

# Testing the Impact of a Peer-Delivered Family Support Program: A Randomized Clinical Effectiveness Trial

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**Objective:** The effectiveness of NAMI Basics, a peer-led family support program for caregivers of children with mental health concerns, was tested in a sample of caregivers referred to five National Alliance on Mental Illness (NAMI) affiliates in a large southwestern state.

**Method:** Caregivers of children with mental health concerns (N=111; 69% biological mothers, 45% Hispanic/Latinx, 33% Caucasian, and 12% African American) were randomly assigned to a six-class NAMI Basics course led by peer parents or an 8-week waitlist condition. At baseline and 8 weeks after the course began, all caregivers completed measures assessing services engagement and activation, attitudes toward mental health services, parenting stress, and youth symptoms. Data were analyzed by using linear regression.

**Results:** Compared with caregivers in the waitlist condition, NAMI Basics participants reported significant increases in parent engagement and activation, as well as intentions to engage with mental health services. NAMI Basics participants also reported significant decreases in their child's intrapersonal and interpersonal distress, compared with those in the waitlist group. No significant differences were noted on measures of parenting stress, attitudes toward mental health services, or stigma.

**Conclusions:** NAMI Basics affected caregiver outcomes and youth symptoms, as measured by caregiver report, compared with a waitlist control group. Peer-led services, such as NAMI Basics, may increase engagement with effective mental health services for youths and families.

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The mental health needs of most children and families go unmet, particularly among racially and ethnically minoritized, low-income, and rural populations, who are also most likely to end treatment early (1–6). To promote overall health, interventions are needed that foster engagement in mental health services among families that have been underserved because of barriers such as stigma, practical challenges (e.g., transportation or child care), and competing priorities (7–9). Peer-delivered family support services have emerged as a promising strategy to increase engagement in youth mental health services (10, 11) because of their focus on educating and empowering caregivers to “take an active role in their child's care” (12), which may have an impact on both attitudes and behaviors related to service engagement (13). In youth mental health, peer providers are “veteran parents” with experience negotiating complicated service systems for their own children (14). These providers are referred to below as “peer parents.” Use of family support services delivered by peer parents might increase service engagement among underserved groups, but rigorous trials of such services in youth mental health are lacking (15–17).

One example of an understudied peer parent-led family support service is NAMI Basics, developed by the National Alliance on Mental Illness (NAMI), the largest U.S.

## HIGHLIGHTS

- The study examined the impact of a peer-led group for caregivers of children with mental health concerns on caregivers' engagement and activation, their attitudes toward services, and parenting stress and on children's symptoms.
- Participants reported more engagement and activation related to their child's mental health needs and expressed more intentions to engage with mental health services, compared with those in the control group.
- Participants also reported that their children had less intrapersonal and interpersonal distress, compared with those in the control group.
- Participation in the peer-led group did not lower parenting stress or improve attitudes toward mental health services or stigma.

grassroots mental health organization and a major provider of peer-parent services. NAMI Basics is a six-class curriculum for caregivers of children under age 22 with mental health concerns, broadly defined. It is led by trained peer parents who volunteer with local NAMI affiliates and is provided free to caregivers in nonstigmatizing community settings (e.g., local school, church, or community center) in 43 states. NAMI Basics is focused on increasing parent knowledge about mental illness, empowering parents to advocate for their children across service systems, and introducing skills that assist in family problem solving and communication (18). It is thus aligned with other peer-parent programs, which broadly target instructional support (e.g., skill building) and informational support (e.g., education about child development and child behavior) (17). Parent activation—or the ability to communicate effectively with health providers about mental health care, ask about and discuss treatment options, take a proactive role in treatment and health, and understand how to avoid “emotional triggers” (19)—has also been proposed as a potential target of these services (17).

Research on NAMI Basics is encouraging. An initial pilot trial demonstrated increases in knowledge about youth mental illness and activation in a sample of 85 caregivers. A second study of 36 caregivers replicated and extended these results, demonstrating increases in family empowerment and caregiver self-care and reductions in inflammatory family communication (18). However, these studies lacked control groups; this is consistent with most peer-parent support studies, which have relied on less rigorous pre-post or quasi-experimental designs (17). A handful of randomized controlled trials (RCTs) have tested the clinical benefit of peer-parent services compared with standard care and found increases in caregiver knowledge and decreases in parenting stress (20), decreases in parent anxiety (21), and increases in caregiver service engagement (22). Less commonly, RCTs have measured and found direct child benefits when caregivers participated in peer-parent interventions (22, 23).

