Evaluation of First Episode Psychosis Programs

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Submitted to the Texas Health and Human Services Commission

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Background

The Texas Health and Human Services Commission (HHSC) currently supports the implementation of first episode psychosis (FEP) programs in 23 Local Mental Health Authorities (LMHAs) across the state. HHSC has contracted with investigators from the Texas Institute for Excellence in Mental Health (TIEMH) at the University of Texas at Austin to conduct a multi-year, independent evaluation of the effectiveness of FEP programs as implemented in mental health agencies across the state. Each of the current FEP programs in Texas has adopted the same model for intervention, the OnTrackNY model, which is a specific instantiation of the Recovery After an Initial Schizophrenia Episode (RA1SE) Connection Program. In fiscal year 2017, TIEMH investigators conducted a preliminary evaluation of the effectiveness of the program through qualitative interviews with providers and an initial empirical view of trajectories of clinical symptomatology in FEP participants vs. treatment-as-usual groups. Provider reports regarding the success of implementation of the program and clinical outcomes of their clients were uniformly positive. Focusing primarily on clinical symptomatology, empirical results were suggestive of more rapid stabilization and less evidence of worsening of symptoms of psychosis and other broadband domains of symptomatology in FEP participants than in the control groups (Kramer & Lopez, 2017). The empirical findings were preliminary, however, in that the analyses relied only on existing measurement tools, the Child and Adolescent Needs and Strengths (CANS) and Adult Needs and Strengths Assessment (ANSA), which did not allow for a more targeted examination of key symptom domains (e.g., positive and negative symptoms). In fiscal year 2018, the evaluation examined the factor structure of functioning domains of the CANS and ANSA and improvements on functional outcomes for CSC participants compared to matched controls (Kramer & Lopez, 2018). In fiscal year 2019, the report summarized a fidelity study of the established CSC programs and highlighted initial outcomes from prospectively collected measures of recovery, functioning, and symptoms (Lopez & Kramer, 2019).

The current report focuses on key evaluation questions related to the significant expansion of the CSC programs, including exploring differences in the characteristics of participants across cohorts. The increased sample of participants enrolled in CSC programs at this point also allows for an exploration of issues of treatment retention, the provision of key CSC services, and transitions from CSC care to other service levels. The report also summarizes a qualitative study of the similarities and differences among older and newer sites on their implementation of the CSC program and highlights the perspective of CSC team leads on factors that impact program success and participant outcomes.

TIEMH partnered with HHSC to apply for additional funding to support the statewide evaluation of the CSC program, and this opportunity will result in changes to the evaluation battery. Therefore, further expansion of the previous evaluation protocol was placed on hold until the new protocol could be established in September 2020.

Prospective Evaluation

Overview of Evaluation Questions

As the CSC program enters its sixth year and continues to expand in the number of programs in Texas, additional evaluation questions can be explored with information submitted to the state administrative system. The focus of the prospective evaluation activities in the current study was to understand any differences in the populations served over time by the different cohorts of CSC programs and to explore issues of retention in care and transitions following discharge from the CSC program. The following questions are explored:

- With a significant expansion of the number of teams, have the characteristics of individuals served in the programs changed over time?
- How long are young people retained in CSC? What are the predictors of longer retention in care?
- What array of treatments do CSC participants receive and at what dosage? Does the availability of peer support services impact retention in care?
- What proportion of CSC participants are discharged to stepdown services within the organization? What level of intensity is provided in stepdown services?

Characteristics of Population Served

Diagnosis of Enrolled Participants. Eligibility for the Texas CSC programs includes individuals with schizophrenia, as well as individuals with affective psychosis diagnoses. Participant's primary diagnostic category at intake is presented in Figure 1. While the greatest proportion of participants were diagnosed with Schizophrenia (29%), Schizoaffective Disorder (25%), Bipolar Disorder (20%), and Major Depression (20%) were each common. A small percentage of participants were diagnosed with other psychotic diagnoses, such as Brief Psychotic Disorder and Unspecified Psychosis.

