

令和 2 年 5 月 2 5 日

海外特別研究員最終報告書

独立行政法人日本学術振興会 理事長 殿

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(氏名は必ず自署すること)

海外特別研究員としての派遣期間を終了しましたので、下記のとおり報告いたします。

なお、下記及び別紙記載の内容については相違ありません。

記

1. 用務地 (派遣先国名) 用務地: オクラホマ大学 (国名: アメリカ合衆国オクラホマ州)

2. 研究課題名 (和文) ※研究課題名は申請時のものと違わないように記載すること。

小児死亡事例における養育環境・逆境体験のリスク評価と多職種による予防策の効果検証3. 派遣期間: 平成 30 年 11 月 19 日 ~ 令和 2 年 5 月 14 日

4. 受入機関名及び部局名

University of Oklahoma Health Sciences Center, Center on Child Abuse and Neglect5. 所期の目的の遂行状況及び成果…書式任意 **書式任意 (A4 判相当 3 ページ以上、英語で記入も可)**

(研究・調査実施状況及びその成果の発表・関係学会への参加状況等)

(注)「6. 研究発表」以降については様式 10-別紙 1~4 に記入の上、併せて提出すること。

I conducted several researches during this fellowship. There are two main research themes that I planned: 1) Child Death Review (CDR) system and multidisciplinary collaborations and 2) Relationships between Adverse Childhood Experiences (ACEs) and child developmental outcomes.

CDR systems is one of tertiary preventive methods to learn from precious lessons from child death. Multidisciplinary preventive collaborations are essential to achieve preventive spectrum in various layers. Therefore, I examined characteristics of fatal child maltreatment and services or preventive initiatives after the child death. In addition to prevent fatal outcomes, primary and secondary preventions are equivalently important to promote child healthy development. Public attentions have been paid toward Adverse Childhood Experiences (ACEs) in US, which eventually impact health and wellbeing in their later lives. Therefore, I conducted researches as below.

Theme1: Child Death Review (CDR) system and multidisciplinary collaborations**Research 1: Service provisions and Preventive interventions after Child Death Review**

Background: Child Death Review (CDR) has played a critical role for practitioners and researchers to identify lessons from valuable deceased children. One of main principal is that CDR aims for preventing future deaths and promoting health of children through making effective recommendations for the society. However, little has been known for services for family after death and preventive recommendations made by CDR team, especially for fatal child maltreatment.

Method: This study utilized National CDR Case Reporting System (NCDR-CRS) data from the National Center for Child Fatality Review and Prevention (NCFRP). NCFRP collects data after CDR teams in each state reviewed the cases via online reporting system. I examined characteristics of fatal abuse and neglect children and their families. I also examined types of services for the family and preventive interventions suggested by CDR after child death.

Results: There were 3,277 fatal abuse and 1,793 fatal neglect under 18 years old in 2009-2015, which was completely reviewed and registered into NCDR-CRS from 36 states. More than half of deceased children were male (abuse: 56.2%, neglect: 60.3%). Majority of fatal abuse were children under 5 years old (86.8%), while one third of fatal neglect was occurred among older children aged 11-17 years old. Half of families of fatal abuse cases were single parenthood. Fatal abuse cases had more previous or current involvement by Child Protection Service than fatal neglect (abuse: 41.9%, neglect: 21.9%). After child deaths, approximately half of abuse cases and less than one fifth of neglect cases were substantiated by child welfare agency. In

terms of service provisions, nearly Thirty percent of families were offered any kinds of services after child abuse and neglect deaths. The frequent types of recommended services were bereavement support (Abuse: 23.9%, Neglect: 23.0%), funeral services (Abuse: 13.1%, Neglect: 11.6%), and mental health services (Abuse: 11.3%, Neglect: 5.6%). One fifth of fatal maltreatment cases were recommended preventive initiatives. The most frequent recommendation was parent education (Abuse: 8.4%, Neglect: 13.1%), followed by media campaign (Abuse: 5.4%, Neglect: 8.8%).

Conclusion: Since CDR dataset has multidisciplinary perspectives to examine and review child fatalities, we could reveal details of characteristics, service provisions and recommended preventive initiatives. Further study is needed to evaluate how effectively recommendations are actually implemented in the community.

I'm currently finalizing analysis and preparing the manuscript to publish.

Center on Child Abuse Neglect, where I studied during this fellowship, has multidisciplinary training program. Since multidisciplinary collaboration has an important role for preventions in this field, I evaluated the program of our center.

Research 2: Interdisciplinary Training Program in Child Abuse and Neglect

Background: To provide effective preventive interventions toward child abuse and neglect. University of Oklahoma Health Sciences Center has offered Interdisciplinary Training Program (ITP) for Child Abuse and Neglect since 1987. However, there are limited evaluations on multidisciplinary/ interprofessional training for early professionals in the field of child abuse and neglect. This study aimed to examine the effects of the ITP on young professionals in developing their careers and taking leadership roles in the field of child abuse and neglect.

