to a partner's deployment, although having other children already at home was actually a bigger stressor, so I definitely want to put that in perspective.

We can see some disruptions or potential for influence in parental and family functioning. Certainly parents who have PTSD experience difficulties in their relationships with children, and it can interfere with parents' ability to work effectively together to make good decisions about their children. Longer deployments here may be more problematic, and certainly during deployment worries about family are a really top concern. This came out through the MHAT (sp) studies, so certainly service members are thinking about these things.

Marital functioning also we have seen connections. And the studies here are mixed, although I think the studies with stronger methodology are showing connections. So Ben Carney (sp) has done some studies that don't show much of a relationship, but the window of time that he was able to look at and the degree to which he was able to follow over time were limited. More recent work by Jim Hocek (sp) and Sebastian Negrusa has followed relationships longer and has also contrasted relationships formed before and after 9-11 and differences between hostile and non-hostile deployments and so on. And so we do see, I think, pretty good evidence that the risk of later marital difficulties rises with deployments to combat zones and rises further if the service member experiences symptoms. Three key dynamics are the ambiguity that surrounds deployment, and even reintegration when folks may not be kind of fully back in their mind. How to maintain closeness despite distance. And the communication issues are substantial, both during and following. It's not really about marital adjustment, it's about marital adjustment and readjustment and readjustment, as it is in every relationship, but certainly surrounding military service it's very much, I think, a marathon.

So what can be done? Bill Folsom (sp) did a paper that I really, really like that is in your reference list, and he talked about mechanisms of risk and resilience in families. And I've listed some of the highlights here. But his work is heavily guided by Froma Walsh's series, Family Resilience. But what I like about it is these things are all influenceable by teaching. These are things that can potentially be modified. And so I think they provide a good list for us of things that we can be considering going forward about ways to make it easier for families to adapt to separation, reintegration, and all of the things that military life will continue to bring their families.

Here I present a list that was developed by Steve Cozza and his colleagues where he's focusing specifically on families dealing with wounds and injuries. And a lot of what he's dealing with here are families where the wound or injury is relatively new, but I wanted to include it because I haven't spent a lot of time talking specifically about families with visible or invisible wounds or injuries. I haven't talked about TBI at all, for example. But I wanted to put these suggestions in front of you as a contribution from a practitioner who has a lot of expertise.

I also wanted to say a couple of things about community mechanisms. And here I'm sharing recommendations from Harold Kudler from the VA and Rebecca Porter from the Army that were published in The Future of Children edition. And here they're making suggestions for agencies about things that agencies can do that will increase the infrastructure for military families and improve the way that military families are being made visible and being served. And then also a mechanism to make that information available so that when families are looking for resources they can find your agency or your organization.

In the final few minutes I'm going to mention just a few examples of programs that have been developed over the course of the war that you may be familiar with, that might be available in your area, or that you might want to learn more about.

The first I'll mention is the Talk, Listen, Connect series that Sesame Workshop prepared, and you say a PSA before this session about a new module that they've prepared. Sesame rolled up their sleeves and developed materials related to deployments, multiple deployments, wounds and injuries, and other issues. And these are videos. They are available on the web. You can use them with families. Families can use them with themselves. They're good for kids to sit and watch with their parents. I think they can work – I think they have reasonable shelf lives. One of the things that's really nice about them is that they model for parents ways to deal with young children's expression of negative emotions. Parents often want to soothe children, and in their efforts to do that they sometimes deny the child the access to express

their negative emotions. They'll say, oh, it's okay. It'll be all right. We all do. We feel terrible when children are expressing negative emotions. But this is an opportunity for children to learn how to experience those negative emotions and get through them, and I find that these materials can help parents see how to do that without feeling quite so paralyzed and guilty.

Another example is Strong Families, Strong Forces, which Ellen DeVoe and Ruth Paris at Boston University have developed for parents of young children. They received funding to develop and test this model, and have been doing that in their area for quite a while.

I'll also mention the Adapt project by Abi Gewirtz at the University of Minnesota. This aims at somewhat older children. It's based on the Oregon Social Learning model and is really dealing with managing children's behavior. And, again, Abi has been developing and building out and testing this model, and you can learn more at her website about it.

Another good example is Ron Astor's work at the University of Southern California. He's had a large project in southern California aimed at schools and making schools more hospitable places for military children by trying a school-level approach. And their website has lots of materials and information about what they've been doing with schools.