Figure 1. *Primary Diagnoses of Participants*

Legend:
- Schizophrenia
- Schizoaffective Disorder
- Other Psychoses
- Biplar Disorder
- Major Depression
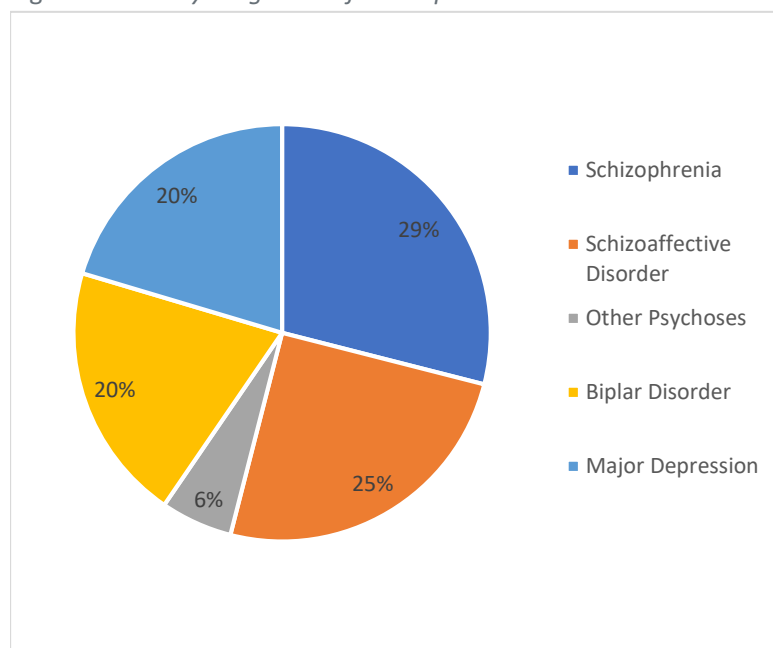
Enrollment of Children and Adults. The proportion of children to adults served within the CSC programs over time was explored. Figure 2 illustrates the number of adults (age 18-30) and children (age 15-17) enrolled each year since fiscal year 2015, when the first cohort of programs in Dallas and Houston were launched. There was a similar ratio of adults to children in the programs in Cohort 2 and 3, but the initial pilot teams have enrolled fewer children to adults than other programs across the time period. Overall, the programs enrolled 5.66 adult participants for every one child. In FY2020, children represented 30 percent of the participants enrolled in CSC.

Figure 2. *Enrollment of Children and Adults by Fiscal Year and Cohort*
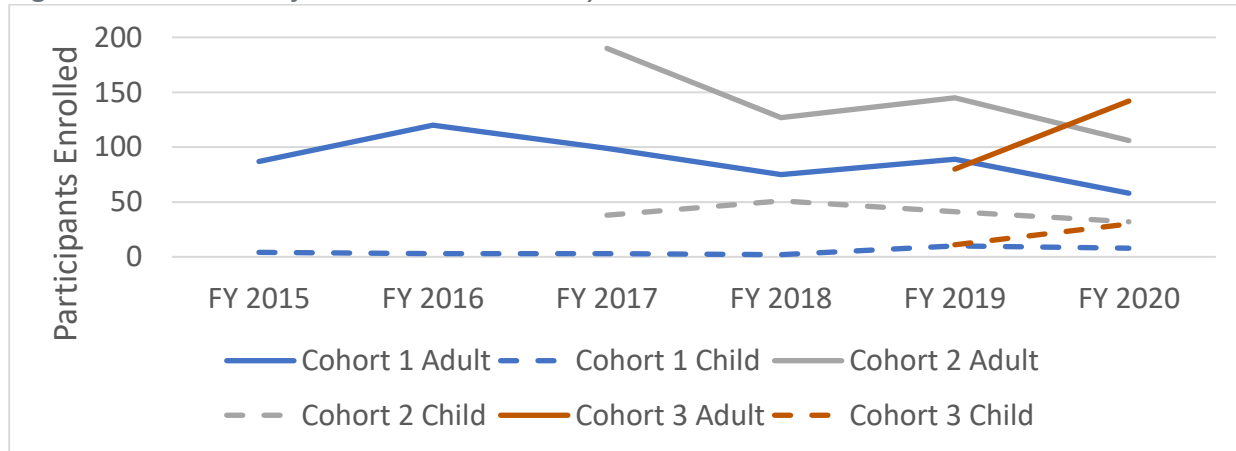
**Enrollment by Males and Females.** Overall, male participants were more likely to be enrolled in the early psychosis programs, representing 64 percent of the enrollees. Figure 3 illustrates the enrollment of participants by gender over the time period, aggregated across program cohorts. In the latest year of the program, a greater proportion of females were enrolled, representing 41 percent of the participants.

