

8-19-2020

Tracing Ripples: The Impact of Parent ACEs on Next Generation Development and the Moderating Role of Parent Resilience

Laura M. Hoffman

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Tracing Ripples: The Impact of Parent ACEs on Next Generation Development
and the Moderating Role of Parent Resilience

by

Laura M. Hoffman

Presented to the Faculty of the
Graduate School of Clinical Psychology
George Fox University
in partial fulfillment
of the requirements for the degree of
Doctor of Psychology
in Clinical Psychology

Newberg, Oregon

August 19, 2020

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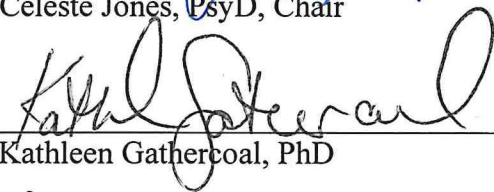
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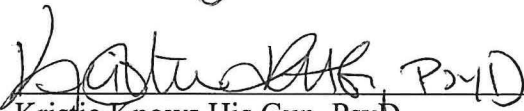
Signatures:



Celeste Jones, PsyD, Chair



Kathleen Gathercoal, PhD



Kristie Knows His Gun, PsyD

Date: 8/19/20

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Laura M. Hoffman

Graduate School of Clinical Psychology

George Fox University

Newberg, Oregon

Abstract

Adverse childhood experiences (ACEs) impact individual well-being at a biopsychosocial level and can undermine next generation child development. Resilience is increasingly understood to be achieved through natural adaptive systems, though younger children may be more reliant on environmental adaptive systems as internal systems develop. Parent resilience is a promising moderator of early intergenerational trauma transmission but relatively unexplored in terms of safeguarding offspring developmental outcomes. The current study examined if parent ACEs impact offspring overall development and specific developmental domains at 9, 18, and 30 months, and if parent resilience moderates these effects. A series of multiple linear regression, MANOVA, and Welch's *t*-test analyses were run. Parent ACEs positively predicted offspring developmental risk only at 30 months. Maternal resilience predicted lower developmental risk and better problem-solving, personal-social, and fine motor at 18 months, as well as gross motor at 30 months. Parent resilience moderated the effects of high parent ACEs on developmental risk at 30 months. Thus, parent ACEs can negatively impact

child development by 30 months but parent resilience moderates high parent ACE effects and supports early child development and resilience. Children of parents with both low resilience and high ACEs are particularly vulnerable to developmental delays. Findings highlight the importance of (a) screening for parent ACEs and resilience in primary care, (b) providing preventative and secondary family resilience-building interventions prior to 24 months, and (c) flexibly screening for delays in high risk families.

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Chapter 1

Introduction

Adverse childhood experiences (ACEs; Felitti et al., 1998) are a major public health issue that has inspired efforts towards more trauma-informed and preventative care (Garner et al., 2012; Lê-Scherban et al., 2018; Logan-Greene et al., 2014; Narayan et al., 2017) and a plethora of resilience research. Resilience has been shown to moderate numerous ACE-related outcomes for individuals (Logan-Greene et al., 2014; Poole et al., 2017; Wingo et al., 2014). Yet we are still learning the extent of parent ACE effects on offspring and if parent resilience moderates these intergenerational effects.

Adverse Childhood Experiences and Intergenerational Trauma

ACEs can foster vulnerabilities to psychopathology and disease by altering underlying psychological and neurobiological systems through (a) the biological embedding of stress and (b) disruptions to early development which undermine subsequent development. (Anda et al., 2006; Buss et al., 2017; Cicchetti & Toth, 1995; DeBellis & Zisk, 2014). Thus, ACEs have a graded relationship with a host of medical conditions, poor health behaviors, psychosocial problems, and difficulties in executive functioning, cognitive skills, and stress response regulation (Buss et al., 2017; Cicchetti & Toth, 1995; DeBellis & Zisk, 2014; Felitti et al., 1998; Logan-Greene et al., 2014). Higher ACEs increase the likelihood of psychopathology, insecure attachment styles, and interpersonal and academic difficulties (Brockie et al., 2015; Cicchetti & Toth, 1995; Felitti et al., 1998; Main & George, 1985; Murphy et al., 2014; Poole et al., 2017; Raby et al., 2019).

These ACE-related difficulties can continue into adulthood and thus into parenthood for many individuals (Atzl et al., 2019; Cicchetti & Toth, 1995; Felitti et al., 1998; Kaplow & Widom, 2007).

The impact of ACEs can also transmit across generations and can undermine offspring well-being. Parent ACEs predict subsequent child ACE exposure and lower socioemotional functioning (Narayan et al., 2017). Maternal ACEs indirectly predict infant physical health through pathways of biomedical risk in pregnancy (Madigan et al., 2017). Higher parent ACEs increase children's risk of asthma, excessive television watching, worse overall health, behavioral issues, and poor mental health (Dennis et al., 2019; Schickedanz et al., 2018). Yet childhood trauma is not the sole determinant of health for survivors or their children. Trauma responses vary by ACE type, frequency, severity, duration, and developmental period (Cicchetti & Toth, 1995; Dennis et al., 2019; Narayan et al., 2017). Furthermore, developmental psychopathology theory posits that childhood trauma outcomes are moderated by individual and systemic protective and risk factors (Cicchetti & Toth, 1995). This highlights the importance of exploring ACEs alongside resiliency factors.

Resilience: Definition and Moderating Effects

Resilience is a dynamic, interdisciplinary, and developmental process (Masten, 2014) defined as “the attainment of positive adaptation within the context of significant threat, severe adversity, or trauma” (Cicchetti, 2010). Masten (2014) suggests that resilience is derived from normal adaptational systems within one's various ecological systems (Bronfenbrenner, 1979). Yet impairments within adaptational systems increase children's vulnerability to developmental problems when challenges occur (Masten, 2014). Individual resiliency processes and abilities include problem-solving, self-efficacy, optimism, cognitive abilities, and self-regulation (Alvord

& Grados, 2005; Masten, 2014; Poole et al., 2017). Self-reported resilience moderates ACE-related risks for poor health day frequency (Logan-Greene et al., 2014), substance use (Wingo et al., 2014), and depression (Poole et al., 2017). Genetic and epigenetic factors also moderate certain ACE-related outcomes (DeBellis & Zisk, 2014; Monk et al., 2012). Yet resilience is shaped and maintained by caregiver relationships and broader cultural and community systems (Masten, 2014; Walsh, 2016).

Secure attachment and positive parenting practices facilitate child coping through mutual regulation (Alvord & Grados, 2005; Beeghly & Tronick, 2011; Sroufe & Fleeson, 1986) support overall development, and lay the foundation for emotional regulation and social skills (Beeghly & Tronick, 2011; Cicchetti, & Toth, 1995; Sroufe & Fleeson, 1986). Parent autonomy support provides opportunities to develop competencies, build self-efficacy, and experience stress inoculation (Cicchetti, & Toth, 1995; Masten, 2014; Walsh, 2016). Children also achieve resiliency through family adaptive processes such as social connection and collaboration, positive attitudes, and connection to values, meaning, and faith (Walsh, 2016). Childhood family strengths like loyalty and closeness lessen ACE-related risks for teen pregnancy, uncontrolled anger, and occupational, financial, and familial problems (Hillis et al., 2010). Childhood experiences of regular sleep routines, mentors, and park access also moderate maternal ACE-related risks for prenatal stress and psychopathology (Narayan et al., 2018). Thus, parents play a key supporting role in child resilience.

Intergenerational Trauma and Child Development

Multiple studies have demonstrated how parent ACEs undermine offspring socioemotional development (Atzl et al., 2019; Dennis et al., 2019; McDonnell & Valentino, 2016; Narayan et al., 2017) but few have examined the impact on offspring overall development.

Maternal ACEs increase the risk within pregnancy for maternal distress, psychopathology, and health and psychosocial risk factors (Atzl et al., 2019; Choi & Sikkema, 2016; Hillis et al., 2010; McDonnell & Valentino, 2016; Smith et al., 2016), which in turn increase offspring vulnerability to hippocampal and amygdala abnormalities and delays in cognitive, fine motor, and gross motor development (Entringer et al., 2015; Goyen & Lui, 2002; Kingston et al., 2012; Monk et al., 2012; Rifkin-Graboi et al., 2013; van Batenburg-Eddes et al., 2009). Racine and colleagues found maternal ACEs indirectly predicted 12-month infant risk of developmental delays through maternal health and psychosocial risk factors during pregnancy (Racine et al., 2018). Another study revealed that maternal ACEs predicted offspring fine motor, gross motor, problem-solving, and communication development at 24 months (Folger et al., 2018). Yet further investigation of parent ACE effects within developmental domains at different stages of early development is necessary for informing effective screening and preventive care (Buss et al., 2017).

Parent resilience is a promising moderator of intergenerational trauma transmission. By moderating the initial impact of ACEs upon parents (Campbell-Sills & Stein, 2007; Logan-Greene et al., 2014; Poole et al., 2017) parent resilience may indirectly lessen offspring exposure to parent ACE-related outcomes and the transmission of ACE-related epigenetic modifications (Poole et al., 2017; Smith et al., 2016; Thomas et al., 2018). Furthermore, parent resilience bolsters the natural adaptive systems of positive parenting (Hess et al., 2002; Schofield et al., 2014) and so may moderate parent ACE effects by promoting child resiliency and healthy development (Beeghly & Tronick, 2011; Cicchetti & Toth, 1995; Masten, 2014; Sroufe & Fleeson, 1986). Therefore, parent resilience should be further examined as a potential protective factor and intervention for safeguarding the development of the children of traumatized individuals.

Hypotheses

The purpose of this study is to explore the predictive value of parent ACEs and resilience on next generation child development outcomes as measured by the ASQ domains and number of domains of developmental delay at 9, 18 and 30 months of age. Furthermore, this study seeks to explore the interaction between parent ACEs and CD-RISC-10 scores.

1. It is hypothesized that parent ACEs and CD-RISC-10 scores will predict overall next generation child development as measured by total number of domains on the ASQ-3 that scored in the At-Risk or Failed ranges.
2. It is hypothesized that parent ACEs and CD-RISC-10 scores will predict next generation child development within the ASQ-3 subdomains of problem-solving, language, adaptive skills, social-emotional, and gross and fine motor development at 9, 18, and 30 months of age.
3. It is hypothesized that there will be an interaction effect between parent ACEs and CD-RISC-10 scores on total number of domains on the ASQ-3 that scored in the At-Risk or Failed ranges.

Chapter 2

Methods

Participants

This study drew data from a clinical database of a pediatric clinic within the Pacific Northwest. Participants were 310 parent-child dyads registered as patients who consented to have their health information used for research purposes. Children exhibited no major medical condition(s) likely limit to achievement of developmental milestones (i.e., cerebral palsy, cleft palate, etc.), except in conditions that might indirectly result from parent trauma or parent behavior (i.e., preterm birth, FAS, etc.). The majority of the parents in the sample consisted of mothers (71.6%; fathers: 28.4%). The majority of the sample was Middle-High SES (69.7%; Low SES: 28.4%). Over half of the sample was White in ethnicity (58.1%), followed by Hispanic (15.8%), multicultural (8.7%), Asian (4.8%), Black (1.6%), and Native American or Alaskan Native participants (0.6%), with 9.4% unknown.

Measures

Demographics SES was inferred from subject insurance plan based on private (Middle-High SES) or public (Low SES) payer insurance enrollment. Ethnicity (White, Hispanic/Latino/a, Asian/Pacific Islander, Native American/Indian/Alaskan, Multiracial, Other), gender and age were all exported from medical records.

Adapted Adverse Childhood Experiences

Childhood adversity was measured through an adapted version of the Adverse Childhood Experiences Scale (ACE; Felitti et al., 1998). The original 10 ACE items screen for childhood

maltreatment (psychological, physical, sexual abuse; physical, emotional neglect), and household dysfunction (domestic violence, parental divorce, or a relative with substance use, mental illness, incarceration). four additional items screened for Environmental ACEs, such as bullying, discrimination, foster care, and community violence. Parents reported the total ACEs they had experienced in each category. Total scores ranged from 0 to 13 and were analyzed as interval scale data. Categorical variables (high and low) were created, with scores greater than 4 being considered high. This measure took approximately 10 minutes to complete. To gauge overall parent ACEs in the family, a collective Parent ACEs variable was constructed by utilizing either mother total ACE scores, father ACE scores, or an average score if both parents participated.

