NORMALIZATION OF VIRTUAL HOME VISITING IN IDAHO

by

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A thesis

submitted in partial fulfillment

of the requirements for the degree of

Master of Public Health in Systems Analysis and Innovation

Boise State University

May 2022

BOISE STATE UNIVERSITY GRADUATE COLLEGE

DEFENSE COMMITTEE AND FINAL READING APPROVALS

of the thesis submitted by

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Thesis Title: Normalization of Virtual Home Visiting in Idaho

Date of Final Oral Examination: 08 March 2022

The following individuals read and discussed the thesis submitted by student Ashtin Glodt, and they evaluated the student's presentation and response to questions during the final oral examination. They found that the student passed the final oral examination.

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The final reading approval of the thesis was granted by Ellen Schafer, Ph.D., Chair of the Supervisory Committee. The thesis was approved by the Graduate College.

DEDICATION

This thesis is dedicated to my family. Thank you to my parents, Wade and Shannon, and my aunts who have passed down their best qualities to me. Without them, I would not be the stubborn, opinionated, and educated woman I am today. Their influence has carried me through this experience, encouraging me to keep working, keep advocating, and keep learning. Thank you to my brothers, Gage and Colton, for always making me smile and laugh. You two are the best medicine. And a very heartfelt thank you to my husband, Owen, who encouraged me (told me to get back in my office), supported me (usually while I was crying into a pack of Oreo thins and doubting myself), and recognized my small wins (pretended to be interested in my thesis, even when I talked in circles).

I would also like to thank my mentors, Erin Bruce and Kristin McKie, for fostering my passion for home visiting and encouraging me to pursue higher education. I credit you with my decision to go back to school and work full time, at the same time. It has been a challenging and fulfilling experience, and I would do it again. Maybe.

Lastly, I would like to thank my amazing, intelligent, passionate female friends. Your constant encouragement (funny hype GIFs) got me through long nights at my computer. Let's celebrate (with Molly Renaldo's macarons that became a part of my personal food pyramid while writing this.)!

ACKNOWLEDGMENTS

Dr. Schafer, I cannot express the depth of gratitude I feel. I am so thankful for your support and encouragement, your willingness to listen to my tangents and guide me back to my purpose, your ability to edit my writing to capture exactly what I wanted to describe but didn't know how to say. Knowing you were always there when I wanted to quit kept me going. Without you, I would not have finished this study. Thanks for helping me do hard things.

Thank you to my committee members, Dr. Begic and Dr. Toevs, for your expertise and thoughtful questions. Your feedback always strengthened my study and made my paper better and better. I'm proud of my final draft and I wouldn't have gotten there without you.

Thank you to the Idaho Division of Public Health and the Idaho Maternal, Infant, and Early Childhood Home Visiting Program for collaborating with me and helping me identify participants for this study.

Finally, thank you to all the home visitors and home visiting supervisors who took time out of their day to take my survey and, in some cases, share their experiences with me. Your time was valuable to me and to the home visiting field, which will benefit from your feedback and participation.

ABSTRACT

Background

Home visiting pairs expectant parents and those with young children with an early childhood professional who builds a long-term relationship with each family by regularly meeting with them in their homes and providing knowledge and skills that supports both parent and child health and well-being. In spring 2020, due to the COVID-19 pandemic, home visitors had to quickly transition from exclusively in-person services to virtual services, which created new challenges and opportunities.

Aim

To explore (1) the degree to which virtual home visiting practice has been normalized, as defined by Normalization Process Theory, by home visitors in Idaho, (2) which components of virtual practice home visitors want to continue implementing in a hybrid setting and resources needed to sustain them, and (3) the ways virtual home visiting impacts health outcomes for families, based on home visitors' perceptions.

Methods

Data were collected from a statewide convenience sample of home visitors in Idaho through an online quantitative survey and qualitative individual interviews (via Zoom). Quantitative data were analyzed with descriptive statistics and interviews were transcribed. Transcripts were reviewed and helped to place quantitative findings within the context of home visitors' experiences.

Results

Out of a possible 22 participants in Idaho, 21 completed the online survey and 8 completed a follow-up individual interview. Cumulative scoring of the qualitative survey revealed high degrees of normalization. Participants responded that virtual home visiting feels familiar, is currently being utilized, and will continue to be utilized in the future; furthermore, virtual home visiting should not replace in-person services but be utilized as a tool that improves communication with families and allows them more flexibility and autonomy. By providing virtual services, participants reported they were able to continue supporting families' health through emotional connection during a stressful and isolating time, conduct virtual health assessments, and provide referrals to community resources. Participants highlighted technical orientation for both home visitors and families when starting implementation and stronger support from senior leadership, including a better understanding of home visiting and daily work, as needs that would strengthen the continuation of virtual home visiting practice.

Conclusion

High degrees of normalization indicate that virtual home visiting will be sustained by home visiting staff; however, barriers related to support from senior leadership may negatively impact the continued implementation of virtual home visiting. For virtual practice to be successful, there is a need to build healthy work culture within parent organizations and establish evidence of the effectiveness of virtual practice to produce outcomes and serve the health and social needs of the participating families.

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LIST OF ABBREVIATIONS

EHS	Early Head Start
HARC	Home Visiting Applied Research Collaboration
HHS	U.S. Department of Health and Human Services
HomVE	Home Visiting Evidence of Effectiveness Program
HRSA	U.S. Health Resources and Services Administration
IDHW	Idaho Department of Health and Welfare
MIECHV	Maternal, Infant, and Early Childhood Home Visiting Program
NFP	Nurse-Family Partnership
NHVRC	National Home Visiting Resource Center
NoMAD	Normalization MeAsure Development Survey
NPT	Normalization Process Theory
PAT	Parents as Teachers
RR-VHV	Rapid Response – Virtual Home Visiting

CHAPTER ONE: INTRODUCTION

Early childhood home visiting (hereby known as home visiting) is a free and voluntary service that helps families raise children who are physically, socially, and emotionally healthy and ready to learn. Expectant parents and others with young children are paired with a home visitor - typically a trained nurse, social worker, or other early childhood professional - who regularly meets and builds relationships with them to provide knowledge and skills supporting the health and well-being of their young children. The goals of home visiting are to improve the health of pregnant women, parents and caregivers, and children; promote child development and school readiness; encourage positive, development-centered parenting; and improve a family's economic self-sufficiency (Idaho Maternal, Infant, and Early Childhood Home Visiting Program [MIECHV], 2020). Home visiting helps children to be ready for kindergarten, detects developmental delays early, and prevents child abuse and neglect (U.S. Department of Health and Human Services [HHS], 2021).

The United States Health Resources and Services Administration (HRSA) distributes federal funding to states and territories for evidence-based home visiting services through the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) grant. The Idaho MIECHV Program (hereby referred to as Idaho MIECHV) has been awarded this funding since 2015 and is the largest funder of home visiting in Idaho. Idaho MIECHV is housed within the Idaho Department of Health and Welfare (IDHW).

In March 2019, all home visiting programs were directed by the National Alliance of Home Visiting Models to move all at-home, in-person visits to virtual visits due to the COVID-19 pandemic (National Alliance of Home Visiting Models, 2020). Additionally, nearly all local programs, including Idaho MIECHV programs, were subject to state and local social distancing requirements and were required by their agencies to stop in-person, in-home visits completely (MIECHV, 2020). Programs quickly pivoted to virtual service delivery, despite rarely using telecommunication technology to serve families (MIECHV, 2020).

In April 2020, the Home Visiting Applied Research Collaboration (HARC) surveyed 1,312 local home visiting programs to gauge how programs were adjusting services to meet social distancing guidelines and to meet the increasing needs of families (O'Neill et al., 2020). Many programs had staff turnover and couldn't hire new home visitors, straining the workload of existing staff (O'Neill et al., 2020). Half of respondents reported that families did not have internet access, technological resources, or funds to maintain technological resources (O'Neill et al., 2020). Home visitors also reported challenges such as issues with confidentiality, family engagement, and burnout. As families sheltered in place, participants had less privacy during visits and home visitors had difficulty identifying if the participant was alone (O'Neill et al., 2020). Families also had less emotional capacity to engage in visits due to overwhelming circumstances such as caring for children while sheltering in place, job loss, and family loss (O'Neill et al., 2020). It was also more difficult to capture children's attention for a full hour, so visits were often cut short (O'Neill et al., 2020). While home visitors were helping families through crisis, they were also experiencing the weight of the pandemic, such as school

closures, sharing space with their own families, and heightened anxiety (O'Neill et al., 2020).

Despite the unprecedented challenges, home visitors were resilient and willing to adapt and try new strategies. Home visiting programs adapted quickly by communicating that home visits would start taking place virtually due to the pandemic, buying telecommunication licenses and equipment, and finding technological resources for families (MIECHV, 2020). They piloted virtual services with little existing implementation research and resources. Home visitors were innovators, always creatively problem-solving to give families high quality services, including dropping off materials for upcoming visits, finding and delivering emergency supplies, and planning virtual or socially distanced parent connection events like scavenger hunts and cooking shows (MIECHV, 2020). Many families stayed engaged in the program due to home visitors' responsiveness to their needs (MIECHV, 2020).

With increased accessibility to COVID-19 vaccinations, many social distancing requirements were lifted in Idaho and home visiting programs started meeting families in-person again in summer 2021. The National Alliance of Home Visiting Models recognizes that "components of virtual service delivery are here to stay, either as the main strategy or as part of an approach combining some on ground visits with virtual visits," (Rapid Response – Virtual Home Visiting [RR-VHV], 2021). With these considerations, many Idaho home visiting programs are considering a hybrid approach, allowing home visitors to conduct both in-person and virtual home visits. As home visiting programs plan, it may be helpful to analyze to what degree virtual home visiting practice has been normalized, identify which components of virtual practice home

visitors would keep or stop, and assess perceptions about how virtual home visiting has impacted families.

Purpose

The purpose of this thesis is to evaluate the implementation of virtual home visiting in Idaho and make recommendations for the future, using the Normalization Process Theory (NPT). NPT provides a conceptual framework for understanding and evaluating the processes by which new health technologies and other complex interventions, such as virtual home visiting, are routinely integrated and sustained in employees' everyday work (May et al., 2021f).

Rationale

Many home visiting programs have started visiting families in-person again, and at the same time, the National Alliance of Home Visiting Models has announced support for virtual home visiting as an innovative practice (RR-VHV, 2021). Grant managers, model developers, home visiting program administrators, and home visitors will need to discuss what home visiting implementation looks like in the future and when, how, and to what degree virtual services will be utilized. Understanding the degree to which virtual practice has been normalized in Idaho, and the resources needed to continue this innovative practice, is important for making decisions regarding the future of home visiting across the state.

Research Questions

Using an online quantitative survey and follow up interviews based on the NPT, this study is designed to understand the normalization of virtual home visiting among home visitors in Idaho and explore the following questions:

1. To what degree has virtual home visiting practice been normalized, as defined by NPT, by home visitors in Idaho?
2. Which components of virtual practice do home visitors want to continue implementing in a hybrid setting and what resources do they need to sustain them?
3. Based on home visitor experiences and perceptions, in what ways does virtual home visiting impact health outcomes for families?

Definition of Terms

- COVID-19 Pandemic: Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus which was discovered in 2019. During 2020, it quickly spread across the world and became more contagious and dangerous due to disease variants. Responses to the COVID-19 pandemic included orders to stay at home and implement practices that limited face-to-face interaction. The virus and resulting mitigation efforts were the catalysts for virtual home visiting.
- Telecommunication Technology: Technology, including internet, data, devices, and applications, which allow people to communicate with each other virtually.
- Telehealth: The provision of healthcare remotely by means of telecommunication technology.

Common Terms in the Home Visiting Field

- Home Visiting: A free and voluntary parenting education service that pairs families with a home visitor - typically a trained nurse, social worker, or other

early childhood professional. Home visitors regularly meet with families in-person in their homes and build relationships with them over time to provide knowledge and skills supporting the health and well-being of their young children.

- Virtual Home Visiting: A free and voluntary parenting education service that pairs families with a home visitor - typically a trained nurse, social worker, or other early childhood professional. Home visitors regularly meet with families using telecommunication technology and build relationships with them to provide knowledge and skills supporting the health and well-being of their young children. Though services are provided virtually, home visitors are required to adhere to the same model standards and expectations and use the same curriculum as in-person services.
- Hybrid Home Visiting: Home visiting implementation that includes both in-person home visitation and virtual home visitation, with frequency set by both home visitors and the families they serve.
- Home Visiting Models: National home visiting organizations that develop home visiting curriculums, guide implementation practice, advocate for home visiting, and train and license home visitors.

National Home Visiting Stakeholders

- The United States Department of Health and Human Services (HHS): A federal agency charged with enhancing the health and well-being of all Americans, by providing for effective health and human services and by

fostering sound, sustained advances in the sciences underlying medicine, public health, and social services. The agency houses HRSA.

- The United States Health Resources and Services Administration (HRSA): The primary federal agency for improving health care to people who are geographically isolated, economically, or medically vulnerable. The agency administers the MIECHV Program.
- The Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV): A federal grant program administered by HRSA that funds states, territories, and tribal entities to develop and implement home visiting programs.
- Home Visiting Evidence of Effectiveness (HomVEE): A program established by the Department of Health and Human Services in 2009 to conduct thorough and transparent quality reviews of research related to early childhood home visiting models. The rating of these models determines whether they can receive MIECHV funding.
- The National Alliance of Home Visiting Models: A collaboration of nine national early childhood home visiting program models. The Alliance is motivated by a shared commitment to promoting effective use of home visiting as a mechanism to enhance the health and well-being of families, parents, and children.
- Home Visiting Applied Research Collaboration: An organization funded by HRSA to develop a national network of researchers and other home visiting stakeholders; develop and disseminate a national research agenda; and

advance the use of innovative methods and translation of findings into policy and practice.

- Parents as Teachers (PAT): A home visiting model that prioritizes pregnant women and families with children under five years old and does not require enrollees to meet eligibility criteria other than age requirements for the child. Families can enroll at any time and may graduate after participating for a minimum of two years. Families receive one-on-one, 60-minute, personalized visits and attend monthly group meetings.
- Nurse-Family Partnership (NFP): A home visiting model that prioritizes first-time, low-income mothers and their future child. Women enroll early in pregnancy, before 28 weeks of gestation, and graduate from the program when their child turns two years old. All one-on-one home visits are conducted by Baccalaureate-trained registered nurses.
- Rapid Response Virtual Home Visiting (RR-VHV): A collaborative of national home visiting stakeholders that provides best practice principles and strategies to support all home visiting professionals in maintaining meaningful connection with families during COVID-19.

Idaho Home Visiting Stakeholders

- The Idaho Department of Health and Welfare (IDHW): The primary state agency for providing services and oversight to promote healthy people, safe children, and stable families.

- The Idaho Division of Public Health: A division of IDHW responsible for managing state public health programs, including preventative services, disease management, and epidemiology.
- The Idaho Maternal and Child Health Program: A program housed within the Division of Public Health responsible for managing the Title V Maternal and Child Health grant and public health programs that prioritize women and children.
- The Idaho Maternal, Infant, and Early Childhood Home Visiting Program (Idaho MIECHV): A federally funded MIECHV program that supports home visiting implementation in Idaho. It is housed within the Idaho Maternal and Child Health Program.
- HRSA Project Officer: A representative from HRSA that monitors Idaho MIECHV's compliance to the MIECHV grant and offers administrative support.
- HRSA Technical Assistance Specialists: Representatives from HRSA that assist Idaho MIECHV with enhancing grant management and implementation practices.
- The Idaho MIECHV Steering Committee: A committee made up of home visiting stakeholders that guides MIECHV implementation in Idaho.
- Idaho Public Health Districts: Public health departments responsible for providing public health services for local communities. Idaho has seven public health districts, and each have assigned service areas spanning several

counties. Idaho MIECHV contracts with each public health district to provide home visiting services within their service areas.

Normalization Process Theory

- Normalization Process Theory (NPT): A social action theory used to understand the dynamics of implementing, embedding, and integrating new technology or complex interventions into everyday practice (May and Finch, 2009).
- Core Constructs: As described by May and Finch (2009), the NPT proposes four constructs that represent different kinds of work that people do around implementing a new practice: Coherence, Cognitive Participation, Collective Action, and Reflexive Monitoring. Each construct has four subconstructs.
    - Coherence: The sense-making work that people do individually and collectively when they are faced with the problem of operationalizing new practices or technology.
        - Differentiation: Participants in a new technology or complex intervention understand how the new set of practices differs from similar practices.
        - Communal Specification: Participants work together to build a shared understanding of the aims, objectives, and expected benefits of a new set of practices.
        - Individual Specification: Individuals understand their specific tasks and responsibilities around a new set of practices.

        - Internalization: Participants understand the value, benefits, and importance of a new technology or complex intervention.
    - Cognitive Participation: The relational work that people do to build and sustain a community of practice around a new technology or complex intervention.
        - Initiation: Champions for the new technology or complex intervention drive the new set of practices forward.
        - Enrollment: Participants organize and reorganize themselves and others as needed to collectively contribute to the new set of practices.
        - Legitimation: Participants believe it is right for them to be involved and that they can make a valid contribution to the new technology or complex intervention.
        - Activation: Participants collectively define the actions and procedures needed to continuously contribute to and sustain the new set of practices.
    - Collective Action: The operational work that people do to implement a new technology or complex intervention.
        - Interactional Workability: Participants integrate the new set of practices into their daily work.
        - Relational Integration: Participants effectively interact and work together to operationalize the new set of practices in an everyday setting.

