Mental health and child maltreatment prevention: current evidence and future directions

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Session overview

- **Problem context**: mental health, child maltreatment, and child welfare system involvement (Waid et al., 2021)
- **Current evidence**: mental health targets and maltreatment outcomes among primary and secondary prevention programs (Waid et al., 2022)
- **Future directions**: Improving mental health and preventing child maltreatment through navigation to prevention and early intervention services (Waid et al., 2022)

Problem context

7.9 million children investigated for suspected maltreatment in the US in 2019

- 16.8% were substantiated cases
- 13.8% received an alternative response
- 56.5% were unsubstantiated cases

Repeated contacts with child welfare occur at high rates

- 30-60% of cases are re-referred within 2 years
- 10.6-22.6% of victims experience a second substantiation within 18-months

Risk factors for child maltreatment and child welfare system involvement are complex and multidimensional

- Individual, family, community, system/macrosystem, and historical factors
- Ecological-transactional & cumulative risk theory

MH and COD common among cases referred to child welfare

- 3-fold increase in child maltreatment during perinatal period
- 2.6 to 5.7-fold increase in CPS contact for MH and COD
- 8-fold increase in CPS contact for SPMI

Study 1: LCA of risk factors associated with CPS involvement

Study Aims

- Examine how maltreatment risk factors co-occur among children who are re-referred or re-abused following a prior CPS system contact.
- Conduct a latent class analysis to identify potentially unique combinations of maltreatment risk.
- Determine if child, family, or case-level covariates were associated with membership in a particular latent class.

Method

- Secondary analysis of Minn-LInK data.
- Samples drawn from the population of children who experienced CPS system contact in Hennepin County between 2014-2016.
- Children who experienced a maltreatment re-referral or substantiated maltreatment recurrence within 12-months of initial CPS involvement were included as two samples.

Study 1: LCA of risk factors associated with CPS involvement

Measures

- **Maltreatment re-report**
  - Child was subject of a second maltreatment referral within 12 months of a previously investigated referral.
- **Maltreatment recurrence**
  - Child was determined to be a substantiated victim of child maltreatment for a second time.
  - Second event was more than 14 days from original event, and within 12 months of the initial substantiation.
- **Maltreatment risk factors**
  - Disability/emotional impairment (child)
  - Domestic violence (caregiver)
  - Mental health (caregiver)
  - Drug and alcohol (caregiver)
  - Parenting challenges (caregiver)

Covariates

- Child age, race, ethnicity, gender
- Maltreatment type (index report)

Analysis Plan

- Latent Class Analysis with ML estimation.
- Five models with 1-5 latent classes were constructed and examined with county partners.
- Models were compared according to fit statistics (i.e., Likelihood Ratio Chi-Square, BIC, Entropy), probability of class membership, and estimated means within each latent class.
- Final model selected according to fit statistics, estimated means, and theoretical and practical utility.
- Post-hoc Chi-Square and Fishers Exact test compared latent classes according to covariates.

Study 1: LCA of risk factors associated with CPS involvement

Table 1

Summary of case characteristics and latent class indicators for re-report and recurrence samples.

	Re-report ($n = 4390$)		Recurrence ($n = 694$)	
	$M\ (SD) = 6.8\ (4.6)$		$M\ (SD) = 6.4\ (4.5)$	
	N	%	*N*	%
Age				
0–1 yrs	755	17.2	132	19.0
2–5 yrs	1081	24.7	162	23.3
6–9 yrs	1284	29.3	226	32.6
10–13 yrs	787	17.9	122	17.6
14+ yrs	479	10.9	52	7.5
Gender				
Female	2178	49.6	360	51.9
Male	2212	50.4	334	48.1
Race				
American Indian/Alaska Native	601	13.8	136	19.8
Asian	98	2.3	13	1.9
Black	1987	45.7	315	45.9
White	1178	27.1	148	21.6
Multiracial	483	11.1	73	10.6
Ethnicity				
Hispanic	587	13.4	105	15.1
Maltreatment type				
Neglect	2863	65.2	435	62.7
Physical	1579	36.0	252	36.3
Sexual	0	0.0	0	0
Mental/Emotional	32	0.7	2	.3

Note. Race data were missing for 43 children in re-report sample and 9 children in the recurrence sample. Age data were missing for 4 children in the re-report sample.

Study 1: LCA of risk factors associated with CPS involvement

Table 2

Proportion of modifiable risk among cases resulting in a maltreatment re-report or recurrence.

	Re-report ($n = 4390$)	Recurrence ($n = 694$)
Risk factor		
Disability	0.28	0.29
Domestic violence	0.51	0.63
Drug & alcohol	0.24	0.37
Mental health	0.33	0.46
Parenting	0.29	0.46

Note. Data represents sample averages for re-report and recurrence cases.

Table 4

Presence of risk by latent class for cases resulting in maltreatment re-report or recurrence.

	Re-report			Recurrence		
	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
Probability	0.56	0.26	0.18	0.48	0.15	0.37
Risk factor						
Child disability	0.23	0.45	0.20	0.26	0.35	0.31
Domestic violence	0.38	0.63	0.68	0.54	0.00	1.0
Drug & alcohol	0.08	0.05	1.00	0.28	0.43	0.47
Mental health	0.10	0.68	0.54	0.00	1.0	0.82
Parenting	0.14	0.45	0.53	0.37	0.37	0.61

Note. Re-report classes were: Few Identified Challenges (Class 1), Mental Health and Domestic Violence Challenges (Class 2), and Substance Abuse, Domestic Violence, Mental Health, and Parenting Challenges (Class 3). Recurrence classes were: Domestic Violence Challenges (Class 1), Mental Health Challenges (Class 2), and Domestic Violence, Mental Health, and Parenting Challenges (Class 3).