Connor-Davidson Resilience Scale, 10-Item Version

The CD-RISC-10, an abbreviated version of the Connor-Davidson Resilience Scale (Campbell-Sills & Stein, 2007), was used to measure current parent resilience (see Appendix A). Participants rated their agreement with a series of statements on a 5-point Likert scale. Total scores ranged from 1-40. The CD-RISC-10 exhibits moderately robust psychometric properties, demonstrating high internal consistency (*Cronbach's a* = 0.88) and good validity through its ability to predict positive functioning despite stressors (Campbell-Sills & Stein, 2007). Total scores were analyzed as interval scale data and categorical variables (high and low) were created, using the mean total score (33) as a cut point. To gauge overall parent resilience in the family, a collective Parent Resilience variable was constructed by utilizing either mother or father total CD-RISC-10 scores, or an average score if both parents participated.

Ages and Stages Questionnaire, Third Edition

The ASQ-3 is a parent-report questionnaire screening for child developmental delays within subdomains of communication, gross motor, fine motor, problem-solving, and personal-

social adaptive development (Squires & Bricker, 2009). This measure takes approximately 20 minutes to complete. Parents endorse the frequency of 30 different developmental milestones (e.g., asking an adult for help, stringing large beads together, being able to identify simple shapes) with a rating of either 10 (*almost always*), 5 (*sometimes*), or 0 (*never or rarely*).

Subdomain scores are calculated for each area of development. Child development outcomes are measured by ASQ-3 domain scores passing, failing, or falling in the at-risk range at 9-month, 18-month, and 30-month screenings. Higher domain scores indicated healthy development. Total number of ASQ-3 failed and at-risk scores was treated as scale interval data. Subdomain scores for communication, gross motor, fine motor, problem-solving, and personal social adaptive skills were individually explored as criterion variables. The ASQ-3 demonstrates reasonable psychometric properties in terms of predicting later developmental delays (Schonhaut et al., 2013), exhibiting good reliability through test-retest correlations ($r = .75$ to $.82$) and concurrent validity by its modest agreement with the Bayley-III, increasing with child age (8 months: $r = 0.55$, 18 months: $r = 0.56$, 30 months: $r = 0.75$; Schonhaut et al., 2013).

Procedures

This study used archival clinical data from a pediatric clinic. Standard clinic screening practices were followed. At the initial well child check (WCC), parents consented to the treatment of their children and the use of their information for diagnostic and research purposes. Parents then completed the ACEs and CD-RISC-10 questionnaires at the 4-month WCCs. The ASQ-3 was administered at standard 9-month, 18-month, and 30-month WCCs. De-identified data were exported from the electronic medical records. This study was approved by the George Fox University Human Subjects Research Committee.

Chapter 3

Results

Descriptive Statistics

Descriptive statistics for the measures within this study are provided in Table 1, including number of participants, score means, standard deviations, skewness, and kurtosis. Scatterplot analysis indicated no abnormal findings for linearity. Collinearity diagnostics showed limited correlation between independent variables (Durbin Watson = 2.25). Significant outliers were identified by examining Studentized residuals for independent variables and two cases were eliminated. Missing data was replaced using linear interpolation once collinearity analysis was conducted on ASQ-3 scores, parent ACEs and resilience scores, and mother ACEs and resilience scores. Linear interpolation was not used for father ACE or resilience scores due to substantial missing data ($n = 111$, compared to 280 participating mothers).

Table 1

Descriptive Statistics for Predictor Variables

	<i>n</i>	<i>x</i>	<i>SD</i>	<i>Skew</i>	<i>Kurtosis</i>
Parent ACEs	309	2.38	2.77	1.16	.760
Parent Resilience	306	33.29	5.24	-.79	.392
Mother ACEs	280	2.35	2.86	1.19	.747
Mother Resilience	276	33.09	5.63	-.68	-.03
Father ACEs	111	1.91	2.45	1.37	1.39
Father Resilience	109	34.10	4.82	-.89	1.13

Hypothesis 1- Parent ACEs and Resilience as Predictors of Developmental Risk

Stepwise multiple linear regression analyses were used to determine the accuracy with which the predictor variables (parent ACEs, parent resilience) predicted the number of at-risk or failed areas within the child's ASQ-3 screening (developmental risk) at 9, 18, and 30 months. Only parent resilience significantly contributed to the model predicting developmental risk at 18 months ($R^2 = .014$, $\text{Adj } R^2 = .011$; $F(1, 306) = 4.263$, $p = .04$). Only parent ACEs significantly contributed to the model predicting developmental risk at 30 months ($R^2 = .038$, $\text{Adj } R^2 = .034$; $F(1, 260) = 10.286$, $p = .002$).

This analysis was then repeated, separating maternal from paternal scores on ACEs and resilience. None of the paternal models accounted for variance in developmental risk in any age group. However, maternal results mirrored parent results. Only mother resilience significantly contributed to the model predicting developmental risk at 18 months ($R^2 = .025$, $\text{Adj } R^2 = .022$; $F(1, 306) = 7.822$, $p = .005$). Only mother ACEs significantly contributed to the model predicting overall risk at 30 months ($R^2 = .031$, $\text{Adj } R^2 = .027$; $F(1, 260) = 8.292$, $p = .004$). A summary of regression coefficients is presented in Tables 2, 3, 4, and 5.

Table 2

Coefficients for Model Variables for 18-Month Overall Risk - Parent

	<i>B</i>	β	<i>t</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Parent ACEs	-	.017	.283	.778	.056	.016
Parent Resilience	-.021	-.120	-2.11	.036	-.120	-.120

Table 3*Coefficients for Model Variables for 30-Month Overall Risk - Parent*

	<i>B</i>	β	<i>t</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Parent ACEs	.067	.192	3.141	.002	.192	.192
Parent Resilience	-	-.003	-.041	.967	-.071	-.003

Table 4*Coefficients for Model Variables for 18-Month Overall Risk - Mother*

	<i>B</i>	β	<i>t</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	-	.010	.170	.685	.058	.010
Mother Resilience	-.027	-.158	-2.79	.005	-.158	-.158

Table 5*Coefficients for Model Variables for 30-Month Overall Risk - Mother*

	<i>B</i>	β	<i>t</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	.062	.176	2.88	.004	.176	.176
Mother Resilience	-	-.067	-.102	.308	-.120	-.063

Hypothesis 2- Parent ACEs and Resilience as Predictors of ASQ-3 Subdomain Scores

Stepwise multiple linear regression analyses were used to determine the accuracy with which the predictor variables (parent ACEs, parent resilience) predicted ASQ-3 subdomain scores.

Predictors of Subdomains at 9 Months

Regression results indicate that the overall model of parent ACEs and resilience did not predict a significant proportion of the variance in child ASQ-3 subdomain scores at nine months. Within separate maternal and paternal score analyses, paternal scores were not predictive but

maternal scores were. Results indicated that the overall model of mother ACEs and resilience significantly predicted ASQ-3 fine motor scores at nine months ($R^2 = .031$, $\text{Adj } R^2 = .024$; $F(2, 306) = 4.82$, $p = .009$). A summary of regression coefficients is presented in Table 6.

Table 6

Coefficients for Model Variables for 9-Month Fine Motor - Mother

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	.561	.156	2.63	.009	.112	.149
Mother Resilience	.261	.141	2.37	.018	.093	.135

Predictors of Subdomains at 18 Months

Regression results indicated that only parent resilience significantly contributed to the model predicting ASQ-3 problem-solving at 18 months ($R^2 = .02$, $\text{Adj } R^2 = .017$; $F(1, 307) = 6.336$, $p = .012$). Regression results also indicated that only parent resilience significantly contributed to the model predicting ASQ-3 personal social at 18 months ($R^2 = .015$, $\text{Adj } R^2 = .012$; $F(1, 307) = 4.799$, $p = .029$).

Within separate maternal and paternal score analyses, paternal scores were not predictive but maternal scores predicted three subdomains. Results indicated that only mother resilience significantly contributed to the model predicting ASQ-3 problem-solving score at 18 months ($R^2 = .027$, $\text{Adj } R^2 = .023$; $F(1, 307) = 8.375$, $p = .004$). Similarly, only mother resilience significantly contributed to the model predicting ASQ-3 personal social score at 18 months ($R^2 = .018$, $\text{Adj } R^2 = .015$; $F(1, 307) = 5.769$, $p = .017$). Finally, results indicated that only mother resilience significantly contributed to the model predicting ASQ-3 fine motor at 18 months ($R^2 = .014$, $\text{Adj } R^2 = .011$; $F(1, 307) = 3.456$, $p = .064$).

$R^2 = .011$; $F(1, 307) = 4.478$, $p = .035$). A summary of regression coefficients is presented in Tables 7-11.

Table 7*Coefficients for Model Variables for 18-Month Problem-solving - Parent*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Parent ACEs	-	-.024	-.397	.692	-.071	-.023
Parent Resilience	.275	.149	2.62	.009	.149	.149

Table 8*Coefficients for Model Variables for 18-Month Personal Social - Parent*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Parent ACEs	-	.014	.227	.821	-.035	.013
Parent Resilience	.199	.140	2.46	.014	.140	.140

Table 9*Coefficients for Model Variables for 18-Month Problem-solving - Mother*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	-	.013	.217	.828	-.038	.012
Mother Resilience	.289	.163	2.89	.004	.163	.163

Table 10*Coefficients for Model Variables for 18-Month Personal Social - Mother*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	-	.046	.770	.442	.000	.044
Mother Resilience	.187	.136	2.40	.017	.136	.136

Table 11*Coefficients for Model Variables for 18-Month Fine Motor - Mother*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	-	-.032	-.530	.596	-.065	-.030
Mother Resilience	.153	.120	2.12	.035	.120	.120

Predictors of Subdomains at 30 Month

Regression results indicated that only parent resilience significantly contributed to the model predicting ASQ-3 gross motor at 30 months ($R^2 = .021$, Adj $R^2 = .017$; $F(1, 301) = 6.37$, $p = .012$). Within separate maternal and paternal score analyses, paternal scores were not predictive but maternal scores predicted one subdomain. Results indicated that only mother resilience significantly contributed to the model predicting ASQ-3 gross motor at 30 months ($R^2 = .022$, Adj $R^2 = .019$; $F(1, 301) = 6.718$, $p = .01$). A summary of regression coefficients is presented in Tables 12 and 13.

Table 12*Coefficients for Model Variables for 30-Month Gross Motor - Parent*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Parent ACEs	-	-.023	-.370	.711	-.070	-.021
Parent Resilience	.148	.149	2.59	.010	.149	.149

Table 13*Coefficients for Model Variables for 30-Month Gross Motor - Mother*

	<i>B</i>	β	<i>T</i>	<i>p</i>	Bivariate <i>r</i>	Partial <i>r</i>
Mother ACEs	-	-.050	-.838	.403	-.090	-.048
Mother Resilience	.142	.148	2.59	.010	.148	.148

Hypothesis 3- Interaction Effects of Parent ACEs and Resilience on Developmental Risk

A multivariate 2x2 independent samples analysis of variance was run to determine the effect of collective parent ACEs and parent resilience on developmental risk at 9 and 18 months. No significant effects were found. The assumption of homogeneity of variance was not met for developmental risk at 30 months (*Levene's F* (3, 258) = 3.282, $p < .021$). A pair of follow up Welch's two-sample *t*-tests were conducted to determine parent ACEs impact on developmental risk at 30 months for both high- and low-resilience parents. For low-resilience parents, children of parents reporting high ACEs showed significantly more developmental risk at 30 months than those of parents reporting low ACEs ($t(1, 95) = 10.641, p < .002$), with a large effect size ($d = 0.805, CI: 0.369 - 1.242$). For high-resilience parents, there was no significant difference in developmental risk at 30 months between parent ACE groups ($t(1, 165) = .144, p < .70$).

Chapter 4

Discussion

ACEs and their intergenerational transmission are a substantial public health issue, and we continue to discover the full extent of their effects. Yet parent resilience shows promise in moderating the effects of parent ACEs on offspring development and potential as a preventive care intervention.

Hypothesis 1- Parent ACEs and Resilience Impact Overall Developmental Risk.