        - Skill Set Workability: Participants have the necessary knowledge and skills to operationalize the new set of practices in an everyday setting and work is assigned to the appropriate people.
        - Contextual Integration: Participants have the resources and administrative support to operationalize a new set of practices.
    - Reflexive Monitoring: The appraisal work people do to assess and understand the ways that a new technology or complex intervention affects them and others around them.
        - Systematization: Participants collect information and use it to determine how effective and useful the new set of practices is for them and for others.
        - Communal Appraisal: Participants collectively evaluate the worth of the new set of practices.
        - Individual Appraisal: Individuals appraise how the new set of practices impacts them and evaluate its worth.
        - Reconfiguration: Participants or individuals adapt practices to improve the sustainability of the new technology or complex intervention.

Limitations

This study evaluates implementation of virtual home visiting in Idaho. Idaho MIECHV implements two home visiting models: Nurse-Family Partnership (NFP) and Parents as Teachers (PAT). As each state has unique characteristics and there are several

evidence-based home visiting models; the findings of this study may differ from similar studies conducted with other models or states. Though MIECHV funds most home visiting services in Idaho, there are other funding sources and home visiting programs operating throughout the state. This study drew a sample from Idaho MIECHV-funded home visiting staff only, around 30 people when fully staffed. Ashtin Glodt, the author of this study, worked for the Idaho MIECHV Program for four years; therefore, she is familiar with the home visiting field and Idaho MIECHV and its program staff, including participants. Her experience allowed easy collaboration with Idaho MIECHV and home visiting staff and may have contributed to a high survey response rate; however, it may have impacted her ability to remain neutral while interpreting interview responses. To minimize bias, surveys were confidential and home visitors were given the option to be interviewed by alternate research personnel (e.g., another student trained in qualitative interviews and approved by the IRB or a member of the thesis committee).

Summary

Home visiting is a public health intervention to improve the health and development of children and families. Virtual home visiting has the potential to increase flexibility and access to services for families, but potentially comes with technology access and utilization challenges. This thesis explores the normalization and sustainability of virtual home visiting in Idaho, using NPT and feedback from home visitors.

CHAPTER TWO: LITERATURE REVIEW

The History of Home Visiting in the United States

Home visiting was born out of a movement beginning in the late 1800s to increase awareness of child abuse and neglect and implement rules and regulations to improve the lives of children (Wasik, 2013). In 1935, the Social Security Act passed, funding the Title V Maternal and Child Health Program which, over the past 87 years, has expanded maternal and child health programming, including implementing evidenced-based home visiting services in 2010, across the United States (Wasik, 2013).

In the 1960s, home visiting services gained interest due to the War on Poverty, an expansive social welfare movement introduced by President Lyndon B. Johnson intended to help end poverty in the United States (Cooley, 2020). President Johnson identified the high poverty rate, nearly 20% of Americans at the time, as a societal failure impacting self-sufficiency, education, housing, work retention, and medical care (Cooley, 2020). The War on Poverty led to legislation, such as the Economic Opportunity Act, which created new child-focused federal programs, including Head Start, an early-education program for children of poor families (Cooley, 2020).

In the early 1970s, C. Henry Kempe, a champion for the prevention of child maltreatment, advocated for a universal approach to prevention through a network of home health visitors (National Home Visiting Resource Center [NHVRC], 2018). Influenced by this approach, modern home visiting began with Hawaii's implementation of the Healthy Start Project in 1975 (NHVRC, 2018). In 1977, David Olds initiated the

first randomized control trial of what would become the NFP program, marking the beginning of rigorous evidence-building in home visiting (NHVRC, 2018). NFP conducted three trials with diverse populations beginning in Elmira, New York in 1977; Memphis, Tennessee in 1990; and Denver, Colorado in 1994. All three trials involved first-time, low-income mothers (Nurse-Family Partnership, 2021) and found that mothers receiving services exhibited behavioral and physical benefits in comparison to the control group (Robert Wood Johnson Foundation, 2006). For example, participants were less likely to smoke, have hypertensive disorders, or deliver preterm, were more likely to practice birth spacing, and entered the workforce at higher rates than those in the control group (Robert Wood Johnson Foundation, 2006). Children receiving services were less likely to experience neglect and visit the emergency room and more likely to exhibit language development and behavior control (Robert Wood Johnson Foundation, 2006). New home visiting programs have continued to emerge, gaining interest as an innovation with the potential to improve the lives of children growing up in impoverished families and to prevent child abuse and neglect.

On March 23, 2010, President Barack Obama signed into law the Affordable Care Act (H.R. 3590) which included an amendment of Title V of the Social Security Act authorizing the creation of the MIECHV program (Maternal and Child Health Bureau, 2021a). The Affordable Care Act originally provided $1.5 billion in funding over 5 years, which was increased and reauthorized, and requires grantees to use evidenced-based home visiting program models approved by the Home Visiting Evidence of Effectiveness (HomVEE) project, established by the U.S. Department of Health and Human Services (HHS) in 2009 (Wasik, 2013). Home visiting models are associated with national

organizations that have developed home visiting curriculums and demonstrated their effectiveness through research. The national organizations guide implementation practice, advocate for home visiting, and train and license home visitors within their respective models. The purpose of MIECHV is to facilitate collaboration and partnership at the federal, state, and community levels to improve health and development outcomes for at-risk children through evidence-based home visiting programs (Maternal and Child Health Bureau, 2021). MIECHV measures effectiveness through specific outcomes, including maternal and child health, childhood injury prevention, school readiness and achievement, crime or domestic violence, family economic self-sufficiency, and coordination with community resources and supports (Maternal and Child Health Bureau, 2021a). The program is administered by HRSA, an agency of the HHS (Maternal and Child Health Bureau, 2021a). MIECHV has become a cornerstone of home visiting infrastructure, funding 56 states, territories, and nonprofit organizations with hundreds of millions of dollars each year (Maternal and Child Health Bureau, 2021a).

Benefits of Home Visiting

Home visiting has a strong evidence base demonstrating improved outcomes for children and families (HHS, 2021). Home visitors provide support to families during the critical first five years of a child's life, tailoring services to meet their needs. Home visiting services benefit both parents and children by focusing on children's health, promoting safe homes, nurturing relationships, preparing children for lifelong learning, and building families' self-sufficiency (HHS, 2021).

Access to prenatal care is critical to ensure mothers' and babies' health during the perinatal period, preventing birth complications, and reducing healthcare costs (NHVRC,

2018). Home visitors work with expectant and new mothers to ensure optimal perinatal care; in fact, pregnant home visiting participants are more likely than the general population of pregnant women to access prenatal care and carry their babies to term (NHVRC, 2018). Home visitors also promote breastfeeding and attending well-child visits, which have been associated with positive long-term outcomes related to cognitive development and child health (NHVRC, 2018).

In 2018, the rate of substantiated child abuse was 9 per 1,000 children under 18 years old; most victims were under one year old (NHVRC, 2018). Research suggests that child abuse is known to repeat itself from generation to generation (Children's Bureau, 2015). Parents who have inadequate parenting skills or are experiencing health or financial issues have more difficulty parenting and providing the care and nurturing that is needed for children to have safe, stable, nurturing relationships and environments (Fortson et al., 2016). There is substantial evidence that parent training programs or behavioral family interventions focused on influencing children's behavior through positive reinforcement, such as home visiting, are effective at influencing parenting practices, which can prevent abuse and neglect (Fortson et al., 2016). Home visitors equip parents with knowledge and training to make their homes safer, cope with the stresses of parenting, and reflectively respond to their children's behavior, often normalizing their experiences and employing strengths-based strategies (NHVRC, 2018).

Early language and literacy activities are critical for brain development and are linked to future academic achievement (NHVRC, 2018). Nationally, many children do not get the start they need to be successful in school (NHVRC, 2018). Home visitors monitor children's developmental progress, helping identify delays early and connecting

parents to essential resources such as developmental specialists and occupational therapy (NHVRC, 2018). Home visitors also build parents' self-efficacy to teach their children, helping them recognize the value of developmental activities and apply daily exercises for their children's learning (NHVRC, 2018). Children receiving services show improvements in early language and cognitive development, as well as academic achievement in first through third grade (NHVRC, 2018).

Many people do not have the financial resources they need to successfully navigate the transition to parenting and adulthood. In 2018, for 58% of children under 18, the head of household had a high school diploma or less, and approximately 3 in 10 children lived in families where no parent had regular, full-time employment (NHVRC, 2018). Home visitors help parents set goals to promote their financial self-sufficiency and life-course development, leading to better education and employment outcomes (NHVRC, 2018). Compared to those who are eligible but do not participate in home visiting, parents enrolled in home visiting have higher monthly incomes, are more likely to be enrolled in high school or higher education and are more likely to be employed (NHVRC, 2018).

Home visiting also reduces the financial burden of crime, hospitalizations, and poverty (NHVRC, 2018). Studies have found a return on investment of $1.80 to $5.70 for every dollar spent on home visiting (NHVRC, 2018). For example, home visiting can reduce child emergency room visits, lowering health care expenses (NHVRC, 2018). It can help identify developmental and social-emotional delays so children can access services early, lowering future mental health and special education costs (NHVRC, 2018). Among adult participants, outcomes include higher employment rates and tax

revenues, reduced criminal activity, and reduced reliance on welfare programs (NHVRC, 2018).

MIECHV-Funded Home Visiting

To ensure evidence-based practices, HRSA requires MIECHV grantees to choose between several home visiting models approved by the HHS HomVEE. Home visiting models vary based on factors such as their primary population, outcomes they prioritize, and the duration and frequency of home visits. The United States has 19 models, each with their own home visiting curriculum, that are designated as evidence-based because they meet rigorous HomVEE criteria for evidence of effectiveness (Home Visiting Evidence of Effectiveness [HomVEE], 2021). Other home visiting models are grounded in practice or research but have not yet met the HomVEE standards of evidence. These are designated as promising approaches (HomVEE, 2021).

To maximize limited resources, HRSA encourages MIECHV grantees to focus on high-priority families, which include families with:

- Low incomes,
- Pregnant women under 21,
- History of child maltreatment or prior involvement with the child welfare system,
- History of substance abuse or in current need of substance abuse treatment,
- Current tobacco use in the home,
- Children with low student achievement,
- Children with developmental delays or disabilities,

- And individuals who are serving or have served in the military (NHVRC, 2020).

In Fiscal Year 2019, MIECHV awardees in the United States served over 154,000 parents and children and provided more than 1,000,000 home visits (Maternal and Child Health Bureau, 2021a). Of these families, 70% had household incomes at or below 100% of the federal poverty guidelines, 63% had a high school diploma or less education, 20% had a reported history of child abuse, 14% reported substance abuse, and 12% were families that included pregnant teens (Maternal and Child Health Bureau, 2021a). Out of families who participated in MIECHV in Fiscal Year 2019, 82% were screened for depression within three months of enrollment or delivery, 76% of children had a family member who practices literacy activities with them daily, 70% of caregivers received an observation of how they interact with their child, and 82% were screened for intimate partner violence within six months of enrollment (Maternal and Child Health Bureau, 2021a).

MIECHV Home Visiting in Idaho

History

The MIECHV Program was first implemented in Idaho in 2011 (Begic et al., 2020). As seen in Figure 2.1, from 2012 to 2015, the MIECHV Program funded 117 families divided between four home visiting programs, the Community Council of Idaho Early Head Start (EHS), Panhandle Health District NFP, Mountain States Group EHS, and ICARE PAT (Begic et al., 2020).

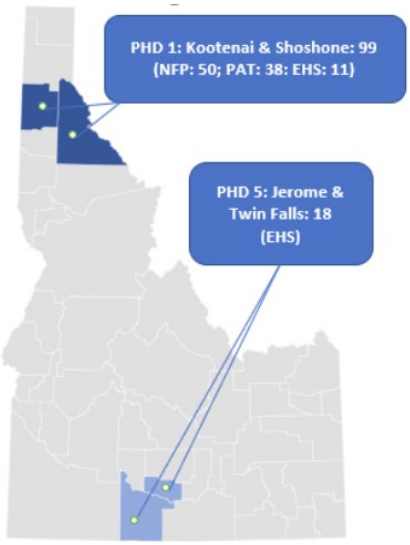

Figure 2.1 MIECHV Home Visiting Service Areas, 2012

In 2015, the MIECHV Program received more grant funding and expanded home visiting programming to all public health district offices in Idaho, including North Central Idaho Public Health, Southwest District Health, Central District Health, South Central Public Health, Southeastern Idaho Public Health, and Eastern Idaho Public Health (Begic et al., 2020). With additional funding, the total number of family slots increased from 117 to 543 in Fiscal Year 2016. Of these slots, 303 were allocated to programs implementing the PAT model, 200 were allocated to programs implementing the NFP model, and 40 were allocated to the remaining programs implementing the EHS model (see Figure 2.2) (Begic et al., 2020).

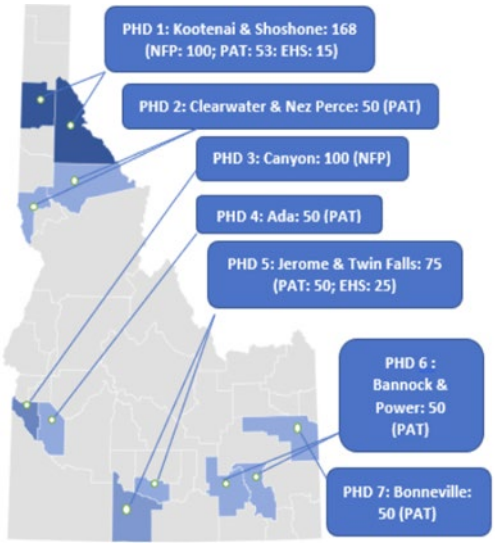

Figure 2.2 MIECHV Home Visiting Service Areas, 2017

In 2017, funding was reduced, resulting in the loss of three home visiting programs, the Community Council of Idaho EHS, Mountain States Group EHS, and ICARE PAT; therefore, the MIECHV Program no longer implements EHS (Begic et al., 2020). Currently, the MIECHV Program funds 425 family slots and the remaining home visiting programs (see Figure 2.3) (Begic et al., 2020).

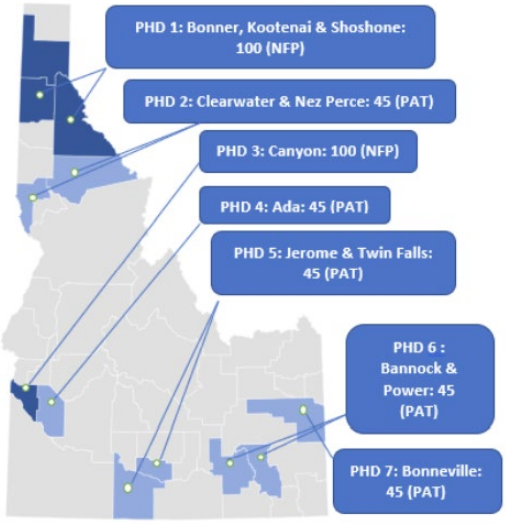

Figure 2.3 MIECHV Home Visiting Services Areas, 2020

Current MIECHV Program Infrastructure in Idaho

Idaho MIECHV is housed within the Maternal and Child Health Program, within the Division of Public Health, within IDHW, a state government entity. Its position within the Maternal and Child Health Program allows Idaho MIECHV to network with partners focused on maternal and child health populations. Idaho MIECHV employs three full-time staff who manage the $3 million grant: one program manager, one data quality specialist, and one continuous quality improvement specialist. Idaho MIECHV is also supported by a Steering Committee, which is made up of representatives of key early childhood organizations in Idaho, a HRSA Project Officer, and HRSA Technical Assistance Specialists. All staff provide advice, ensure delivery of evidence-based programming, and monitor the achievement of performance measure outcomes.

Home Visiting Models in Idaho

NFP is available to first-time, low-income mothers and their future child. Women enroll early in pregnancy, before 28 weeks of gestation, and graduate from the program when their child turns two years old. All home visits are conducted by Baccalaureate-trained registered nurses. NFP is designed to improve: 1) prenatal and maternal health and birth outcomes, 2) child health and development, and 3) families' economic self-sufficiency and maternal life course development (HomVEE, 2019a). Nurse home visitors use input from parents, nursing experience and practice, and model-specific resources based in theories of human development and attachment to provide high quality, client-centered services that promote mothers' health during pregnancy, support the care of their child, and encourage personal growth and development (HomVEE, 2019a). Research on the NFP Program shows that clients who participate are more likely

to experience benefits than those not receiving services related to child development, school readiness, economic self-sufficiency, child maltreatment (Eckenrode et al., 2010), child health, linkages and referrals, maternal health (Olds et al., 2007), positive parenting practices (Kitzman et al., 1997), and reductions in juvenile delinquency, family violence, and crime (Eckenrode et al., 2010).