Patricia Lester at UCLA is the – I call her the Mother of FOCUS. So they adapted FOCUS from another intervention that she had worked on for a number of years with Bill Beardsley and others. And it is in operation at many installations around the world. It is a program for families that helps them with reintegration and building resilient skills.

The last thing I'll mention is an app that was just recently released. It was developed collaboratively by DOD and VA

along with input from a number of experts including – I think Alan Jebow (sp) was involved and others. And it's aimed to be made available to parents anywhere at their website. And I thank them for providing me with these slides. So it's intended to be kind of an in-the-heat-of-the-moment app for parents so that they can carry it around with them and use at key moments. It targets military parents, but there's certainly information that's not just tied to military experience. There's stuff that is useful for parents no matter what their parenting challenges. You can see here they're focusing on the after deployment or after separation period to some extent. It's available to parents any time on the web. And there are modules that parents can work through that talk about specific tasks that parents are trying to accomplish, and in each module there are tips for parents, practice items that they can use, and it's made to be accessible and kind of feasible to use while they're running around and in the heat of the moment with their kids. As you can see here they also have examples from other families and they also have tip sheets and resource lists. So that's something that's just come online that is supported by both VA and DOD that you might find useful in your work.

And so with that I will stop and invite my bosses on this to invite questions or however they would like to handle the session. I'm just looking at my reference list screen, and I see that I didn't format it very well, so my apologies for that.

But thank you very much for stopping in to this webinar today, and I look forward to your questions.

Thank you very much for a comprehensive and quite outstanding presentation, Dr. MacDermid Wadsworth.

If folks in the audience have any questions for Dr. MacDermid Wadsworth, please do submit them now using the Question box located on your screen.

Before we move to the formal question-and-answer session, however, I would like to take time to introduce Dr. Kelly Blasko, who will present a product brief that is very closely related to today's webinar topic. Thank you for joining us, Dr. Blasko, and welcome.

Thank you very much. My name is Dr. Kelly Blasko, and I currently work as a psychologist for the National Center for Telehealth and Technology, or T2, headquartered at the Joint Base Lewis McChord in Washington State. We are a component center of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury. T2's mission is to lead the innovation of health technology solutions for psychological health in traumatic brain injury for our service members, veterans, and families.

I'm really excited to introduce the Big Moving Adventure mobile application, or app, developed in partnership with Sesame Workshop. This free app is one product of a larger resource portfolio funded by the Defense Department to support military families as they face one constant facet of military life, moving. The average military child moves six to nine times between kindergarten and high school. While moving is stressful for all family members, preschoolers are especially vulnerable to changes in routine and environment. The Big Moving Adventure app is designed to lead military children through the moving process so they can learn skills to reduce worries and build self-confidence and resilience. This app creates an adventure out of the move. It helps allay children's fears of their unknown and provides parents with tips on how to communicate with their children about the upcoming move. Although this app was created with military children in mind, it would be helpful to any child who is moving.

The Big Moving Adventure app leads a child through a series of steps common to a move. When they use this app they can first customize a Muppet friend and help him or her move to a new home. They decide which toys and books to pack in a box and which special comfort items to bring along during the trip to the new home. They explore different ways to say goodbye to people, places and things at the old home. And they choose how the Muppet friend could be feeling about the Big Move. And then once they reach the new home, they explore it and unpack toys from the moving truck. And finally they meet new friends at the new home, including some familiar furry faces from Sesame Street.

There are other resources within this portfolio that include familiesnearandfar.org, a bilingual website that offers free resources for military families including Talk, Listen and Connect, which Dr. MacDermid Wadsworth mentioned, and two additional free mobile apps, one called Feel Electric! that encourages children ages six to ten to explore and express their emotions, and Sesame Street for a Military Family, which provides access to videos, articles, storybooks and parent guides, part of Talk, Listen and Connect.

Thank you so much for permitting me to present the Big Moving Adventure during this webinar. It's a great app, and I hope you download it and enjoy it. Thank you.

Thank you very much, Dr. Blasko.

It is now time to move to the question-and-answer session. Again, if you haven't already, please submit your questions via the Q&A pod.

I'd like to open with a question – it's actually pretty interesting to me – do you have any data on differences between if the father or male parent versus the mother or female partner deploys? Are there any differences you see in childhood outcomes?

You know, it's a very interesting question, and the short answer is no. It hasn't come out in a lot of studies that have included both mothers and fathers, but the reality is also that we don't have a lot of data about children's outcomes as a function of mothers' deployments. The Military Family Life Project, which the Office of Military, Community and Family Policy has carried out, I think has enough data from spouses of female service members who also answered questions about children that there might be a way to look there. But in general the representation of mothers in studies is so small that when you combine it with the problem of child age and having to use different measures for children of different ages, you end up with great difficulty in being able to make any statements.