Figure 3. Enrollment of Participants by Gender
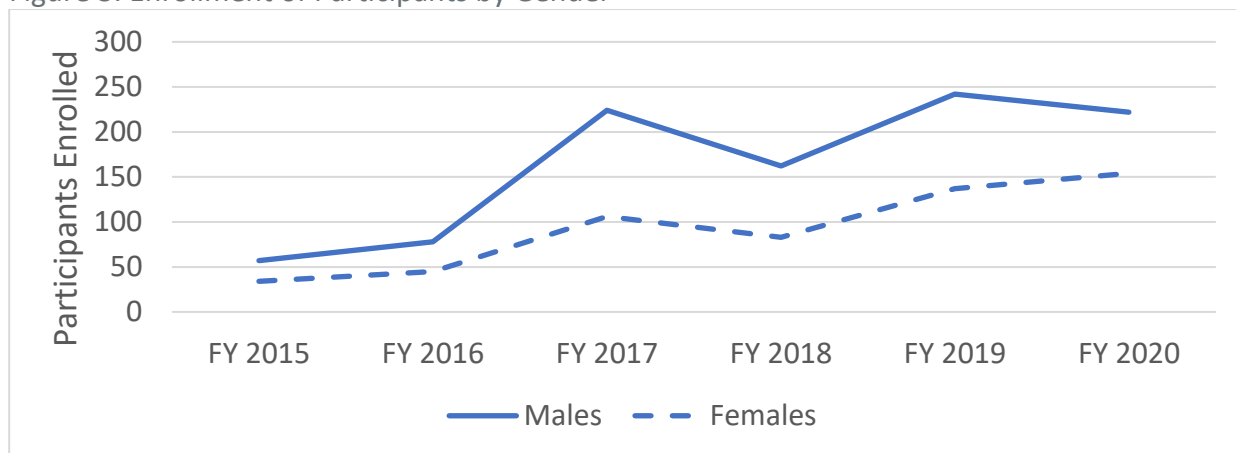
Retention in Care

Sample. The CSC network in Texas has reached a level of maturity that predictors of retention in care can be explored. Retention in early psychosis care is an important factor in the achievement of the positive outcomes demonstrated in the program (Fusar-Poli, McGorry, & Kane, 2017; Chang, et al., 2015). This exploratory analysis examined the time to drop-out for individuals in early psychosis

care in Texas. Despite the CSC programs in the state allowing care for up to three years, the analysis censored the sample at two years, as leaving care between the second and third year may represent a planned step down from care and successful transition. To ensure that up to two years of service was possible, the sample was restricted to those individuals enrolled prior to May 1, 2018. Because of this restriction, the third cohort of early psychosis programs were not included in the analysis, as the programs had not been established for that time period.

Overall Retention. A survival analysis was conducted to examine the retention in the program for individuals in the sample. Figure 4 illustrates the trend over time, with the area under the curve representing the probability of the sample remaining in services at the time point. The band surrounding the curve represents the 95% confidence interval. Twenty-five percent of the population is predicted to drop-out by 134 days (CI: 107-156 days). Fifty percent of the population is predicted to

Figure 4. *Survival Estimate for Retention in Early Psychosis Care*

drop-out of care by 354 days (CI: 309-414 days). Seventy-five percent of the population is predicted to drop-out of care by 729 days (CI: 667-upper limit), with 25 percent continuing into the third year of care. The average person within the sample was retained in care for 386 days, representing a little more than 12 months. Hamilton, Srivista, Womack, et al., (2019) examined retention within the Harris County program and found that 58.9 percent of participants were retained for 9 months or more, which is similar to the 57 percent found in the current study.