PAT is available to pregnant women and families with children under five years old (HomVEE, 2019b). Families can enroll at any time and may graduate after participating for a minimum of two years (HomVEE, 2019b). The PAT model does not require enrollees to meet eligibility criteria other than age requirements for the child; however, priority is given to families considered with "high needs characteristics" (e.g., children with special needs, families at risk for child abuse, low-income families, teen parents, first-time parents, immigrant families, low-literate families, parents with mental health or substance use issues, or families experiencing homelessness or unstable housing) (HomVEE, 2019b). When compared to the clinical model of NFP, PAT is more community-based. Parent educators are only required to have a high school diploma or equivalency and two years' previous supervised work experience with young children and/or parents (HomVEE, 2019b). This experience is supplemented by PAT model training once hired and model-approved education materials for home visits (HomVEE, 2019b). In addition to one-on-one home visits, PAT also offers monthly group meetings to increase parents' support systems (HomVEE, 2019b). The goals of PAT are to provide parents with child development knowledge and parenting support, provide early detection of developmental delays and health issues, prevent child abuse and neglect, and increase children's school readiness (HomVEE, 2019b).

Research on the PAT Program approved by HomVEE shows that families who participate experience benefits related to child development and school readiness (Drotar et al., 2009), child health, economic self-sufficiency, maternal health, positive parenting practice, and reductions in child maltreatment (Wagner & Clayton, 1999).

Idaho Demographics

The State of Idaho has unique characteristics, such as low population density with geographically remote and sparsely populated communities, frontier culture that makes many families reluctant to participate in state or federally sponsored programs, and a conservative political climate that encourages local handling of issues, which discourages efforts to centralize provision of services to families in need (Begic et al., 2020). Geographically, Idaho is the 14th largest state in the country, but its population density is the seventh lowest in the nation, with 20 people per mile compared to 93 people per square mile nationally (U.S. Census Bureau, 2021). Providing home visiting services to families in rural and frontier counties is challenging due to long traveling distances and rugged territory with some roads being closed to traffic during snowy winter months (Begic et al., 2020).

In 2019, 93% of Idaho residents were White, 2% were American Indian or Alaska Native, 2% were Asian, and 1% were Black; 13% also identified as Hispanic (U.S. Census Bureau, 2021). Idaho has a large population of migrant farm workers, mostly Hispanic (National Center for Farmworker Health, Inc, 2019). For over a decade, Boise has been in the top ten per capita refugee resettlement destinations in the country with over 12,541 refugees from 46 countries settling since 2002 (Refugee Processing Center,

2021). Idaho also has five American Indian reservations (U.S. Department of Justice, 2021).

Idaho has high proportions of families who meet the MIECHV criteria for high priority families. In 2018, 12% of Idaho households had income below the federal poverty level, with women between the ages of 18 and 35 years being the largest demographic group living in poverty (United Way of the Treasure Valley, 2019). Idaho ranks below the national average in all areas of education, with lower attainment rates from high school education to professional degrees (United Way of the Treasure Valley, 2019). Most Idaho births, 57%, were to mothers aged 20 to 29 years and 5% were to mothers less than 20 (Idaho Bureau of Vital Statistics, 2019). In 2016, there were 1,847 victims of child abuse or neglect in Idaho, a rate of 4.2 per 1,000 children, an increase of 14% from 2015 (Idaho State Police, 2019). Of these children, 79% were neglected, 21% were physically abused, and 4% were sexually abused (Idaho State Police, 2019). Alcohol, tobacco, and marijuana are the most used drugs among Idahoans—use is typically lower than the national average. However, Idaho ranks 5th in the nation for pain reliever misuse and 28th in illicit drug use among those aged 12 and above (Fitzgerald, 2018). Research shows that children exposed to early childhood trauma, such as household disfunction, abuse, and neglect, are likely to experience long term consequences, including developmental delays, educational challenges, and mental and physical illnesses later in life (Centers for Disease Control and Prevention, 2021).

Idaho does not have the early childhood workforce needed to meet the needs of young children, with only 3,000 early childhood workers per nearly 139,000 children ages birth to five (Center for the Study of Childcare Employment, 2021). Compensation

may prevent people from joining the field, as early childhood workers average only $16 per hour (U.S. Bureau of Labor Statistics, 2021). The workforce is made up of mostly women, who report that making a difference in the lives of families and children is the top reason for working in their field (Begic et al., 2019).

Idaho MIECHV Program Participant and Home Visitor Demographics

In Fiscal Year 2020, Idaho MIECHV served 537 households and conducted 5,798 home visits (Maternal and Child Health Bureau, 2021b). More than two-thirds of households served were low income, 31% included at least one household member with low educational achievement, and 19% included someone who used tobacco products in the home (Maternal and Child Health Bureau, 2021b).

Of those served in 2020, primary caregivers included 194 pregnant women, 328 female caregivers, and 15 male caregivers (Idaho MIECHV, 2020). Most primary caregivers were between the ages of 20 and 29, identified as non-Hispanic White or Latinx, and spoke English (Idaho MIECHV, 2020). About half were married and half were never married; additionally, of the never married caregivers, half were living with partners (Idaho MIECHV, 2020). Education was split into thirds between caregivers with less than a high school degree, a high school diploma or GED, or some college or training (Idaho MIECHV, 2020). Half of primary caregivers were unemployed, followed by full-time employment and part-time employment (Idaho MIECHV, 2020). Half of primary caregivers lived in a rental, others owned their house or lived with family (Idaho MIECHV, 2020). Most were insured by Medicaid or CHIP followed by private insurance, no insurance, and Tri-care (Idaho MIECHV, 2020).

Currently, all Idaho MIECHV home visitors are female and have several years of experience working in the early childhood field, as direct experience is required by both NFP and PAT models. Most have a bachelor's degree (Begic et al., 2019). Idaho home visitors are dedicated to the families they serve and report their main driving force is the knowledge they are supporting families (Begic et al., 2019). Even though the work can weigh heavily on them, with many experiencing burnout or secondary traumatic stress, home visitors persevere and draw on intrinsic motivation to find the energy to continue serving families with complex problems (Begic et al., 2019).

Transitioning to Virtual Services

Due to shortages of early childhood professionals, geographical barriers, and minimal financial resources, only 1.3% of potential beneficiaries in Idaho received home visiting services in 2018 (Meisch & Isaacs, 2019). COVID-19 created additional challenges for families by impacting employment, access to vital resources, and social connections. As face-to-face interactions were discouraged, health and social services needed to innovate to continue serving families, and many turned to telehealth as a potential solution.

Telehealth utilization has several advantages, including cost savings, convenience, and the ability to provide care to people who lack access to services, such as those in rural areas (Harvard Health Publishing, 2020). For these reasons, the use of telehealth has grown significantly over the last decade. Currently, 76% of hospitals in the U.S. connect doctors and patients remotely via telehealth, up from 35% a decade ago (Harvard Health Publishing, 2020). Telehealth services have become essential during the COVID-19 pandemic. Fears of contracting and spreading the virus during in-person

appointments led to a greater interest in, and use of, technology to provide and receive health services.

In spring 2020, home visiting models united through the National Alliance of Home Visiting Models with a clear message: until COVID-19 was no longer a threat to home visitors and the families they serve, home visiting will hereby be conducted virtually (National Alliance of Home Visiting Models, 2020). Essentially overnight, home visiting programs started navigating telecommunication technology and preparing enrolled families for transitioning to virtual visits. COVID-19 necessitated an immediate transition to telecommunication; however, home visiting was not intended to be implemented virtually and very little research had been conducted to support the effectiveness of implementing virtual home visiting.

Transitioning to virtual services changed daily home visiting practice. Prior to the COVID-19 pandemic, home visitors in Idaho met almost exclusively with families in-person. Though home visitors had experience participating in webinars and other virtual events, most had never conducted a virtual visit prior to March 2020. Idaho MIECHV, along with the NFP and PAT National Offices, assisted home visitors with identifying safe and affordable technology to support virtual services, including technological resources for families like unlimited data plans, smartphones, and tablets. Resources such as the webinars from RR-VHV and other trusted training providers were provided for home visitors and guided them through creating connections, engaging families, conducting screenings, and conducting reflective supervision in a virtual landscape. Home visitors found creative ways to serve families, including dropping off home

visiting kits with developmentally appropriate activities and emergency supplies from community organizations, such as diapers and food.

Home visitors nationally have experienced challenges while implementing virtual home visiting. Many programs, including those in Idaho, had staff turnover and could not hire new home visitors due to hiring freezes, straining the workload of existing staff (O'Neill et al., 2020). Families lacked internet access, technological resources, or funds required to maintain technological resources (O'Neill et al., 2020). Additionally, home visitors and families often had to navigate technical errors and connectivity issues (RR-VHV, 2020). Idaho home visitors serve families in rural and frontier areas, and several families do not have the necessary internet access to conduct virtual visits. Home visitors also reported challenges such as issues with confidentiality, family engagement, and burnout. As families sheltered in place, participants had less privacy during visits and home visitors had difficulty identifying if the participant was alone, making it difficult to discuss sensitive topics or screen for depression and intimate partner violence (O'Neill et al., 2020). Home visitors had difficulty engaging parents and assessing interactions between the parent and child due to distractions like having multiple children at home and children wanting to play with the devices (RR-VHV, 2020). Parents were stressed and burnt out due to overwhelming circumstances such as caring for children while sheltering in place, job loss, and family loss (O'Neill et al., 2020). While home visitors were helping families through crises, they were also experiencing the weight of the pandemic, such as school closures, sharing space with their own families, and anxiety (O'Neill et al., 2020).

Despite the unprecedented challenges, home visitors observed unexpected benefits. Many programs, including those in Idaho, adapted quickly by communicating changes to families, buying telecommunication licenses and equipment, and finding technological resources for families (MIECHV, 2020). Home visitors were innovators, creatively problem-solving to give families high quality services, including dropping off materials for upcoming visits, finding and delivering emergency supplies, and planning virtual or socially distanced parent connection events like scavenger hunts and cooking shows (MIECHV, 2020). More family members started to participate in visits since they were home (RR-VHV, 2020). Many parents were engaged in visits and started to take a leading role, improving their self-efficacy in leading developmental-centered activities (RR-VHV, 2020). Parents also started to connect with each other online, participating in yoga classes, parent cafes, and music groups (RR-VHV, 2020).

As COVID-19 restrictions started to relax nationwide, some home visiting programs started serving families in-person again. These programs utilized a hybrid approach, allowing home visitors and the families they serve to decide which home visiting modality best suited their needs: in-person, virtual, or both. After two years of serving families virtually, either full-time or part-time, programs may be more likely to retain virtual home visiting as an option, even in a post-pandemic setting.

Normalization Process Theory

NPT is a social action theory that focuses on what people do and is used to understand the dynamics of implementing, embedding, and integrating new technology or complex interventions into everyday practice (May et al., 2021f). According to Carl May, most research on healthcare innovation focuses on the outcomes of innovations,

measuring their impact and exploring their effects, and this type of research alone is insufficient; process evaluations are necessary to understand how these outcomes and effects happen (May et al., 2021f). As implementation progresses, policymakers, managers, professionals, and patients face three important problems as they convert innovations into everyday practice:

- Process problems related to **the implementation** of new ways of thinking, acting, and organizing in health care.
- Structural problems related to **the embedding** of new systems of practice into existing organizational and professional settings (May et al., 2021f), and
- Systemic problems related to **the integration** of new practices into the social matrices of an organization (Finch et al., 2018).

NPT is an explanatory model that helps managers, clinicians, and researchers disassemble the dynamic human processes at work when encountering a new set of practices (implementation) that lead to innovations becoming embedded in everyday work (integration) (May et al., 2021f).

In 2003, NPT was conceptualized to analyze the effectiveness of telehealth services (May et al., 2003). Much research on healthcare innovation uses the Diffusion of Innovations Theory (Rogers, E., 1995) to attempt to understand the fluidity and complexity of implementing new technologies; however, May et al. (2003) believed that a rationalized linear diffusion model was inadequate in assessing the potential for integrating new processes into everyday work. May and fellow researchers started to develop a theory, beginning in 2003 and finalizing in 2013, that went beyond capturing the measurement of outcomes and effectiveness and explained the social relationships

and process that were necessary to achieve these outcomes in everyday practice. NPT provides a tool that assists process evaluation by identifying and describing factors that promote or inhibit implementation and provides a basis for assessing the probability that a complex intervention will become routinely integrated into everyday practice (May et al., 2007). According to NPT:

1. Implementation of new practices, such as utilizing telecommunication technology, becomes normalized when people, working individually and collectively, routinely carry out the necessary actions to maintain the new practice.
2. The work of implementing new technologies is operationalized in four types of social action mechanisms, or NPT core constructs, which are impacted by factors that promote or prevent the new practice from integrating into everyday work. These social actions represent what the new practices are, who contributes to those practices, how the work gets done, and how the new practices are understood and adapted for improvement.
3. The people carrying out implementation practices must be continuously invested in the work to sustain the new practices or technology. (May and Finch, 2009)

NPT has four core constructs: Coherence (what), Cognitive Participation (who), Collective Action (how), and Reflexive Monitoring (analysis and improvement); each construct has four components (May et al., 2021e). All constructs play a part in normalizing the implementation of new technologies and practices, such as integrating virtual technology into home visits.

Coherence is the sense-making work that people do individually and collectively to understand and define new practices (May et al., 2021b). Participants create a set of ideas about a practice's meaning, uses, and utility, which promote or inhibit its integration (May and Finch, 2009). Components of coherence include (May et al., 2021b):

- Differentiation happens when participants understand how the new set of practices differs from original practices, such as how virtual home visiting practice differs from serving families face-to-face.
- Communal Specification happens when participants create a shared understanding of the purpose, goals, and benefits of the new set of practices, such as home visiting staff agreeing on what virtual home visiting is.
- Individual Specification occurs when a team member understands their role in contributing to the new practice. For example, home visitors understand their role is to prepare and carry out home visits using telecommunication technology and supervisors understand their role is to identify and provide resources and guidance to support home visitors' work.
- Internalization occurs when participants understand the value, benefits, and importance of a new set of practices, such as home visiting staff understanding that virtual practice allows home visitors to support families when face-to-face visits are not possible.

Cognitive Participation is the relational work that people do to build and sustain a community of practice around a new technology or complex intervention (May et al.,

2021a). Cognitive Participation defines who is involved in the new set of practices. Components of cognitive participation include (May et al., 2021a):

- Initiation happens when champions for the set of practices are identified and drive the work forward. This may look like model developers, grant managers, program administrators, and innovative home visitors advocating for virtual practice.
- Enrollment occurs when participants are open to collaborating and adapting ways of working to implement a new set of practices, such as home visiting staff creatively problem-solving to find solutions to best serve families in a virtual environment.
- Legitimization happens when participants believe they are vital to the work and are making valid contributions, such as home visitors believing that virtual home visits effectively support families' needs.
- Activation happens when participants collectively define the actions and procedures needed to sustain and stay involved in a new set of practices. An example of this would be home visiting staff creating virtual practice protocols.

Collective Action is the operational work to enact a new set of practices (May et al., 2021c). Collective Action defines how the new set of practices are carried out. Components of collective action include (May et al., 2021c):

- Interactional Workability happens when participants integrate the new set of practices into their daily work, such as accounting for the use and utility of telecommunication technology when planning a home visit.

- Relational Integration occurs when participants effectively interact and work together to operationalize the new set of practices in an everyday setting, such as home visitors and families relying on each other to work through technical issues.
- Skillset Workability occurs when participants have the necessary knowledge and skills to operationalize the new set of practices in an everyday setting and work is assigned to the appropriate people. For example, home visitors have the necessary skills to use telecommunication technology and educational resources that improve their virtual practice.
- Contextual Integration happens when participants have the resources and administrative support to operationalize a new set of practices. Implementing virtual visits is more feasible if home visitors and families have access to the technology they need to connect for a visit. It is also necessary to have support from management and administration for the new set of practices, such as administrators providing a private, quiet space for home visitors to conduct virtual visits.

Reflexive Monitoring is the appraisal work people do to assess and understand the ways that a new technology or complex intervention affects them and others around them (May et al., 2021d). Reflexive Monitoring defines the worth of the work, monitors its impact, and adapts practice for improvement. Components of reflexive monitoring include (May et al., 2021d):

- Systemization happens when participants collect information and use it to determine how effective and useful the new set of practices is for them and for

others, such as home visiting staff analyzing what works well and what is challenging when conducting virtual home visits.

- Communal Appraisal is the collaboration to evaluate the worth of a new set of practices, such as home visiting staff agreeing that virtual home visiting benefits families and is worth their time.
- Individual Appraisal happens when individuals appraise how a new set of practices impacts them and personally evaluate its worth. For example, a home visitor conducting virtual visits will appraise not only the worth of the program, but also its impact on their overall workload.
- Reconfiguration occurs when participants adapt practices to better fit their work, such as home visitors adjusting virtual home visiting practices to better serve families.

Research Questions

This study is designed to understand the normalization of virtual home visiting among home visitors in Idaho and explore the following questions:

1. To what degree has virtual home visiting practice been normalized, as defined by NPT, by home visitors in Idaho?
2. Which components of virtual practice do home visitors want to continue implementing in a hybrid setting and what resources do they need to sustain them?
3. Based on home visitor experiences and perceptions, in what ways does virtual home visiting impact health outcomes for families?

An online quantitative survey and qualitative interviews, based on NPT, were used to analyze the normalization of virtual practice and make recommendations for the future.