One thing I will say is that I suspect, if I had to guess, that it's going to break more by parental function than parental gender. So if it's the primary parent, if it's the person that's doing what mothers tend to do in families in the general population, if it's the person who kind of wrangles the family on a day-to-day basis, and that's the person who's getting deployed, that's going to have a bigger impact on daily life than if it's the other parent who goes. And so our expectations about what we might find might break that way. And in military families, if the civilian husband is the person who's expecting to be at home and maybe that that person is the wrangler all the time, then that might reduce to some extent the impact that we would see. The deployment of any parent – separation from any parent – is difficult.

Thank you. Another question I have is certainly within the service we often – I would call it an inter-service rivalry – there are cultural differences between Army, Navy, Air Force and Marine Corps. I'm curious from your perspective if you found any cultural differences in family kinetics and some of the either resilience issues or emotional/behavioral issues in kids across those cultures?

Again, it's something that we don't have good data on about sort of systematic differences in children's outcomes by service, but we do know some things about deployment by service and families' consequences, and not all the work is Army. Anytime DOD does a study, for example, all branches of service are represented. The Rand studies include all branches of service, although the Coast Guard is probably the least well represented. But I think a lot of times the differences break as a function of other factors. So, for example, in the Navy, historically anyway, deployments have been, like lengthy deployments, have been quite expectable. They are normative. Every Navy family experiences a deployment on a regular basis in war time and in peace time. And so experiences there can be somewhat different than in the Army. Now in a war, the role of sailors was different, and I've heard a lot of stories about people who were sent from the Navy as individual augmentees, although I think that's not the name that's used in the Navy so forgive me for getting it wrong, and that that was especially stressful because it was so non-normative. Marine Corps families, the separations tend to be shorter but more frequent, but they may be exposed to more danger. So I think the way to think about it is probably more likely to be driven by the experience as a family, the parameters of the deployment history, how much dosage of separation children are being exposed to, how much trauma parents are being exposed to, and how much the experience is non-normative and stressful. To the extent that there are systematic differences between branch of service in those things, then you'll see differences between branch of service in kids.

Thank you. I'm personally curious, I have my own research interests in the military, and I'll tell you IRB issues and getting access to particularly kids in a vulnerable population, are you doing some long-term studies? How do you get access to the military families? Are there any tips for researchers who might be on the line with us in terms of access to longitudinal data or follow-up studies that you're planning?

Well, the first thing I'll do is offer my sympathies. This is a – yeah, this is a very difficult undertaking, and the lack of data about military children by no means reflects a lack of interest by researchers in those data and in those questions. It is extraordinarily difficult to get permission to have access and then to get families to agree. Military families often feel that they have given over enough of their lives to the military and they're not all that interested in offering up their children, which I really understand.

There are some things that I can mention that people might find useful. One is that there are data in some existing studies. So, for example, the Military Family Life project has two waves of data, of spouses. It's a pretty large sample. They are asked questions about their children, and it does include all branches and components and it does include mothers and fathers. So that might be a useful resource, and I believe that you can request copies of those data from Military Community and Family Policy and under certain circumstances they'll give it to you.

The Rand is in the field with a very large study, a three-year study of families. It started out as just an Army study, and I can't recall if it has expanded now to all branches, but I expect that they'll be publishing from that in the very near future.

The Millennium Cohort project, which is run at the Naval Health Research Center, has added a family component, which is gathering data from spouses, not directly from children, but will gather some data

about children so we'll get some data there. Now for all of the researchers out there, none of that might be good news because you want to do your own studies, you don't necessarily want to use the data of others. I think a place that we could be looking more is some of the regular studies that are done in the general population and the degree to which those studies are picking up military children intentionally or by accident. Also, if you are located in a state where there is a statewide survey of children, that's a great place to add a couple of items that allow you to assess the military connection of the children, and then you can replicate, relatively easily, the kinds of analyses that were done in Washington State and California, and really that would be a very helpful thing to do.

To the extent that you have influence with IRBs or with military families to encourage them to support research like this, I hope that you'll do that. Also the records information that, for example, that Alyssa Mansfield did where she looked at healthcare records, that has no burden on military families at all. The data already exists, and so in the grand scheme of things it's relatively cheap compared to following children over time. And so that's a promising research strategy, I think, that is – I'll say it's feasible, but I'll put quotation marks around feasible because you still need a lot of connections and you have to go through a lot of hoops to get access to that.