Figure 5. *Survival Estimate for Retention by Gender*

Differences in Retention by Gender. The impact of gender on program retention was examined through a survival analysis and presented in Figure 5. The blue line represents individuals identifying as female and the red line represents individuals identifying as male. The differences between the two survival curves did not reach statistical significance (Wilcoxon χ^2=0.663, *df*=1, *p*=.42). Fifty percent of the female participants were predicted to be retained for 418 days (CI: 313-475 days) and 50 percent of males were predicted to be retained for 329 days (CI: 275-395 days).
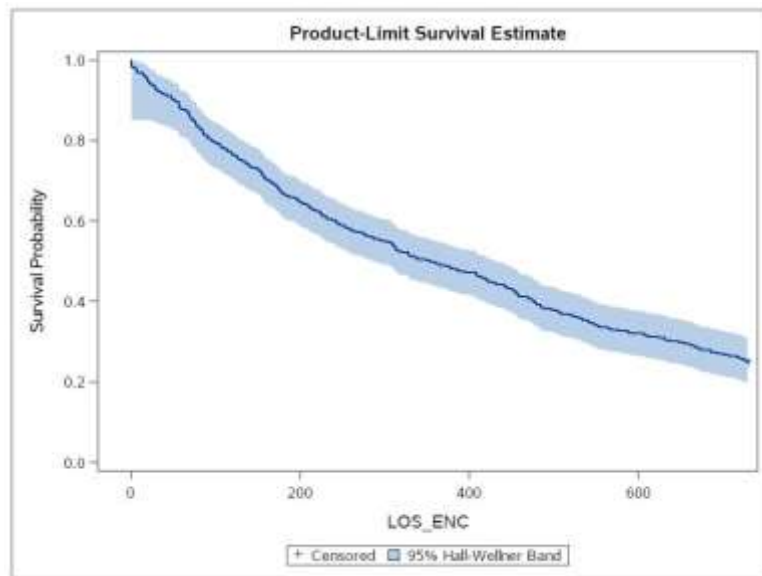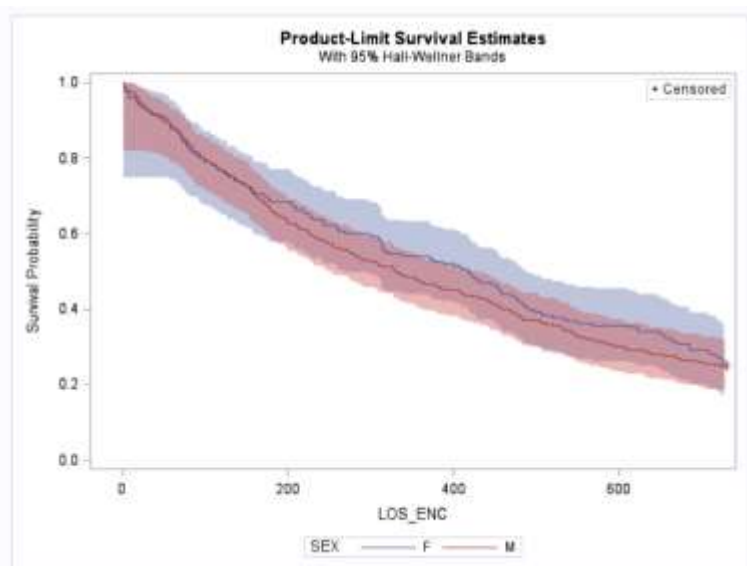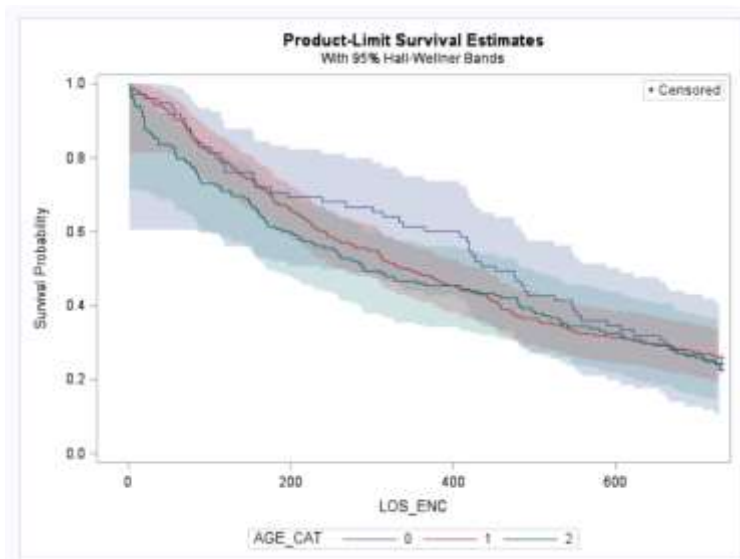
Figure 6. *Survival Estimate for Retention by Age*

Differences in Retention by Age. The impact of age group on program retention was examined across three groups: 15-17 years old (Cat. 0/Blue), 18-24 years old (Cat. 1/Red), and 25-30 years old (Cat. 2/Green). Figure 6 illustrates the survival curve of program retention by age group. The differences between the three survival curves did not reach statistical significance (Wilcoxon χ^2=2.65, *df*=2, *p*=.27). Fifty percent of the youngest participants (15-17) were predicted to be retained for 452 days (CI: 338-547 days) and 50 percent of middle age group (18-24) were predicted to be retained for 338 days (CI: 294-407 days). Fifty percent of the third group, those over 25, were predicted to be retained for 289.5 days (CI: 211-458 days).