Study 1: LCA of risk factors associated with CPS involvement

Table 5
Summary of case characteristics according to latent class membership.

	Re-report						Recurrence					
	Class 1		Class 2		Class 3		Class 1		Class 2		Class 3	
	N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Age												
0–1 yrs	373	14.3	135	15.8	247	26.8	62	16.4	20	19.4	50	23.4
2–5 yrs	610	23.4	228	26.7	243	26.4	84	22.2	20	19.4	58	27.2
6–9 yrs	822	31.5	250	29.3	212	23.0	136	36.0	32	31.1	58	27.2
10–13 yrs	491	18.9	156	18.3	140	15.2	60	15.9	27	26.2	35	16.4
14 + yrs	315	12.0	84	9.9	80	8.7	36	9.5	4	3.9	12	5.6
Gender												
Female	1,310	50.1	407	47.7	461	50.0	203	53.7	47	45.6	110	51.6
Male	1,305	49.9	446	52.3	461	50.0	175	46.3	56	54.4	103	48.4
Race												
American Indian/Alaska Native	287	11.1	107	12.6	207	22.8	73	19.5	23	22.5	40	19.1
Asian	75	2.9	9	0.9	143	1.7	4	2.1	4	3.9	2	1.0
Black	1,290	49.8	399	47.0	298	32.8	186	49.6	38	37.3	91	43.5
White	689	26.6	243	28.6	246	27.1	84	22.4	21	20.6	43	20.6
Multiracial	248	9.6	92	10.8	143	15.7	24	6.4	16	15.7	33	15.8
Ethnicity												
Hispanic	381	14.7	91	10.7	115	12.6	57	15.2	21	20.7	26	12.3
Maltreatment type												
Neglect	1,586	60.7	579	67.9	698	75.7	230	60.8	67	65.0	138	64.8
Physical	981	37.5	296	34.7	302	32.8	140	37.0	31	30.1	81	38.0
Sexual	0	0.0	0	0.0	0	0.0	0	0.0	0	0	0	0.0
Mental/Emotional	17	0.7	6	0.7	9	1.0	30	7.9	11	10.7	15	7.0

Note. Children may be reported or substantiated for more than one maltreatment type. Chi-square and Fisher's exact tests uncovered significant differences across re-report classes according to child age, race, ethnicity, neglect, and physical abuse allegation type. Recurrence classes differed according to child race and age.

Study 1: LCA of risk factors associated with CPS involvement

Discussion

- **Maltreatment re-reporting**
  - Largest latent class “few identified challenges,” indicates a need for enhanced screening and assessment protocols.
  - The classes “mental health and domestic violence” and “substance abuse, domestic violence, mental health, and parenting challenges” underscore the need for integrated, systems of care approaches to service delivery.
  - Post-hoc differences by race and maltreatment type could be due to bias in the referral and assessment process and/or structural and systemic inequalities that leave certain populations more vulnerable to maltreatment risk.
- **Maltreatment recurrence**
  - Domestic violence was ubiquitous, and mental health challenges occurred alone or in combination with domestic violence and parenting challenges.
  - Findings reflect the intractable and co-occurring nature of maltreatment risk., and underscores a need for robust, multidisciplinary approaches to maltreatment prevention and intervention.

Conclusion

- Preventing and intervening in cases of child maltreatment requires attention to co-occurring risk.
- The primary of neglect in referrals to CPS suggest a need for programs and services that ameliorate poverty-related conditions.
- Prevention and intervention strategies that are culturally informed, multidimensional, and interdisciplinary are needed.

Current evidence

Several interventions and services exist to address the needs of children and families *after* maltreatment occurs

Fewer programs and systems of care address the needs of families early in the maltreatment sequelae

The evidence base for primary and secondary maltreatment prevention programs are mixed

- 25% of programs tested using RCT design were found effective in preventing maltreatment.
- Larger effect sizes for recent programs and smaller samples, and programs targeting parenting efficacy & ability.
- Many demonstrate reduction of mx risk factors but not maltreatment itself.

Study 2: Mental health targets in mx prevention programs

Study aims

- Examine how mental health is conceptualized, measured, and outcomes reported within and across child maltreatment prevention studies.
- Illuminate potential areas for future child maltreatment prevention research.

Method

- Systematic review of mx prevention primary outcome studies.
  - Published between 2000-2021
  - Primary or secondary mx prevention program
  - One or more measures of mental health
  - At least one prospective maltreatment outcome measure

Study 2: Mental health targets in mx prevention programs

Sample

- 1106 records retrieved from 9 research databases
- 931 non duplicate records screened for eligibility
- 154 articles retrieved for full text screen
- 33 articles included

Data extraction

- Recruitment and randomization procedures
- Inclusion/exclusion criteria
- Follow-along duration
- Participant characteristics
- Group comparability and attrition
- Intervention setting and characteristics
- Mental health measures and outcomes
- Maltreatment measures and outcomes

Analysis plan

- Appraisal conduced using US Prevention Services Task Force guidelines
- Narrative synthesis of studies according to MH & maltreatment prevention outcomes

Study 2: Mental health targets in mx prevention programs

Prevention approaches (n=33)

- Home visiting (n=22)
- Group parenting (n=7)
- Online programs (n=2)
- Outpatient Programs (n=2)

Mental health measures (n=108)

- Measures of mental illness (n=95) appeared roughly seven times more often than measures of mental well-being (n=13) .
- **Mental illness**: caregiver depression, parenting stress, substance abuse, family conflict/violence, disruptive child behavior, caregiver anxiety, global mental health, marital conflict, and child hyperactivity.
- **Mental well-being**: social support, self-esteem, self-efficacy, problem solving, and hope.