With the study reported here, we sought to add to the existing research on NAMI Basics specifically and peer-parent support services more broadly by testing the NAMI Basics curriculum in a randomized controlled effectiveness trial. Caregivers referred to NAMI Basics were randomly assigned to NAMI Basics or an 8-week waitlist control group. On the basis of prior NAMI Basics research and the intervention targets, we hypothesized that participants in NAMI Basics would show improvements from pre- to post-intervention in parent activation, parent engagement, and attitudes toward mental health services, compared with those in the waitlist control group. Because other peer-parent programs have been found to decrease parenting stress, we also tested this relationship. Finally, because a prior trial of NAMI Basics found improvements in family communication (18) and other peer-parent studies have shown improvement in child outcomes (22, 23), we hypothesized that participants in NAMI Basics would report direct

benefit to their children, with decreases in child symptomatology—namely, intrapersonal distress and interpersonal difficulties.

## METHODS

### Participants

Participants included 111 caregivers who signed up via typical referral patterns to take the NAMI Basics class across five NAMI affiliates in major cities of a large southwestern state: affiliate 1 (N=15), affiliate 2 (N=23), affiliate 3 (N=18), affiliate 4 (N=29), and affiliate 5 (N=26).

### Procedures

All study procedures were approved by the institutional review board at University of Texas at Austin. NAMI Basics is open to all caregivers of children ages 22 or younger who are experiencing symptoms of a mental health condition. The program is advertised by local NAMI affiliates through fliers and information provided to schools and local organizations and on local NAMI websites. As part of typical referral processes, interested caregivers contact their local affiliate to sign up and are told they will be contacted when the next class is scheduled. Caregivers who signed up for NAMI Basics between January 2018 and September 2019 at the five affiliates were invited to participate in the study and told they would either begin the next NAMI Basics course or take the course after an 8-week delay. Local NAMI employees trained in study enrollment procedures obtained informed consent from caregivers (N=137). Inclusion criteria were being a primary caregiver for a child ages 22 or younger about whom the caregiver had mental health concerns. There were no specific exclusionary criteria. Only one caregiver per child could participate in the study.

Participating caregivers completed a baseline survey online, in person, or by phone within 2 weeks of the next scheduled NAMI Basics start date. After survey completion, participants (N=127) were randomly assigned to either begin the next scheduled NAMI Basics course or attend the course after an 8-week delay. For this study, data were analyzed from two time points: baseline and 2 weeks after completion of the NAMI Basics course (for the waitlist group, the second data collection was completed 8 weeks after the start of the NAMI Basics course) (see CONSORT chart in the online supplement to this article).

*Intervention condition: NAMI Basics.* NAMI Basics is a six-class manualized curriculum offered in English and Spanish. Classes occur weekly and are approximately 2.5 hours long. The curriculum covers the following content: an introduction to mental disorders and how they affect families, information about treatment of mental illness, communication skills, managing difficult child behaviors, crisis management, information about systems of care, and self-care and advocacy. NAMI-trained peer parents describe their own experiences parenting a child with mental health concerns to

frame content and foster sharing of personal stories (see online supplement for more details).

NAMI Basics peer parents are caregivers of a child who experienced mental health symptoms before age 13. NAMI relies on a referral process for identifying peer parents, and those who are trained to lead the course have typically taken a course previously. Training to become a peer parent takes approximately 15 hours. Training is led by NAMI state trainers, who have undergone this training previously, have experience observing and leading NAMI Basics classes, and have been recommended by their local affiliate.

This study included 33 separate NAMI Basics courses across the five study sites. Nine of these courses occurred at affiliate 1, five at affiliate 2, six at affiliate 3, nine at affiliate 4, and four at affiliate 5. NAMI Basics courses were considered part of the study if at least one study participant attended any of the six classes. Classes were led by one or two peer parents; most were female (79%); half were Caucasian (50%), followed by Hispanic/Latinx (34%), and African American (16%).