Summary

Before the onset of COVID-19, home visits were conducted exclusively in-person, normally within families' homes or another place of their choice. For about a year, starting March 2020, the National Alliance of Home Visiting Models urged all programs to stop in-person visits and explore virtual options. All Idaho home visiting programs started serving families using telecommunication technology.

Virtual home visiting has many barriers to success in Idaho. As much of Idaho is rural, some families did not have the internet connection or technological resources necessary to participate in services. Others had poor connectivity, making it difficult for home visitors to observe parent-child interactions. Though virtual home visiting is challenging, it may increase access to services for families that live far from the local program and encourage parents to take an active role in leading their child through developmental activities during visits.

As home visiting programs start to visit families in-person again, the NPT may be useful for programs looking to integrate new technology and complex interventions, such as virtual home visiting, into daily practice. Using NPT as a guide, this thesis explored to what degree virtual home visiting has been normalized, what components of virtual practice home visitors are most interested in sustaining and what resources they need, and how virtual home visiting is perceived to have impacted families' health outcomes. To analyze these questions, Idaho MIECHV home visitors were surveyed and interviewed to

understand their experience implementing virtual home visiting and how normalized virtual home visiting has become in their practice.

CHAPTER THREE: METHODS

As virtual home visiting has existed in Idaho for two years, implementation practices are still adapting through the process of 'normalization'. This research evaluated the implementation of virtual home visiting, using NPT to identify, describe, and understand the application of virtual practice and how it is embedded into day-to-day work. Findings will inform home visiting programs as they determine how and how often virtual home visiting should be implemented in the future, according to home visiting staff.

Research Design

This study used a two-phase, mixed methods approach. First, participants were asked to complete a quantitative online survey (phase 1). At the end of the survey, a smaller sample of home visitors were asked to participate in a more in-depth follow up interview (phase 2). The phase 1 survey was used to understand the degree to which virtual home visiting has been integrated into daily practice. Quantitative data was collected through a validated survey tool developed by the creators of NPT called the Normalisation MeAsure Development (NoMAD) Survey. This data helped to identify components of virtual home visiting practice that have become normalized in the work of Idaho home visitors. Contextual qualitative data collected through interviews in phase 2 was used to better understand implementation practices, home visitors' experiences serving families in a virtual setting, and home visitors' perceptions of families' health outcomes.

Research Variables

Normalization was measured by the NPT Core Constructs. Each survey question related to at least one core construct or subconstruct:

1. Coherence: Does the work make sense to home visitors?
    a. Differentiation: Home visitors understand the differences in implementation practices when comparing virtual home visiting to in-person home visiting.
        i. Survey item: I can see how virtual home visiting differs from in-person home visiting.
    b. Communal Specification: Home visiting teams have a shared understanding of the purpose of virtual home visiting.
        i. Survey item: My team understands and agree on the purpose of virtual home visiting.
    c. Individual Specification: Home visitors know their role and responsibilities related to virtual home visiting and have the efficacy to conduct virtual home visiting practices.
        i. Survey item: I understand my roles and responsibilities related to serving families virtually.
    d. Internalization: Home visitors understand and recognize the value and benefits of virtual home visiting.
        i. Survey items: I believe virtual home visiting is valuable. Based on my experience, I believe families value virtual home visiting.

2. Cognitive Participation: Are home visiting staff bought-into virtual home visiting practice?
    a. Initiation: Staff members are actively advocating for virtual home visiting and setting up and maintaining the necessary resources to drive the work forward.
        i. Survey item: Someone on my team advocates for the use of virtual home visiting.
    b. Enrollment: Home visitors are committed to and actively engaging in virtual home visiting.
        i. Survey items: I'm willing to work with my team to serve families virtually. Based on my experience, I believe families are open to participating in virtual home visiting.
    c. Legitimation: Home visitors feel like virtual home visiting is a legitimate part of their role.
        i. Survey item: I believe serving families virtually is an important part of my role.
    d. Activation: Home visiting teams collectively define the actions and procedures needed to continuously contribute to and sustain the new set of practices.
        i. Survey item: I will continue to support virtual home visiting practices.
3. Collective Action: Are home visiting staff implementing virtual home visiting practices?

a. Interactional Workability: Home visitors are confident in their ability to implement virtual home visiting.
    i. Survey items: I can easily prepare for and conduct virtual home visits. I usually complete all the necessary components of a home visit in a virtual setting.
b. Relational Integration: Home visitors can communicate, connect, and collaborate effectively virtually with participants to meet their needs.
    i. Survey item: Virtual home visiting disrupts my relationships with families.
c. Skill Set Workability: Home visitors have the training and skills necessary to conduct virtual home visits.
    i. Survey items: My team has the appropriate skills to serve families virtually. Based on my experience, I believe families have the appropriate skills to utilize telecommunication technology. My team has sufficient training on using technology and best practices for virtual home visiting.
d. Contextual Integration: Home visitors have the necessary resources and support from management to conduct virtual home visits.
    i. Survey items: Sufficient resources are available to support virtual home visiting. Based on my experience, I believe administration understands and supports virtual home visiting.

4. Reflexive Monitoring: Are home visiting staff analyzing the impact of virtual home visiting and using their observations to adapt and enhance their practice?
    a. Systemization: Home visiting teams collect information to determine how effective and useful home visiting is to them and others.
        i. Survey item: My team studies and discusses virtual home visiting to determine how effective and useful it is.
    b. Communal Appraisal: Home visiting teams think virtual home visiting is valuable and the workload is realistic.
        i. Survey item: My team agrees that virtual home visiting is worth our time and effort.
    c. Individual appraisal: Individual home visitors think virtual home visiting is valuable and the workload is realistic.
        i. Survey item: I believe that virtual home visiting is worth my time and effort.
    d. Reconfiguration: Home visiting teams use their observations and experiences implementing virtual home visiting to adapt and improve their practices.
        i. Survey items: My team discusses how to improve virtual home visiting practice. My team adapts virtual home visiting practice based on lessons we learn.

Participants

This study used a convenience sample of home visitors funded by Idaho MIECHV who have implemented virtual home visiting and their supervisors. Currently, all home visiting staff in Idaho are female with varying years of experience in the field of early childhood education. Those excluded from the study included new hires or home visitors who had not served families virtually. See Table 3.1 for additional information.

Table 3.1 Idaho MIECHV Home Visiting Program Details

Program Name	Model	Service Areas by County	Does the Supervisor Serve Families?	Number of Home Visitors	Number Excluded From Study
Panhandle Health District	NFP	Bonner Kootenai Shoshone	No	4	0
Idaho North Central District	PAT	Nez Perce Clearwater	No	3	0
Southwest District Health	NFP	Canyon	Yes	1	4
Central District Health	PAT	Ada	Yes	1	1
South Central Public Health	PAT	Twin Falls Jerome	Yes	2	0
Southeastern Idaho Public Health	PAT	Power Bannock	No	2	0
Eastern Idaho Public Health	PAT	Bonneville	Yes	2	0

Participants were recruited through email (Appendix A) using a list of current contact information for home visiting staff from the Idaho MIECHV Program. See Appendix B to review the letter of support from the Idaho MIECHV Program. The email included an introduction to the study, a statement saying the study is by Ashtin Glodt, a graduate student studying at Boise State University, reassurance that participation would

not impact their funding or performance reports, and the link to the self-administered, online adapted NoMAD survey, administered via Qualtrics. Participants were encouraged to contact research personnel regarding any questions before completing the survey. At the end of the survey, home visitors had the option to opt out of being contacted for an individual interview before submission. Those who did not opt out of a follow-up interview were eligible to be selected. Research personnel emailed willing home visitors to request a follow-up interview and scheduled a Zoom session.

Setting

Participants completed the survey at their convenience from December 15, 2021, to January 10, 2022. These surveys were likely completed during work hours or while off duty on a personal mobile device or computer. Those taking the survey at work were likely in an office or cubicle in a local health district office or at home if permitted to telework.

Interviews were conducted using Zoom, a telecommunication platform, at a convenient time and place for the home visitor. Interviews lasted between 45 and 60 minutes. Research personnel ensured each home visitor was in a private space and felt comfortable before conducting the interview.

Measurement Instruments

The NoMAD Survey (Appendix C) is a validated survey instrument used to explore the relative importance of the NPT constructs in achieving sustained practice changes (Finch et al., 2018). Table 3.2 details how each survey question relates to an NPT construct and subconstruct. Creators describe the NoMAD as “an adaptable ‘bank of items’ that may be used flexibly by researchers or implementers” (Finch et al., 2018). To

accommodate various new interventions in diverse settings with different populations, users are encouraged to adapt the survey to their needs, including removing or adding questions and adjusting language to fit the intervention's context (Finch et al., 2018). Creators intentionally did not prescribe a process for scoring items or ascribing relative weightings to the importance of different construct domains for achieving the normalization of a new practice, as the growing body of qualitative research framed by NPT would suggest that the importance of the construct domains will vary according to the unique combination of practices, context, and human factors involved in each intervention (Finch et al., 2018). In its simplest, most descriptive form, the underlying assumption of NoMAD is that more positive ratings are suggestive of higher potential for the practice to normalize and constructs may be averaged to create 'scores' (Finch et al., 2018). This tool should be utilized to observe and understand social action, at an individual and collective level (Finch et al., 2018). Creators suggest using a combination of quantitative and qualitative approaches to fully understand the normalization of a new intervention, as the survey is self-reported (Finch et al., 2018).

Table 3.2 Unadapted NoMAD Construct Measurement

Construct	Subconstruct	Survey Question
Coherence	Differentiation	I can see how the [intervention] differs from usual ways of working
	Communal specification	Staff in this organization have a shared understanding of the purpose of this [intervention]
	Individual specification	I understand how the [intervention] affects the nature of my own work
	Internalization	I can see the potential value of the [intervention] for my work
Cognitive Participation	Initiation	There are key people who drive the [intervention] forward and get others involved
	Legitimation	I believe that participating in the [intervention] is a legitimate part of my role
	Enrollment	I'm open to working with colleagues in new ways to use the [intervention]
	Activation	I will continue to support the [intervention]
Collective Action	Interactional workability	I can easily integrate the [intervention] into my existing work
	Relational integration	The [intervention] disrupts working relationships
	Relational integration	I have confidence in other people's ability to use the [intervention]
	Skill set workability	Work is assigned to those with skills appropriate to the [intervention]
	Skill set workability	Sufficient training is provided to enable staff to use the [intervention]
	Contextual Integration	Sufficient resources are available to support the [intervention]
	Contextual Integration	Management adequately supports the [intervention]
Reflexive Monitoring	Systemization	I am aware of reports about the effects of the [intervention]
	Communal appraisal	The staff agree that the [intervention] is worthwhile
	Individual appraisal	I value the effects the [intervention] has had on my work
	Reconfiguration	Feedback about the [intervention] can be used to improve it in the future
	Reconfiguration	I can modify how I work with the [intervention]

The NoMAD language was adapted for context, referring to virtual home visiting as the intervention. It contained six parts: one demographic section, one general practice section, and one section for each core construct as seen in Table 3.2. The general practice section and each construct question were measured by a sliding scale from 0 (Strongly Disagree, Normalization Unlikely) to 5 (Strongly Agree, Normalization Likely). See the Adapted NOMAD Survey in Appendix D.

An interview guide (Appendix E, includes consent script) based on NPT core constructs was used to facilitate individual interviews. Questions were used to add context to survey responses, strengthening the understanding of the normalization of virtual home visiting in Idaho.

Data Collection Procedures

In phase 1, data was collected via an online survey administered through Qualtrics. To minimize data errors, most questions were multiple choice or sliding scale and limited to one choice per item. Exceptions included demographic questions related to age, race, location of families served, and internet access for families. The survey also included seven open-ended questions related to participants' experiences implementing virtual home visiting.

In phase 2, interviews were recorded and transcribed using Zoom transcription services. Each participant was randomly assigned a pseudonym. Quotes will be assigned to their unique pseudonyms: Lola, Sage, Ari, Chelsie, Laura, Zenna, Eryn, and Daisy.

Data Analysis Procedures

After closing the survey, all quantitative survey data was downloaded into SPSS version 27 (SPSS, Inc, and IBM company, Chicago, IL, USA) for analysis. Descriptive

statistics were used to characterize the sample. Demographic responses with nominal, ordinal, and categorical variables were analyzed for their frequency and percentage while continuous demographic variables and sliding scale questions (NPT constructs) were analyzed for their mean, median, mode, standard deviation, and minimum and maximum values. NPT survey items were measured on a sliding scale from 0 to 5 and subsequently broken into three categories for analysis:

- NPT General Practice
    - 0.0 – 1.9 = Not at all
    - 2.0 – 3.0 = Neutral
    - 3.1 – 5.0 = Completely
- Core Constructs
    - 0.0 – 1.9 = Strongly Disagree to Disagree
    - 2.0 – 3.0 = Neutral
    - 3.1 – 5.0 = Agree to Strongly Agree

These categories were analyzed for their frequency and percentage. Responses for general practice and each core construct were grouped and averaged per participant. These averages were analyzed for their mean, median, mode, standard deviation, and minimum and maximum values.

Interviews were used to help provide context to survey items. Transcripts were reviewed, participants were assigned pseudonyms, and responses were grouped based on their relation to each research aim and each core construct or subconstruct and their relation to phases of implementing, embedding, and integrating virtual practice. Within

these groups, emergent themes were noted (Williams, 2008) and exemplar quotes were chosen to help explain qualitative findings.

Summary

To evaluate normalization of virtual home visiting in Idaho, a two-phase, mixed methods approach was implemented. Phase 1 included a convenience sample of Idaho MIECHV home visitors and an adapted NoMAD survey. Phase 2 included follow-up interviews using an interview guide based on NPT constructs.

CHAPTER FOUR: RESULTS

When fully staffed, the Idaho MIECHV Program funds about 30 people, however, at the time of the survey 22 home visitors and supervisors were eligible to participate and 21 completed the online survey (95% response rate). All seven MIECHV-funded home visiting programs were represented in the data; furthermore, each MIECHV-funded county was represented. According to survey responses, home visiting programs started serving families virtually in March 2020 or shortly after.

Eight home visitors agreed to a virtual interview, representing both NFP and PAT and six of the seven programs in Idaho.

Participant Characteristics

Participants were female (100%), most identified as white or Caucasian (71%), worked as a home visitor (67%), used the Parents as Teachers model (71%), and were on average 43 years old (see Table 4.1).

Table 4.1 Participant Characteristics (N=21)

	N	Percent	Mean (SD), Range
Demographics			
Age	21		43.48 (9.54), 31.00-63.00
Female	21	100.00	
White or Caucasian	15	71.43	
Hispanic or Latina	7	33.33	
Job Description			
Home Visitor	14	66.67	
Case-Carrying Supervisor	4	19.05	
Supervisor (No Cases)	3	14.29	
Years in Home Visiting Field			
1 – 2 years	2	9.52	
3 – 5 years	12	57.14	
6 – 10 years	3	14.29	
Over 10 years	4	19.05	
Years in Current Position			
1 – 2 years	5	23.81	
3 – 5 years	13	61.90	
6 – 10 years	3	14.29	
Home Visiting Model			
Nurse-Family Partnership	6	28.57	
Parents as Teachers	15	71.43	
Serves Non-English-Speaking Families			
Yes	10	47.62	
Families' Access to Technology [a]			
Serves families with access to all necessary technology to participate in virtual visits	21		75.90 (25.18), 10.00-100.00
Serves families who need technology to participate in virtual visits and can access resources in the future	21		16.00 (20.37), 0.00-80.00
Serves families who need technology to participate in virtual home visiting and will not be able to access necessary resources.	21		10.52 (15.37), 0.00-50.00

	N	Percent	Mean (SD), Range
Serves families who live in communities with no access to internet or cell services, such as rural or frontier counties, making virtual visits impossible	21		5.19 (9.80), 0.00-40.00

[a] To assess families' access to technology, participants were asked to assign a value to each question, adding up to 100%. Values were analyzed for their mean, standard deviation, and range for each question.

All eight follow-up interview participants had worked in the home visiting field for at least two years, and each had served families virtually for one to two years. Some of those interviewed practiced virtual home visiting regularly and some only practiced virtually when necessary.

NPT General Practice

Only home visitors and case-carrying supervisors (N=18) were included in these variables, as these questions were related to serving families. According to survey responses, the aggregate score, averaged for each home visitor, for degree of normalization for general virtual home visiting practice is 3.62/5.00 (on the completely normal/familiar side of the sliding scale).

Most participants (72.22%) responded that serving families virtually feels completely familiar (3.10-5.00 on sliding scale). This was supported by interview participants, even those who did not prefer utilizing virtual practices, as many spoke to virtual home visiting becoming more familiar, to themselves and families, as they learned how to utilize technology, guide assessments virtually, and coordinate with families. Eryn said,

> When we started talking about [virtual home visiting] … I [thought] "Oh, it's not gonna work right," but … we can make this work, so I thought about ideas. … How can we make [virtual home visiting] easier for the family? … How are we going to continue those resources with the family without losing them? I honestly thought that we were going to lose a lot of families, but we actually gained a lot, … which I was impressed by. I think … having the ability to teach them how to use Zoom [is important], because everybody was lost at the beginning. … [Later] I think it kind of went [well] and it flowed because of the relationship that I had with them. … That was the most important part, just keeping that relationship with them, and having ways to communicate with them, and being able to provide the services that they need.