Child maltreatment measures

- Self-report of associated risk factors (n=18)
- Self-report + CPS records (n=4)
- Self-report + structured observation of associated risk factors (n=3)
- Three or more measurement strategies (n=2)
- Self report + hospital records (n=2)
- CPS records only (n = 2)
- CPS + Hospital records (n=1)
- Reporting source not clarified (n=1)

Study 2: Mental health targets in mx prevention programs

Table 1
Studies reporting treatment group improvements to mental health and maltreatment prevention (n = 10).

Authors	Intervention	Setting	Mental Health Measures	Maltreatment Measures	Mental Health Outcomes
Dodge et al. (2014)	Durham Connects	Home visiting (nurse)	Parent depression, anxiety, substance use	Hospital records, self-report	Treatment group reductions in anxiety symptoms, but not depression or substance abuse.
Fergusson et al. (2013)	Early Start	Home visiting (nurse)	Child behavior, parent depression, substance use, family conflict, family stress	Hospital records, self-report	Treatment group reductions in child behavior difficulties. No changes to parent depression or substance use.
Katz et al. (2011)	Pride in Parenting	Home visiting + group parenting component (trained staff)	Parenting stress, social support, infant mental development and behavior	Self-report	Treatment group improvements in social support.
Lam et al. (2009)	Parent Skills Behavioral Couples Therapy	Outpatient	Parent substance use, interparental adjustment, family conflict	Self-report	Across three treatments, PSBCT and BCT were superior to IBT for substance abuse outcomes.
LeCroy and Krysik (2011)	Healthy Families Arizona	Home visiting (trained staff)	Parent depression, coping and isolation, social support, problem solving, hope, global mental health, parent/child behavior	Not described	Treatment group improvements to the global mental health index at six months. No significant changes to other measures at 6 or 12 months.
Lowell et al. (2011)	Child FIRST	Home visiting (nurse)	Child behavior, parenting stress, depression	CPS records, self-report	Treatment group reductions in child behavior difficulties and parent depression at 12-months. No changes to parenting stress.
Luthar et al. (2007)	Relational Psychotherapy Mothers Group	Group parenting	Parent depression, interpersonal efficacy, substance use, child behavior and depression	Self-report	Marginal treatment group changes to parental substance use, significant improvements in child behavior and depression symptoms.
McDonald et al. (2006)	Project SUPPORT	Home visiting (therapists)	Child behavior, parent depression, family conflict	Self-report	Treatment group improvements in child internalizing/externalizing symptoms observed at 24 months, conditional upon removal of outliers.
Sanders et al. (2004)	Triple P	Group parenting	Parenting stress, depression, anxiety, family conflict, child behavior	Self-report	Both conditions reported reductions in disruptive child behavior, family conflict, and parenting stress.
Sanders et al. (2014)	Triple P	Online	Child behavior, parenting stress, anxiety, depression, interparental conflict and relationship quality	Self-report	Both treatment conditions reported improvements to child behavior, interparental conflict, and relationship quality.

Study 2: Mental health targets in mx prevention programs

Table 2
Studies reporting treatment group improvement to mental health but not maltreatment prevention (n = 8).

Authors	Intervention	Setting	Mental Health Measures	Maltreatment Measures	Mental Health Outcomes
Barlow et al. (2007)	Family Partnership	Home visiting (trained staff)	Parent psychopathology, depression, marital conflict, social support, self-esteem, self-efficacy, parenting stress, infant social-emotional adjustment, development, temperament, well-being	CPS records, hospital records	Treatment group improvements in maternal sensitivity, infant cooperativeness, and social support.
Barlow et al (2019)	Parents Under Pressure	Home visiting (therapist)	Parent depression, substance use, borderline personality, depression, anxiety, stress	Self-report	Treatment group reductions in depression, anxiety, stress. No changes to parent substance use.
Dawe and Harnett (2007)	Parents Under Pressure	Home visiting (therapist)	Parenting stress, depression, substance use, child behavior	Self-report	Treatment group reductions in parenting stress, substance use, child behavior. No changes to parent depression.
Green et al. (2014)	Healthy Families Oregon	Home visiting (trained staff)	Parent depression, substance use, family conflict, parenting stress	Self-report	Marginal treatment group improvements to parenting stress.
Guterman et al. (2013)	Exchange Parent Aide	Home visiting (trained staff)	Parenting stress, global measure of parent mental health (anxiety, depression, hostility), substance use, social support	CPS Records + self-report	Treatment group reductions in parenting stress. No significant between-group differences in parent mental health, substance use, social support.
Jouriles et al. (2009)	Project SUPPORT	Home visiting (therapists)	Child behavior, global measure of parent mental health (anxiety, depression, somatic complaints)	Self-report	Treatment group reductions in child behavior. No changes to parent mental health.
McFarlane et al. (2013)	Healthy Start Program Hawaii	Home visiting (trained staff)	Parent depression, anxiety and avoidance, general mental health, substance use, family conflict	Self-report	Treatment group improvements in general mental health at child aged 1–3, but not at age 7–9.
Stattin et al. (2015)	Comet, COPE, Incredible Years, Connect	Group parenting	Parenting stress, depression, child behavior, attention, hyperactivity	Self-report	Significant reductions in parent stress, depression, child behavior, and child ADHD problems were observed relative to control.