Method: The anonymous online survey was conducted for students who completed in the ITP from 1989 to 2016 (n=405, with contact information out of total 508 graduates). One hundred seventy-nine alumni (44.2%) responded to the survey.

Result: Satisfaction for the ITP was high (m=9.3, sd=0.97 on a 10-point scale with higher numbers being positive). Their current contributions to the field of child abuse and neglect were widely seen in child advocacy (43.0%), clinical treatment (39.1%), primary prevention (29.6%), or research (27.9%). Graduates reported they made 133 presentations to civic or professional groups and published 69 articles since they finished the ITP.

Conclusion: The ITP trainees have made significant contributions to the field in clinical treatment, research, and child advocacy. Alumni were highly satisfied with their experience and continue to see the importance of the ITP to their jobs and career.

This research is published in *Child Abuse and Neglect* in 2019, August. (Yamaoka Y, Wilsie C, Bard E, and Bonner BL. 2019. doi: 10.1016/j.chiabu.2019.104032.)

上記の研究を通して、またアメリカにおける多職種連携による虐待予防に関する取り組みを国内に紹介する必要性を痛感し、以下の雑誌に寄稿しました。

<寄稿>

山岡祐衣. 子どものアドボケイトとしての小児科医 ～虐待予防に向けた国内外の取り組み～. 外来小児科 Vol. 23 No. 1 (2020) p. 22-27.

Theme2: Relationships between Adverse Childhood Experiences (ACEs) and child health outcomes

Research 3: Positive Parenting Matters in the Face of Early Adversity

Background: A negative relationship between ACEs and both physical and mental health in adulthood is well established, as is the positive impact of parenting on child development and future health. However, few studies have investigated unique influences of ACEs and positive parenting together within a large, diverse early childhood sample.

Method: The study used data on all children aged 0–5 years (n=29,997) from the National Survey of Children's Health 2011/2012 to examine effects of positive parenting practices and adverse childhood experiences on early childhood social–emotional skills and general development.

Result: More than a third of the sample reported experiencing at least one ACE. More than a fourth (26.7%) met study criteria for social–emotional deficits, and 26.2% met criteria for developmental delay risks. The number of adverse childhood experiences exhibited negative marginal associations with social–emotional deficits and developmental delay risks, whereas the number of positive parenting practices showed independent protective effects. Risks associated with an absence of positive parenting were often greater than those of four or more adverse childhood experiences, even among no/low adversity families. The population

attributable fractions for social–emotional deficits and developmental delay risks were 17.3% and 13.9% (translating to prevalence reductions of 4.5% and 3.6%) when adopting all positive parenting practices and 4.5% and 7.2% (prevalence reductions of 1.2% and 1.9%) when eliminating ACEs.

Conclusion: The number of ACEs was associated with both social–emotional deficits and developmental delay risks in early childhood; however, positive parenting practices demonstrated robust protective effects independent of the number of adverse childhood experiences. This evidence further supports promotion of positive parenting practices at home, especially for children exposed to high levels of adversity.

This research is published in *American Journal of Preventive Medicine* in 2019, April. (Yamaoka & Bard, 2019. doi: 10.1016/j.amepre.2018)

After publishing this study, I decided to explore relationship between ACEs and parenting practices using longitudinal dataset in order to overcome limitations using cross-sectional study. I examined relationship between ACEs, Parentings, and developmental outcomes among children at age of 1, 3, and 5 years old.

Research 4: Type and timing effects of adverse experiences and protective parenting in early childhood

Background: This study builds on our prior work to examine differential effects for type of adversity (including constructs from the Dimensional Model of Adversity and Psychopathology, DMAP; (McLaughlin, Sheridan & Lambert, 2014) and type of parenting, while also weighing the influence of timing during early childhood. The findings from this work intend to inform preventive actions, highlighting which adversities/parenting constructs produce the greatest harms/benefits during early development and whether there are periods of greater susceptibility/sensitivity to these factors.

Method: We utilized data from the Fragile Families and Child Wellbeing Study (FFCWS). We employed a dimensional approach to divide ACEs into three categories: “Threat” (physical abuse, psychological abuse, intimate partner violence, community violence), “Deprivation” (neglect, poverty, housing insecurity, food insecurity), and “Household Dysfunction” (parental mental illness, incarceration, drug/alcohol problem, parental unstable relationship, parental death). Similarly, we examined three aspects of early parenting: frequency of positive parenting practices (PPPs; reading, storytelling, singing, and parent-child interactive play with toys), warmth of parent, and quantity of developmental resources available to the child. These six constructs (3 ACEs and 3 parenting) were evaluated for their longitudinal impact on four separate developmental outcomes measured at ages 3 and 5 years: internalizing and externalizing behavior (Ib and Eb: I/Eb), social-emotional competence (SEc), and verbal ability (Va). Using longitudinal, structural equation modeling (SEM), analyses were constructed to examine life-course concepts of sensitive and accumulative periods of adversity and parenting influence. Sensitive periods of influence are characterized by disproportionate impact of a factor during a specific period of early development. Accumulative influences, on the other hand, represent relatively equivalent influences over time. Impact of adversity and parenting constructs were explored for each of three measurement waves roughly occurring when children were ages 1, 3, and 5 years. Concurrent and lagged effects of these predictors were compared across all four developmental constructs (Ib, Eb, SEc, and Va).