Most participants (72.22%) responded that virtual home visiting has completely become a normal part of their work (3.10-5.00 on a sliding scale) and will always be a normal part of their work (66.66%, 3.10-5.00 on a sliding scale). Though home visitors' usage of virtual practices varies based on personal preferences and extent of social distancing requirements, all participants stated that they were willing to use virtual practices, currently and in the future, if their families preferred them. When asked what practices she would stop doing virtually, Sage said, "All of [them]," then followed up with, "If the family would benefit more, if the relationship was able to open up … for that particular family, if they were able to participate more because someone else wasn't there, … then, yes, [I would visit them virtually]." Laura described virtual visits as "a good option", saying "It's a good opportunity for when you can't meet in-person. It's a good

option; it's just not my favorite. … In a worst-case scenario, if it's the only way we can connect, … [a virtual visit] maintains [that relationship]."

Participants also stated their beliefs that virtual home visiting is "here to stay", even in a post-pandemic future. Chelsie simply stated, "With the convenience and how normal it is within our culture now, [virtual services are] just a thing … It's going to stick around." See Table 4.2 for additional detail on general Normalization Process Theory concepts.

Table 4.2 NPT General (N=18)

	N	Percent	Mean (SD), Range
General Practice Aggregate Score	18		3.62 (1.11), 0.9-4.60
When you serve families virtually, how familiar does it feel?	18		3.72 (0.96), 1.00-5.00
Not at all	1	5.56	
Somewhat	4	22.22	
Completely	13	72.22	
Since the onset of COVID-19, to what degree has serving families virtually become a normal part of your work?	18		3.62 (1.43), 0.10-5.00
Not at all	2	11.11	
Somewhat	3	16.67	
Completely	13	72.22	
To what degree do you feel like serving families virtually will always be a normal part of your work?	18		3.54 (1.53), 0.10-5.00
Not at all	3	16.67	
Somewhat	3	16.67	
Completely	12	66.66	

Coherence

All home visiting staff (N=21) were included in these variables. According to survey responses, the aggregate score, averaged for each home visitor, for the degree of normalization for the Coherence construct, the sense-making work people do individually and collectively to understand and define new practices, was 4.28/5.00 (on the agree/strongly agree side of the sliding scale). Based on responses, home visiting staff in Idaho understand what virtual home visiting is, its purpose, its value, and its utility.

Participants believe that virtual home visiting is, in many ways, identical to in-person home visiting, and utilizes telecommunication technology to meet the needs of families, despite varying circumstances. Visits are carried out according to the curriculum, whether they are in-person or virtual; in fact, Lola said, “We would use [the] curriculum just like [we] would in a personal visit one-on-one and in their home or another setting. No different.”

All participants responded similarly when describing how they carry out a virtual home visit. Home visitors plan for the visit based on the model curriculum and the family’s interests and needs, then collect and distribute necessary materials. They carry out the visit via Zoom or another telecommunication platform. During the visit, home visitors complete health assessments, lead activities focused on child development and parent-child interaction, help the family set goals, talk about the family’s interests and concerns, connect the family to resources, and plan for the next visit. Eryn described her process like this,

> When I'm planning, I [decide] what are we going to talk about, what are the needs of the families, and then I gather resources. I gather activities and I drop them off

> [to the family's house] in a box maybe a day before the visit. Then I give them a call and say, "Okay, this is what we're going to talk about, this is the activity that you can either start with your child right now or do when we're doing the virtual visit." … When we do the visit, we … talk about how the activity will unwind, what she thought about the resources, if there's anything else we want to talk about. [Sometimes parents say], "Hey, this didn't work because, my baby wasn't interested in that," and then we … talk about their development and other ideas of how we can help the child meet their goal and their needs. So, sometimes it doesn't go as we planned and it's okay … we just talk about something that is going on in that moment with the family. Then we wrap it up by scheduling an appointment and … talk about the activity that we want to do next or any other resources that [they want me] to bring to the visit.

Participants noted they carried out virtual home visits using the same structure as an in-person visit and intentionally addressed all required components of their home visiting curriculum. This is supported by quantitative responses, as most participants agreed virtual home visiting aligns with the mission and goals of home visiting (80.95%). Also, most participants agreed virtual home visiting is valuable (80.95%) and their team understands and agrees on the purpose of virtual home visiting (90.48%). Participants responded that the purpose of virtual home visiting is to serve the needs of families, especially when in-person home visiting isn't encouraged, such as during a pandemic. Lola said,

> [Virtual home visiting] began as a means to continue to serve families, under the circumstances that was 2020. But since then, it has … evolved into another

> avenue or a way for people to continue the services, … to interact and serve these families, under many circumstances.

Most home visitors agreed they can identify both benefits and drawbacks of virtual home visiting (95.24%). Virtual home visits provide more flexibility and are useful for overcoming barriers related to sickness, weather, or distance. Eryn said, “I think [virtual home visiting is a way] to communicate with the families … Lately it's been because the parents are sick, or they can't meet with us because transportation or other needs that they may have.” Zenna talked about the potential for reaching marginalized communities,

> [Virtual home visiting] is going to help us get a population that we hadn't hit before … who are homebound by mental health, physical, whatever that may be, but also a hesitancy of allowing somebody in-person. … That’s a population that is overlooked and underrepresented.

Lola spoke to the geographical challenges home visitors in Idaho face, “Where we live there are some really rural communities. Sometimes it's hard for us to get there with weather conditions. … One of my coworkers has a significant amount of families that are an hour or more away.” Participants also spoke to benefits for home visitors. Ari said,

> I enjoy doing [evening] home visits when I am able to do them from my home. … Sometimes those 6:00-7:00 or 6:30-7:30 visits can … cut into your time, so if I'm able to do [them] from home, … I can be at home for a little while and then go downstairs and close the door and have a visit and then be done. I don't waste as much of my personal time, and I don't have to be out on the road.

For drawbacks, participants worried about confidentiality and safety concerns. Sage said,

> In my experience, the demographic that is … high risk, like CPS cases and things of that nature, they're able to hide things a lot better. … [Some] home visitors have not even had eyes on the kids in months and months; they only see their parents. That is terrifying to me.

Laura said,

> We had to worry about … confidentiality because we do a lot of screenings … mental health screenings and things like that, that you would normally do in-person. The person feels safe and they're alone. Changing to virtual changed that whole dynamic, where we don't actually know if the parents are maybe home, or people are monitoring what's going on on their phone.

Participants also emphasized technical issues. Sage said,

> Not all [families] are very tech savvy, and I'm not the most tech savvy either. Outlying communities [have issues with] their internet, not having any access to internet, weather, or their internet is so slow and limited that it just doesn't work out or frequent power outages.

From home visitors' perspectives, parents often have difficulty managing their device and their children during a virtual visit. Laura said,

> Reaching all the components of what we're supposed to meet during a visit seems to be a lot more challenging when a parent is holding a phone, or they're trying to get their kid to sit down in front of the screen. It's just, it's very counterproductive.

Most participants agreed families value virtual home visiting (76.19%).

According to participants, families value how virtual home visiting keeps home visitors and them safe by preventing illness and improves their autonomy and flexibility. Ari said,

> They've appreciated that we're trying to keep them safe and that they're trying to keep us safe. I know for several of my families who've had newborn babies, that's been kind of a relief to them because they don't have to worry about someone coming into their home.

Families seem to enjoy having the choice between in-person and virtual visits; Eryn said,

> I have parents that choose to do virtual visits even if they're healthy or they have a way of having a home visitation, but they're so used to the technology that they're very comfortable with it and they prefer to do it that way than having us over to … their home.

Participants also thought some families feel more comfortable in the virtual setting. Lola said,

> I actually have a number of families who I even saw prior to the pandemic that I continue to do virtual. … One in particular … is someone who maybe isn't socially comfortable with someone in their house. … I'd seen this family for years before the pandemic and they were still just kind of standoffish and … [didn't] like to make eye contact and just really socially uncomfortable. … [Virtual visits have] been so much more productive. She feels comfortable. I feel like I'm serving the family more effectively.

All participants had similar definitions of a successful virtual visit: if the visit feels natural like an in-person visit, they met the family's needs, and felt the family left feeling more confident and supported, the visit was successful. Sage described a successful virtual visit as:

> One that can mimic [an] in-person [visit] as much as possible, where you're able to have a successful parent-child interaction, do a fun activity, … the children and the parents find joy in it and learn something new. Really being able to delve into different developmental things, whether it be … health, nutrition, safe sleep, … [and] being able to connect them to those resources, even though you aren't in-person, letting them know that there are resources available. And honestly, the parents being excited about what they learned and wanting to schedule their next visit. Being eager for the next visit, can't wait for the next visit.

Based on interview responses, participants understand how virtual and in-person practice are different (Differentiation); the purpose, goals, and benefits of virtual home visiting (Communal Specification); their role in contributing to virtual home visiting (Individual Specification); and the value, benefits, and importance of virtual home visiting (Internalization). See Table 4.3 for additional detail on the Coherence construct.

Table 4.3 NPT Coherence Construct (N= 21)

	N	Percent	Mean (SD), Range
Coherence Aggregate Score	21		4.28 (0.76), 2.17-5.00
I believe virtual home visiting aligns with the mission and goals of home visiting.	21		3.91 (1.23), 0.20-5.00
Disagree	1	4.76	
Neutral	3	14.29	
Agree	17	80.95	
My team understands and agrees on the purpose of virtual home visiting.	21		4.38 (1.20), 0.20-5.00
Disagree	1	4.76	
Neutral	1	4.76	
Agree	19	90.48	
I believe virtual home visiting is valuable.	21		4.28 (0.98), 2.00-5.00
Neutral	4	19.05	
Agree	17	80.95	
Based on my experience, the families I serve value virtual home visiting.	21		4.04 (0.93), 2.00-5.00
Neutral	5	23.81	
Agree	16	76.19	
I can identify benefits of virtual home visiting.	21		4.52 (0.66), 2.50-5.00
Neutral	1	4.76	
Agree	20	95.24	
I can identify drawbacks of virtual home visiting.	21		4.56 (0.67), 2.50-5.00
Neutral	1	4.76	
Agree	20	95.24	

Cognitive Participation

All home visiting staff were included in these variables, apart from the question, "I believe my supervisor will continue to support virtual home visiting practices," which was only answered by home visitors. The aggregate score, averaged for each home visitor, for the degree of normalization for the Cognitive Participation construct, the relational work that people do to build and sustain a community of practice around a new technology or complex intervention, was 4.06/5.00 (on the agree/strongly agree side of the sliding scale).

Most respondents agreed that serving families virtually is an important part of a home visitor's role (95.24%) and they as home visitors will continue supporting virtual home visiting practices (85.71%). Expressed by quotations in the Coherence section, interview participants believe virtual home visiting is an important part of their role and will continue to support its practice, as it is another mode of communicating with families, meeting their needs, and honoring their preferences. Chelsie, and other interviewees, described virtual home visiting as "a convenient tool. It's another resource … for our moms to help us to have that flexibility and accommodate their different settings … [allowing] them to … participate [and] engage more."

Most respondents agree that families are open to participating in virtual home visiting (71.43%). Interview participants observed that some families prefer virtual visits, as quoted in the Coherence section. They also observed families are willing to utilize telecommunication when convenient. Daisy recalled,

> I've done a visit while someone was driving before … her husband was driving, and she was talking to me on her phone. … It just gives more freedom. …

> [Families think,] “I don't have to be at home … I can do something. I can be somewhere.”

Eryn talked about how having a virtual option allows her to quickly respond to families’ needs on short notice,

> Today I was heading to a visit, … I was barely leaving and [the mom] calls me, “I just came out [COVID] positive, so can we do a virtual visit?” So, I went to drop off the activities and then came back and did the virtual in my office.

Most respondents agreed their supervisors will continue supporting virtual home visiting practices (92.86%). Some participants spoke to their supervisors championing virtual home visiting services and advocating for home visitors’ needs. Laura praised her supervisor, saying,

> Our supervisor [has] been really great about keeping our line of work moving forward through virtual visits. How [my supervisor] personally feels about it, I'm not quite sure, but I know [my supervisor] really was advocating for it… and being able to work from home. Doing virtual visits was really important to [my supervisor].

Most respondents agreed organizational leadership will continue supporting virtual home visiting practices (95.24%). Though survey responses suggested strong organizational support, experiences expressed in the interviews varied. Participants seemed to see resource provision and flexibility as an indicator of organizational support, for example, Chelsie said,

> I would say our organization [supports virtual home visiting.] They do … trainings on how to engage our [families] in a virtual visit. They’ve provided

> technology. We have the ability to work from home. We have available rooms within our facility to have privacy. We have flexibility. Our agency gives us a lot of opportunity to be flexible with virtual [home visiting].

Similarly, other participants seemed to see a lack of resources and flexibility as an indicator of poor organizational support. Participant Ari stated,

> I think for some instances [virtual practice will be used], but … [not] in other ways. I thought, when we … went back to virtual visits [after returning to the office] that … we would [be allowed to] go back to our homes … [for] virtual visits, and that hasn't happened. We've been doing them from the office. And so, my sense is that if we ever get to post-pandemic, … our agency will go more towards [in-person] visits, rather than virtual. I think it will depend, but I see more of the traditional, rather than blend happening.

Based on interview responses, programs have champions for virtual home visiting (Initiation) to varying degrees; some programs have home visitors, supervisors, IT, and senior leadership driving the work forward, some only have home visitors driving the work, and others are in between. Regardless of the level of championship, all programs represented collaborated and adapted current practices to best serve families in a virtual environment (Enrollment). Participants believed their work was important and effectively supported families' needs, especially during mandated social distancing (Legitimization). Participants also described defining actions and procedures needed to sustain virtual home visiting (Activation), mentioning actions such as updating their handbooks, learning to use telecommunication technology, and having a process for planning and

carrying out virtual visits. See Table 4.4 for additional detail on the Cognitive Participation construct.

Table 4.4 NPT Cognitive Participation Construct (N=21)

	N	Percent	Mean (SD), Range
Cognitive Participation Aggregate Score	21		4.06 (0.68), 2.80-5.00
I believe serving families virtually is an important part of my (or a home visitor's) role.	21		4.47 (0.75), 2.00-5.00
Neutral	1	4.76	
Agree	20	95.24	
Based on my experience, I believe families are open to participating in virtual home visiting.	21		3.90 (0.90), 2.00-5.00
Neutral	6	28.57	
Agree	15	71.43	
I will continue to support virtual home visiting practices.	21		4.38 (1.03), 1.40,5.00
Disagree	1	4.76	
Neutral	2	9.52	
Agree	18	85.71	
I believe my supervisor will continue to support virtual home visiting practices.	14		4.51 (0.85), 1.90-5.00
Disagree	1	7.14	
Agree	13	92.86	
I believe my organization's leadership will continue supporting virtual home visiting practices.	21		4.58 (0.59), 3.00-5.00
Neutral	1	4.76	
Agree	20	95.24	

Collective Action

All home visiting staff were included in these variables. The aggregate score, averaged for each home visitor, for the degree of normalization for the Collective Action construct, the operational work that people do to enact a new set of practices, was 3.86/5.00 (on the agree/strongly agree side of the sliding scale).

Most respondents agreed home visitors can easily prepare for and conduct virtual home visits (95.24%) and can complete all the necessary components of a home visit in a virtual setting (85.71%). The experiences and context provided by most interview participants matched the survey responses. Daisy said,

> In some ways, [a virtual visit] feels the same as an in-person. … We just talk and I digitally send them facilitators. When we do screenings, I just ask the questions or … share my screen … [and] we can talk about it right then. … At the end of our visit I send resources digitally, … and then I'm able to do all my charting online.

However, Laura found completing all components of a visit could be difficult sometimes and might require more than one interaction to complete a full visit:

> I often wonder sometimes … how people are getting away with it. They're saying that it's a visit, but … technically it's not [if] you're not reaching all these different components … How are [they] even able to do it? … It [takes] me … three virtual visits sometimes to finally get, technically, one.

Lola echoed Laura's experiences and recalled supporting distracted parents,

> I've witnessed … multiple children in the home … where the parent might just be super distracted. It's really difficult … depending on the age of the kid. … [When

> using your phone], whether it's something productive like a visit … or playing games, your children are trying to get your attention. … [Making] children understand that we are doing [a visit and] to also include them, [I've] definitely noticed that being more of a struggle when there's multiple children. … I can tell mom is trying to multitask, talking to this one, this one's crying, and I just tell them, "Take a moment, I'm here always. Put the phone down … go ahead and handle what you need." I'd offer to call back at a later time if it's really bad, but I haven't ever had that happen.

Most respondents agree their team has the appropriate skills to serve families virtually (95.24%) and families have the appropriate skills to utilize telecommunication technology (76.19%). As quoted in the Coherence section, home visitors and families built proficiency and comfort with telecommunication technology over time. Participants recalled having to "figure it out" when first transitioning to virtual services. Although most survey respondents agreed their team had sufficient training on best practices for virtual home visiting (90.48%), no interview participants mentioned receiving training on using and troubleshooting telecommunication technology. Sage said, "We were … thrown into [virtual home visiting] and … had to figure it out. … We didn't have anyone to [say, 'This is] what you do here.' … We didn't have anything to compare [virtual visits] to." Zenna said, "I didn't have any [technical training]. … I struggled. … The direction [from leadership] was, 'This isn't forever.'" Most participants, like Laura, mentioned that technical training would have been helpful:

> There [have] been a lot of trainings … over the past two years, like conferences that cover how to have a successful virtual visit, how to do screenings virtually.