Study 2: Mental health targets in mx prevention programs

Table 3
Studies reporting treatment group improvements to maltreatment prevention but not mental health (n = 5).

Authors	Intervention	Setting	Mental Health Measures	Maltreatment Measures	Mental Health Outcomes
Baggett et al. (2017)	e-PALS Baby-Net	Online	Parent depression, social support, self-efficacy, family conflict	Self-report	Mental health measures were used to establish high/low risk groups. High risk group membership moderated treatment engagement and maltreatment prevention outcomes.
Baydar et al. (2003)	Incredible Years	Group parenting	Parent anger/aggression, depression symptoms, substance use, experiences with abuse as a child	Self-report, structured observation	Baseline mental health risk status (high/low) were used to control between-group differences in maltreatment outcomes.
Fraser et al (2000)	Nurse Home Visiting	Home visiting (nurse)	Parenting stress, depression	Self-report, structured observation	No significant changes to mental health measures.
Knox et al. (2013)	ACT Raising Safe Kids	Group parenting	Child behavior	Self-report	Baseline aggressive child behavior were included as covariates to control for between-group differences in maltreatment outcomes.
Portwood et al. (2011)	ACT Raising Safe Kids	Group parenting	Parenting stress, family conflict, social support	Self-report	No significant changes to mental health measures.

Study 2: Mental health targets in mx prevention programs

Table 4
Studies reporting neither treatment group improvements to mental health or maltreatment prevention (n = 10).

Authors	Intervention	Setting	Mental Health Measures	Maltreatment Measures	Mental Health Outcomes
DePanfilis and Dubowitz (2005)	Family Connections	Home visiting + group parenting component (trained staff)	Parent depression, parenting stress, everyday stress, child behavior	CPS Records, structured observation, self-report	No significant changes to mental health measures.
Dodge et al. (2019)	Family Connects	Home visiting (nurse)	Parent anxiety, depression	CPS records	No significant changes to mental health measures.
DuMont et al. (2008)	Healthy Families New York	Home visiting (trained staff)	Parent depression	CPS records, self-report	No significant changes to mental health measures.
Duggan et al. (2007)	Healthy Families Alaska	Home visiting (trained staff)	Parent depression, general mental health, substance use, psychological resources, family conflict	CPS records, hospital records, structured observation, self-report	Baseline mental health measures were used as control variables in the analysis of maltreatment outcomes.
Easterbrooks et al. (2013)	Healthy Families Massachussets	Home visiting (trained staff)	Parent depression	CPS records	Parent depression scores were used to examine change in maltreatment outcomes. Higher levels of depression were associated with more frequent reports to CPS.
Cox et al. (2019)	A teen-tot program	Outpatient	Parent depression, self-esteem	Self-report	Treatment group increases in depression symptoms, decline in self-esteem although at lower rates than control.
Lachman et al. (2017)	Sinovuyo Caring Families Program	Group parenting	Parenting stress, depression, social support, child behavior	Self-report, structured observation	Negative treatment effects for observations of positive child behavior. No changes to parenting stress, depression, or social support.
LeCroy & Lopez (2020)	Healthy Families Oregon	Home visiting (trained staff)	Parent depression	Self-report	No significant changes to mental health measures.
Ondersma et al. (2017)	Healthy Families Indiana	Home visiting + e-parenting component (trained staff)	Parent depression, substance use, family conflict	Self-report	No significant changes to mental health measures.
Silovsky et al. (2011)	SafeCare+	Home visiting (trained staff)	Parent depression, substance use, family conflict	CPS records, self-report	Baseline mental health measures were used as control variables in the analysis of maltreatment outcomes.

Study 2: Mental health targets in mx prevention programs

Discussion

- Primary and secondary prevention programs more often promote caregiver and child mental health than prevent child maltreatment.
- The most reported mental health improvements were to:
  - Children's behavior
  - Parental substance use, depression, stress, and anxiety.

Conclusion

- Future research should:
  - Broaden the conceptualization and measurement of mental health.
  - Strengthen measurement of child maltreatment
  - Attend to socio-economic and structural contributors to mental illness and child maltreatment.

Future directions

- Lack of access to health and social services can be consequential to the safety and well-being of children and families.
- Health and social inequality are associated with multiple adverse childhood experiences and negative developmental outcomes.
- Effective prevention and early intervention services exist for many health and social problems, yet large segments of the population experience barriers accessing needed services.
- Individual, organizational, and system-level strategies are needed to reduce barriers to care and facilitate access to needed care.
- Promoting and supporting access to prevention and early intervention services may reduce ACEs and promote health and social equity.

Study 3: Family navigation to prevention services

Navigator model goals

- Focus on children and families affected by health and social inequality.
- Leverage technology to engage and support caregivers.
- Brief, low cost, easy to install in routine settings.
- Applicable in culturally and geographically diverse contexts.
- Focus on prevention and early detection of mental illness.