Fidelity was assessed by NAMI Basics-trained individuals who attended one randomly selected class for each study course and completed an adherence checklist indicating presence or absence of prescribed content (see online supplement). Class 3 was excluded from fidelity monitoring, because this session has a focus on sharing personal experiences. Fidelity to the intervention ranged from 79% to 100% (mean  $\pm$  SD = 94.27  $\pm$  6.13).

*Waitlist control condition: 8-week delay.* Participants randomly assigned to the waitlist control condition were scheduled for a NAMI Basics course beginning 8 weeks after the start date of the intervention class. Participants were not given any additional instructions or limitations regarding service use.

## Measures

*Demographic characteristics.* Demographic information included caregiver role, age, gender, race-ethnicity, and family income, as well as child race-ethnicity.

*Parenting activation and engagement.* The Parent Self-Competence Expectancies Efficacy Knowledge Self-Care (P-SEEKS) (unpublished) is a self-report measure developed for caregivers of children with mental health needs. It contains 31 items that assess positive expectations about activation, self-competence, confidence and affirmation of parent role, self-care skills related to personal well-being, knowledge of formal mental health systems, knowledge of information networks and supports, and mental health services self-efficacy and the confidence to act. Caregivers rate each item on 4-point Likert scale ranging from 1, strongly disagree, to 4 strongly agree. Possible scores range from 6 to 24, with higher scores indicating greater activation and engagement. In this study, the total scale showed excellent internal consistency ( $\alpha=0.94$ ).

*Parent attitudes toward mental health services.* Parental Attitudes Toward Psychological Services Inventory (PAT-PSI) is a self-report measure that includes three subscales: attitudes toward seeking professional help, intentions of seeking professional help, and stigma toward mental health services (24). The measure includes 21 items measured on a 6-point Likert scale, ranging from 0, strongly disagree, to 5, strongly agree. Possible scores range from 0 to 45 for the help-seeking intentions and stigma subscales and from 0 to 40 for the help-seeking attitudes subscale. For the subscales that measure help-seeking attitudes and intentions, higher scores indicate more positive attitudes or intentions. For the stigma subscale, lower scores indicate the presence of less worry about stigma or more tolerance of stigma. The PAT-PSI has been shown to have adequate internal consistency for the subscales ( $\alpha=0.65$ – $0.91$ ) and test-retest reliability at 1-week interval ( $r=0.66$ – $0.84$ ) (24). In this study, internal consistency for subscales were  $\alpha=0.65$  for help-seeking intentions,  $\alpha=0.71$  for help-seeking attitudes, and  $\alpha=0.52$  for stigma.

*Parenting stress.* The Parental Stress Scale (PSS) is an 18-item self-report measure that assesses the level of stress experienced by caregivers (25). Caregivers rate their agreement with 18 statements about typical interactions with the child on a 5-point Likert scale, ranging from 1, strongly disagree, to 5, strongly agree. Possible scores range from 18 to 90, with higher scores indicating greater parental stress. The PSS has been found to have good internal consistency ( $\alpha=0.83$ ) (25). In this study, internal consistency was excellent ( $\alpha=0.90$ ).

*Child distress and interpersonal relations.* The Youth Outcome Questionnaire 2.01 (Y-OQ 2.01) is a 64-item caregiver-completed measure of child mental health symptoms and functioning for children ages 4 to 17 (26). Caregivers rate on a 5-point Likert scale how often child behaviors occur from 0, never or almost never, to 4, always or almost always. Higher scores indicate higher distress or maladaptive behavior. Total scores and the intrapersonal distress (ID) and interpersonal relations (IR) subscale scores were used in this study. The possible total score ranges from  $-16$  to 240, with higher scores indicating higher distress or more difficulty in relations with family and peers. Possible scores range from  $-4$  to 68 and  $-6$  to 34 for the ID and IR subscales, respectively, with higher scores indicating greater distress or relationship problems. The Y-OQ total score has been shown to have high internal consistency ( $\alpha=0.93$ – $0.95$ ) across clinical and nonclinical samples (26). Internal consistency was in the excellent range for the ID subscale ( $\alpha=0.90$ – $0.93$ ) and the acceptable-to-good range for the IR subscale ( $\alpha=0.77$ – $0.88$ ) (26). Test-retest reliability at 2- and 4-week intervals was high ( $r=0.83$ ) (26). In this study, the internal consistency was acceptable (total score,  $\alpha=0.93$ ; ID subscale,  $\alpha=0.87$ ; IR subscale,  $\alpha=0.74$ ).