> … If anything, I would have liked [technical training], like "This is a way to send a link to the family on their phone, but you can open it up on your computer." … That would have been really helpful. … I'm still trying to figure it out sometimes.

Lola recalled a more recent training,

> We recently did a training on a new form. … They were showing an example, so we watched a home visitor do a virtual visit, and then … score [the assessment]. … In the very beginning, [the direction] was, … "Here's an option. Good luck." … Going through that training and watching someone else literally do part of a visit, [watching] how they interacted and … how the families responded, even now two years into it, … [was] stress relieving. To see someone else do it, I wish we would have had that early on.

Although most respondents agreed virtual home visiting disrupts home visitors' relationships with families (57.14%), survey and interview responses varied more widely for this question. Sage stressed the importance of in-person connection,

> I think that some families are more comfortable with [virtual visits]; however, I don't think [they're] as beneficial [as in-person visits]. Not to say [they're] not beneficial, but I just feel like it's a lot harder to make that one-on-one connection and build that trust with the family and build up that relationship in the way that you would if you were in-person.

Other participants thought virtual practice positively impacted their relationships with families. Laura said,

> Virtual visits [are] helpful for them. They know … they're not going to be left alone with not having a way to communicate with me. … It's a good form of security and another [way to build] rapport … with our families.

Lola said,

> For the most part, I would probably say it has strengthened [my relationships]. With more of my families than not, I had already seen for a year or more. … [I] already had a rapport with them, so it … gave us another level of our relationship. It also was … a nice way to reestablish some boundaries … to be able to say, "We're doing this virtually, and I'm accessible this way, but still only during these times." … As a whole, I feel like it's been great, and everyone's been very responsive, and it's built our relationship stronger.

Participants alluded to the importance of families having the autonomy to choose their preferred method of receiving home visits. According to participants, families were more likely to exit the program if they wanted in-person home visits and were not able to have them due to social distancing requirements. Laura said,

> For the families that are used to me being in their home, … [virtual visits] created a little bit of a rupture and a little bit of a strain on the relationship. The … continuity of … how we did things … got disrupted. … I don't know if … COVID in general was really stressing them out and then the visits being virtual … they just weren't getting what they wanted out of [home visiting] anymore. They … decided to just graduate out of the program. [Some families told me,] 'Hey, this isn't really working. Maybe in the future if you go back to normal then I'll be more inclined to want to do this again.' Other than that, I have families

> [who have] been with me the whole time and we're fine. Everything is … back to normal, probably a little … stronger with growing through everything.

Most respondents agreed sufficient resources are available to support virtual home visiting (80.95%). Lola described resources necessary to conduct virtual visits, "[Families need] a [mobile] device and the internet, strong enough to hold a virtual call, but really that's about it." According to participants, most families have smartphones and use them for visits; however, as quoted in the Coherence section, some families have poor internet access and connectivity. All participants have families in need of technical resources, such as phones, tablets, or data plans, but do not have technical resources provided by the program to lend out. Eryn said,

> We don't [have technical resources for families]. I mean I've been lucky enough that my families have a phone, that I was able to download Zoom, or they already had it in their phones, but the ones that don't, then I go to their homes.

Although most respondents agreed they have private spaces to conduct virtual visits and maintain confidentiality (66.67%), some participants lacked essential private spaces. Daisy described using a tablecloth for privacy, "We have cubicles … [so I use] a tablecloth to cover the back, so whoever is on the video doesn't see people walking by. There is no real privacy." Ari thought she could maintain confidentiality better from her home, even with an office, "For me, [I have] a really good setup [at home]. … It's more confidential than it is here in the office … because you can hear through these walls. … Shutting the door doesn't mean that confidentiality is kept."

Most respondents agreed their organizational leadership understands and supports virtual home visiting (76.19%). Laura, who praised her supervisor for advocating for virtual home visiting resources, also had strong organizational support. She said,

> [My organization] provided us with mobile tablets … [and] cell phones [with a] hotspot, so we can connect our laptops to that. We also have the ability to work from home … and we have available rooms within our facility to have that privacy. … Our agency does give us a lot of opportunity to be flexible with virtual visits.

Other participants highlighted the need for more support, understanding, and flexibility. Daisy said,

> We haven't been granted access to our district leader. … There is a need for virtual home visiting and to be able to … meet clients where they're at, … but also there's a need for support from management. … Because unless you're actually doing home visiting, you don't really ever get it and you don't see the needs. … [My team wanted] to be able to have a sit down. "Let's have a meeting and hash it all out. What does this look like for [people we're serving]? What does this look like for us? How can we make this work?" Multiple times, [my organization made] changes … so [abruptly]. We had no say in any of it. [My coworkers and I] came up with solutions that worked, but that ended up happening two or three or four weeks later. [Issues] could have been … avoided or solved in a different way if we [had] five minutes [with leadership] to talk to us to hear our concerns.

Zenna also spoke to a lack of understanding from leadership, saying,

> The basis of any program is people's ability to relate to people … this person right here needs to connect to that person right there. But sometimes they get to the top, based on … being able to get things done [and] they lack the connection. … They don't understand, or at least don't appear to understand the importance of connecting, that deals with progress, retention, accessibility, reliability, and so on … be more aware … acknowledge the pain … I [felt] alone.

Participants wanted more flexibility to work from home. Daisy said,

> If we need to do a virtual visit, we can say we're working from home, … but I mentally don't do well now if I have to go back and forth. If I'm going to work from home, I want to work from home all day. … I don't want to have to … come back to the office, and that's what they [are] expecting us to do.

Ari said,

> I really wish that they would be a little bit more flexible, letting us work from home more than they do. They probably would if I asked but it's not the expectation; people expect you to be here in the office. And I get that, but it is a lot more comfortable doing virtual visits from home than it is in the office. … I think in this new world that we're living in, flexibility is … key, and it's hard to be flexible in a rigid organization. … For families to feel like they're successful in this program and for home visitors to even find joy in this work, there's got to be a layer of flexibility and understanding, not only for home visitors but for families as well.

Based on interview responses, participants integrated new practices into home visiting (Interactional Workability), using telecommunication technology to maintain

services and overcome barriers made by the COVID pandemic. Participants effectively interacted with families (Relational Integration), becoming more comfortable communicating using virtual technologies and troubleshooting issues with time and practice (Skillset Workability). Participants may need more resources and administrative support (Contextual Integration) to sustain virtual home visiting; they highlighted a lack of technical training, technical resources for families, and private spaces and a need for support, understanding, and flexibility from organizational leadership. See Table 4.5 for additional detail on the Collective Action construct.

Table 4.5 NPT Collective Action Construct (N=21)

	N	Percent	Mean (SD), Range
Collective Action Aggregate Score	21		3.86 (0.78), 1.99-4.70
I (or home visitors) can easily prepare for and conduct virtual home visits.	21		4.35 (0.59), 3.00-5.00
Neutral	1	4.76	
Agree	20	95.24	
I (or home visitors) usually complete all the necessary components of a home visit in a virtual setting.	21		4.02 (0.77), 2.00-5.00
Neutral	3	14.29	
Agree	18	85.71	
Virtual home visiting disrupts my (or home visitors') relationships with families.	21		3.20 (1.43), 0.00-5.00
Disagree	4	19.05	
Neutral	4	19.05	
Agree	12	57.14	
Missing	1	4.76	
My team has the appropriate skills to serve families virtually.	21		4.45 (0.75), 2.00-5.00
Neutral	1	4.76	
Agree	20	95.24	
Based on my experience, I believe families have the appropriate skills to utilize telecommunication technology.	21		3.49 (1.32), 0.20-5.00
Disagree	3	14.29	
Neutral	2	9.52	
Agree	16	76.19	
My team has sufficient training on best practices for virtual home visiting.	21		4.11 (1.30), 0.20-5.00
Disagree	2	9.52	
Agree	19	90.48	

	N	Percent	Mean (SD), Range
Sufficient resources are available to support virtual home visiting.	21		4.01 (1.19), 0.20-5.00
Disagree	1	4.76	
Neutral	2	9.52	
Agree	17	80.95	
Missing	1	4.76	
I (or home visitors) have a private space to conduct virtual visits and maintain confidentiality.	21		3.87 (1.87), 0.00-5.00
Disagree	4	19.05	
Neutral	1	4.76	
Agree	14	66.67	
Missing	2	9.52	
Based on my experience, I believe my organization's leadership understands and supports virtual home visiting.	21		3.91 (1.50), 0.80-5.00
Disagree	4	19.05	
Neutral	1	4.76	
Agree	16	76.19	

Reflexive Monitoring

All home visiting staff were included in these variables. The aggregate score, averaged for each home visitor, for the degree of normalization for the Reflexive Monitoring construct, the appraisal work people do to assess and understand the ways that a new technology or complex intervention affects them and others around them, was 3.71/5.00 (on the agree/strongly agree side of the sliding scale).

Though survey responses varied to the question “My team studies and discusses virtual home visiting to determine how effective and useful it is,” (only 47.62% agreed), interview participants easily identified when virtual home visits were successful and

when they were not working. As quoted in the Coherence section, participants determined that successful home visits meet model standards and address the needs of families, including human connection and resource provision. Sage knows virtual home visiting isn't working when "visits are … really short, [families] keep rescheduling …, or just drop off the face of the earth. There's no further communication; they [stop] responding." Eryn talked about problem-solving with her team,

> So, at the beginning it wasn't working because of technology, or parents didn't want to do it because … they didn't want to be on camera. … It was a lot of doubts in the beginning. … [My team] talked about … what [was] working, what [was] not working. As [we did] virtual visits, and we [found] out that … we weren't comfortable with virtual. … We all needed to get used to it. We did talk about it, and we got ideas from each other that allowed us to see a different point of view and how it would help the families.

Most respondents agreed their team adapts virtual home visiting practices based on lessons learned (80.95%). Interview participants exemplified home visiting programs' adaptability when talking about "figuring out" telecommunication technology, as previously highlighted, and adjusting activities to fit virtual settings. Most participants talked about dropping off materials and resources to families' homes, simplifying activities, or making the most of what families already have. Ari said,

> Some visits are easier to do without as many materials. … I felt really bad for trying to [make play dough for] some of the families when I knew that they would have to use their own salt and their own flour and food coloring, and they don't have those things. … [As] part of my planning process, … I would say, "This is

> the activity. These are the things that you need for the activity. If you don't have that, let me know and we can try something else, or I can drop off things at your porch." One example is if we're doing an activity that calls for a ball, if they don't have a ball, then I'll say, "We'll make a newspaper ball,' or … 'Grab a few pairs of socks and we're going to kind of roll them up together and that's going to be our ball.

Most respondents agree virtual home visiting is worth their collective time and effort (80.95%) and their personal time and effort (85.71%). As highlighted in the Coherence section, participants believe virtual home visiting is important. It aligns with the mission and purpose of home visiting, meets families' needs, and allows families more flexibility and autonomy. Participants highlighted how virtual practices has both decreased and increased their workload (time and effort). Because virtual visits closely mimic in-person visits, planning, carrying out a visit, and charting have remained the same. Lola said, "We present the same material, we have the same conversations, … so it's not super impactful [on my workload]." As several home visitors in Idaho drive long distances to meet families, virtual practice has dramatically decreased travel. Sage said,

> [Usually] you have all that drive time where you're essentially not able to do anything. … You aren't able to do your paperwork. You're not able to do a visit. You're just driving. … As far as like lightening up the load, … you have so much more time to do those things.

On the contrary, Eryn said, "Without traveling, it gives me an opportunity to serve more families. … I think my workload has increased. … [I]t's busy, busy, busy, and the day goes by so fast. I love it." Some participants also thought virtual home visiting was

more exhausting than in-person home visiting, since they have a harder time keeping parents and children focused throughout the visit.

Home visiting staff understand what makes virtual home visiting effective and useful (Systemization) and what needs to be adapted to better serve families (Reconfiguration). Participants also believe virtual home visiting is worth their time and effort (Communal and Individual Appraisal), especially if families prefer virtual to in-person visits. See Table 4.6 for additional detail on the Reflexive Monitoring construct.

Table 4.6 NPT Reflexive Monitoring Construct (N=21)

	N	Percent	Mean (SD), Range
Reflexive Monitoring Aggregate Score	20		3.71 (1.19), 0.75-5.00
Missing	1		
My team studies and discusses virtual home visiting to determine how effective and useful it is.	21		3.11 (1.51), 0.00-5.00
Disagree	3	14.29	
Neutral	6	28.57	
Agree	10	47.62	
Missing	2	9.52	
My team adapts virtual home visiting practice based on lessons we learn.	21		3.81 (1.45), 0.00-5.00
Disagree	2	9.52	
Agree	17	80.95	
Missing	2	9.52	
My team agrees that virtual home visiting is worth our time and effort.	21		3.98 (1.24), 1.00-5.00
Disagree	2	9.52	
Neutral	1	4.76	
Agree	17	80.95	
Missing	1	4.76	
I believe that virtual home visiting is worth my time and effort.	21		4.30 (1.02), 1.30-5.00
Disagree	1	4.76	
Neutral	1	4.76	
Agree	18	85.71	
Missing	1	4.76	

Family Health Outcomes

As Reflexive Monitoring is the appraisal work people do to assess and understand the ways that a new technology or complex intervention affects them and others around them, it is important to understand how virtual home visiting impacts families' health outcomes. By providing virtual services, participants reported they were able to continue supporting families' health through sustaining emotional connection during a stressful and isolating time, conducting virtual health assessments, and providing referrals to community resources.

Many participants stated their process for supporting families' health hasn't changed. Daisy said,

> It hasn't changed terribly much from a virtual to an in-person because I am able … to have a conversation with somebody about depression or anxiety over the phone or over video. … I pretend that they're there, … I still ask the questions, "How are you doing? When was last time you went to your OB provider? Are you talking to them? Tell me about your well-child visit. How did it go?" … [For screenings], I just asked them versus handing them the paper.

Participants also described supporting families' mental health. Eryn said,

> Lately my families are going through mental breakdowns, and virtual has … eased … their own feelings. … I think they feel … more comfortable knowing that there's somebody there to meet with them and hear them. … Having virtual meetings … is a way of you being there for them.

In addition to sustaining typical practices, participants described helping families out of violent situations, providing essential resources like food and diapers, and preventing health complications. Lola said,

> Through the pandemic and all of this virtual stuff, I helped a family leave a very violent situation. I was still that support for that person. … I'm a firm believer that there is more good to be had from having [virtual visits] as an option than not.

Zenna said, “I'd arrived at a family's home with … a gallon of milk, diaper wipes, … hand sanitizer, … thermometers, … everything and anything. I didn't ask anybody, I just showed up.” Daisy described supporting a client after moving across the state, “She was a pretty high risk [mom] and I was able to … get [her] set up with PT … she starts PT next week.” Chelsie talked about supporting women during their prenatal period,

> The purpose for home visiting in general is to reduce risk … [of] health complications. We can … address something before it comes a critical thing and … reduce those potential ER visits or urgent care visits. … It's been a good thing to … address things sometimes virtually because … especially our pregnant moms … run on high anxiety and are worried … about everything. They always want to go to the doctor for every little thing, but … we can address those small concerns that they have and reassure them. … [We can say] “That's normal,”… or “Look for this and this and then go to the doctor.” … [Same] with their babies. We can address issues and … virtually, I can see without being there. … It’s great. It's a great opportunity.

Participants also noticed surprising benefits to parent-child interaction. Ari said,

> An unintended consequence of virtual visits is that some of my families have really stepped up to the plate and they've taken on a bigger role in our home visits. … I think some of my most successful home visits have been where I've said very little, and they've said a lot. You have the chance to guide and lead or direct, but in a very stand back, hands-off way, where you can see that you're empowering them to be a better parent.

What Is Missing?

As Reflexive Monitoring analyzes the impact of a new set of practices, it is important to understand the perceived weaknesses of virtual home visiting. When asked, "What is missing from virtual practice," all interview participants had a similar answer. Sage simply stated, "That in-person connection." Laura said,

> Just human connection. I mean, it's connection, but it's not physical. … It's something, it's eye contact and cues, … but it's not the same at all. People act differently when they're on screen. There's a device in between you and the other people.

Zenna illustrated the need for in-person connection,

> [My organization said], "You [can] go back [into homes] but kids can't touch you, and you can't get near them." I remember one of the first families I went to, … the kid just ran and [said my name over and over]. … I came back to supervision [and said] … "What am I supposed to do? Not bend down and give this kid what he's needed? I can't." … Not that I didn't think that parents appreciated me, but I didn't realize how important I was to their family unit. … I didn't realize how they

regarded me or what they thought of me, or how they looked forward to [our in-person visits].

Daisy also described the need for physical connection, saying,

Being able to like ‘goo and gah’ [and] be excited about their baby and have them show off. I feel like that's what's missing, just interaction. … It feels a little off. I'm grateful to be able to still connect, … but it's not the same.