Keeping in the theme of research, I'm curious if – this is, I think, a historical/normative question, if you're aware of any databases that exist that would compare perhaps today's kids to those of the Greatest Generation. Are there any data comparing prior conflicts?

Hmm. That's a really good question. You know, our measurement is so different, our understanding of kids and development is so different, that I don't know that we'd get very consistent measurement. There are some really interesting studies, though, that I think could make interesting reading for people who are willing to slog through it.

So in recent decades there certainly are studies that may give us some hints. I'm not sure. So the national longitudinal surveys of youth may include some elements that will give us some hints. The Monitoring the Future project at the University of Michigan tracks substance abuse in kids, and they have been giving some attention to military issues. Those don't go back as far as you're asking, but they do go back some distance, several decades, so there's some useful information there.

But there are a couple of other studies or databases that are kind of interesting to think about. One comes from studies of children in families who encountered the Great Depression, so this is pre-World War II. It led to a book, a very influential book, called *Children of the Great Depression*. But one of the things that it offered insights to is developmental differences in children and the implications of the Depression, how they differed for children based on how old they were when it hit. And I think that's a really instructive way to think about the experience of war today.

Another interesting study to think about is Rand Conger and Glen Elder – Glen Elder was the person who wrote *Children of the Great Depression* – did a study of farm families in Iowa encountering the economic downturn in the early nineties. And so there also they gained lessons about parenting and children's experiences and how these outside stressors reverberated through families.

So neither of those is about military kids but they do deal with other historical periods and may offer some useful insights.

Thank you. Personally I still – I work at Walter Reed where a number of our most severely wounded have come – and at one point there were over 500 benevolence organizations wanting in some way, shape or form to help. Do you think that programs like the Yellow Ribbon, Wounded Warrior Foundation, these multiple programs that have been developed, from your perspective have they made an impact?

I think there certainly have been impacts. It's hard to quantify I know. And I just want to say one thing about that because, you know, initially there was talk about the Sea of Good Will, and lately there's been talk about not just the 500, but sometimes the number is as high as 40,000 organizations have formed

over the last ten years that have the name “veteran” or “military” in their mission. And I think we all agree that many of those organizations may not have exactly the right goal, and then there’s probably a few bad actors in there as well. But I bristle a little bit – and you did not do this, I want to be clear – but I do bristle a little bit when this proliferation is discussed as a problem. It certainly generates challenges, but I also think it’s tangible evidence that the nation has stepped up in many ways. All these people that are out there doing this work, they’re spending thousands of hours and millions or hundreds of millions of dollars trying to do something good. And I think first we have to acknowledge that. And then we move on and deal with the challenges. And so, you know, are we better off because all of these folks stepped up to do their thing? I think there certainly is evidence for some of these innovations that good results are being achieved. All of this creative invention is generating cream, essentially, that hopefully now will rise to the top and be carried forward.

The programs that I highlighted in my talk, particularly in the case of Abi Gewirtz’s program and Ruth Paris’s program, and Tricia Lester’s program have, I think, pretty good outcome data established. And you might not be counting them in the group of benevolent organizations, but the reality is that universities are part of the group that has stepped up. And the Wounded Warrior Project has certainly raised a ton of money, and assuming they can spend it well, I would expect that they can generate outcomes.

But as someone who lived in this space and worked in this space, it is a struggle not only to quantify the impact but then to isolate your own impact. So when you get a good outcome, that’s great. But how do you know what part of it you’re responsible for? And that is a significant measurement challenge. And that’s what we’re all working on very much these days, and I sympathize with the proliferation that you have to deal with in terms of phone calls that you get every day, I’m sure, of people coming out of the woodwork to offer help.

Thank you. This one comes from the field, but I wear multiple hats, and one of them is I’m a military parent myself. And the question is, as a military parent I see how cumulative risk theory works in our family. Do you have any suggestions on how to use concept or theory and present it to military leadership in a way that could make some sort of positive change? Advocacy within the schools, that sort of thing.

You know, it’s a good question, and I saw it go by on the screen and I was trying to think about, you know, is the issue that we’re wanting military leaders to just be more sensitive to the possibility of risk in children or is it that we want them to pay attention to more things so that they’re targeting their interventions more broadly. I mean one good thing, I guess, about that model is that it’s been around for a long time in the general population and there’s very good evidence of it. And one of our recent projects generated evidence for military kids that looked very much the same. And I’ve not been cleared to talk about it yet, but there certainly is evidence about this with regard to military children. And if that’s likely to be persuasive, then hopefully in the coming months that’ll be available. But if that person wants to ask me offline a little more detail about what they’re trying to get at, I can try to answer better. But if military leaders are persuaded by bulk of evidence, then that’s one positive thing. There’s quite a bit of evidence to support a model like this.