### Descriptive Analyses

Study analyses were calculated with RStudio (27). Independent samples *t* tests and Fisher exact tests were run to test for significant differences between the NAMI Basics condition and waitlist control on all measures and between those who never attended a class versus those who attended at least one class.

### Main Outcome Analyses

Given the small number of participants in each course—as few as one in some courses—a two-level hierarchical structure, with participants nested within sites, was considered. To determine the proportion of variance between clusters, an unconditional multilevel model without any predictors was run for the outcomes. Because of the small proportion of variance between clusters, linear regression with a dummy-coded site variable was used rather than multilevel modeling. Multiple imputation using RStudio package MICE (28) was used for individuals who were lost to follow-up ( $N=17$ ). Shapiro Wilk's method was used to test the normality of residuals for each outcome. The residuals for the P-SEEKS ( $W=0.95$ ,  $p<0.001$ ), Y-OQ total score ( $W=0.97$ ,  $p=0.03$ ), and the PATPSI help-seeking intentions subscale ( $W=0.94$ ,  $p<0.001$ ) were not normally distributed, but results of linear regression can be considered robust given the adequate sample size (29). Data met all other assumptions for linear regression. Each model included study condition, baseline score for the outcome of interest, and dummy-coded site variables. To reduce the risk of type 1 error, a post hoc Bonferroni-Holm correction was used to adjust threshold *p* values for any significant results (30).

## RESULTS

Table 1 presents demographic information about participants and their children. Most caregivers were biological mothers (69%); most were English speaking ( $N=106$ , 95%), and a small number were Spanish speaking ( $N=5$ , 5%). Nearly half the caregivers identified as Hispanic/Latinx (45%), followed by Caucasian (33%), and African American (12%). Thirty-five percent ( $N=39$ ) reported living at or below the federal poverty threshold on the basis of reported income and household size. The children were 111 youths, ages 3–22 ( $11.93\pm 4.04$ ), identified by their caregivers as having a mental health concern. They were Hispanic/Latinx (41%), Caucasian (32%), multiracial (13%), and African American (9%). In terms of mental health symptoms, 84% of the sample exceeded the clinical cutoff of 46 on the Y-OQ 2.01 ( $82.75\pm 32.53$ ) (26).

No significant differences between groups were found on household income, race-ethnicity, or caregiver role. Participants in NAMI Basics reported significantly more people in their household, compared with those in the waitlist group ( $p=0.04$ ) (Table 1). No significant differences were found between NAMI Basics participants and those in the waitlist group on any baseline measures. No significant differences

were found in baseline scores between those who attended no classes versus those who attended at least one class or those in the waitlist group (data not shown). Correlations among baseline measures are presented in Table 2.

### Caregiver Outcomes

Compared with caregivers in the waitlist group, those in NAMI Basics reported significant increases in their activation and engagement, as measured by the P-SEEKS ( $p<0.001$ ) (Table 3). Intentions toward seeking treatment increased significantly for those in NAMI Basics, compared with the waitlist group ( $p=0.01$ ). Changes in attitudes toward child services and stigma did not differ significantly between groups. Contrary to the study hypothesis, NAMI Basics participants did not report decreased parenting stress, as measured by the PSS, compared with those in the waitlist group (data not shown).

### Child Outcomes

Caregiver reports of changes in overall child symptoms, as measured by the Y-OQ total score, did not differ significantly between NAMI Basics participants and those in the waitlist group (Table 4). Caregivers in NAMI Basics reported significant decreases in their child's intrapersonal distress ( $p=0.02$ ) and in problematic interpersonal relations ( $p=0.003$ ), as measured by the Y-OQ subscales, compared with those in the control group. The beta weight for the interpersonal relations subscale exceeded the clinically significant change score on the Y-OQ for children of caregivers in NAMI Basics, and the intrapersonal distress subscale was within a point of the clinically significant change score of 8 (26).