Parent ACEs did not predict offspring developmental risk at 9 and 18 months but significantly predicted developmental risk at 30 months. These results further support other studies demonstrating the negative impact of parent ACEs on next generation early development (Folger et al., 2018; Racine et al., 2018). Furthermore, this is pattern of delayed emergence of parent ACE effects on offspring development until 30 months fits with the current literature. Maternal ACEs have been found to directly affect offspring developmental risk at 24 months (Folger et al., 2018) and indirectly but not directly predict 12-month infant development (Racine et al., 2018). Altogether, this indicates that parent ACEs progressively predict offspring developmental risk as early development progress into toddlerhood. Thus, parent ACE effects on offspring development at 9 and 18 months may be absent, subtle, or specific to aspects of development not screened by the ASQ-3.

Given resilience science, developmental, and developmental psychopathology perspectives (Bronfenbrenner, 1979; Cicchetti & Toth, 1995; Masten, 2014) this pattern of

delayed emergence of parent ACE effects suggests a developmental-exposure framework. Thus, the relative impact of parent ACEs on offspring development like changes over time with: (a) cumulative offspring exposure dose (i.e., total exposure to parent ACE-related issues, including severity, frequency, and duration), (b) disruptions to the positive parenting processes which support development and child resiliency, thereby increasing offspring vulnerability to stress, and (c) the mutual interaction of offspring developmental phase and parent ACE-related issues and vulnerabilities.

Therefore, several mechanisms may explain the delayed emergence of parent ACE effects on offspring development. First, offspring exposure dose over time may progressively undermine development, with effects being compounded by developmental cascades, and culminate in a significant risk of developmental delays at 30 months. Second, this pattern of delayed developmental risk may reflect the gradual manifestation of underlying neurobiological abnormalities or epigenetic changes indirectly fostered by maternal ACEs during the prenatal period (Buss et al., 2017; Entringer et al., 2015; Monk et al., 2012). Third, parent ACE-related problems and vulnerabilities may have disrupted positive parenting practices (Alvord & Grados, 2005; Beeghly & Tronick, 2011; Cicchetti & Toth, 1995; Masten, 2014; Murphy et al., 2014; Sroufe & Fleeson, 1986), thus increasing children's vulnerability to stress, unresolved stage-specific developmental tasks, and subsequent maladaptive developmental outcomes (Cicchetti & Toth, 1995; Masten, 2014;). Finally, the substantial parenting challenges of late toddlerhood might undermine parenting and offspring development by exacerbating parent ACE-related vulnerabilities or causing reversion to maladaptive parenting approaches internalized during parents' own childhood (Cicchetti & Toth, 1995; Main & George, 1985; Murphy et al., 2014).

Thus, the interaction of parent ACEs and the toddler developmental phase might result in greater risk of offspring developmental delays at 30 months.

Maternal ACEs also predicted overall development risk at 30 months but father ACEs were not predictive at any age. Yet differences in collective parent ACE ($\beta = .192$) and maternal ACE (ACEs $\beta = .176$) effect sizes suggest some contribution of father ACEs to 30-month developmental risk. Results are somewhat consistent with research findings of greater offspring 24-month developmental risk with two or more paternal ACEs but no overall significant relationship across other paternal ACE levels (Folger et al., 2018). Maternal ACEs may have greater influence upon early development because of the potent transmission opportunities within pregnancy (Buss et al., 2017; Madigan et al., 2017) and the role of primary caregiver which mothers often assume (Beeghly & Tronick, 2011; Felitti et al., 1998; Sroufe & Fleeson, 1986). Yet the impact of father ACEs may shift later in development as the relative importance of different relationships changes.

Parent and maternal resilience predicted lower developmental risk at 18 months. This is consistent with research indicating that parent resilience supports positive parenting practices (Hess et al., 2002; Schofield et al., 2014), which in turn promote healthy child development and child resiliency (Alvord & Grados, 2005; Beeghly & Tronick, 2011; Cicchetti & Toth, 1995; Masten, 2014; Sroufe & Fleeson, 1986; Walsh, 2016). Father resilience did not predict developmental risk at any age, and Effect size differentials (maternal resilience: $\beta = -.158$, paternal resilience: $\beta = -.120$) indicated that maternal resilience carried the collective parent resilience effect. This discrepancy in maternal and paternal resilience effects again likely stem from mothers generally having relatively greater influence on early development. Yet the weight of father resilience may change as development progresses.

Hypothesis 2- Parent ACEs impact specific offspring developmental domains.***Predictors of Subdomains at 9 Months***

Parent ACEs and resilience were predictive of no subdomains at 9 months, while mother ACEs and resilience were only predictive of fine motor. Effects on 9-month subdomains are likely limited for the same reasons that no effects on 9-month overall developmental risk were found, as discussed above. As seen in the literature, maternal resilience may have supported fine motor by bolstering positive parenting (Hess et al., 2002; Schofield et al., 2014) and thus the social scaffolding during sensorimotor activities, or moderating ACE-related risks of maternal anxiety during pregnancy (Choi & Sikkema, 2016; van Batenburg-Eddes et al., 2009) and preterm birth (Goyen & Lui, 2002), which both predict infant motor difficulties. Contrary to the literature, maternal ACEs predicted better nine-month fine motor skills (Folger et al., 2018; Kingston et al., 2012) Parents with higher ACEs and related medical and psychosocial risks (Felitti et al., 1998; Logan-Greene et al., 2014) may be more preoccupied, and either overlook subtle 9-month fine motor difficulties or incidentally promoted fine motor skills through greater independent feeding opportunities.

Predictors of Subdomains at 18 Months

Parent resilience and mother resilience predicted problem-solving and personal-social skills at 18 months. Maternal resilience also continued to predict fine motor at 18 months. Thus, maternal resilience appears to support healthy early development in multiple areas.

Predictors of Subdomains at 30 Months

While father resilience predicted no subdomains at 30 months, parent and mother resilience predicted 30-month gross motor skills This is significant since early gross motor development is predictive of school-age working memory and processing speed (Piek et al.,

2008). Maternal resilience may support gross motor by bolstering positive parenting and mitigating maternal ACE-related outcomes that might undermine child exercise opportunities through parental inactivity or overprotective behaviors (Poole et al., 2017; Wingo et al., 2014; Woods-Jaeger et al., 2018).

Notably, parent and mother ACEs predicted no subdomains at 30 months despite predicting 30-month overall developmental risk. This pattern is suggestive of parent ACE-related outcomes disrupting positive parenting practices, such as responsiveness and autonomy support as suggested in the literature (Main & George, 1985; Murphy et al., 2014; Wingo et al., 2014). Disrupting positive parenting could in turn undermine general child development without producing domain specific effects (Beeghly & Tronick, 2011; Felitti et al., 1998; Sroufe & Fleeson, 1986).

Despite studies associating parent ACEs with poor offspring socioemotional outcomes (Madigan et al., 2017; McDonnell & Valentino, 2016), neither parent nor maternal ACEs or resilience predicted 30-month personal-social scores. Yet this is unsurprising given since ASQ-3 personal-social items mainly screen for early adaptive skills (Squires et al., 2009). Notably, the ASQ-3 18-month personal-social section includes substantially more social-adaptive items than nine- and 30-month screeners (Squires & Bricker, 2009), and parent resilience predicted personal-social scores only at 18 months. Thus, parent resilience may support basic social skills.

Hypothesis 3- Interaction Effects of Parent ACEs and Resilience on Overall Development

There were no interactions effects between parent ACEs and parent resilience on nine or 18-month developmental risk, possibly because parent ACEs showed no effects at these ages. Yet at 30 months of age, children of parent reporting low resilience showed significantly more developmental risk with high parent ACEs than with low parent ACEs. Conversely, the children

of high resilience parents did not experience significantly greater 30-month developmental risk with higher parent ACEs. This fits the broad pattern within the literature of maternal resilience moderating the relationship between maternal ACEs and various prenatal maternal issues (Choi & Sikkema, 2016; Felitti et al., 1998; Kingston et al., 2012; Smith et al., 2016; Wingo et al., 2014) associated with offspring developmental problems (Entringer et al., 2015; Smith et al., 2016). Folger and colleagues did find that maternal resilience significantly moderated maternal ACE effects on offspring 24-month development but observed a trend suggestive of an interaction effect (Folger et al., 2018). Thus, parent resilience may moderate parent ACEs to a lesser degree at 24 months of age but heighten to a significant interaction effect by 30 months of age as parent ACE effects become more robust. Measure differences may also underlie this discrepancy in findings, since Folger and colleagues used the Southern Kennebec Healthy Start Resilience Questionnaire to measure parent resilience through early life protective factors (Folger et al., 2018).

Overall, findings indicate that parent resilience moderates the harmful effects of high parent ACEs on next generation 30-month development. Parent resilience may mitigate trauma transmission by lessening parent ACE-related issues and offspring exposure (Choi & Sikkema, 2016; Logan-Greene et al., 2014; Murphy et al., 2014; Poole et al., 2017; Wingo et al., 2014), bolstering positive parenting (Hess et al., 2002; Schofield et al., 2014) which supports child development and resiliency (Beeghly & Tronick, 2011; Cicchetti & Toth, 1995; Masten, 2014;), and supporting parents in handling the challenges of toddlerhood despite ACE-related vulnerabilities. Conversely, low parent resilience leaves children more susceptible to the effects of higher parent ACEs and subsequent developmental delays.

Limitations

Within our sample, both parents with eight or more ACEs and non-White participants were under-represented, preventing comparison of effects across ethnic groups. The lack of standardized ASQ-3 scores also prevented comparative analysis of parent ACE effects on subdomains across ages. The limited number of participating fathers ($n = 109$) prohibited comparative analysis of maternal and paternal ACE and resilience effects.

This study utilized a clinical sample, so child developmental outcomes were inevitably moderated by clinical care provided. When ASQ-3 scores fell below standard cutoffs, providers made Early Intervention referrals and provided advice and support as warranted. Education on resilience and ACEs was also provided at 4-month WCCs. These interventions and their effects would be difficult to retroactively define and measure yet likely moderated the natural progression of developmental delays. Yet results still give a conservative picture of the impact of parent ACEs on offspring early development.

Future Research and Treatment Directions

Further studies should examine the effectiveness of parent and family resilience-building interventions appropriate to primary care in order to develop evidence-based interventions. Further investigation of possible trauma transmission pathways and parent ACE-subtype effects on offspring development is also warranted. Further studies should explore the relationship between parent and child resilience and examine positive parenting as a possible mediator. Finally, future studies should attempt to replicate the findings of this study.

Findings indicate that parent childhood trauma transmission to offspring development begins as early as 30 months, progressively increases over time within early development, and can be moderated by parent resilience. These results have several clinical implications. First,

findings highlight the importance of screening for parent ACEs and resilience within primary care. Second, results suggest that the children of high ACE-low resilience parents are a vulnerable population whom should be flexibly screened for developmental delays if WCCs are missed. Finally, results suggest the utility of providing accessible preventative and secondary parent resilience-building interventions before 24 months of age. WCCs are an ideal opportunity for early identification of high ACE families and intervention to bolster parent-child resilience before parent ACE effects can escalate into offspring developmental delays.

Conclusion

Parent ACEs predict offspring's risk of developmental delays at 30 months of age but not at 9 and 18 months. Transmission may occur through disruptions to positive parenting and progressive offspring exposure to ACE-related parent outcomes. Yet parent resilience moderates these negative effects and supports healthy child development, possibly through positive parenting pathways. Health care professionals are on the front lines of childhood adversity and well positioned to intervene and provide preventative care. Thus, it is essential to continue refining the resilience science literature into evidence-based family resilience-building interventions for primary care.

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Appendix A

ACE Questions

HOW MANY of these apply to you during the first 18 years of your life? You don't have to mark which specific statements apply to you. Write the total in the box:

--

- Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you OR act in a way that made you afraid you would be physically hurt?
- Did a parent or other adult in the household often push, grab, slap or throw something at you OR ever hit you so hard that you had marks or were injured?
- Did an adult or person at least 5 years older than you ever touch or fondle you, or have you touch their body in a sexual way OR attempt or actually have oral, anal or vaginal intercourse with you?
- Did you often feel that no one in your family loved you or thought you were important or special OR your family didn't look out for each other, feel close to each other, or support each other?
- Did you often feel that you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you OR your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

HOW MANY of these apply to you during the first 18 years of your life? You don't have to mark which specific statements apply to you. Write the total in the box:

--

- Were your parents ever separated or divorced?
- Was your mother or stepmother often pushed, grabbed, slapped, or had something thrown at her OR sometimes or often kicked, bitten, hit with a fist or with something hard?
- Did you ever live with anyone who was a problem drinker or alcoholic, or who used street drugs?
- Was a household member depressed or mentally ill, or did a household member attempt suicide?
- Did a household member go to prison?