Well thank you very much. I’m going to sort of shift roles a little bit from moderator to 21 years as a Navy family physician who has lived through now multiple deployments, multiple conflicts, not only myself but also with thousands of families that I’ve cared for through the years. And again, in the context of psychological health and resilience in kids in military families, so as a Navy family doc, we do, we adhere to the cradle-to-grave model. So I’ve personally been involved with much of this throughout my entire career. I would salute you on an extraordinarily thorough review of the literature. Your work is exciting. And on behalf of a grateful nation, I would say thank you very much for helping us to help the families really of our heroes.

A couple of things that I use in my own personal practice I would add to the very helpful tips that I think you gave. One is the simplicity of mealtime. When families in that construct – and I admit that it’s often a nuclear construct of a family – but spending a family meal together every day, one family meal together, I think the psychological and also physiological physical outcomes are fantastic. So that’s a simple piece of

advice that I try to give. Understood that they can't necessarily have a mealtime together when folks are deployed overseas, but I do have to say that technology has shrunk our world. In World War II it was a letter, today it can be a Skype, and so I have seen that technology can be a very, very helpful way of shrinking what can be a very stressful distance. I've seen technology backfire. So I've seen technology work well and I've seen technology work poorly, but I think it's at least an important thing to bring up.

Another thing, particularly when I'm talking to the men who are about to deploy, I tell them about what I call the damsel in distress syndrome. I prepare them that when they come back, and this is, again, in a nuclear setting, their wife and the kids that she is caring for are going to be different. I've found that many, many soldier-sailor-airman-and marine want to come back in the rescue mode, you know that perhaps things fell apart while they were gone and they're going to fix things, but that often doesn't happen. The wife (audio break) carry on. And I've found that many families have had real readjustment struggles. So in terms of mitigating risk and managing expectations I've found that a discussion of the damsel syndrome personally to be very, very helpful.

And as a family doc I've got to say that one of the things that I think is most important is human relationships. And that is predicated on the principle of trust. And so developing trusting patient-physician, patient-provider relationships, again mine is a model of continuity so that the families, both the warriors and their dependents, know that they have a usual source of care where they can repetitively come to.

You alluded to the fact that not everybody gets their care on base, and that absolutely is a truism. But I have found the simple reassurance of knowing how to get a hold of me is very, very helpful. In fact I've spent a lot of time with the Marines, and I think the best thing that I could reassure any of my Marine Corps buddies as they were deploying is hey, man, I've got your back, and you don't need to worry about the health of your wife and/or kids while you're gone. And I've found many have told me how comforting that was. They were able to stay on point, stay on task knowing that their families were going to be taken well care of.

So thank you for allowing me the opportunity to inject a little bit of experiential practice that I've had through the years.

We're going to start to wrap up here now. again I would very much like to thank Dr. Shelley MacDermid Wadsworth for an extraordinary presentation. Thank you to those who submitted questions. After the webinar please visit <http://continuingeducation.dcri.duke.edu> to complete your online CE post-test and evaluation and download your CE certificate of attendance and credit.

Thank you again to Dr. Wadsworth, also to our product briefer Dr. Kelly Blasko. We will archive today's presentation in the Monthly Webinar section of the DCoE website.

To help us improve future webinars, we encourage you to complete the feedback tool that will open in a separate browser on your computer. To access the presentation and resource list for this webinar, visit the DCoE website at dcoe.mil/webinars. We will post a downloadable audio podcast and edited transcript of the closed caption text to that link.

The Chat function will remain open for an additional ten minutes at the conclusion of the webinar for you to continue to network and chat.

The next DCoE traumatic brain injury webinar topic is Post Traumatic Headache, and it is scheduled for May 8 from 1:00 to 2:30 p.m. Eastern. The next psychological health webinar topic is Understanding Changes to Post Traumatic Stress Disorder and Acute Stress Disorder Diagnoses in the Diagnostic and Statistical Manual for Mental Disorders, 5th Edition – that's a mouthful – so this is DSM5 Part 2, scheduled for May 22 from 1:00 to 2:30 p.m. Eastern.

Thank you again for attending. I hope you have a great day. This concludes today's webinar. Participants may disconnect.