CHAPTER FIVE: DISCUSSION

Normalization of Virtual Home Visiting Practice

In this study, MIECHV-funded home visitors in Idaho completed a survey about the normalization of virtual home visiting and several shared their experiences implementing virtual practice. Participants in this study were eager to serve families in-person regularly again and advocated for virtual practices remaining available for the benefit of both home visitors and families. In this way, participants support a hybrid approach which allows families to choose whether they would like to be served virtually, and if so, how often. Home visitors and families adapted quickly to changing circumstances that prevented in-person interactions and maintained connections virtually. As a mode of communication, virtual home visiting allowed flexibility and convenience and provided more autonomy to families to choose how they receive services. According to participants, home visitors and families have become accustomed to interacting virtually; in fact, some families prefer virtual visits. Participants thought families should be able to choose how they receive home visiting services and home visitors should have professional discretion to refuse a virtual home visit for extenuating circumstances, such as concerns for the child's safety or development or indications that the family is not benefitting from the virtual setting, and their decision should be supported by written policies and procedures. Establishing evidence of effectiveness for virtual and hybrid home visiting as a best practice could increase the value and continued utilization of virtual practices.

There are many reasons why a home visitor or family would choose a virtual visit, and after normalizing in Idaho, it is now important to establish best practices for virtual home visits and a culture of administrators and programs supporting this valued resource. According to NPT, organizations will be more successful at normalizing new practices or technology if they can overcome:

1. **Process problems** related to **the implementation** of new ways of thinking, acting, and organizing in health care
2. **Structural problems** related to **the embedding** of new systems of practice into existing organizational and professional settings (May et al., 2021f)
3. **Systemic problems** related to **the integration** of new practices into the social matrices of an organization (Finch et al., 2018).

Based on participants' responses to questions rooted in NPT, virtual home visiting has become normalized by home visiting staff in Idaho. Home visiting staff have established a foundation for virtual practice **implementation**, which should be continuously adapted to align with future research on best practices. Home visitors understand what virtual home visiting is and how it is carried out; all participants defined virtual home visiting practice similarly: a home visit conducted with telecommunication technology. Though home visits are broken into components by model curriculum, participants stated they would not carry out some components virtually and some components in-person; therefore, hybrid home visiting was viewed by participants as home visits carried out in-person or virtually, at the discretion of the home visitor and families they serve. According to participants, home visitors know what the benefits of virtual practice are and what success looks like; furthermore, both home visitors and

families are familiar with virtual home visiting and have the confidence and skills to implement a successful virtual visit. Home visiting staff have **embedded** virtual practices into their everyday work. Participants were able to sustain typical home visiting practices virtually and found planning, leading, and wrapping up virtual visits to be similar to in-person visits. The main difference was the mode of connection, virtual or in-person. Participants felt that they carried out the curriculum within the virtual setting and met expectations for home visits. Anecdotally, the purpose of home visiting was accomplished through virtual practice; home visitors met families' needs, connected them to resources, facilitated parent-child interaction, and assessed and supported their health and well-being. Virtual practice has been **integrated** into the social matrices of direct home visiting practice. Home visiting staff and families have learned to use technology to communicate and have accepted that virtual practices are becoming more normal and widespread in society. Participants responded in support of retaining virtual home visiting as a useful tool for serving families, even if they preferred conducting home visits in-person, valuing the perceived benefits of a hybrid approach such as increased autonomy and flexibility.

Addressing Process Barriers to Sustain Virtual Home Visiting

Adjusting a program in response to a global pandemic impacts **implementation**. Ideally, home visiting programs would have chosen to implement virtual practices as an innovation to supplement in-person visits, rather than a necessity brought on by a pandemic. The ideal scenario may have improved social cohesion between home visitors and their teammates, families, and organizational leadership by providing an opportunity to plan for the implementation of virtual practices, identify champions within their

organizations and priority populations, budget for and acquire the necessary resources and equipment, develop measures of progress and success, and develop policies and procedures for virtual practice. In the ideal scenario, home visiting programs would have been able to test virtual home visiting with a small number of families and evaluate its impact, benefits, and worth before expanding it as an option for all families. In reality, home visiting programs transitioned during an unprecedented pandemic; therefore, they were unable to give implementation planning the attention necessary to ensure long-term sustainability. Implementation plans are helpful tools for guiding interventions and assessing progress; home visiting programs may benefit from reevaluating virtual practices and developing an implementation plan as if the addition of virtual practices was a new and innovative practice to enhance home visiting services, utilizing their knowledge gained from two years of lessons learned and allowing themselves an opportunity to plan for future success (Langley et al., 2009).

Part of ensuring successful implementation is developing skillsets necessary to conduct the intervention (May and Finch, 2009). Home visitors need training on utilizing technical resources and troubleshooting telecommunication technology; participants appreciated professional development that showed home visitors conducting virtual visits with real families and thought it would have been helpful when first implementing virtual practices. Home visiting model programs should identify available trainings that strengthen home visitors' technological proficiency and include shadowing of virtual visits in their onboarding of new home visitors.

Addressing Structural Barriers to Sustain Virtual Home Visiting

Home visitors often conduct sensitive conversations related to health information, intimate partner violence, mental health, alcohol and drug use, etc. Home visiting requires the same privacy as visits with health providers, yet some participants thought they did not have access to resources necessary to protect families' privacy; in fact, participants worried about non-home visiting staff overhearing their visits. Home visitors need constant, uninterrupted, reliable access to private spaces to ensure they can maintain confidentiality and provide high quality services to families. Home visits should not be conducted, virtually or in-person, in environments that do not allow them to effectively protect families' privacy. According to participants, privacy can be maintained with dedicated, quiet, and private office spaces or by allowing home visitors to work from home, if their private residences offer better privacy. Home visiting models and grant managers can support home visiting programs by setting clear expectations of having access to private spaces throughout the affiliation and grant application/maintenance process. Organizations can support their home visiting staff by immediately seeking and providing private spaces or allowing home visitors to flex their work location between their homes and the office. Programs should consider providing families with headphones to assist with maintaining confidentiality, as they may allow parents and caregivers to communicate with home visitors more discretely if other people are around during the visit.

Virtual home visiting requires few technical resources: devices with telecommunication technology and strong internet connections. As virtual home visiting will likely continue to be utilized as a tool in the future, home visiting funders should

continue providing financial resources to assist home visiting programs in maintaining necessary resources and programs should dedicate a portion of their budgets to acquiring technological supplies. Though most participants currently have necessary resources, their smartphones, tablets, and laptops will eventually need to be upgraded to remain effective. Programs will also have to continue purchasing telecommunication applications and may want to purchase online parenting resources. All programs have some families in need of technological resources. When programs feel like expectations are more stable, such as if the pandemic becomes more manageable, they should assess how many families would like virtual services and do not have the necessary resources. Home visiting programs can include resources for families in their budgets and may want to consider setting aside a portion for addressing families' technological needs. Providing families with phone stands may also be beneficial, as participants often talked about how families struggled with holding their phones and doing activities with their children at the same time. Stands may allow families to set up their phones in a place where home visitors can see the room and then have their hands free to play with their children.

Addressing Systemic Barriers to Sustain Virtual Home Visiting Practices

According to participants in this study, the main barrier to sustainability of virtual practices within Idaho home visiting programs is a lack of **integration** at the highest levels of organizational leadership. Prior to the pandemic, home visitors in Idaho were experiencing burnout at increasing rates due to unhealthy and unsupportive work environments, which impacted staff well-being, increased turnover, increased organizational costs, and reduced service quality (Begic et al., 2019). Some participants described attempting to implement a flexible program under strict hierarchal

organizations and feeling as if leadership expected staff to respond quickly and flexibly to frequent decisions that impacted their services to families and their job satisfaction without sufficient opportunities to advocate for their needs. Furthermore, participants lacked confidence in their leaderships' ability to understand and recognize the needs of both the home visiting field and of families, particularly when it came to making decisions that strengthen best practices and protect the well-being of home visiting staff.

As home visitors continue to feel the effects of a turbulent transition, they would benefit from senior leadership dedicating time and attention with home visiting staff to improve their understanding of the home visiting field and home visitors' daily work, address decisions that poorly impacted home visitors' ability to serve families and co-create solutions, listen to home visitors' resource needs and develop a transparent plan to address them, and explore ways to increase home visiting staffs' autonomy over how they carry out their work, particularly as it relates to virtual practice. Addressing home visitors' concerns related to workplace culture would not only improve their experience, but also strengthen the organization and improve the integration of virtual home visiting practices. Future research should explore the implications of workplace culture on implementing virtual and hybrid home visiting.

Building Support for Virtual Home Visiting Practices

Establishing Evidence of Virtual Practice Effectiveness

Anecdotally, participants thought virtual home visiting accomplished the mission and goals of home visiting, which are to improve the health of pregnant women, parents and caregivers, and children; promote child development and school readiness; encourage positive, development-centered parenting; and improve a family's economic self-

sufficiency. However, before virtual home visiting can be considered an acceptable or best practice, more research is necessary to establish the evidence that virtual practices are indeed effective in achieving program outcomes.

In this study, participants described using virtual home visiting to support families' health and accomplish the goals of home visiting through health assessments, activities that focus on child development and strengthening parent-child interaction, referrals to community resources, and social connection. Building on these observations, to establish best practices, future research should include trials comparing health outcomes of families under varying degrees of in-person and virtual modalities. These studies should also consider how virtual practice impacts children, as they are less capable of interacting with the home visitor virtually than in-person, and seek to answer the following questions:

- Who is home visiting for? The parent/caregiver or the child? Both?
- It is difficult for young children to interact with a home visitor virtually. If home visiting is solely for the child's benefit, are interactions between the home visitor and parents/caregivers enough to accomplish the goals and intended outcomes of home visiting?
- How do children benefit from interacting with the home visitor? Are interactions between the home visitor and the child necessary to maintain home visiting effectiveness? If so, how often are these interactions necessary?
- Does virtual home visiting facilitate interactions between home visitors and children?

Historically, evidence of home visiting effectiveness was established by assessing parents' and children's outcomes while participating in the program, either through clinical trials or program evaluation. This research was driven by models. The National Home Visiting Model Alliance, as well as other home visiting stakeholders, should uphold this tradition by identifying and disseminating resources and incentives to home visiting programs willing to participate in research evaluating virtual practices, as it will help grow the evidence-base for virtual home visiting and identify best practices. The methods of this study could be easily replicated and utilized to study virtual home visiting implementation in other states and models.

Setting Evidence-Based Expectations for Virtual Practice

As more research becomes available, national home visiting models should continuously embed evidence-based expectations for virtual best practice into their curriculum and funders and grant managers should continue embedding expectations of model fidelity and alignment with best practices into their performance expectations. In addition to continuing to set clear expectations for virtual practice and providing education supporting best practices, RR-VHV, overseen by the National Home Visiting Model Alliance, should highlight promising research on virtual home visiting.

Incentivizing Evidence-Based Virtual Practices

National funders should incentivize grantees who are willing to utilize and participate in research related to virtual home visiting practices, as it will grow the evidence-base for virtual service provision. Once evidence has been established, funders, legislators, and grant managers like Idaho MIECHV, should incentivize programs willing

to utilize evidence-based innovative practices such as virtual home visiting and provide financial support to help address barriers identified by interview participants.

Fostering a Supportive Culture of Virtual Practice

As the evidence base for virtual home visiting practice grows, it will be important for organizations to develop work cultures that support home visiting practice and allow staff to utilize virtual practices in Idaho. For example, healthcare organizations have used the Joy in Work Framework, developed by the Institute of Healthcare Improvement, to effectively improve workplace culture as a systemic sustainability practice (Perlo et al., 2017). Management practices that produce a joyful workforce are associated with reduced staff turnover, better recruitment of high quality candidates, improved staff performance and services, and greater financial performance (Perlo et al., 2017). In a positive work culture, staff feel involved in decision-making and contributing to the purpose of the organization; they feel respected and confident that others will respond positively when they ask questions, seek feedback, admit mistakes, or propose ideas; and they feel comfortable raising dissenting viewpoints and collaboratively problem-solving to successfully overcome barriers (Perlo et al., 2017). As interview participants described discomfort with the culture at their organization, senior leaders should explore testing evidence-based management practices, such as those that align with the Joy in Work Framework, to address home visitors' needs and concerns regarding virtual practice and improve staff wellbeing and trust. Prioritizing joy in work will support home visitors as they make decisions about virtual practice utilization in their programs.

Grant managers can facilitate a healthy work culture by prioritizing and incentivizing organizations that utilize evidence-based management practices. As virtual

home visiting has been integrated by home visiting staff, organizations with higher staff engagement and autonomy will be more likely to improve and sustain virtual practices (Perlo et al., 2017). Assessing the readiness of a program to effectively carry out the expectations of a grant and sustain the intervention is a key consideration when choosing grant recipients. When seeking applications for home visiting funding, grant managers should assess the workplace culture and incentivize organizations that are ready to be supportive of implementing virtual home visiting practices.

Limitations

This study drew a sample from Idaho MIECHV-funded home visiting staff only and did not consider the experiences of non-MIECHV-funded programs. Because of the focus on Idaho, the findings of this study cannot not be generalized to the whole home visiting field.

Another potential limitation was that the primary researcher, Ashtin Glodt, worked for the Idaho MIECHV Program for four years; therefore, she is familiar with the home visiting field and Idaho MIECHV and its program staff, including participants, which may have led to bias with interpretation of findings (Bhandari, 2022). To minimize bias, surveys were confidential and individual interview participants were given the option to be interviewed by alternate research personnel (e.g., another student trained in qualitative interviews and approved by the IRB or a member of the thesis committee).

Summary

Due to mitigation efforts related to the COVID-19 pandemic in 2020, home visiting programs across the state of Idaho transitioned quickly to providing their services virtually. Now in 2022, as home visiting programs start to visit families in-person again,

they will decide the worth and utility of virtual practices and if/how/how often virtual practices will be used in their programs. Findings from this study indicate that virtual home visiting has become normalized by home visitors in Idaho, but for virtual practice to be successful, there is still a need for further research to establish evidence of the effectiveness of virtual practice to produce outcomes and serve the health and social needs of participating families, for home visiting programs to assess and formalize implementation practices, and for organizations to build a healthy workplace culture that allows home visitors to maintain best practices, virtually and in-person.

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APPENDIX A

Letter of Recruitment

Subject Line: Research on Virtual Home Visiting in Idaho

Hello Idaho MIECHV-funded home visitors and supervisors,

I am a student of the Master of Public Health Graduate Program at Boise State University, and I invite and encourage you to consider participating in my research on virtual home visiting. The purpose of this study is to learn about your experience with virtual home visiting, its implementation and integration into everyday practice, and how it has impacted you and the families you serve.

Your participation is confidential and voluntary. The survey is available online, is expected to take about 20 minutes to complete, and you may participate on any device. Since your participation is voluntary, you may skip any questions you don't feel comfortable answering or stop participating at any time.

Only research personnel (Ashtin Glodt and her thesis committee at Boise State) will have access to your responses to the survey and interview questions. Research personnel will take great care to protect your identity. Research findings will not be used to evaluate your performance or your program's compliance. Please be candid when taking the survey. Different points of view are welcome.

Some home visitors will be asked to participate in an additional interview via Zoom. If you are a home visitor, you will have the opportunity to opt in or out at the end of the survey.

If you have any questions about participating in this research, please reply to this email.

Please complete this survey in a comfortable, private place by January 7, 2022. To start the survey, please click here.

Thank you so much for your participation!

Ashtin Glodt, Graduate Student
Master of Public Health
Boise State University

APPENDIX B

Idaho Maternal, Infant, and Early Childhood Home Visiting Program Letter of Support for Graduate Research on Virtual Home Visiting

IDAHO DEPARTMEN
HEALTH & WELFA

BRAD LITTLE – GOVERNOR
DAVE JEPPESEN – DIRECTOR

BUREAU OF CLI

September 8, 2021

MEMORANDUM

To: Elke Shaw-Tulloch, Administrator
Division of Public Health

Through: Kara L. Stevens, Chief
Bureau of Clinical and Preventative Services

Kara Stevens
Digitally signed by Kara Stevens
DN: cn=Kara Stevens, c=US, o=Idaho Division of Public Health, ou=BOCAPS, email=kara.stevens@dhw.idaho.gov
Date: 2021.09.10 16:32:14 -06'00'

From: Katherine Humphrey, Section Manager
Maternal and Child Health

Katherine Humphrey
Digitally signed by Katherine Hu
DN: cn=Katherine Humphrey, c
o=Department of Health & Welf
ou=Divison of Public Health,
email=katherine.humphrey@dh
Date: 2021.09.08 14:03:51 -06'

Subject: Binding Letter of Support: **An Evaluation of Virtual Home Visiting**

Attached for your review and signature is a letter of support from the MIECHV Prog
BSU graduate student of virtual home visiting practices as an emerging necessity c
concerns. The study seeks to understand how virtual home visiting is being utilized
and areas for improvement.

It is our hope that this study yields useful information that will assist in future servic
staff has confirmed approval with HRSA for this study and the proposal will follow E

Please reach out to Taryn Yates, MIECHV Program Manager, (208-334-0658) if yo
about this letter.