HOW MANY of these apply to you during the first 18 years of your life? You don't have to mark which specific statements apply to you. Write the total in the box:

--

- Did you experience repeated bullying as a child?
- Did you repeatedly experience discrimination based on ethnicity, skin color or sexual orientation?
- Did you live in a neighborhood that experienced gang-related violence?
- Did you ever live in a foster home or group home?

Appendix B

The 10-Item Connor-Davidson Resilience Scale (CD-RISC-10)

Please indicate how much you agree with the following statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

	not true at all (0)	rarely true (1)	sometimes true (2)	often true (3)	true nearly all the time (4)
1. I am able to adapt when changes occur.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I can deal with whatever comes my way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I try to see the humorous side of things when I am faced with problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Having to cope with stress can make me stronger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I tend to bounce back after illness, injury, or other hardships.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I believe I can achieve my goals, even if there are obstacles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Under pressure, I stay focused and think clearly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I am not easily discouraged by failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I think of myself as a strong person when dealing with life's challenges and difficulties.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Appendix C

ASQ-3 **Ages & Stages Questionnaires®**
 9 months 0 days through 9 months 30 days
9 Month Questionnaire



Please provide the following information. Use black or blue ink only and print legibly when completing this form.

Date ASQ completed: _____

Baby's information

Baby's first name: _____ Middle initial: _____ Baby's last name: _____
 Baby's date of birth: _____ If baby was born 3 or more weeks prematurely, # of weeks premature: _____ Baby's gender: Male Female

Person filling out questionnaire

First name: _____ Middle initial: _____ Last name: _____
 Street address: _____ Relationship to baby: Parent Guardian Teacher Child care provider
 Grandparent or other relative Foster parent Other: _____
 City: _____ State/Province: _____ ZIP/Postal code: _____
 Country: _____ Home telephone number: _____ Other telephone number: _____
 E-mail address: _____
 Names of people assisting in questionnaire completion: _____

Program Information

Baby ID #: _____ Age at administration in months and days: _____
 Program ID #: _____ If premature, adjusted age in months and days: _____
 Program name: _____



9 Month Questionnaire

9 months 0 days
through 9 months 30 days

On the following pages are questions about activities babies may do. Your baby may have already done some of the activities described here, and there may be some your baby has not begun doing yet. For each item, please fill in the circle that indicates whether your baby is doing the activity regularly, sometimes, or not yet.

Important Points to Remember:



- Try each activity with your baby before marking a response.
- Make completing this questionnaire a game that is fun for you and your baby.
- Make sure your baby is rested and fed.
- Please return this questionnaire by _____.

Notes:

COMMUNICATION



	YES	SOMETIMES	NOT YET	
1. Does your baby make sounds like "da," "ga," "ka," and "ba"?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. If you copy the sounds your baby makes, does your baby repeat the same sounds back to you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your baby make two similar sounds like "ba-ba," "da-da," or "ga-ga"? (The sounds do not need to mean anything.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. If you ask your baby to, does he play at least one nursery game even if you don't show her the activity yourself (such as "bye-bye," "Peeka-boo," "clap your hands," "So Big")?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. Does your baby follow one simple command, such as "Come here," "Give it to me," or "Put it back," without your using gestures?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. Does your baby say three words, such as "Mama," "Dada," and "Baba"? (A "word" is a sound or sounds your baby says consistently to mean someone or something.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				COMMUNICATION TOTAL ___

GROSS MOTOR

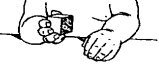




	YES	SOMETIMES	NOT YET	
1. If you hold both hands just to balance your baby, does she support her own weight while standing?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
2. When sitting on the floor, does your baby sit up straight for several minutes without using his hands for support?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				



GROSS MOTOR (continued)

	YES	SOMETIMES	NOT YET	___
3. When you stand your baby next to furniture or the crib rail, does she hold on without leaning her chest against the furniture for support?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
4. While holding onto furniture, does your baby bend down and pick up a toy from the floor and then return to a standing position?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
5. While holding onto furniture, does your baby lower himself with control (without falling or flopping down)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. Does your baby walk beside furniture while holding on with only one hand?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
GROSS MOTOR TOTAL				___

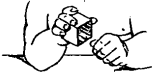


FINE MOTOR

	YES	SOMETIMES	NOT YET	___
1. Does your baby pick up a small toy with only one hand?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
2. Does your baby successfully pick up a crumb or Cheerio by using her thumb and all of her fingers in a raking motion? (If she already picks up a crumb or Cheerio, mark "yes" for this item.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
3. Does your baby pick up a small toy with the tips of his thumb and fingers? (You should see a space between the toy and his palm.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
4. After one or two tries, does your baby pick up a piece of string with her first finger and thumb? (The string may be attached to a toy.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
5. Does your baby pick up a crumb or Cheerio with the tips of his thumb and a finger? He may rest his arm or hand on the table while doing it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___*
				
6. Does your baby put a small toy down, without dropping it, and then take her hand off the toy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
FINE MOTOR TOTAL				___


*If Fine Motor Item 5 is marked "yes" or "sometimes," mark Fine Motor Item 2 "yes."



PROBLEM SOLVING

		YES	SOMETIMES	NOT YET	
1. Does your baby pass a toy back and forth from one hand to the other?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
2. Does your baby pick up two small toys, one in each hand, and hold onto them for about 1 minute?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
3. When holding a toy in his hand, does your baby bang it against another toy on the table?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
4. While holding a small toy in each hand, does your baby clap the toys together (like "Pat-a-cake")?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
5. Does your baby poke at or try to get a crumb or Cheerio that is inside a clear bottle (such as a plastic soda-pop bottle or baby bottle)?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
6. After watching you hide a small toy under a piece of paper or cloth, does your baby find it? <i>(Be sure the toy is completely hidden.)</i>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
PROBLEM SOLVING TOTAL					—

PERSONAL-SOCIAL

		YES	SOMETIMES	NOT YET	
1. While your baby is on her back, does she put her foot in her mouth?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
2. Does your baby drink water, juice, or formula from a cup while you hold it?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
3. Does your baby feed himself a cracker or a cookie?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
4. When you hold out your hand and ask for her toy, does your baby offer it to you even if she doesn't let go of it? <i>(If she already lets go of the toy into your hand, mark "yes" for this item.)</i>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
5. When you dress your baby, does he push his arm through a sleeve once his arm is started in the hole of the sleeve?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
6. When you hold out your hand and ask for her toy, does your baby let go of it into your hand?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
PERSONAL-SOCIAL TOTAL					—



OVERALL

Parents and providers may use the space below for additional comments.

1. Does your baby use both hands and both legs equally well? If no, explain: YES NO

2. When you help your baby stand, are his feet flat on the surface most of the time? If no, explain: YES NO

3. Do you have concerns that your baby is too quiet or does not make sounds like other babies? If yes, explain: YES NO

4. Does either parent have a family history of childhood deafness or hearing impairment? If yes, explain: YES NO

5. Do you have concerns about your baby's vision? If yes, explain: YES NO

6. Has your baby had any medical problems in the last several months? If yes, explain: YES NO



OVERALL (continued)

7. Do you have any concerns about your baby's behavior? If yes, explain: YES NO

8. Does anything about your baby worry you? If yes, explain: YES NO



9 Month ASQ-3 Information Summary

9 months 0 days through
9 months 30 days

Baby's name: _____ Date ASQ completed: _____

Baby's ID #: _____ Date of birth: _____

Administering program/provider: _____ Was age adjusted for prematurity when selecting questionnaire? Yes No

1. SCORE AND TRANSFER TOTALS TO CHART BELOW: See ASQ-3 User's Guide for details, including how to adjust scores if item responses are missing. Score each item (YES = 10, SOMETIMES = 5, NOT YET = 0). Add item scores, and record each area total. In the chart below, transfer the total scores, and fill in the circles corresponding with the total scores.

Area	Cutoff	Total Score	0	5	10	15	20	25	30	35	40	45	50	55	60
Communication	13.97		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gross Motor	17.82		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fine Motor	31.32		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem Solving	28.72		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal-Social	18.91		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. TRANSFER OVERALL RESPONSES: Bolded uppercase responses require follow-up. See ASQ-3 User's Guide, Chapter 6.

- | | | | |
|--|---------------|--|---------------|
| 1. Uses both hands and both legs equally well?
Comments: | Yes NO | 5. Concerns about vision?
Comments: | YES No |
| 2. Feet are flat on the surface most of the time?
Comments: | Yes NO | 6. Any medical problems?
Comments: | YES No |
| 3. Concerns about not making sounds?
Comments: | YES No | 7. Concerns about behavior?
Comments: | YES No |
| 4. Family history of hearing impairment?
Comments: | YES No | 8. Other concerns?
Comments: | YES No |

3. ASQ SCORE INTERPRETATION AND RECOMMENDATION FOR FOLLOW-UP: You must consider total area scores, overall responses, and other considerations, such as opportunities to practice skills, to determine appropriate follow-up.

If the baby's total score is in the area, it is above the cutoff, and the baby's development appears to be on schedule.
 If the baby's total score is in the area, it is close to the cutoff. Provide learning activities and monitor.
 If the baby's total score is in the area, it is below the cutoff. Further assessment with a professional may be needed.

4. FOLLOW-UP ACTION TAKEN: Check all that apply.

- Provide activities and rescreen in _____ months.
- Share results with primary health care provider.
- Refer for (circle all that apply) hearing, vision, and/or behavioral screening.
- Refer to primary health care provider or other community agency (specify reason): _____
- Refer to early intervention/early childhood special education.
- No further action taken at this time
- Other (specify): _____

5. OPTIONAL: Transfer item responses (Y = YES, S = SOMETIMES, N = NOT YET, X = response missing).

	1	2	3	4	5	6
Communication						
Gross Motor						
Fine Motor						
Problem Solving						
Personal-Social						



Ages & Stages Questionnaires®

17 months 0 days through 18 months 30 days
18 Month Questionnaire



Please provide the following information. Use black or blue ink only and print legibly when completing this form.

Date ASQ completed: _____

Child's information

Child's first name: _____ Middle initial: _____ Child's last name: _____

Child's date of birth: _____ If child was born 3 or more weeks prematurely, # of weeks premature: _____

Child's gender: Male Female

Person filling out questionnaire

First name: _____ Middle initial: _____ Last name: _____

Relationship to child:
 Parent Guardian Teacher Child care provider
 Grandparent or other relative Foster parent Other: _____

Street address: _____

City: _____ State/Province: _____ ZIP/Postal code: _____

Country: _____ Home telephone number: _____ Other telephone number: _____

E-mail address: _____

Names of people assisting in questionnaire completion: _____

Program Information

Child ID #: _____ Age at administration in months and days: _____

Program ID #: _____ If premature, adjusted age in months and days: _____

Program name: _____



18 Month Questionnaire

17 months 0 days
through 18 months 30 days

On the following pages are questions about activities babies may do. Your baby may have already done some of the activities described here, and there may be some your baby has not begun doing yet. For each item, please fill in the circle that indicates whether your baby is doing the activity regularly, sometimes, or not yet.

Important Points to Remember:

Notes:

- Try each activity with your baby before marking a response.
- Make completing this questionnaire a game that is fun for you and your child.
- Make sure your child is rested and fed.
- Please return this questionnaire by _____.

At this age, many toddlers may not be cooperative when asked to do things. You may need to try the following activities with your child more than one time. If possible, try the activities when your child is cooperative. If your child can do the activity but refuses, mark "yes" for the item.