Philosophy of practice

- Self-determination
- Empowerment & advocacy
- Social justice
- Anti-oppressive practice
- Equifinality

Navigation activities

- Comprehensive assessment
- Collaborative service planning
- Personalized service research
- Weekly check-ins
- Closing assessment
- Discharge plan

Study 3: Family navigation to prevention services

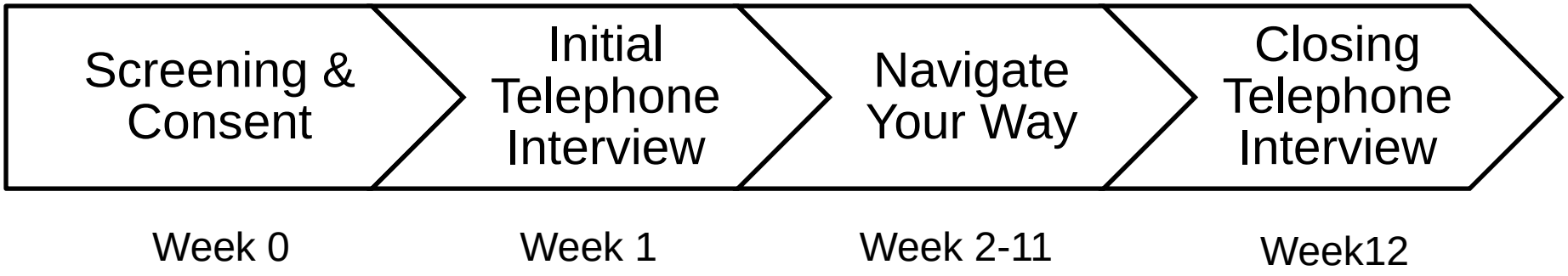
Study purpose

- Determine if a voluntary, telephone and web-based model family navigation is a feasible and approach to supporting family engagement with health care and social services.
- Identify the core components of the approach which were associated with service engagement.
- Identify the ecological contributors to family service need, service inaccessibility, and service access.
- Share findings and generate insights together with community partners and stakeholder groups.
- Generate partnerships for future research aimed at reducing inequality & preventing ACES in Minnesota.

Study 3: Family navigation to prevention services

- Formative Evaluation
- One group
- Pre-test post-test
- Participant & Navigator Self-Report
- Mixed method analysis

Participant Timeline



Study 3: Family navigation to prevention services

Is telephone and web-based family navigation a feasible and satisfactory approach to engaging families and supporting early access and engagement with health care and social services?

- Hypothesis 1: The navigator model will be feasible and satisfactory to study participants

Were changes to service barriers, service access, parenting stress, and children's mental health observed among study participants?

- Hypothesis 2: Participants will report reductions to service barriers and increased access to needed services. They will also report reductions to parenting stress and improvements to their child's mental health.

What changes are needed to enhance the methodological rigour and ecological validity of the model?

- Hypothesis 3: We expect to find ways to enhance recruitment and retention, data collection, and fidelity of model implementation.

Study 3: Family navigation to prevention services

Recruitment Strategy

Community Partners

- Sherburne County Health and Human Services
- Intermediate District 287
- Washington & Ramsey County Head Start

Minnesota Public Radio

- 10-day radio advertisement
- Website banners

Social Media

- Facebook & Instagram

Incentives

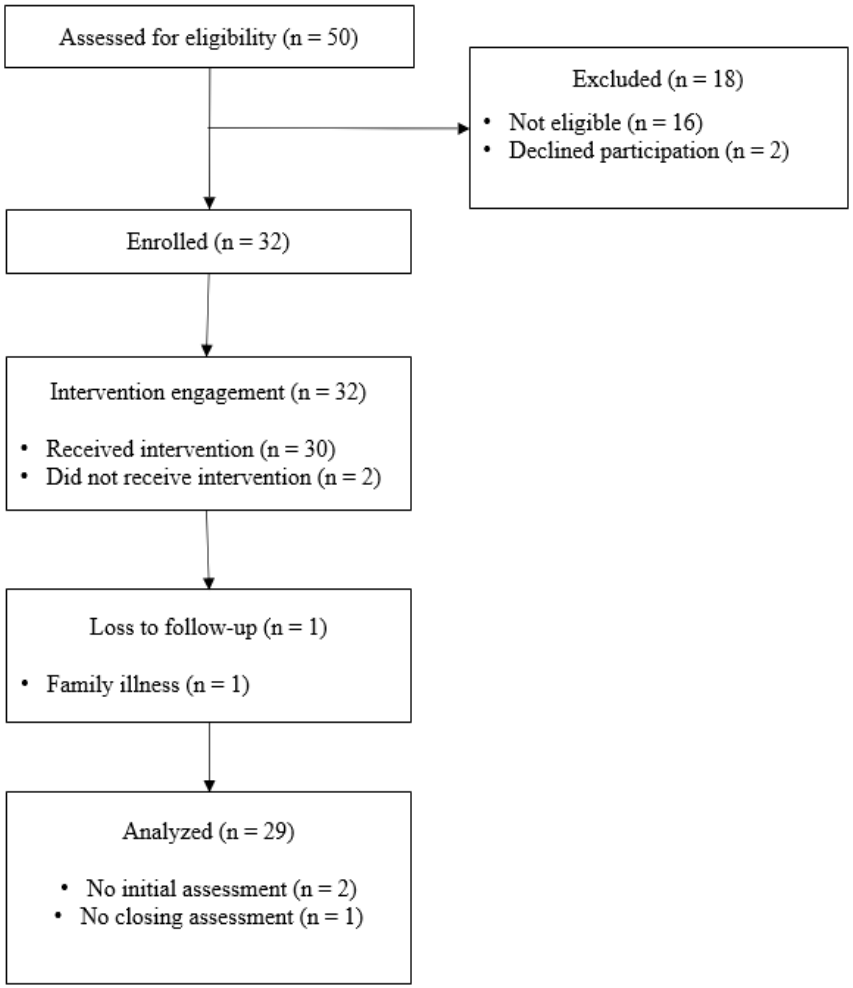
- $25 for each major assessment
- $5 for each weekly check in
- $100 possible compensation

Inclusion criteria

- Primary caregiver of child < 18.
- Child has unmet mental health care needs.
- Family is experiencing *significant* and *persistent* barriers accessing needed services.
- Have a telephone and email access communicate with research team.
- Not currently receiving case management services.
- Family planned to reside in state for duration of study participation.