Differences in Retention by Race/Ethnicity. The impact of race and ethnicity on program retention was examined through a survival analysis and presented in Figure X. The blue line represents individuals identifying as White, non-Hispanic (Cat. 0); the red line represents individuals identifying as Black or African-American (Cat. 1) and the green line represents individuals identifying as White, Hispanic (Cat. 2). The differences between the three survival curves did not reach statistical significance (Wilcoxon χ^2=3.04, *df*=2, *p*=.22). Fifty percent of the participants identifying as White were predicted to be retained for 332 days (CI: 258-441 days) and 50 percent of participants identifying as African American or Black were predicted to be retained for 311 days (CI: 246-382 days). Fifty percent of participants identifying as White, Hispanic were predicted to be retained for 446.5 days (CI: 336-528 days). While not statistically significant, there appeared to be a trend for individuals identifying as Hispanic to be retained for a longer period during the second year of treatment.

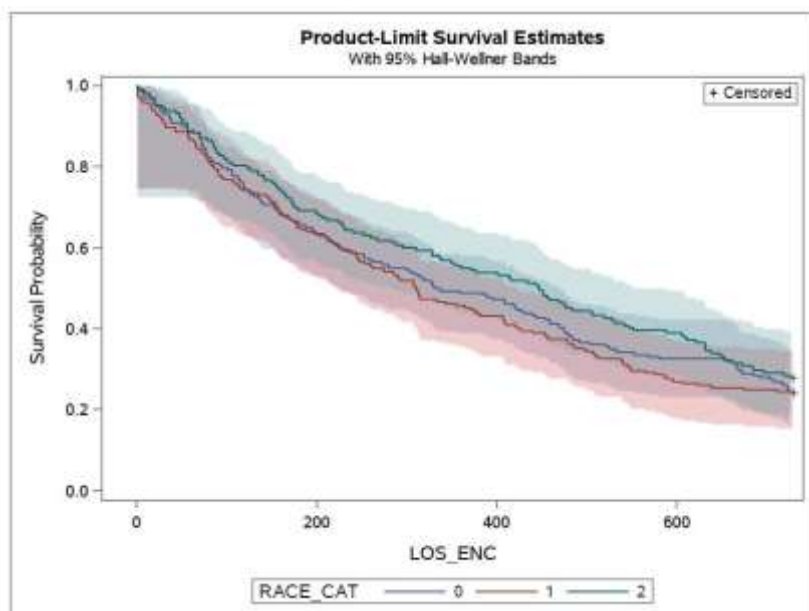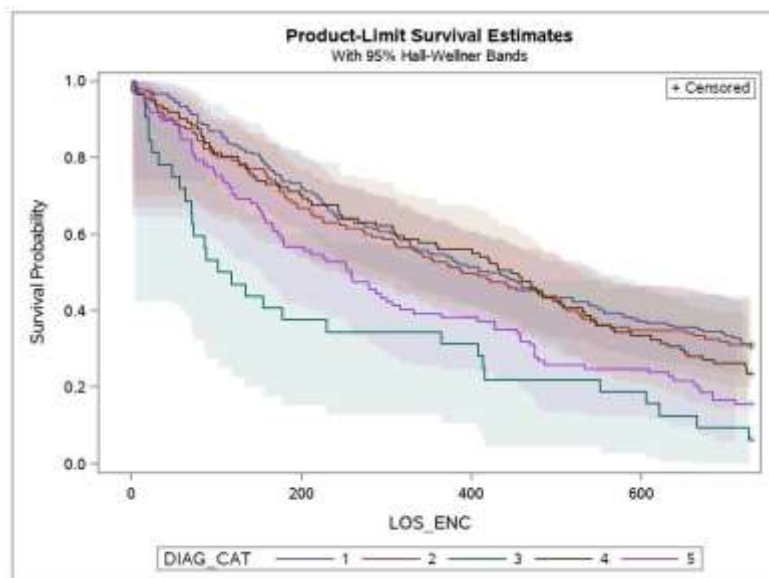Figure 7. *Survival Estimate for Retention by Race and Ethnicity*