COMMUNICATION

	YES	SOMETIMES	NOT YET	
1. When your child wants something, does she tell you by <i>pointing</i> to it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. When you ask your child to, does he go into another room to find a familiar toy or object? (You might ask, "Where is your ball?" or say, "Bring me your coat," or "Go get your blanket.")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your child say eight or more words in addition to "Mama" and "Dada"?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Does your child imitate a two-word sentence? For example, when you say a two-word phrase, such as "Mama eat," "Daddy play," "Go home," or "What's this?" does your child say both words back to you? (Mark "yes" even if her words are difficult to understand.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. Without your showing him, does your child <i>point</i> to the correct picture when you say, "Show me the kitty," or ask, "Where is the dog?" (He needs to identify only one picture correctly.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. Does your child say two or three words that represent different ideas together, such as "See dog," "Mommy come home," or "Kitty gone"? (Don't count word combinations that express one idea, such as "bye-bye," "all gone," "all right," and "What's that?") Please give an example of your child's word combinations:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___

COMMUNICATION TOTAL _____



GROSS MOTOR

	YES	SOMETIMES	NOT YET	
1. Does your child bend over or squat to pick up an object from the floor and then stand up again without any support?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. Does your child move around by walking, rather than by crawling on her hands and knees?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your child walk well and seldom fall?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Does your child climb on an object such as a chair to reach something he wants (for example, to get a toy on a counter or to "help" you in the kitchen)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. Does your child walk down stairs if you hold onto one of her hands? She may also hold onto the railing or wall. (You can look for this at a store, on a playground, or at home.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. When you show your child how to kick a large ball, does he try to kick the ball by moving his leg forward or by walking into it? (If your child already kicks a ball, mark "yes" for this item.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				GROSS MOTOR TOTAL ___




FINE MOTOR

	YES	SOMETIMES	NOT YET	
1. Does your child throw a small ball with a forward arm motion? (If he simply drops the ball, mark "not yet" for this item.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. Does your child stack a small block or toy on top of another one? (You could also use spools of thread, small boxes, or toys that are about 1 inch in size.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your child make a mark on the paper with the tip of a crayon (or pencil or pen) when trying to draw?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Does your child stack three small blocks or toys on top of each other by himself?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. Does your child turn the pages of a book by himself? (He may turn more than one page at a time.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. Does your child get a spoon into her mouth right side up so that the food usually doesn't spill?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				FINE MOTOR TOTAL ___

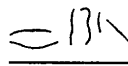




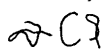
PROBLEM SOLVING

	YES	SOMETIMES	NOT YET	
1. Does your child drop several small toys, one after another, into a container like a bowl or box? (You may show him how to do it.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. After you have shown your child how, does she try to get a small toy that is slightly out of reach by using a spoon, stick, or similar tool? 	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. After a crumb or Cheerio is dropped into a small, clear bottle, does your child turn the bottle over to dump it out? (You may show him how.) (You can use a soda-pop bottle or a baby bottle.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Without your showing her how, does your child scribble back and forth when you give her a crayon (or pencil or pen)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. After watching you draw a line from the top of the paper to the bottom with a crayon (or pencil or pen), does your child copy you by drawing a single line on the paper in any direction? (Mark "not yet" if your child scribbles back and forth.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. After a crumb or Cheerio is dropped into a small, clear bottle, does your child turn the bottle upside down to dump out the crumb or Cheerio? (Do not show him how.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___*
PROBLEM SOLVING TOTAL				___

Count as "yes"



Count as "not yet"



*If Problem Solving Item 6 is marked "yes" or "sometimes," mark Problem Solving Item 3 "yes."

PERSONAL-SOCIAL

	YES	SOMETIMES	NOT YET	
1. While looking at herself in the mirror, does your child offer a toy to her own image?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. Does your child play with a doll or stuffed animal by hugging it?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
3. Does your child get your attention or try to show you something by pulling on your hand or clothes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Does your child come to you when he needs help, such as with winding up a toy or unscrewing a lid from a jar?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
5. Does your child drink from a cup or glass, putting it down again with little spilling?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. Does your child copy the activities you do, such as wipe up a spill, sweep, shave, or comb hair?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
PERSONAL-SOCIAL TOTAL				___



OVERALL

Parents and providers may use the space below for additional comments.

1. Do you think your child hears well? If no, explain: YES NO

2. Do you think your child talks like other toddlers his age? If no, explain: YES NO

3. Can you understand most of what your child says? If no, explain: YES NO

4. Do you think your child walks, runs, and climbs like other toddlers her age?
If no, explain: YES NO

5. Does either parent have a family history of childhood deafness or hearing
impairment? If yes, explain: YES NO

6. Do you have concerns about your child's vision? If yes, explain: YES NO



OVERALL *(continued)*

7. Has your child had any medical problems in the last several months? If yes, explain: YES NO

8. Do you have any concerns about your child's behavior? If yes, explain: YES NO

9. Does anything about your child worry you? If yes, explain: YES NO



18 Month ASQ-3 Information Summary

17 months 0 days through
18 months 30 days

Child's name: _____ Date ASQ completed: _____
 Child's ID #: _____ Date of birth: _____
 Administering program/provider: _____ Was age adjusted for prematurity when selecting questionnaire? Yes No

1. **SCORE AND TRANSFER TOTALS TO CHART BELOW:** See ASQ-3 User's Guide for details, including how to adjust scores if item responses are missing. Score each item (YES = 10, SOMETIMES = 5, NOT YET = 0). Add item scores, and record each area total. In the chart below, transfer the total scores, and fill in the circles corresponding with the total scores.

Area	Cutoff	Total Score	0	5	10	15	20	25	30	35	40	45	50	55	60
Communication	13.06		●	●	●	○	○	○	○	○	○	○	○	○	○
Gross Motor	37.38		●	●	●	●	●	●	●	●	○	○	○	○	○
Fine Motor	34.32		●	●	●	●	●	●	●	○	○	○	○	○	○
Problem Solving	25.74		●	●	●	●	●	○	○	○	○	○	○	○	○
Personal-Social	27.19		●	●	●	●	●	○	○	○	○	○	○	○	○

2. **TRANSFER OVERALL RESPONSES:** Bolded uppercase responses require follow-up. See ASQ-3 User's Guide, Chapter 6.

- | | | | |
|--|---------------|--|---------------|
| 1. Hears well?
Comments: | Yes NO | 6. Concerns about vision?
Comments: | YES No |
| 2. Talks like other toddlers his age?
Comments: | Yes NO | 7. Any medical problems?
Comments: | YES No |
| 3. Understand most of what your child says?
Comments: | Yes NO | 8. Concerns about behavior?
Comments: | YES No |
| 4. Walks, runs, and climbs like other toddlers?
Comments: | Yes NO | 9. Other concerns?
Comments: | YES No |
| 5. Family history of hearing impairment?
Comments: | Yes NO | | |

3. **ASQ SCORE INTERPRETATION AND RECOMMENDATION FOR FOLLOW-UP:** You must consider total area scores, overall responses, and other considerations, such as opportunities to practice skills, to determine appropriate follow-up.

If the child's total score is in the area, it is above the cutoff, and the child's development appears to be on schedule.
 If the child's total score is in the area, it is close to the cutoff. Provide learning activities and monitor.
 If the child's total score is in the area, it is below the cutoff. Further assessment with a professional may be needed.

4. **FOLLOW-UP ACTION TAKEN:** Check all that apply.

- Provide activities and rescreen in _____ months.
- Share results with primary health care provider.
- Refer for (circle all that apply) hearing, vision, and/or behavioral screening.
- Refer to primary health care provider or other community agency (specify reason): _____
- Refer to early intervention/early childhood special education.
- No further action taken at this time
- Other (specify): _____

5. **OPTIONAL:** Transfer item responses (Y = YES, S = SOMETIMES, N = NOT YET, X = response missing).

	1	2	3	4	5	6
Communication						
Gross Motor						
Fine Motor						
Problem Solving						
Personal-Social						



**Ages & Stages
Questionnaires®**

28 months 16 days through 31 months 15 days
30 Month Questionnaire



Please provide the following information. Use black or blue ink only and print legibly when completing this form.

Date ASQ completed: _____

Child's information

Child's first name: _____ Middle initial: _____ Child's last name: _____
 Child's gender: Male Female

Child's date of birth: _____

Person filling out questionnaire

First name: _____ Middle initial: _____ Last name: _____
 Relationship to child:
 Parent Guardian Teacher Child care provider
 Grandparent or other relative Foster parent Other: _____

Street address: _____

City: _____ State/Province: _____ ZIP/Postal code: _____

Country: _____ Home telephone number: _____ Other telephone number: _____

E-mail address: _____

Names of people assisting in questionnaire completion: _____

Program Information

Child ID #:	_____
Program ID #:	_____
Program name:	_____



30 Month Questionnaire

28 months 16 days
through 31 months 15 days

On the following pages are questions about activities children may do. Your child may have already done some of the activities described here, and there may be some your child has not begun doing yet. For each item, please fill in the circle that indicates whether your child is doing the activity regularly, sometimes, or not yet.

Important Points to Remember:

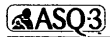
- Try each activity with your child before marking a response.
- Make completing this questionnaire a game that is fun for you and your child.
- Make sure your child is rested and fed.
- Please return this questionnaire by _____.

Notes:







COMMUNICATION

	YES	SOMETIMES	NOT YET	
1. If you point to a picture of a ball (kitty, cup, hat, etc.) and ask your child, "What is this?" does your child correctly name at least one picture?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. Without your giving him clues by pointing or using gestures, can your child carry out at least <i>three</i> of these kinds of directions?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
<input type="radio"/> a. "Put the toy on the table." <input type="radio"/> d. "Find your coat." <input type="radio"/> b. "Close the door." <input type="radio"/> e. "Take my hand." <input type="radio"/> c. "Bring me a towel." <input type="radio"/> f. "Get your book."				
3. When you ask your child to point to her nose, eyes, hair, feet, ears, and so forth, does she correctly point to at least seven body parts? (She can point to parts of herself, you, or a doll. Mark "sometimes" if she correctly points to at least three different body parts.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
4. Does your child make sentences that are three or four words long? Please give an example:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
<div style="border: 1px solid black; border-radius: 15px; height: 40px; width: 100%;"></div>				
5. Without giving your child help by pointing or using gestures, ask him to "put the book on the table" and "put the shoe under the chair." Does your child carry out both of these directions correctly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
6. When looking at a picture book, does your child tell you what is happening or what action is taking place in the picture (for example, "barking," "running," "eating," or "crying")? You may ask, "What is the dog (or boy) doing?"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___

COMMUNICATION TOTAL ___






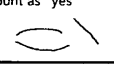
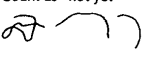
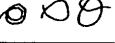

GROSS MOTOR

		YES	SOMETIMES	NOT YET	
1. Does your child run fairly well, stopping herself without bumping into things or falling?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
2. Does your child walk either up or down at least two steps by himself? He may hold onto the railing or wall. (You can look for this at a store, on a playground, or at home.)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
3. Without holding onto anything for support, does your child kick a ball by swinging his leg forward?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
4. Does your child jump with both feet leaving the floor at the same time?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
5. Does your child walk up stairs, using only one foot on each stair? (The left foot is on one step, and the right foot is on the next.) She may hold onto the railing or wall.		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	— *
6. Does your child stand on one foot for about 1 second without holding onto anything?		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	—
					GROSS MOTOR TOTAL —


**If Gross Motor Item 5 is marked "yes" or "sometimes," mark Gross Motor Item 2 "yes."*



FINE MOTOR

	YES	SOMETIMES	NOT YET	
1. Does your child use a turning motion with her hand while trying to turn doorknobs, wind up toys, twist tops, or screw lids on and off jars?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
2. After your child watches you draw a line from the top of the paper to the bottom with a pencil, crayon, or pen, ask him to make a line like yours. Do not let your child trace your line. Does your child copy you by drawing a single line in a vertical direction?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
	Count as "yes"  Count as "not yet" 			
3. Can your child string small items such as beads, macaroni, or pasta "wagon wheels" onto a string or shoelace?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
4. After your child watches you draw a line from one side of the paper to the other side, ask her to make a line like yours. Do not let your child trace your line. Does your child copy you by drawing a single line in a horizontal direction?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
	Count as "yes"  Count as "not yet" 			
5. After your child watches you draw a single circle, ask him to make a circle like yours. Do not let him trace your circle. Does your child copy you by drawing a circle?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
	Count as "yes"  Count as "not yet" 			
6. Does your child turn pages in a book, one page at a time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				FINE MOTOR TOTAL ___

PROBLEM SOLVING

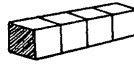
	YES	SOMETIMES	NOT YET	
1. When looking in the mirror, ask, "Where is _____?" (Use your child's name.) Does your child point to her image in the mirror?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___
				
2. If your child wants something he cannot reach, does he find a chair or box to stand on to reach it (for example, to get a toy on a counter or to "help" you in the kitchen)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	___



PROBLEM SOLVING (continued)

YES SOMETIMES NOT YET

3. While your child watches, line up four objects like blocks or cars in a row. Does your child copy or imitate you and line up *four* objects in a row?
 (You can also use spools of thread, small boxes, or other toys.)