## DISCUSSION

Peer-to-peer models are used widely to increase mental health support, but research efforts to examine these interventions have been relatively few and are primarily descriptive and nonexperimental (15, 17, 31). This study is the first to use a randomized controlled design to test NAMI Basics, a manualized course for caregivers of children with mental health concerns, led by peer parents with lived experience.

NAMI Basics participants in this study reported significant increases in parent activation and engagement, compared with those in the waitlist control group. Parent activation, or self-efficacy in managing a child's chronic disease, knowing when and where to go for help, and being an effective advocate with providers (32), has been theorized to be a critical target for peer-parent support (17). NAMI Basics also improved caregivers' attitudes about engaging in services. Attitudes toward services are theorized to be at the heart of engagement and a precondition for meaningful behavior change (13). NAMI BASICS participants reported increased intentions to engage with services, compared with the control group. Conceptual models of peer-parent support propose that receiving information and education from peer

**TABLE 1. Demographic characteristics and baseline scores of caregivers of children with mental health concerns, by study group**

Variable	Total (N=111)		NAMI Basics (N=52)		Waitlist control (N=59)		Test statistic	df	p
	N	%	N	%	N	%			
Child age (M±SD)	11.93±4.04		12.65±3.98		11.13±4.01		t=-1.86	92	.07
Household size (M±SD)	3.90±1.37		4.21±1.57		3.62±1.11		t=-2.14	82	.04
Caregiver role							χ <sup>2</sup> =.59	4	.74
Biological mother	77	69	35	67	42	71			
Biological father	9	8	4	8	5	8			
Adoptive parent	9	8	5	10	4	7			
Grandparent	11	10	5	10	6	10			
Other	5	5	3	6	2	3			
Yearly income							χ <sup>2</sup> =4.11	4	.77
<\$20,000	24	22	11	21	13	22			
\$20,000–\$39,999	30	27	17	33	1	22			
\$40,000–\$75,000	20	18	9	17	11	19			
>\$75,000	32	29	15	29	17	29			
Not reported	5	5	0	—	5	8			
Caregiver race-ethnicity							χ <sup>2</sup> =4.85	6	.57
Caucasian	37	33	19	37	18	31			
Hispanic/Latinx	50	45	22	42	28	47			
African American	13	12	6	12	7	12			
Asian American	1	1	1	2	0	—			
Mixed race	4	4	3	6	1	2			
Other	3	3	1	2	2	3			
Not reported	3	3	0	—	3	5			
Child race-ethnicity							χ <sup>2</sup> =.93	7	.97
Caucasian	36	32	17	33	19	32			
Hispanic/Latinx	45	41	21	40	24	41			
African American	10	9	5	10	5	8			
Asian American	2	2	1	2	1	2			
Mixed race	15	14	7	13	8	14			
Other	1	1	0	—	1	2			
Not reported	2	2	1	2	1	2			
Parenting stress <sup>a</sup>	43.83±11.94		45.06±11.49		42.70±12.33		t=-1.03	107	.30
Parent activation and engagement <sup>b</sup>	19.06±2.98		19.11±2.96		19.00±3.02		t=-.20	107	.84
Help-seeking intentions <sup>c</sup>	19.67±4.48		19.27±4.59		20.03±4.35		t=.88	100	.58
Stigmatization <sup>c</sup>	6.45±4.98		6.08±4.59		6.58±4.35		t=.54	104	.97
Help-seeking attitudes <sup>d</sup>	32.31±7.78		33.06±7.13		32.53±6.58		t=-.40	100	.70
Total child symptoms <sup>e</sup>	82.75±32.53		81.63±33.96		83.75±31.46		t=.34	104	.74
Child intrapersonal distress <sup>f</sup>	26.96±11.24		25.52±11.32		28.24±11.11		t=1.27	106	.21
Child interpersonal relations <sup>g</sup>	13.11±6.45		13.50±6.82		12.76±6.15		t=-.60	103	.55

<sup>a</sup> As measured by the Parental Stress Scale. Possible scores range from 18 to 90, with higher scores indicating greater parental stress.