Figure 8. *Survival Estimate for Retention by Diagnosis*

Differences in Retention by Diagnostic Group. The impact of diagnosis on program retention was examined across five groups: Schizophrenia or Schizophreniform (Cat. 1/Blue), Schizoaffective Disorder (Cat. 2/Red), Other Psychosis (Cat. 3/Green), Bipolar Disorder (Cat. 4/Brown), and Major Depression (Cat. 5/Purple). Figure 8 illustrates the survival curve of program retention by diagnostic group. The differences between the three survival curves were statistically significant (Wilcoxon χ^2=29.5, *df*=4, *p*<.0001). The groups of participants diagnosed with Schizophrenia or Schizophreniform, Schizoaffective Disorder, and Bipolar Disorder all had similar survival curves, with 50 percent probability of retention at 421 days (CI: 328-519 days), 389 days (CI: 296-506 days), and 447 days (CI: 311-509 days) respectively. Participants diagnosed with Major Depression and Other Psychosis had lower retention rate survival curves, with 50 percent probability of retention for Major Depression at 258 days (CI: 172-317 days) and 50 percent probability of retention for Other Psychosis at 110 days (64-365 days).

Services Provided in Coordinated Specialty Care

The sample was restricted to include participants enrolled prior to May 1, 2019, with the opportunity for at least 12 months of intervention, who are currently discharged from CSC level of care. Service encounters were examined to understand the proportion of individuals who received at least one of each type of service, as well as the number of encounters received per month on average and the number of hours in that service per month. Some types of services were also explored by service provider, to further differentiate those services. Some services were not included in the examination, such as Screening, QMHP Assessment, Benefits Eligibility, and Administration of Injection, were not included in the analysis. It should be noted that there seems to be some site variations about how peer specialist encounters are coded, with sites varying whether they primarily code rehabilitation services or continuity of services.

Types of Services. The number of individuals receiving different types of services is presented in Table 1. Almost all CSC participants received psychiatric diagnostic and medication management services (92.1%). Rehabilitation and skills training were also very common services (84.9%). More than half of the participants received Case Management (57.0%), Continuity of Services (62.3%), and Peer Support services (56.0%). Psychotherapy services were provided to a little less than half of the participants (47.9%) as were Medication Training & Support (42.0%). Supported Employment was provided to only about one-quarter of the participants (27.5%) and Supported Housing was limited to 8.8%. Family peer support (including Continuity of Services provided to collaterals) was relatively uncommon, as it was provided to only 9.6% of CSC participants.

Table 1. *Types of Services Received by CSC Participants*

Service Type	Number/Percent of Participants Receiving Service (*n*=814)	Average Encounters per Month	Average Time in Hours per Month
Case Management (Routine & Intensive)	464 / 57.0%	0.49	0.49
Rehabilitation and Skills Training (all providers)	691 / 84.9%	1.92	2.15
Rehabilitation (Licensed Staff)	348 / 42.8%	2.21	0.36
Rehabilitation (Peer Specialists)	183 / 22.5%	0.74	0.84
Continuity of Services (all providers)	507 / 62.3%	1.09	1.07
Continuity of Services (Licensed Staff)	271 / 33.3%	0.50	0.51
Continuity of Services (Peer Specialists)	279 / 34.3%	0.69	0.70
Medication Management	750 / 92.1%	0.69	0.31
Medication Training & Support	342 / 42.0%	0.31	0.21
Psychotherapy (Individual or Group)	390 / 47.9%	0.59	0.54
Supported Employment	224 / 27.5%	0.63	0.82
Supported Housing	72 / 8.8%	0.07	0.05
Peer Support	456 / 56.0%	0.76	0.83
Family Peer Support	78 / 9.6%	0.40	0.30
Crisis Intervention Rehabilitation	334 / 41.0%	0.63	0.27
Other Crisis Service (48-hour observation, residential, hospitalization)	105 / 12.9%	1.0	23.8

Time to Engagement of Peers. Peers and family peers frequently contribute to the engagement of families early in care. The timeframe from entry to services and the first peer or family peer encounters were examined and results are illustrated in Figure 9. Both peer support and family peer support services were engaged within 30 days of starting CSC for approximately one-third of the population who received those services. One-half of the individuals receiving peer supports received them by 60 days into care. Only 11 percent of individuals did not have access to the peer support provider until their second year of care, but this was a greater proportion of family members.