4. When you point to the figure and ask your child, "What is this?" does your child say a word that means a person or something similar? (Mark "yes" for responses like "snowman," "boy," "man," "girl," "Daddy," "spaceman," and "monkey.") Please write your child's response here:



5. When you say, "Say 'seven three,'" does your child repeat *just* the two numbers in the same order? *Do not repeat the numbers.* If necessary, try another pair of numbers and say, "Say 'eight two.'" Your child must repeat just one series of two numbers for you to answer "yes" to this question.

6. After your child draws a "picture," even a simple scribble, does she tell you what she drew? (You may say, "Tell me about your picture," or ask, "What is this?" to prompt her.)

PROBLEM SOLVING TOTAL _____

PERSONAL-SOCIAL

YES SOMETIMES NOT YET

1. If you do any of the following gestures, does your child copy at least one of them?

- a. Open and close your mouth. c. Pull on your earlobe.
- b. Blink your eyes. d. Pat your cheek.

2. Does your child use a spoon to feed himself with little spilling?

3. Does your child push a little wagon, stroller, or other toy on wheels, steering it around objects and backing out of corners if she cannot turn?

4. Does your child put on a coat, jacket, or shirt by himself?

5. After you put on loose-fitting pants around her feet, does your child pull them completely up to her waist?

6. When your child is looking in a mirror and you ask, "Who is in the mirror?" does he say either "me" or his own name?

PERSONAL-SOCIAL TOTAL _____



OVERALL

Parents and providers may use the space below for additional comments.

1. Do you think your child hears well? If no, explain: YES NO

2. Do you think your child talks like other toddlers her age? If no, explain: YES NO

3. Can you understand most of what your child says? If no, explain: YES NO

4. Can other people understand most of what your child says? If no, explain: YES NO

5. Do you think your child walks, runs, and climbs like other toddlers his age? If no, explain: YES NO

6. Does either parent have a family history of childhood deafness or hearing impairment? If yes, explain: YES NO



OVERALL (continued)

7. Do you have any concerns about your child's vision? If yes, explain: YES NO

8. Has your child had any medical problems in the last several months? If yes, explain: YES NO

9. Do you have any concerns about your child's behavior? If yes, explain: YES NO

10. Does anything about your child worry you? If yes, explain: YES NO



30 Month ASQ-3 Information Summary

28 months 16 days through
31 months 15 days

Child's name: _____ Date ASQ completed: _____

Child's ID #: _____ Date of birth: _____

Administering program/provider: _____

1. SCORE AND TRANSFER TOTALS TO CHART BELOW: See ASQ-3 User's Guide for details, including how to adjust scores if item responses are missing. Score each item (YES = 10, SOMETIMES = 5, NOT YET = 0). Add item scores, and record each area total. In the chart below, transfer the total scores, and fill in the circles corresponding with the total scores.

Area	Cutoff	Total Score	0	5	10	15	20	25	30	35	40	45	50	55	60
Communication	33.30		●	●	●	●	●	●	●	○	○	○	○	○	○
Gross Motor	36.14		●	●	●	●	●	●	●	●	○	○	○	○	○
Fine Motor	19.25		●	●	●	●	○	○	○	○	○	○	○	○	○
Problem Solving	27.08		●	●	●	●	●	●	○	○	○	○	○	○	○
Personal-Social	32.01		●	●	●	●	●	●	●	○	○	○	○	○	○

2. TRANSFER OVERALL RESPONSES: Bolded uppercase responses require follow-up. See ASQ-3 User's Guide, Chapter 6.

- | | | | | | |
|---|-----|-----------|---|------------|----|
| 1. Hears well?
Comments: | Yes | NO | 6. Family history of hearing impairment?
Comments: | YES | No |
| 2. Talks like other toddlers his age?
Comments: | Yes | NO | 7. Concerns about vision?
Comments: | YES | No |
| 3. Understand most of what your child says?
Comments: | Yes | NO | 8. Any medical problems?
Comments: | YES | No |
| 4. Others understand most of what your child says?
Comments: | Yes | NO | 9. Concerns about behavior?
Comments: | YES | No |
| 5. Walks, runs, and climbs like other toddlers?
Comments: | Yes | NO | 10. Other concerns?
Comments: | YES | No |

3. ASQ SCORE INTERPRETATION AND RECOMMENDATION FOR FOLLOW-UP: You must consider total area scores, overall responses, and other considerations, such as opportunities to practice skills, to determine appropriate follow-up.

If the child's total score is in the area, it is above the cutoff, and the child's development appears to be on schedule.
 If the child's total score is in the area, it is close to the cutoff. Provide learning activities and monitor.
 If the child's total score is in the area, it is below the cutoff. Further assessment with a professional may be needed.

4. FOLLOW-UP ACTION TAKEN: Check all that apply.

- Provide activities and rescreen in _____ months.
- Share results with primary health care provider.
- Refer for (circle all that apply) hearing, vision, and/or behavioral screening.
- Refer to primary health care provider or other community agency (specify reason): _____
- Refer to early intervention/early childhood special education.
- No further action taken at this time
- Other (specify): _____

5. OPTIONAL: Transfer item responses (Y = YES, S = SOMETIMES, N = NOT YET, X = response missing).

	1	2	3	4	5	6
Communication						
Gross Motor						
Fine Motor						
Problem Solving						
Personal-Social						

Appendix D**Curriculum Vitae****Laura Hoffman**

1210 SW Myrtle St., Dundee, OR 97155

Phone: 626-224-0864

Email: lhoffman15@georgefox.edu

EDUCATION**Doctor of Psychology in Clinical Psychology***Child & Adolescent Emphasis*

George Fox University

Cumulative GPA: 3.9

PSI CHI member

Expected Graduation: Summer 2020**Master's Degree Received: May 2017****Bachelor of Arts in Psychology, Minor in Biblical Studies****May 2011**

Azusa Pacific University

Cumulative GPA: 3.42

Alpha Chi Honors graduate (Spring 2011)

Dean's List (Spring 2009, Fall 2010, Spring 2011)

Dean's Scholarship

Study Abroad: Yosemite Semester Spring 2008, Oxford Semester Spring 2010

CLINICAL EXPERIENCE**Clinical Internship – Behavioral Health Intern****June 2019 – June 2020****National Psychology Training Consortium****Cascades Region, HealthPoint**

Supervisors: Amanda Foster, PsyD, Nidhi Goel, PsyD

Performed evidence-based behavioral health interventions within a community mental health primary care. Provided consultation for medical providers to inform patient's medical and mental health care. Major populations served: Children/adolescents, families, neurodevelopmental disabilities, ethnic minorities, low SES, geriatrics, & refugees. Provided pediatric and parenting interventions for behavioral issues, understanding functions of behavior, emotional regulation, school difficulties, ADHD/ASD management, bullying, trauma, anxiety, weight loss, nutrition, sleep difficulties, picky eating, enuresis and toilet training, building educational advocacy skills, and bolstering parent-child attachment. Provided targeted interventions across ages for ADHD, depression, anxiety, panic attacks, insomnia, complex trauma/PTSD, substance use, and relationship problems. Supported lifestyle changes and management of medical conditions such as hypertension, diabetes, obesity, cancer, and chronic pain. Performed crisis management, risk assessments, and safety planning. Performed differential diagnosis for patients with potential neurodevelopmental concerns and coordinated referrals for evaluation. Screened for perinatal and postpartum maternal depression. Coordinated care with educators and other medical professionals and provided consultation to support best patient care. Provided patients with relevant resources and referrals to support household stability, health, and improve overall functioning. Developed resources for

teaching preventative and reactive parenting strategies. Developed brief intervention and worksheet for reducing pediatric vaccine avoidance by shifting parent and child attitudes. Performed brief psychological assessments, MOCA assessments, functional behavior analyses, ADHD assessments, and select neurocognitive assessments. Provided feedback for medical residents in training. Built relationships across the integrated care team. Attended weekly 2 hour individual supervision and 3 hour group supervision. Attended monthly full day didactic trainings on relevant health psychology topics. Performed mock supervision for Behavioral Health Interns and licensed psychologists observed and provided feedback on this supervision. Performed provider trainings in self-compassion and parent interventions to support pediatric outcomes, reduce risk of child maltreatment, and increase parent engagement.

Facilitated support meeting for clinic medical assistants during COVID 19 pandemic. Completed quality improvement project, including creation of “Parent Strategies” handout resource and clinical workflow for reducing parent shame and increasing parent engagement.

Practicum III – Behavioral Health Consultant in Integrated Care June 2018 - May 2019
Willamette Family Medical Center

Supervisor: Karim Afzal, PhD

Performed brief CBT behavioral health interventions within an integrated care team in a primary care/community mental health setting. Served patients across the lifespan but focused on child/adolescent populations. Designed treatment to support patient mental health, positive health behaviors and outcomes, and medical treatment adherence. Provided consultation to medical providers regarding relevant patient mental health information to inform patient healthcare and use behavioral strategies to support treatment adherence. Consulted with medical staff regarding physical issues possibly impacting patient mental health. Performed risk assessments and safety planning. Addressed issues such as sleep hygiene, anxiety, depression, SI, panic attacks, behavioral issues, parent training, potty training, ADHD, diabetes management, anxiety related to medical issues, medication regimen adherence, managing medication side effects, birth control side effects, substance use, and health behaviors such as exercise and eating habits. Provided a group training to medical providers and BHCs. Developed resources to support geriatric medication adherence and toilet training. Provided coordinated care and initiated patient referrals to relevance services and resources.

Performed outpatient CBT psychotherapy to address issue such as ADHD, building social cognition, developmental trauma, anxiety, depression, SI, self-esteem, impulsive eating, and panic attacks. Patient population mostly consisted of child/adolescent, Latinx, and low-SES populations.

Practicum II- Child and Family Therapy, Assessment August 2017 - June 2018
Sundstrom Clinical Services

Supervisors: Kristin Valerius, PhD, Kameron Dill, PsyD

Conducted therapy with a pediatric population, including clients experiencing ADHD, anxiety, sleep difficulties, behavioral issues, somatic symptoms, tic disorders, divorced parents, RAD, ASD, and ODD. Treatment modalities included cognitive-behavioral therapy, behavioral therapy, and family therapy. Performed 2 comprehensive pediatric psychological assessments a month, wrote integrated reports, and provided parents with feedback and recommendations. Additionally, shadowed nurse practitioner specializing in pediatric medicine and provided psychological support during medication consults.

Consultation for North Clackamas Early Childhood Assessment Center May 2018
 Supervisor: Celeste Jones, PsyD

Consulted with Dr. Fiorella Kassab director of the school district assessment center regarding the issue of client No Shows and the limited parent follow up on child assessment referrals. Gathered relevant information via interviews with the director and administrative staff and review of client contact logs, referral information, demographic and medical information, family history, and dates of referrals and completed assessments. Performed statistical analysis to discern client/family characteristics associated with No Shows, greater difficulty scheduling/attending assessments, and lack of referral follow through. Shared findings with the director, highlighted strengths of the assessment center system and barriers to client access, and provided recommendations for reducing no shows and supporting minority families' access through proactive communication, maintaining a diverse team, and referring all children assessed to relevant community resources and services in order to support educational success and avoid repeated inappropriate referrals.

Supplemental Practicum- Assessment

Summer 2017

George Fox University Behavioral Health Clinic

Supervisor: Joel Gregor, PsyD

Performed psychological evaluations for pediatric population within a community mental health setting. Performed intakes, behavioral observations, and built a therapeutic alliance with parents and children within diverse ethnic and economic populations. Administered screeners, behavioral checklists, cognitive and achievement tests, brief projective measures, and observable tests of attention. Wrote integrated reports and presented feedback and recommendations to clients' parents.

Practicum I- Early Childhood Assessment

July 2016 – June 2017

North Clackamas Educational Service Early Childhood Evaluation Center

Supervisor: Fiorella Kassab, PhD

Collaborated with an interdisciplinary team of school psychologists, speech pathologists, and occupational therapists to assess the development of children 0-5 years of age to determine eligibility for early intervention services and academic accommodations. Utilized assessments and measures such as the Bayley Scales of Infant and Toddler Development, Battelle Developmental Inventory, various behavioral measures, ASRS, ADOS, Ages and Stages Questionnaire(ASQ), and other tests. Used behavioral techniques to support child assessment completion. Established an alliance with families and provided support and feedback on evaluation results. Wrote assessment reports on the results and status of eligibility. Completed several integrated reports for children and adolescents with FAS, ADHD, MDD, selective mutism, ASD, and social anxiety. Conducted psychotherapy with several grade school age clients with ADHD and social anxiety. Provided consultation for educators and collaborated to develop functional behavior plans for students. Clients greatly varied in ethnicity, income, and primary language.