Thank you.

tmy

IDAHO DEPARTMEN
HEALTH & WELF

BRAD LITTLE – GOVERNOR
DAVE JEPPESEN – DIRECTOR

ELKE SHAW

September 8, 2021

Re: Letter of Support for **An Evaluation of Virtual Home Visiting in Idaho**

To Whom it May Concern:

This letter documents the Division of Public Health's (DPH) support of the thesis, "A Virtual Home Visiting in Idaho," conducted by Ashtin Glodt, Master of Public Health studying at Boise State University. Her study will evaluate the implementation of vir within the Idaho Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Pro the following research questions:

- To what degree has virtual home visiting been normalized according to Nor Theory?
- What practices and resources would make virtual home visiting more susta
- What is the purpose, utility, strengths, and weaknesses of virtual home visi
- How does virtual home visiting impact families' health outcomes?

DPH recognizes the knowledge gap related to using telecommunication technology evidence-based home visiting services and understands this study will help strengt within the home visiting field.

DPH and the MIECHV Program agree to the following responsibilities:

- Assist research personnel in identifying potential participants for the study, visitors funded by the MIECHV Grant. This will be accomplished by having out to home visitors via email. MIECHV staff will provide potential participar approved email describing the study and asking consent to be contacted by personnel. If an individual is interested in participating, MIECHV staff will sh contact information with research personnel.
- Allow study personnel to survey and interview home visiting staff funded by about their experience and observations implementing virtual home visiting

APPENDIX C

Normalization Process Theory NoMAD Questionnaire

Please cite as: Finch, T.L., Girling, M., May, C.R., Mair, F.S., Murray, E., Treweek, S., Steen, I.N., McColl, E.M., Dickinson, C., Rapley, T. (2015). NoMad: Implementation measure based on Normalization Process Theory. [Measurement instrument]. Retrieved from http://www.normalizationprocess.org.

Survey Instructions

[YOU MUST ADAPT THE TEXT FOR OWN STUDY – REMEMBER TO REPLACE [the intervention] WITH YOUR OWN TERM]

This survey is designed to help get a better understanding of how to apply and integrate new technologies and complex inter

This survey asks questions about the implementation of **[the intervention]**. We understand that people involved with **[the inter** roles, and that people may have more than one role.

From the statements below please choose an option that best describes ***your main role*** in relation to **[the intervention]*:***

- **I am involved in managing or overseeing [the intervention]** ☐ **[THIS LIST MAY NOT BE NEEDED]**
- **I am involved in delivering [the intervention]** ☐

For this survey, please answer all the statements from the perspective of this role. Depending on your role or responsibilities in statements may be more relevant than others.

The survey is in [X NUMBER] parts. Part A asks some brief questions about yourself and your role. Part B includes three general **intervention] [NB: ADDITIONAL QUESTIONS CAN BE ADDED]**. Part C contains a set of more detailed questions about **[the interv** statement in Part C, there is the option to agree or disagree with what is being asked **(OPTION A).** However, if you feel that the

Part A: About yourself [ADD APPROPRIATE ROLE OR OTHER QUESTIONS FOR DESCRIBING YO

1. **How many years have you worked for this [name of organisation/department]*? (If your Trust has merged with another o include in your answer all the time you have worked with this Trust and its predecessors)***

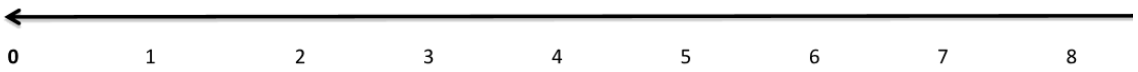
○ Less than one year ○ 1-2 years ○ 3-5 years ○ 6-10 years ○ 11-15 years

2. **How would you describe <u>your professional job category</u>? [WE ADVISE SPECIFYING APPROPRIATE CATEGORIES]**

Part B: General questions about the intervention [THESE CAN BE ADAPTED, DROPPED AND/OR ADDED TO

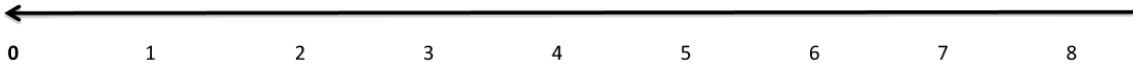
When you use [the intervention], how familiar does it feel?

Still feels very new



Do you feel [the intervention] is currently a normal part of your work?

Not at all **Somewhat**



Do you feel [the intervention] will become a normal part of your work?

Part C: Detailed questions about the intervention [WE ADVISE MINOR ADAPTATION ONLY AS REQUIRED T

For each statement please select an answer that best suits your experience using Option A. If the statem please select an answer from Option B.

Section C1		Option A					
		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not to
1.	I can see how [the intervention] differs from usual ways of working	○	○	○	○	○	
2.	Staff in this organisation have a shared understanding of the purpose of [the intervention]	○	○	○	○	○	
3.	I understand how [the intervention] affects the nature of my own work	○	○	○	○	○	
4.	I can see the potential value of [the intervention] for my work	○	○	○	○	○	

For each statement please select an answer that best suits your experience using Option A. If the statem
please select an answer from Option B.

Section C2		Option A					
		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not to
1.	There are key people who drive [the intervention] forward and get others involved	○	○	○	○	○	
2.	I believe that participating in [the intervention] is a legitimate part of my role	○	○	○	○	○	
3.	I'm open to working with colleagues in new ways to use [the intervention]	○	○	○	○	○	
4.	I will continue to support [the intervention]	○	○	○	○	○	

For each statement please select an answer that best suits your experience using Option A. If the statem please select an answer from Option B.

Section C3		Option A					Not to
		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	
1.	I can easily integrate [the intervention] into my existing work	○	○	○	○	○	
2.	[The intervention] disrupts working relationships	○	○	○	○	○	
3.	I have confidence in other people's ability to use [the intervention]	○	○	○	○	○	
4.	Work is assigned to those with skills appropriate to [the intervention]	○	○	○	○	○	
5.	Sufficient training is provided to enable staff to implement [the intervention]	○	○	○	○	○	
6.	Sufficient resources are available to support [the intervention]	○	○	○	○	○	
7.	Management adequately supports [the	○	○	○	○	○	

For each statement please select an answer that best suits your experience using Option A. If the statem
please select an answer from Option B.

Section C4		Option A					
		Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Not to
1.	I am aware of reports about the effects of [the intervention]	○	○	○	○	○	
2.	The staff agree that [the intervention] is worthwhile	○	○	○	○	○	
3.	I value the effects that [the intervention] has had on my work	○	○	○	○	○	
4.	Feedback about [the intervention] can be used to improve it in the future	○	○	○	○	○	
5.	I can modify how I work with [the intervention]	○	○	○	○	○	

APPENDIX D

NoMAD Survey on Normalization of Virtual Home Visiting in Idaho

Normalization of Virtual Home Visiting in Idaho
Adapted NoMAD Survey

CONSENT:
Boise State University
IRB Approval ID: 186-SB21-199

You are invited to participate in a research study conducted by a graduate student attending Boise State University. The purpose of the study is to learn about the implementation and integration of virtual home visiting practices in Idaho. You have been invited to participate because you are either a home visitor or a home visiting supervisor. While there is no benefit to you for participating in this study, the home visiting field will benefit from your expertise, experience, and feedback on implementing virtual home visiting. Approximately 30-50 people will take part in this study.

What we are asking you to do:
Your participation in this study is voluntary. If you agree to participate, you will enter the confidential online survey. In addition to asking questions about the implementation and integration of virtual home visiting, we will also ask some individual questions about your age, race, ethnicity, and work experience. There are no right or wrong answers to any of the questions. We are interested in your opinions and experiences. Your ideas are important to us, and we welcome different points of view. You are free to skip any questions you prefer not to answer or stop taking the survey at any time. It will take approximately 20 minutes to complete the survey.

Will being in this study hurt or help participants in any way?
There are no known risks from being in this study. Findings from this study will not be used to evaluate your professional performance nor will they be used to evaluate the performance or compliance of your program. Only research personnel will have access to your responses. Raw data or individual responses will not be shared with your organization or the Idaho Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program. However, we do plan to provide an overview of responses in aggregate form with no identifying information.

If you feel that participating in the survey is causing you distress, you may skip questions or end the survey at any time. Please reach out to your organization's employee assistance program for support or contact the Idaho MIECHV Team to help schedule a private reflective supervision session.

What will you do with information about participants?
We will keep your study data as confidential as possible. You will not give your name to participate in this survey. Demographic data will be reported as a cohort, as to not identify any of the participants. Survey data will be restricted to researchers on this project at Boise State University. We will not share information you provide with anyone, including other participants, your professional organization, or the Idaho

MIECHV Program. Three years after the study has concluded, all data will be destroyed, as per Federal regulations.

If you have any questions or concerns about participating in this study, even after completing the survey, please contact Ashtin Glodt at Boise State University [email: ashtinglodt@u.boisestate.edu].

If you have questions about the rights of research participants, you may contact the Boise State University Institutional Review Board (IRB), which is concerned with the protection of participants in research projects, by calling or writing. The IRB Office is open between 8:00 AM and 5:00 PM, Monday through Friday.

Phone: (208) 426-5401.
Address: IRB, Office of Research Compliance, Boise State University, 1910 University Dr., Boise, ID 83725.

[Multiple Choice, Allow One Answer]

- ☐ I have read the consent form and agree to participate in this study.
- ☐ I have read the consent form and I do NOT agree to participate in this study.

[Note: If participants agree with the informed consent and wish to continue participating in the study by completing the online survey, they will click "yes". If they do not wish to participate or disagree, they will click "no." Those who click "no" will be taken to a thank you page. Those who click "yes" will be taken to the next page with the survey introduction and demographic questions.]

INTRODUCTION:
The purpose of this study is to explore the implementation and integration of virtual home visiting. The findings of this study will help strengthen best practices and inform what home visiting should look like in the future, implementing both in-person and virtual practices. When answering these questions, think of your experience serving families virtually (or supervising home visitors who do).

SECTION 1: DEMOGRAPHIC QUESTIONS
In this section, you will answer questions that describe your demographics, your work experience, and the families you serve. These foundational questions will help researchers better understand the context in which virtual home visiting is implemented. Due to the make-up of Idaho's population, the combined answers to these questions may make an individual person identifiable. The researchers will make every effort to protect your confidentiality. Demographic data will be reported generally; however, if you are uncomfortable answering any of these questions, you may leave them blank.

What is your age? [Text Entry]

What is your race/ethnicity? Select all that apply. [Multiple Choice, Allow Multiple Answers]

- ☐ White or Caucasian

- Hispanic or Latinx
- Black or African American
- Native American or American Indian
- Asian / Pacific Islander
- Other

What is your job description? [Multiple Choice, Allow One Answer]

- Home Visitor
- Case-Carrying Supervisor
- Supervisor (No Cases)

How long have you worked in the home visiting field? [Multiple Choice, Allow One Answer]

- Less than 1 year
- 1 – 2 years
- 3 – 5 years
- 6 – 10 years
- Over 10 years

How long have you worked in your current position? [Multiple Choice, Allow One Answer]

- Less than 1 year
- 1 – 2 years
- 3 – 5 years
- 6 – 10 years
- Over 10 years

Which month and year did you start serving families virtually? [Text Entry]

Which home visiting model do you use? [Multiple Choice, Allow One Answer]

- Nurse-Family Partnership
- Parents as Teachers

The clients/families you serve live in which counties (choose all that apply): [Multiple Choice, Allow Multiple Answers]

- Ada
- Bannock
- Bonner
- Bonneville
- Canyon
- Clearwater
- Jerome
- Kootenai
- Nez Perce
- Power

- Shoshone
- Twin Falls

Do you serve non-English speaking families? [Multiple Choice, Allow One Answer]

- Yes
- No

Based on your experience, what percentage of your families have access to technology? Add percentages that add up to 100. [Constant Sum]

- ___ % of the families I serve have access to all necessary technology to conduct virtual visits.
- ___ % of the families I serve need technology to conduct virtual visits and can access resources in the future.
- ___ % of the families I serve need technology to conduct virtual visits and will NOT be able to access necessary resources.
- ___ % of the families I serve live in communities with no access to internet or cell service, such as rural or frontier counties, making virtual visits impossible.

SECTION 2: NPT GENERAL PRACTICE

For this section, you will answer questions about your familiarity with virtual home visiting. The open-ended questions give you an opportunity to share your thoughts on virtual practice.

[Sliding scale, one decimal point: 0-5, 0 – not at all, 3 – somewhat, 5 – completely; excludes non-case-carrying supervisors]

- When you serve families virtually, how familiar does it feel?
- Since the onset of COVID-19, to what degree has serving families virtually become a normal part of your work?
- To what degree do you feel like serving families virtually will always be a normal part of your work?

In a world without COVID-19, which, if any, home visiting practices would you continue doing virtually and why? [Open-ended Text Entry]

Which, if any, home visiting practices would you stop doing virtually and why? [Open-ended Text Entry]

SECTION 3: COHERENCE

This section explores the degree to which virtual home visiting is understood by staff. The open-ended question gives you an opportunity to describe how virtual practices have impacted the families you serve.

[Sliding Scale, one decimal point: 0-5, 1 – Strongly Disagree, 3 – Neutral, 5 – Strongly Agree]

- I believe virtual home visiting aligns with the mission and goals of home visiting.
- My team understands and agrees on the purpose of virtual home visiting.

- I believe virtual home visiting is valuable.
- Based on my experience, the (families I serve/families in my program) value virtual home visiting.
- I can identify benefits of virtual home visiting.
- I can identify drawbacks of virtual home visiting.

Based on your experience, please describe how virtual home visiting has impacted families, positively or negatively. [Open-ended Text Entry]

SECTION 4: COGNITIVE PARTICIPATION
This section explores the degree to which virtual home visiting is being supported by staff.

[Sliding Scale, one decimal point: 0-5, 1 – Strongly Disagree, 3 – Neutral, 5 – Strongly Agree]

- I believe serving families virtually is an important part of (my/home visitors') role.
- Based on my experience, I believe families are open to participating in virtual home visiting.
- I will continue to support virtual home visiting practices. [All supervisors excluded from this question]
- I believe my supervisor will continue to support virtual home visiting practices.
- I believe my organization's leadership will continue to support virtual home visiting practices.

SECTION 5: COLLECTIVE ACTION
This section explores the degree to which virtual home visiting fits into routine everyday practice and how prepared and supported staff are for implementing virtual visits. The open-ended questions give you an opportunity to describe which resources (material and educational) you have found helpful and which resources you are missing.

[Sliding Scale, one decimal point: 0-5, 1 – Strongly Disagree, 3 – Neutral, 5 – Strongly Agree]

- (I/My staff) can easily prepare for and conduct virtual home visits.
- (I/My staff) usually complete all the necessary components of a home visit in a virtual setting.
- Virtual home visiting disrupts (my/my staffs') relationships with families.
- My team has the appropriate skills to serve families virtually.
- Based on my experience, I believe families have the appropriate skills to utilize telecommunication technology.
- My team has sufficient training on best practices for virtual home visiting.
- Sufficient resources are available to support virtual home visiting.
- (I/My staff) have a private space to conduct virtual visits and maintain confidentiality.

- Based on my experience, I believe my organization's leadership understands and supports virtual home visiting.

Which resources for virtual home visiting have been most helpful to you? How or in what ways have the resources been helpful? [Open-ended Text Entry]

What do you need to make virtual home visiting easier or better? [Open-ended Text Entry]

SECTION 6: REFLEXIVE MONITORING

This section explores the degree to which virtual home visiting is reflected on by staff for the purpose of evaluating the worth of practices and improving practices. The open-ended question gives you an opportunity to share families' thoughts on virtual home visiting. You may share your general thoughts and/or specific experiences.

[Sliding Scale, one decimal point: 0-5, 1 – Strongly Disagree, 3 – Neutral, 5 – Strongly Agree]

- My team studies and discusses virtual home visiting to determine how effective and useful it is.
- My team adapts virtual home visiting practice based on lessons we learn.
- My team agrees that virtual home visiting is worth our time and effort.
- I believe that virtual home visiting is worth my time and effort.

Based on your experience, what do families think of virtual home visiting? [Open-ended Text Entry]

CLOSING:

Thank you for participating in this research. Your participation will help improve our understanding of virtual home visiting in Idaho. If you would like a copy of the final report, please contact Ashtin Glodt at Boise State University.

If this survey has brought up difficult memories and emotions, please reach out to your organization's employee assistance program for support or contact the Idaho MIECHV Team to help schedule a private reflective supervision session.

[Supervisors excluded from this question]

You may be contacted for an individual interview about your experience implementing virtual home visiting to better understand the context behind the survey questions and the subsequent findings.

Please click this link to indicate whether you would like to participate in an interview. You will be taken to a separate form. This form is NOT connected to this survey or your responses in any way, allowing your answers to remain confidential.

Remember to click the forward arrow to submit your survey.

[Submit > We thank you for your time spent taking this survey. Your response has been recorded.]

Contact Information Form

You may be contacted for an individual interview about your experience implementing virtual home visiting to better understand the context behind the survey questions and the subsequent findings. This interview would be conducted by Ashtin Glodt. You may also request to be interviewed by a different member of the research team. If you do not wish to participate in an interview, please provide your email and name and choose “I would not like to participate in an interview.” If you are open to being interviewed, please provide your email and name and choose “Research personnel may contact me for an interview”. This form is NOT connected to your survey or your responses in any way, allowing your answers to remain confidential.