Study 3: Family navigation to prevention services

Participant enrollment and retention



Participant-reported service needs

Needs	%	N
Mental health	96.7	29
Basic needs	50.0	15
Health care	46.7	14
Housing	40.0	12
Transportation	26.7	8
Parenting	16.7	5
Childcare	10.0	3
School-based	10.0	3

Navigator-identified service barriers

Barriers	M	SD
Family	4.6	2.2
Logistical	3.0	1.4
Provider	2.0	1.7
System	.75	.78
Total	10.4	4.1

Study 3: Family navigation to prevention services

Demographic Characteristics	Full sample (n = 32)		Study completers (n = 29)		Lost to attrition (n = 3)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Caregiver age	39.5	10.0	38.6	9.7	49.0	8.2
Child age	10.1	5.8	10.1	5.9	10.3	4.9
Children in home	1.9	1.0	1.9	1.0	1.7	.58
Household size	3.5	1.3	3.5	1.4	4.0	1.0
	%	*N*	*%*	*N*	*%*	*N*
Caregiver race						
White	43.8	14	44.8	13	33.3	1
African-American	40.6	13	41.4	12	33.3	1
Latino	3.2	1	0.0	0	33.3	1
Asian / Pacific Islander	3.2	1	3.4	1	0.0	0
Somali	6.3	2	3.4	1	0.0	0
Multiracial	3.1	1	6.8	2	0.0	0
Caregiver gender						
Female	31	96.9	96.6	28	100.0	3
Male	1	3.1	3.4	1	0	0
Child Race						
White	9	28.1	31.0	9	0	0
Black	12	37.5	37.9	11	33.3	1
Latino	2	6.3	3.4	1	33.3	1
Asian/Pacific Islander	1	3.1	3.4	1	0	0
Multiracial	6	21.9	17.2	5	33.3	1
Child Gender						
Female	62.5	20	65.5	19	33.3	1
Male	37.5	12	34.5	10	66.7	2

Measures pt. 1

Intake form (Pre-test)

- Demographic characteristics
- Current and past health care / social service utilization
- Family community involvement
- Cultural considerations

Service Barriers Checklist (Pre-test, post-test)

- 23-item measure assessing presence of service barriers across five domains
- Includes scores for total (1-23), family (0-9), provider (0-6), logistical (0-6), system (0-2) domains.
- Total barriers (pre alpha = .80; post alpha = .87)
- Family (pre alpha = .74; post alpha = .80)
- Provider (pre alpha = .72; post alpha = .74)
- Logistical (pre alpha = .42; post alpha = .47)
- System (pre = .60; post = .24)

Family Navigation Service Plan (Intervention period)

- Project specific form with open-ended questions
- Serves as the guiding document for navigation activities
- Outlines the presenting concerns, specific service needs, and service barriers to be addressed
- Includes 3 participant-identified service access goals
- Up to 3 behaviorally focused objectives for each service access goals
- When goal is achieved it is marked and dated completed
- Total number of services accessed could range from 0-3

Measures pt. 2

Strengths and Difficulties Questionnaire (Pre-test, post-test)

- 25-items assessing domains of child functioning
- Total difficulties (pre = .60, post = .76)
- Internalizing difficulties: (pre = .55, post = .75)
- Externalizing difficulties: (pre = .61, post = .62)

Parenting Stress Index – 4 – SF (Pre-test, post-test)

- 36 items assessing components of the parent-child system
- Total stress: (pre = .93, post = .94),
- Parent-child dysfunctional interaction (pre = .78, post = .80)
- Difficult child (pre = .88, post = .83)

Navigation Check-in Form (Intervention period)

- Structured case note
- Date, time, manner of communication, person initiating contact
- Purpose, related service plan goals / objectives discussed, results of contact, navigator notes

Measures pt. 3

Open-ended questions (Post-test)

- What is your impression of the family navigation service?
- Were certain elements that were particularly helpful?
- Were there particular elements that were not helpful?
- What would you recommend be changed to better improve the service?
- Would you recommend this service to others? Why or why not?

Navigator effort (Intervention period)

- Spreadsheet recording effort devoted to each project activity
- Date, description of the activity, time devoted (in minutes)
- Project-wide (e.g., training, data entry)
- Participant-specific (e.g., service research, outreach, check-in)

Navigator reports (Post-discharge)