RELATED WORK EXPERIENCE

Behavioral Instructor

July 2014 – March 2015

ABA & VB Group

Supervisor: Cheslie Parent, BCBA

Performed in-home empirically-based Applied Behavioral Analysis therapy with children with Autism Spectrum Disorder and ADD/ADHD. Assisted supervisor with initial client assessment of developmentally appropriate skills. Built rapport with clients. Reinforced and shaped functional behaviors while decreasing dysfunctional behaviors in the context of play. Utilized Pivotal Trial Training, Discrete Trial training, priming, modelling, operant conditioning, differential

reinforcement, token economies, and forced choices to build up verbal, social, fine motor, self-help, and problem-solving skills. Collected data on client progress and frequency of dysfunctional behaviors. Built rapport with clients and families and provided parent training and psychoeducation in behavioral principles and strategies. Served ethnically diverse clientele with varying SES.

Behavioral Instructor

October 2012 – July 2014

Bridges Educational Corporation

Supervisor: Laurel Critti, BCBA

Performed in-home empirically-based ABA therapy with a diverse population of children at risk for Autism Spectrum Disorder. Collaborated with families, provided parent training and education, and collected data on client progress and clinical outcomes. Charted data to determine if client was meeting clinical goals or various behavioral programs needed adjustment. Collaborated with supervisors to develop behavioral programs appropriate to specific clients and families. Served an ethnically diverse clientele with various SES.

Applied Behavioral Analysis Therapist

March 2011 – October 2012

California Psychcare, Inc

Supervisor: Aubrey Fong

Performed in-home empirically-based ABA therapy with a diverse population of children at Risk for Autism Spectrum a Disorder (ASD). Collaborated with families, provided parent training, and collected observable data for child progress and clinical outcomes. Served an ethnically diverse clientele with various SES.

RESEARCH INTERESTS

Pediatric and ethnic barriers to care; parenting interventions; neurodevelopmental disabilities; child development; ADHD and substance use vulnerability; parent training; the impact of parent adverse childhood experiences (ACEs) and parent resilience on next generation child development; building parent/family resilience; neurological response to trauma and coping.

ASSESSMENTS GIVEN

16 Personality Factors (16PF)

Adaptive Behavior Assessment System, Second Edition (ABAS-2)

Adverse Childhood Experiences (ACE) scale

Achenbach Adult Self-Report for Ages 18-59 (ASR)

Autism Diagnostic Observation Schedule – Toddler Module (ADOS)

Aspberger's Diagnostic Rating Scale (ADRS)

Ages and Stages Questionnaire, Third Edition (ASQ-3)

Ages and Stages Questionnaire-Socioemotional (ASQ-SE)

Autism Spectrum Rating Scale (ASRS)

Battele Developmental Inventory, Second Edition (BDI-2)

Bayley Infant and Toddler Scales of Development, Third Edition (Bayley-3)

Behavior Rating Inventory of Executive Function, 2nd Edition (BRIEF-2)

Behavior Rating Inventory of Executive Function, Self-Report (BRIEF-SR)

Behavioral Assessment System for Children, Third Edition, Self-report (BASC-3-SR)

Behavioral Assessment System for Children, Third Edition, Parent Rating Scales (BASC-3-PRS)

Behavioral Assessment System for Children, Third Edition, Teacher Rating Scales (BASC-3-

TRS)
 Brown ADHD Scale
 Collaborative Assessment and Management of Suicidality (CAMS)
 Comprehensive Test of Nonverbal Intelligence, 2nd Edition (CTONI-2)
 Comprehensive Trail-Making Test (CTMT)
 Conners, Third Edition, (Conners 3) Self-Report
 Conners, Third Edition, (Conners 3) Parent Report
 Conners, Third Edition, (Conners 3) Teacher Report
 Conner's Adult ADHD Rating Scale – Observer: Long Version (CAARS—O:L)
 Conner's Continuous Performance Test, 3rd Edition (CPT-3)
 Electroencephalogram (EEG)
 ECG/EKG
 FASbest
 Galvanic Skin Response (GSR/EDA)
 Generalized Anxiety Disorder 7 scale (GAD-7)
 Grooved Pegboard Test
 House-Tree-Person Test
 Kiddie Conner's Continuous Performance Test, 3rd Edition (K-CPT-3)
 Millon Adolescent Clinical Inventory (MACI)
 Modified Checklist for Autism in Toddlers (MCHAT)
 Millon Clinical Multiaxial Inventory, 3rd Edition (MCMI-III)
 Minnesota Multiphasic Personality Inventory, 2^{cd} Edition (MMPI-2)
 Minnesota Multiphasic Personality Inventory, 2^{cd} Edition, Revised Form (MMPI-2-RF)
 Mini Mental Status Exam (MMSE)
 Montreal Cognitive Assessment (MOCA)
 NEPSY-II
 Patient Health Questionnaire 9 (PHQ-9)
 Personality Assessment Inventory (PAI)
 Positive and Negative Affect Scale (PANAS)
 Religious Coping questionnaire (RCOPE)
 Roberts Apperception Test for Children (RATC)
 Test of Memory Malingering (TOMM)
 Vanderbilt Assessment Scales
 Wechsler Adult Intelligence Scale, 4th Edition (WAIS-IV)
 Wechsler Individual Achievement Test, 3rd Edition (WIAT-III)
 Wechsler Intelligence Scale for Children, 5th Edition (WISC-V)
 Wechsler Memory Scale, 4th Edition (WMS-IV)

PROFESSIONAL TRAINING

May 1 st 2020	Medically Unexplained Symptoms David Clarke, MD Didactics Training – National Psychology Training Consortium, Cascades Region
May 1 st 2020	The Deliberate Practice of Effective Clinical Supervision Chris Heffner, PsyD, PhD

- Didactics Training – National Psychology Training Consortium, Cascades Region
- April 3rd 2020 **Let's Integrate**
Arisa Walberg, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- April 3rd 2020 **Introduction to Adverse Childhood Experience**
David Bauman, PsyD
Didactics Training – National Psychology Training Consortium, Cascades Region
- March 6th 2020 **Basics of Psychopharmacology**
Anna Holen, MD
Didactics Training – National Psychology Training Consortium, Cascades Region
- March 6th 2020 **Health at Every Size**
Lani Miller, Nutritionist
Didactics Training – National Psychology Training Consortium, Cascades Region
- March 6th 2020 **Alternative and Natural Medicine**
Dr. Krumm, ND, Lac
Didactics Training – National Psychology Training Consortium, Cascades Region
- February 6th 2020 **Motivational Interviewing**
Ken Kraybill
Didactics Training – National Psychology Training Consortium, Cascades Region
- February 6th 2020 **Developing Evidence-Based Practices**
Dr. Baity
Didactics Training – National Psychology Training Consortium, Cascades Region
- January 3rd 2020 **Addressing persistent pain with brief, behavioral interventions**
Robert Allred, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- January 3rd 2020 **Substance abuse in primary care**
Amanda Foster, PsyD, & Nidhi Goel, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region

- December 6, 2019 **Compassionate Healthcare**
David Bauman, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- December 6, 2019 **Refugee Mental Health**
Kristen Moss – Northwest Refugee member
Didactics Training – National Psychology Training Consortium, Cascades Region
- November 5, 2019 **Common conditions and brief treatment options for families and couples**
Steven Olmer, PsyD & Ruth Olmer, PsyD
Didactics Training – National Psychology Training Consortium, Cascades Region
- November 5, 2019 **Common conditions with children and families in pediatric primary care**
Mary Maxwell, LMHC
Didactics Training – National Psychology Training Consortium, Cascades Region
- October 4, 2019 **Relevant assessment and testing in primary care.**
Sierra Swing, PsyD
Didactics Training – National Psychology Training Consortium, Cascades Region
- October 4, 2019 **Ethics in Primary Care and Psychology**
Cara Dalby, PsyD
Didactics Training – National Psychology Training Consortium, Cascades Region
- September 6, 2019 **Clinical Interviewing & Crisis Management**
Kristin Tiernan, PsyD & Crystal Mayberry, PsyD
Didactics Training – National Psychology Training Consortium, Cascades Region
- September 6, 2019 **Learning the Basics: Behavioral health interventions for common medical conditions**
Melissa D. Baker, PhD & Kristin Tiernan, PsyD
Didactics Training – National Psychology Training Consortium, Cascades Region
- August 2, 2019 **Reviewing the PCBH model: FAQ, Updated Research, Ethical Concerns**
Jeff Reiter, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region

- August 2, 2019 **Working as a consulting in the PCBH model: True Team-Based Care**
Jeff Reiter, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- July 5, 2019 **Introduction to focused Acceptance and Commitment Therapy**
Patricia Robinson, PhD & Kirk Strosahl, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- June 21, 2019 **Common behavioral and mental health concerns**
Anya Zimberoff, PsyD & Melissa D. Baker, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- June 21, 2019 **Structure of PCBH**
David Bauman, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- June 20, 2019 **Introduction to the Primary Care Behavioral Health Model**
David Bauman, PhD & Melissa D. Baker, PhD
Didactics Training – National Psychology Training Consortium, Cascades Region
- March 20, 2019 **Foundations of Relationships Therapy-The Gottman Model**
Douglas Marlow, PhD
Didactics Training – George Fox University PsyD program
- February 13, 2019 **Opportunities in Forensic Psychology**
Diomaris Safi, PsyD & Alex Millkey, PsyD
- October 20, 2018 **Directions in Assessment and Treatment for Children and Adolescents.**
Christianne Esposito-Smythers, PhD, Jonathan Comer, PhD, & Amanda Jensen-Doss, PhD. 2018 National Conference in Clinical Child and Adolescent Psychology Clinical Child and Adolescent Psychology.
- October 20, 2018 **Autism Spectrum Disorders: Evidence-based Identification and Interventions.**
Wendy Stone, PhD, Tammy Barry, PhD, & Micah Mazurek, PhD
2018 National Conference in Clinical Child and Adolescent Psychology

- October 19, 2018 **Building Cultural Competence among Clinical Child and Adolescent Psychologists.**
Stan Huey, PhD, Anna Lau, PhD, & Armando Pina, PhD
2018 National Conference in Clinical Child and Adolescent Psychology
- October 19, 2018 **Peer Victimization and Aggression: Application of Mediated Moderated Associations to Clinical Practice.**
Paula Fite, PhD, Jamie Ostrov, PhD, & Annette La PhD, ABPP
2018 National Conference in Clinical Child and Adolescent Psychology
- October 10, 2018 **Old Pain in New Brains**
Scott Pengelly, PhD
- September 26, 2018 **Spiritual Formation and the Life of a Psychologist: Looking Closer at Soul-Care**
Lisa Graham McMinn, PhD and Mark McMinn, PhD
- May 5, 2018 **Maintaining our Humanity During These Polarizing Times: Self-Care From a Community and Intercultural Perspective.**
Cheryl Forster, PsyD
Oregon Psychological Association 2018 Annual Conference
- May 5, 2018 **Managing Chronic Pain: Increasing Movement and Improving Mood.**
Carilyn Ellis, PsyD, & Kellie Lewis, PT
Oregon Psychological Association 2018 Annual Conference
- March 14, 2018 **Integration and Ekklesia**
Mike Vogel, PsyD
Didactics Training – George Fox University PsyD program
- February 14, 2018 **History and Application of Interpersonal Psychotherapy**
Carlos Taloyo
Didactics Training – George Fox University PsyD program
- November 8, 2017 **Telehealth**
Jeff Sordal, PsyD
Didactics Training – George Fox University PsyD program
- October 11, 2017 **Using Community Based Participatory Research (CBPR) to Promote Mental Health in American Indian/Alaska Native (AI/AN) Children, Youth and Families**
Eleanor Gil Kashiwabara, PsyD
Didactics Training – George Fox University PsyD program