Results: There were three substantive findings from this study. First, we confirmed differential effects of ACE and parenting type on developmental outcomes in early childhood. Threat and household dysfunction negatively affected I/Eb. Interestingly, neither of these constructs affected SEc or Va. Deprivation and the 3 parenting constructs affected all four outcomes in the expected, opposite directions. Second, decomposing total effects into direct and indirect (i.e., mediated influences on outcomes) components, threat, deprivation, and parenting evidenced significant direct and indirect pathways of influence on nearly all outcomes, while the substantive Household dysfunction effects on I/Eb were only indirect. Third, there were different timings of effect for ACEs and parenting constructs on the four outcomes. Effects of all three ACE constructs (Threat, Deprivation, and Household Dysfunction) were mostly accumulative, suggesting equivalent harms during early childhood regardless of when (age 1, 3, or 5 years) the adversity was experienced. PPP effects supported sensitive periods with age 1 practices evidencing the strongest influence on I/Eb and Va. For SEc, children appeared to be more sensitive to PPPs at ages 1 and 3 than PPPs at age 5. Warmth demonstrated accumulative effects for all outcomes. Developmental resources evidenced accumulative effects for I/Eb and Va, and early resources impacting SEc more strongly than later resources (i.e., sensitive age 3>5).

Conclusion: This study elucidates distinguishable, temporal relationships between types of ACEs and parenting within the first 5 years of life. These findings will contribute to the use and development of interventions that are responsive to these empirical distinctions between type and timing of ACEs and parenting effects on early development. It also identifies and proposes new areas of investigation that attempt to explain some key implications of these type and timing differences (e.g., why threat and household deprivation do not impact SEc or Va).

I presented these results at *Zarrow Mental Health Symposium* in 2019, October. I’m currently preparing the manuscript to publish.

Research 5: Longitudinal different effects of child social development

Background: I previously uncovered a protective role for positive parenting practices in the face of early adversities (Yamaoka & Bard, 2019). This study builds on our prior work to examine differential effects for multiple subdomains of social-emotional development (i.e., prosocial skills, cooperation, assertion, and self-control), while also weighing the influence of timing during early childhood at ages 3, 5, and 9. The findings from this work intend to inform preventive actions, highlighting which adversities/parenting constructs produce the greatest harms/benefits during SE development at specific times of the developmental life course.

Method: We utilized data from the Fragile Families and Child Wellbeing Study (FFCWS). We employed a dimensional approach to divide ACEs into three categories: “Threat”, “Deprivation”, and “Household Dysfunction” as used in previous study. We utilized Adaptive Social Behavior Inventory (ASBI) at age 3, 5, and 9, and three subdomains of Social Skills Rating System (SSRS: cooperation, assertion, and self-control) at age 9. Using longitudinal, structural equation modeling (SEM), analyses, I evaluated longitudinal impacts of three types of ACEs on four separate SE developmental constructs: prosocial (PS), cooperation (CO), assertion (AS), and self-control (SC). Child’s emotionality and shyness was measured at age 1 based on the EAS Temperament Survey for Children and we adjusted emotionality and shyness in the model.

Results: First, we confirmed differential effects of ACEs on each SE developmental outcome. Deprivation had negative effects of PS skills at age 3, 5, and 9. CO, AS, and SC at age 9 were more affected by household dysfunction than threat or deprivation. Threat exhibited strong effects on CO/SC but appeared to have little influence on PS/AS. Second, we confirmed consistent effects of positive parenting effects on each SE developmental outcome. Parenting practice at age 1 had protective effects for all four SE development skills. Third, child temperament at age 1 showed differential effects on SE development. Shyness had negative effects on PS skills at age 3, 5, and 9, whereas emotionality had negative effects on CO/AS/SC skills at age 9. Last, timing of effect for parenting constructs differed when we compared PS skills at age 3, 5, and 9. Parenting practice at age 1 produced the strongest effect size for PS skills at ages 3, 5, and 9 (compared to parenting practices at later ages). Effect sizes for responsive parenting and resources were less consistent across SE domains but were also strongest at the younger assessment age (3).

Conclusion: This study revealed empirical distinctions between type and timing of ACEs and parenting effects on early SE development constructs. It also identifies and proposes new areas of investigation that attempt to explain some key implications of these type and timing differences (e.g., threat impact CO/SC skills, but not PS/AS skills; early parenting influences persist and are often strongest).

I’m currently preparing the manuscript to publish.