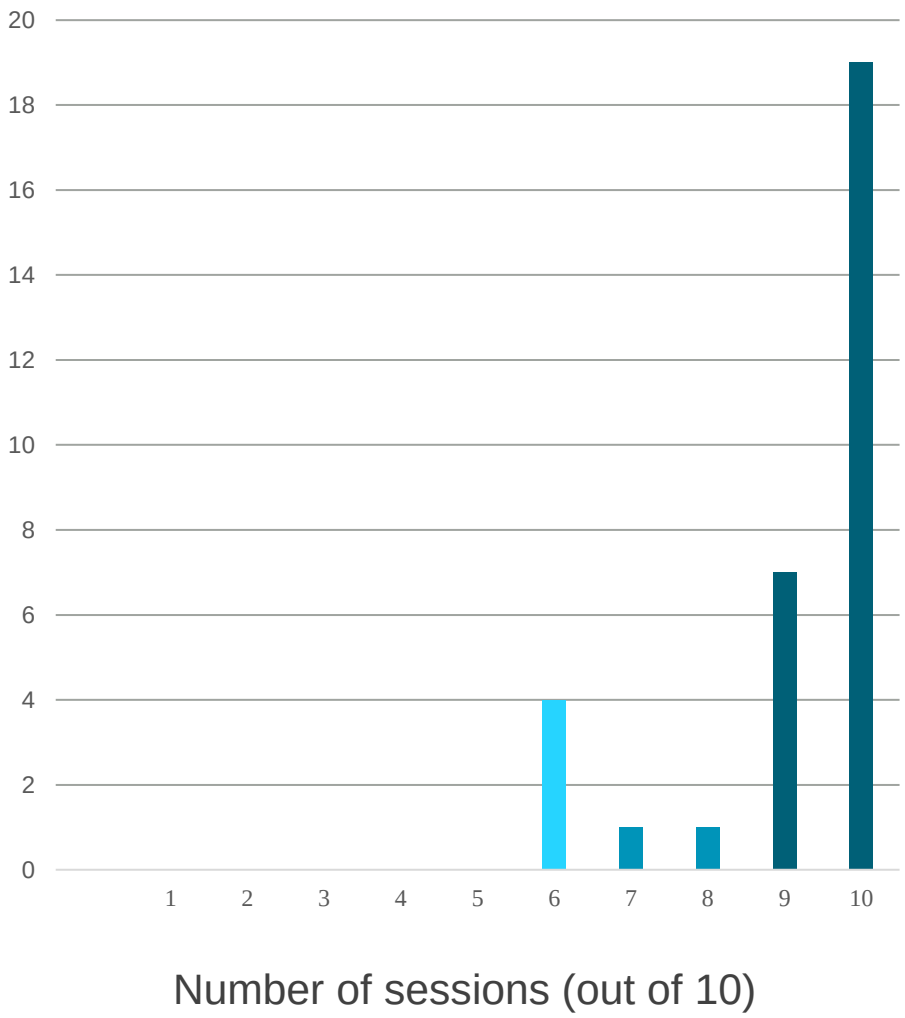
- What navigation activities do you think are critical to helping families connect to services and should be emphasized in training/case consultation?
- What were the most difficult challenges families presented with that were most difficult to address?
- What elements of the protocol didn’t seem to work very well that should be revised or removed?

Analysis Plan

- **Feasibility and tolerability**
  - Frequency and descriptive statistics for participant retention and attrition, participant engagement with navigation check-ins, navigator adherence to the 12-week study timeline, and navigator effort across project-wide, client-specific, and total project activities.
  - Hybrid thematic qualitative analysis of participant's open-ended responses to the questions "What is your impression of the family navigation service?" and "Would you recommend this service to others? Why or why not?"
- **Service barriers, service access, parenting stress, children's mental health**
  - Paired samples t-tests for family navigation service plan goal completion, service barrier checklist total and subscale scores, parenting-stress index total and subscale scores, and strengths and difficulties questionnaire total and subscale scores.
- **Study enhancements to methodological rigour and ecological validity**
  - Hybrid thematic analysis of participant responses to the question *"What would you recommend be changed to better improve the service?"* and navigator responses to the discharge report question "*What elements of the protocol didn't seem to work very well that should be revised or removed?*"