<sup>b</sup> As measured by the Parent Self-Competence Expectancies Efficacy Knowledge Self-Care. Possible scores range from 6 to 24, with higher scores indicating greater activation and engagement.

<sup>c</sup> As measured by a subscale of the Parental Attitudes Toward Psychological Services Inventory (PATPSI). Possible scores range from 0 to 45, with higher scores indicating more positive help-seeking intentions or more worry about stigma.

<sup>d</sup> As measured by a subscale of the PATPSI. Possible scores range from 0 to 40, with higher scores indicating more positive attitudes

<sup>e</sup> As measured by the total score on the Youth Outcome Questionnaire 2.01 (Y-OQ). Possible scores range from -16 to 240, with higher scores indicating more distress or maladaptive behavior.

<sup>f</sup> As measured by a subscale of the Y-OQ. Possible scores range from -4 to 68, with higher scores indicating more intrapersonal distress.

<sup>g</sup> As measured by a subscale of the Y-OQ. Possible scores range from -6 to 34 with higher scores indicating more interpersonal difficulties.

providers may shape caregivers' attitudes about their child's mental illness, and peer-parent support has been shown to increase perceptions of the importance of service engagement (22). Of interest, changes in scores on subscales assessing stigma and attitudes toward mental health services did not differ significantly between groups. At baseline, study participants showed little concern about others' negative evaluations of their accessing mental health services; stigma scores were lower than those for other samples of similar caregivers (33). The low baseline levels of perceived stigma may have limited the impact of the class.

NAMI Basics participants did not show decreases in parent stress, compared with the control group, in contrast to prior studies. Although we expected parenting stress to decline, caregivers in our study were less stressed than those in prior studies, in which this relationship has been found. The preintervention parent stress score in our study is similar to the postintervention parent stress score in a number of studies that used the same measure, which perhaps restricted further change (34). Alternatively, the NAMI Basics format might not lend itself as well as other peer-parent models to reducing parent stress. One study found

**TABLE 2. Correlations among baseline scores of caregivers of children with mental health concerns**

Measure	P-SEEKS total <sup>a</sup>	PATPSI <sup>b</sup>			PSS <sup>c</sup>	Y-OQ <sup>d</sup>		
		Intentions	Stigma	Attitudes		Total	IR	ID
P-SEEKS total	—							
PATPSI, intentions	.55***	—						
PATPSI, stigma	-.12	-.15	—					
PATPSI, attitudes	-.01	.14	-.50	—				
PSS	-.34***	-.23*	.18	.08	—			
Y-OQ, total	-.26**	-.05	.01	.05	.53***	—		
Y-OQ, IR	-.26**	-.05	-.04	.16	.53***	.86***	—	
Y-OQ, ID	-.20*	.01	-.01	.00	.48***	.83***	.58***	—

<sup>a</sup> Parent Self-Competence Expectancies Efficacy Knowledge Self-Care.

<sup>b</sup> Parental Attitudes Toward Psychological Services Inventory.

<sup>c</sup> Parental Stress Scale.

<sup>d</sup> Youth Outcome Questionnaire 2.01. Two subscales measuring child interpersonal relations (IR) and child intrapersonal distress (ID) were used.

\*p<.05, \*\*p<.01, \*\*\*p<.001.

that highly stressed parents used peer-parent support at higher rates (35), suggesting that such parents experience greater gains through more interactions with the peer parent. The group format, uniform number of sessions, and highly structured nature of NAMI Basics might not permit the same interaction as a more individualized peer-parent format in which families are paired with individual peer parents (20–22, 36).