Figure 9. *Days from CSC Entry to Engagement of Peer Support Services*
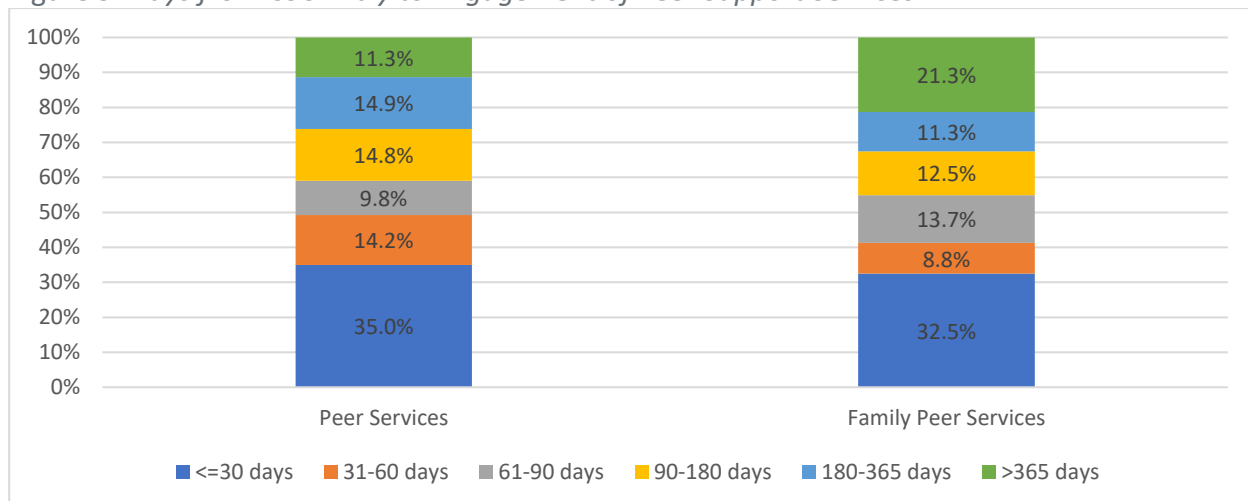
Impact of Peer Provided Services on Retention. The impact of peer-provided services on retention in care was examined for the sample. In the first analysis, CSC participants were categorized into those who received peer services within the first 60 days of care and those who did not. Any participants dropped out of care within the first 60 days were removed from the analysis. A similar analysis was undertaken for participants who received peer support services within the first 6 months of care. The results of the independent t-tests are provided in Table 2. For individuals receiving peer support services, both within 60 days and 6 months, CSC participants with peer support services stayed in care longer than those without peer support services. The analysis of peer support in 60 days was not statistically different, while the differences found for individuals served by peer specialists within 6 months were statistically different.

Analyses of family peer support providers were hampered by the much smaller sample of participants receiving services. While the days retained in care for participants receiving family peer support services within 60 days or 6 months were greater than the group not receiving family support within this window, the differences were not statistically significant. This may be due, in part, to the large difference in the sample size for the two groups.

Table 2. Independent T-test Examining Peer Support or Family Peer Support in the First 60 Days

		Peer Services in 60 Days (n=216)	No Peer Services in 60 Days (n=565)	t-Value	Probability
Days Retained in Care	Mean	499.1	465.6	t=-1.33 (df=779)	p=0.19
	SD	329.5	310.3		
		Peer Services in 180 Days (n=291)	No Peer Services in 180 Days (n=361)	t-Value	Probability
Days Retained in Care	Mean	582.5	516.6	t=-2.82 (df=650)	p<.005
	SD	307.1	486.9		
		Family Peer Services in 60 Days (n=32)	No Family Peer Services in 60 Days (n=749)	t-Value	Probability
Days Retained in Care	Mean	582.5	470.3	t=-1.98 (df=779)	p<.048
	SD	276.9	316.8		
		Family Peer Services in 180 Days (n=52)	No Family Peer Services in 180 Days (n=600)	t-Value	Probability
Days Retained in Care	Mean	583.3	542.8	t=-1.94 (df=650)	p=0.35
	SD	261.5	300.6		

Step Down Care

With a proportion of CSC participants completing specialized services, the transition of care can be examined for those individuals that remain in the LMHA or return following discharge. Eight hundred and seventy FEP participants were discharged from care prior to May 30, 2020 and 443 (50.9%) had a subsequent assignment within the LMHA. Some assignments represented a transition to a different level of care, but others may have occurred after a significant gap in care. Therefore, subsequent assignments were examined based upon the length of time between the end of the authorization of Early Psychosis and the beginning of the next authorization, identified as the gap in care. The majority of participants (54.9%) had a continuous transition to a subsequent level of care, defined as a new authorization within 30 days of the closure of the early psychosis authorization. Eighty percent of returning CSC participants had a new authorization within six months. Table 3 presents the frequency of the different levels of care by the gap in care. For adults, over half of the individuals were enrolled in Basic Services following CSC care. The next most frequent categories were Intensive Services (16.5%) and Crisis Services (14.1%). Entry into Crisis Services was more likely to happen for those who did not transition into continued care within the first 90 days. The Transition-Age Youth Level of Care, while perhaps providing the most flexibility for a step down program, was almost never used. There were few children that transitioned into another child level of care and almost all did so within 90 days. Children were more likely to be transitioned into moderately intensive services, with 30% entering Complex Services (C3) and 26% entering Targeted Services (C2).