Feasibility

Participant intervention engagement

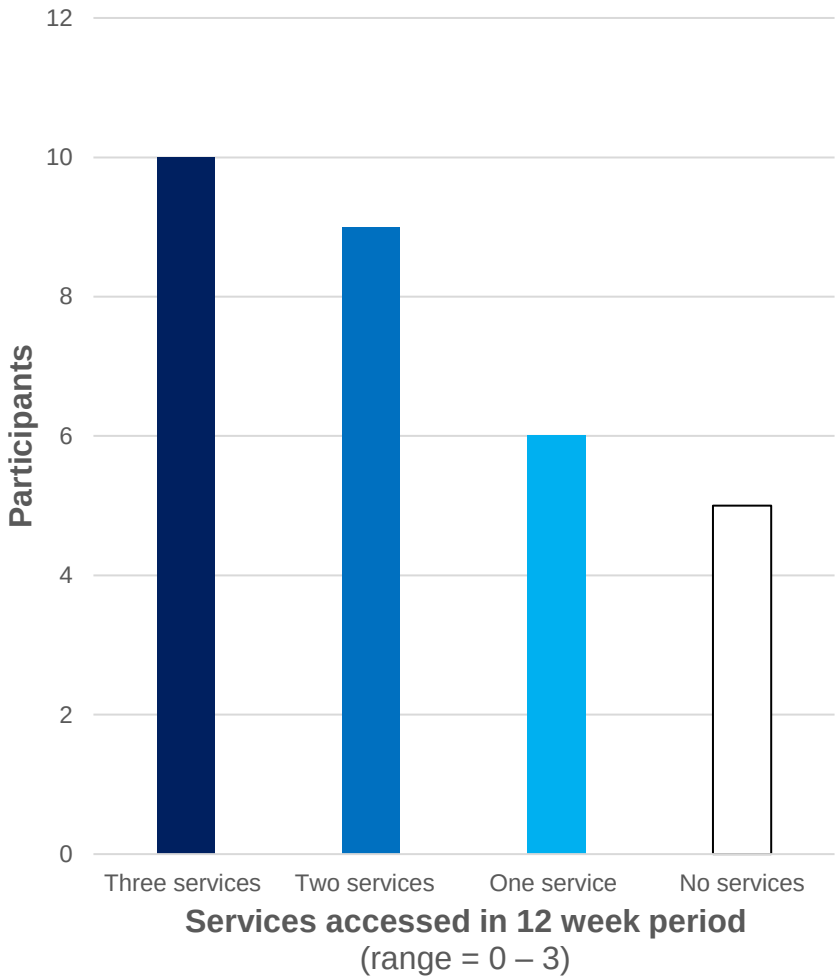


Navigator activities

Activity	Minutes	*SD*	*N*
Recruitment and enrollment	52.3	43.3	63
Initial interview	66.7	31.2	31
Service plan development	49.6	38.7	24
Navigator check-ins	28.5	19.9	248
Closing interview	57.5	31.1	29
Client preparation	55.7	47.2	37
Client outreach	20.3	23.3	168
Data entry	46.8	40.6	48
Service research	51.9	43.3	170
Discharge activities	79.9	60	36
Supervision	95.3	33.8	145
Training	92.4	60.3	51
Project development activities	164.2	67.5	36

Service access

Service access



Service access by service type

Category	Yes	No	% Yes
Mental health	16	13	**55.2**
Health care	12	2	**85.7**
Basic needs	9	5	**64.3**
Housing	4	8	30.0
Transportation	4	4	**50.0**
Parenting	2	0	**100.0**
Vocation services	2	1	**66.7**
Childcare	0	4	0.0
School-based services	1	2	33.3

Service barriers, parenting stress, children's mental health

Outcome measures	Initial Interview		Closing Interview					
	M	SD	M	SD	t	df	p	d
Service Engagement	0.0	0.0	1.8	1.1	8.6	28	**.00**	1.61
Service Barriers Checklist								
Family Barriers	4.6	2.2	3.2	2.6.	-2.96	28	**.01**	-.55
Logistical Barriers	3.0	1.4	2.4	1.5	-1.81	28	**.08**	-.34
Provider Barriers	2.0	1.7	1.2	1.6	-2.37	28	**.03**	-.44
System Barriers	.76	.78	.55	.63	-1.29	28	.21	-.24
Total Barriers	10.4	4.1	7.4	5.2	-3.56	28	**.01**	-.66
Parenting Stress Index - Short Form								
Parental Distress	29.8	9.8	27.2	11.4	-1.69	24	**.11**	-.30
Parent-Child Dysfunction	34.0	7.8	32.5	7.9	-1.35	25	.20	-.34
Difficult Child	30.1	8.4	30.1	10.9	.02	26	.98	.00
Total	94.2	19.4	88.4	26.8	-1.51	20	.15	-.33
Strengths & Difficulties Questionnaire								
Internalizing	8.9	3.1	7.9	3.1	2.11	26	**.05**	-.41
Externalizing	8.6	2.5	8.1	2.6	1.19	24	.25	-.24
Total	17.6	4.5	16.2	5.3	1.91	24	**.07**	-.38

Participant satisfaction

Connection

- "*I got resources I needed and fast. I didn't have to wait 6 months.*"
- *"Being able to have resources that I was just having trouble finding; that was nice."*
- *"I think it is a really helpful resource for people who need some help and don't know where to go."*

Support

- *"It was helpful for a lot of things I couldn't focus on with just myself."*
- *"It's a lot easier to find resources with someone who has an idea of what is available and who have the time to find them. I think your program is absolutely needed."*
- *"I really liked that there is a third party, out of the family person, that helps keeps accountability. You called and we got the paperwork done. We got (child) in and she was the one we were most concerned about."*

Benefits to children and family

- "*It changed my relationship with (child). I learned that kids this age don't always think through what they're saying or doing...so when she says stuff like that, I don't get as upset anymore...and that made a big difference."*
- *I was able to follow up successfully...I benefitted from this by gaining employment, and (child) did as well."*
- *I knew I could check on those emails and have something to do. It kept me positive instead of negative."*

Discussion

Hypothesis 1: The navigator model will be feasible and satisfactory to study participants

- High levels of client satisfaction suggest telephone and web-mediated family navigation is a viable approach to supporting family engagement with prevention and early intervention services.

Hypothesis 2: Participants will report reductions to service barriers and increased access to needed services. They will also report reductions to parenting stress and improvements to their child's mental health.

- Improvements to parenting stress and reductions in child mental health problems suggest the process of facilitating connection to needed services may improve child and family well-being.

Hypothesis 3: We expect to find ways to enhance recruitment and retention, data collection, and fidelity of model implementation.

- Expand direct-to-consumer recruitment strategies with targeted public health messaging, use Qualtrics to collect self-report data, create and refine measures of fidelity (Presentation 2).

Limitations

Design	Small sample
	No control group
	Short window of observation
Measurement	Two reporting sources
	Self-report of outcome measures
	Need to include op
COVID-19	Higher levels of community distress
	Additional service need
	Quarantine – specific service barriers

Next steps

Current Activities

- Share findings and obtain feedback from communities and stakeholder groups.
- Strengthen and expand community stakeholder partnerships.
- Fine-tune training manual and intervention protocol.

Future Research

- Compare the model to self-navigation and services as usual (efficacy test)
- Explore implementation potential with community partners and stakeholders.
- Examine the impact of navigation and service engagement on ACES and over time.
- Generate knowledge to strengthen practice and inform policy.

References

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