Child outcomes are often not measured in studies of peer-parent support, because the primary target is caregivers. However, increases in parent activation, social support, and family functioning as a result of parent-peer activities may lead to improved child outcomes (37). In some studies, child symptoms improved following peer-parent support (22, 23). Although the total score for child symptoms did not differ between the two conditions, children of NAMI Basics participants showed decreases in intrapersonal distress, compared with children of control group members. Intrapersonal distress includes symptoms of anxiety, depression, hopelessness, and self-harm (26). On average, the decrease in intrapersonal distress noted by NAMI Basics participants was within a point of the clinically significant change index, as specified by the measure authors (26). Prior studies of NAMI Basics found a within-group effect on inflammatory family communication (18), and we also examined whether children of NAMI Basics participants would show improvements in interpersonal relations with peers, parents, and teachers. These changes were also significant, compared with the control group, and

exceeded the threshold for clinically significant change as defined by the Y-OQ authors (26). Taken together, these are promising findings regarding the impact that NAMI Basics, and peer-parent support more broadly, can have on child outcomes, even though these effects were likely not direct. Further studies should explore specific pathways through which peer-parent support reduces interpersonal and intrapersonal distress among children, such as through improved family communication, mental health literacy, parenting capacity, or engagement with services.

A significant limitation of this study was the relative brevity of the period assessed and of the waitlist control condition, which precluded a comparison of outcomes that might change after the course ended. Although NAMI Basics participants could be assessed at a later time point, we felt that it was not ethical to ask caregivers randomly assigned to the control group to continue waiting for services. Similarly, although randomization to condition was a study strength, some caregivers who did not want to be randomly assigned to the waitlist may have opted out, which may have introduced a selection bias (38). As noted, study participants reported less stigma and parenting stress than did participants in some other studies, and thus study participants may not have been representative of all caregivers who engage with peer services.

We also cannot rule out plausible rival hypotheses that might account for between-group differences, such as expectancies and attention that were not equivalent across

**TABLE 3. Parent activation and engagement outcomes among caregivers who participated in NAMI Basics, compared with caregivers in a waitlist control group**

Measure	β	SE	t	df	p	p	
						corrected	η <sub>p</sub> <sup>2</sup>
P-SEEKS total <sup>a</sup>	2.90	.63	4.57	103	<.001	<.001	.16
PATPSI, intentions <sup>b</sup>	2.99	.96	3.11	103	.002	.02	.07
PATPSI, stigma <sup>b</sup>	-1.61	1.24	-1.31	103	.19	.69	.00
PATPSI, attitudes <sup>b</sup>	1.85	1.35	1.37	103	.17	.69	.01

<sup>a</sup> Parent Self-Competence Expectancies Efficacy Knowledge Self-Care.

<sup>b</sup> Parental Attitudes Toward Psychological Services Inventory.

**TABLE 4. Outcomes of children of caregivers who participated in NAMI Basics, compared with those of caregivers in a waitlist control group**

Y-OQ <sup>a</sup>	β	SE	t	df	p	p		Reliable change cutoff
						corrected	η <sub>p</sub> <sup>2</sup>	
Total	1.56	6.01	.259	103	.80	1.00	.00	-13.00
ID	-7.17	2.39	-3.00	103	.003	.02	.09	-8.00
IR	-4.08	1.14	-3.59	103	<.001	<.001	.10	-4.00

<sup>a</sup> Youth Outcome Questionnaire 2.01. Two subscales measuring child intrapersonal distress (ID) and child interpersonal relations (IR) were used. Possible total scores range from -16 to 240; possible ID subscale scores range from -4 to 68; and possible IR scores range from -6 to 34.

study conditions. Other limitations included too few study participants within each NAMI Basics course to meaningfully assess for differences accounted for by course-level variables and reliance on caregiver report, which may be influenced by caregiver mental health problems (39, 40), to assess child-level outcomes. Additionally, we lacked information about child diagnoses, which might have provided insight regarding for whom NAMI Basics is especially helpful.

## CONCLUSIONS

NAMI Basics is a peer-parent support program that is readily available to support caregivers of children with mental health concerns, particularly those who experience barriers to service engagement. NAMI Basics significantly increased caregiver activation and engagement, as well as intentions to engage in services, and the children of participants showed decreases in some symptoms. Future research should examine the effects of NAMI Basics on outcomes over a longer duration and assess pathways that may result in child-level changes. Given well-documented barriers to mental health services engagement (1–3, 7–9), peer-parent support is an important resource to be leveraged.

## AUTHOR AND ARTICLE INFORMATION

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