- March 1, 2017 **Domestic Violence: A Coordinated Community Response**
Patricia Warford, PsyD and Sgt. Todd Baltzell
Didactics Training – George Fox University PsyD program
- February 8, 2017 **Native Self Actualization: It's assessment and application in therapy**
Sydney Brown, PsyD
Didactics Training – George Fox University PsyD program
- November 9, 2016 **When Divorce Hits the Family: Helping Parents and Children Navigate**
Wendy Bourg, PhD
Didactics Training – George Fox University PsyD program
- October 12, 2016 **Sacredness, Naming and Healing: Lanterns Along the Way**
Brooke Kuhnhausen, PhD
Didactics Training – George Fox University PsyD program
- November 4, 2016 **Taming the Trauma: Using Flexibly Sequential Play Therapy with Traumatized Children.**
Paris Goodyear-Brown, LCSW. November 2016.
- October 2016 **TBI Assessment in Educational Settings.**
OHSU Webinar
- May 2016 **Pediatric Bootcamp**
Celeste Jones, PsyD & Joy Mauldin, PsyD.
George Fox University PsyD program
- March 16, 2016 **SBIRT (Screening, Brief Intervention, and Reference to Treatment) Training**
George Fox University PsyD program
- March 16, 2016 **Managing with Diverse Clients**
Sandra Jenkins, PhD
- March 11, 2016 **CAMS (Collaborative Assessment and Management of Suicidality) Training**
George Fox University PsyD program
- February 17, 2016 **Neuropsychology: What Do We Know 15 Years After the Decade of the Brain? and Okay, Enough Small Talk. Let's Get Down to Business!**
Trevor Hall, PsyD and Darren Janzen, PsyD
Didactics Training – George Fox University PsyD program
- October 21, 2015 **Let's Talk about Sex: sex and sexuality with clinical applications**
Joy Mauldin, PsyD
Didactics Training – George Fox University PsyD program

- September 30, 2015 **Relational Psychoanalysis and Christian Faith: A Heuristic dialogue**
Marie Hoffman, PhD
Didactics Training – George Fox University PsyD program
- November 2015 **ADOS Training Workshop**
Celeste Jones, PsyD ABPP
George Fox University PsyD program
- March 2011 **Applied Behavioral Analysis Workshop.**
California Psychcare, Inc.

RELEVANT PSYCHOLOGY COURSES

PsyD 501: Theories of Personality	George Fox University	Fall 2015
PsyD 502: Psychopathology	George Fox University	Fall 2015
PsyD 503: Learning, Cognition, & Emotion	George Fox University	Summer 2016
PsyD 504: Social Psychology	George Fox University	Summer 2016
PsyD 505: Human Development	George Fox University	Spring 2016
PsyD 507: History & Systems	George Fox University	Fall 2016
PsyD 509: Bio Basis	George Fox University	Spring 2018
PsyD 510: Psychopharmacology	George Fox University	Spring 2019
PsyD 511: Psychometrics	George Fox University	Spring 2016
PsyD 512: Statistics	George Fox University	Fall 2017
PsyD 513: Research Design	George Fox University	Spring 2017
PsyD 516: Child & Adolescent Treatment	George Fox University	May 2018
PsyD 517: Ethics for Psychologists	George Fox University	Fall 2015
PsyD 518: Professional Issues	George Fox University	Fall 2018
PsyD 521: Personality Assessment	George Fox University	Spring 2016
PsyD 522: Cognitive Assessment	George Fox University	Fall 2016
PsyD 526: Child & Adolescent Assessment	George Fox University	Summer 2016
PsyD 527: Neuropsych Assessment Foundations I	George Fox University	Fall 2017
PsyD 528: Neuropsych Assessment Foundations II	George Fox University	Spring 2018
PsyD 530: Clinical Foundations I	George Fox University	Fall 2015
PsyD 531: Clinical Foundations II	George Fox University	Spring 2016
PsyD 532: Practicum I	George Fox University	Fall 2016
PsyD 533: Practicum I	George Fox University	Spring 2017
PsyD 535: Practicum II	George Fox University	Fall 2017
PsyD 536: Practicum II	George Fox University	Spring 2018
PsyD 539: Preinternship I	George Fox University	Fall 2018
PsyD 538: Preinternship II	George Fox University	Spring 2019
PsyD 541: Multicultural Therapy	George Fox University	Spring 2017
PsyD 551: Psychodynamic Psychotherapy	George Fox University	Spring 2017
PsyD 552: Cognitive-Behavioral Therapy	George Fox University	Fall 2016
PsyD 563: Family Therapy in Diverse Cultures	George Fox University	Spring 2016
PsyD 571: Integrative Approaches to	George Fox University	Spring 2016

Psychology		
PsyD 572: Bible Survey for Psychologists	George Fox University	Spring 2017
PsyD 574: Spiritual and Religious Diversity in Professional Psychology	George Fox University	Fall 2017
PsyD 578: Christian History and Theological Survey for Psychologists	George Fox University	Spring 2018
PsyD 579: Spiritual & Religious Issues in Psychology	George Fox University	Spring 2019
PsyD 582: Substance Use	George Fox University	Fall 2018
PsyD 586: Integrated Care	George Fox University	Summer 2017
PsyD 591: Consultation, Education, & Program Evaluation	George Fox University	Fall 2017
PsyD 592: Consultation, Education, & Program Evaluation II	George Fox University	Spring 2018
PsyD 593: Supervision & Management of Psychological Services I	George Fox University	Fall 2018
PsyD 594: Supervision & Management of Psychological Services II	George Fox University	Spring 2019
PsyD 801: Research Team I	George Fox University	Fall 2016- Spring 2017
PsyD 802: Research Team II	George Fox University	Fall 2017- Spring 2018
PsyD 803: Research Team III	George Fox University	Fall 2018- Spring 2019
Gender & Sexuality Certificate course	George Fox University	Fall 2018

RESEARCH, POSTERS & PRESENTATIONS

Hoffman, L., Jones, C., Gathercoal, K., Knows His Gun, K., & Gillespie, R.J. (In progress). Tracing ripples: How Parent ACEs Impact Next Generation Child Development and the Moderating Role of Resilience.

Mara, T., **Hoffman, L.**, Andrews, G., Smith, K., & Tsai, A. (2020). Mediating Disaster: The Brain's Response to Prayer. Temporal Lobe Activation Experienced through Structured Prayer as a Response to Witnessing Trauma.
Poster presented at the 2020 International Neuropsychological Society Conference.

Hoffman, L., Gallup, S., & Jones, C. (2019). Converging pathways: The effects of ADHD and relationship difficulties on adolescent risk of substance use.
Poster presented at the 2019 Oregon Psychological Association Annual Conference.

Hoffman, L., & Jones, C. (2018). How Parent ACEs Impact Next Generation Child Development and the Moderating Role of Resilience.
Poster presented at the 2018 National Clinical Child and Adolescent Psychology Conference.

Karam, S., **Hoffman, L.**, & Jones, C. (2018). ACEs and economics: The underlying challenges

ethnic minorities face in pediatric healthcare access.

Poster presented at the 2018 National Clinical Child and Adolescent Psychology Conference.

Hoffman, L., Peters, K., & Freeman, C. (2018). Strategies for alleviating barriers faced by ethnic minorities and non-English speaking families in accessing child assessment and educational supports. *Oregon Psychological Association 2018 Spring Newsletter*.

Hoffman, L., Jones, C., & Peters, K. (2018). Barriers to early childhood evaluation within family systems.

Poster presented at the 2018 WPA Convention.

Hoffman, L., Peters, K., & Freeman, C. (2018). Strategies for alleviating barriers faced by ethnic minorities and non-English speaking families in accessing child assessment and educational supports.

Poster presented at the 2018 Oregon Psychological Association Conference.

Meguro, L., **Hoffman, L.**, Kim, J., Weeks, T. (2018) Examining the influence of SES and mental health diagnoses on no show rates within community mental health.

Poster presented at the 2018 American Psychological Association Conference.

Tsai, A., Moffitt, A., & **Knopf (Hoffman), L.** (2012). Guidance in the face of crisis: The effects of structured prayer upon emotion.

Poster presented at 2012 Western Psychological Association Convention.

GRANTS & AWARDS

Oregon Psychological Association Student Research Award 2019

Awarded for the poster "Hoffman, L., Gallup, S., & Jones, C. (2019). Converging pathways: The effects of ADHD and relationship difficulties on adolescent risk of substance use."

Oregon Psychological Association Diversity Award 2018

Awarded for the poster "Hoffman, L., Peters, K., & Freeman, C. (2018). Strategies for alleviating barriers faced by ethnic minorities and non-English speaking families in accessing child assessment and educational supports."

GDCP Student Government Research Grant 2017

Awarded for the ongoing "Unpacking Prayer: The brain's response to structured prayer after natural disaster exposure." research project.

ACADEMIC SERVICE & LEADERSHIP

- **4th Year Student Mentor.** GFU Clinical Team.
Newberg, Oregon. September 2018-Present
Support and facilitate 2nd year PSYD student growth in clinical conceptualization, intervention, professional development, self-care, and the ability navigate systems.
- **Member, Pediatric Psychology Student Interest Group,** GFU Graduate Department of Clinical Psychology; Newberg, Oregon, October 2015 - Present

- **Research Project Leader**, “Prayer-Trauma EEG” Research Team, GFU Graduate Department of Clinical Psychology; Newberg, Oregon, September 2016-Present
Trained students in implementing EEG, EKG, and EDA/GSR assessments, experimental procedures, equipment maintenance, running experimental trials, and data coding. Coordinated scheduling participants and student researchers, and mentored student researchers in the pursuit of their own research and clinical goals. Developed experimental procedures and materials, training procedures, and systems for data collection.
- **Student Mentor**, GFU Graduate Department of Clinical Psychology; Newberg, Oregon, June 2016 – April 2017
- **Serve Day volunteer**, George Fox University; Newberg, Oregon, 9 September 2015, 14 September 2016, and 13 September 2017

PROFESSIONAL AFFILIATIONS

- **Student affiliate of American Psychological Association (APA)**
- **Student affiliate of the Oregon Psychological Association**

TEACHING EXPERIENCE

“Parenting Strategies and Increasing Parent Engagement by Reducing Shame.”

May 22nd 2020

Laura Hoffman, MA

Presentation to medical providers at HealthPoint Auburn Medical.

“Adverse Childhood Experiences, Intergenerational Trauma, and Resilience”

December 16th 2019

Laura Hoffman, MA

Presentation to HealthPoint Behavioral Health Interns within the NPTC Cascades Region.

“Toilet Training, Enuresis, & Encopresis”

November 15th 2018

Laura Hoffman, MA

Presentation to Willamette Family Medical Center providers

“Psychology of the Self”

January 19th 2018

Guest lecture by Laura Hoffman in Social Psychology undergraduate course

Professor: Kelly Chang, PhD

George Fox University

“Cognitive-Behavioral Therapy”

Fall 2017

Teaching assistant to Joel Gregor, PsyD

Graduate Program Clinical Psychology

George Fox University

Guided student role play and practice of cognitive-behavioral techniques; provided constructive

feedback and relevant information on clinical techniques and relationship building.
“CBT with Children.” 2-hour guest lecture by Laura Hoffman
 November 10th 2017

VOLUNTEER EXPERIENCE

Behavioral Consultant & Children’s Special Needs Shadow August 2013 – March 2014
Flood Kids program, Flood Church

Made recommendations to children’s ministry staff for incorporating behavioral techniques into Sunday School structure in order to accommodate children with developmental delays or psychological disorders, and weekly facilitated the participation and social engagement of children dealing with cognitive and emotional difficulties.

Family Relations Director of APU Dance Marathon Fundraiser October 2010 - March 2011
LA Children’s Hospital

Coordinated and supported pediatric patients giving testimonies, promoted event, and facilitated patient-student interaction in order to raise awareness and encourage donations.

Student Leader August - December 2009
APU Hearth House Learning Living Community

Promoted community service and social justice education, facilitated group discussions on diversity, & organized a “Made in L.A.” screening to raise student awareness of aspects of the economic and corporate systems that take advantage of the vulnerability of immigrant populations.

Volunteer November 2009
Sunrise Retirement Home

Provided emotional support for senior citizens with Alzheimer’s and dementia.

Tutor February – November 2009
THINK Together

Tutored low SES children inner city Azusa, CA as part of an after school program.

PROFESSIONAL QUALIFICATIONS

- Electronic Health Records systems: NextGen, Therapy Notes, Aprima, ecWeb
- Acknowledge
- BioPac system
- Kubios
- SPSS
- Microsoft Office
- CPR Certified