Table 3. *Transition to Step-Down Care Following Discharge from CSC Programs*

First Authorized Level	Gap <= 90 Days Total / %	Gap >90 and <= 180 Days – Total / %	Gap > 180 Days Total / %	Total/% in Each Level of Care
A0 – Crisis Services	10 (3.7%)	23 (35.4%)	26 (29.9%)	59 (14.1%)
A5 – Transitional (Crisis)	10 (3.7%)	3 (4.6%)	4 (4.6%)	17 (4.1%)
A1 – Basic Services	168 (62.9%)	25 (38.5%)	39 (44.8%)	232 (55.4%)
A2 – Basic + Counseling	7 (2.6%)	1 (1.5%)	3 (3.4%)	11 (2.6%)
A3 – Intensive Services	50 (18.7%)	10 (15.4%)	9 (10.3%)	69 (16.5%)
A4 – ACT	21 (7.9%)	3 (4.6%)	6 (6.9%)	30 (7.2%)
ATAY – Transition Age	1 (0.4%)	0 (0%)	0 (0%)	1 (2.4%)
Total Adults	267	65	87	419
First Authorized Level	Gap <= 90 Days Total / %	Gap >90 and <= 180 Days – Total / %	Gap > 180 Days Total / %	Total/% in Level of Care
C0 – Crisis Services	3 (14.3%)	1 (50%)	0 (0%)	4 (17.4%)
C1 – Medication	3 (14.3%)	1 (50%)	0 (0%)	4 (17.4%)
C2 – Targeted Services	6 (33.3%)	0 (0%)	0 (0%)	6 (26.1%)
C3 – Complex Services	7 (4.8%)	0 (0%)	0 (0%)	7 (30.4%)
C4 – Intensive Family	1 (4.8%)	0 (0%)	0 (0%)	1 (4.4%)
CY- YES HCBS Services	1 (4.8%)	0 (0%)	0 (0%)	1 (4.4%)
Total Children	21	2	0	23

Understanding the Early Psychosis Expansion

Since the state dramatically increased the capacity of the FEP system within the past year, through expansion to 12 additional early psychosis programs, one key focus of the year's activities was to describe the implementation experience of Texas Coordinated Specialty Care teams. The primary question to be addressed was, "What are the similarities and differences among CSC teams and does the time when they were established and the region they serve impact the differences?" Utilizing semi-structured qualitative interviews, we described their experience.

Methods

Sample. This study utilized a semi-structured qualitative approach deemed non-research by the University of Texas at Austin Institutional Review Board and Texas Health and Human Services Commission Institutional Review Board. The study sought to obtain interviewers from the representatives of each First-Episode Psychosis (FEP) team in Texas. Purposive sampling methods were used to recruit Team Leads from all twenty-three community mental health centers in Texas providing Coordinated Specialty Care services. Recruitment and interviews occurred during the months of June and July 2020. Individual Team Lead email addresses were provided by the Texas Health and Human Services Commission (HHSC) to ensure the most updated list of active Team Leads. The HHSC Lead for FEP sent out a blanket email asking all sites to participate in interviews and to expect and email. This email invited identified Team Leads to sign up for an hour interview slot with the evaluator using *Sign Up Genius*. Sixteen of the twenty-three Team Leads signed up after the first email. The remaining Team Leads received an additional individual follow-up email. This follow-up email lead to five additional interviews. The final sample included twenty-one of the twenty-three sites in the state.

Procedures. Team Lead participants verbally consented to participate in a recorded phone interview at the time of their choosing. Interview questions focused on ten descriptive categories:
1. team composition and structure;
2. staff training and professional development;
3. staff supervision;
4. community outreach and enrollment;
5. family involvement in care;
6. peer support and family peer support;
7. family involvement;
8. supported employment and education;
9. use of technology to support care;
10. step down or transition from services, and
11. developmental needs of clients.

Peer support, family involvement, and supported employment and education were selected as a special focus due to the developmental importance of each element in the role of an adolescent and young adult's life and past research citing them as areas that improved engagement in care (Lucksted et al., 2015; Lucksted, Drapalski & Brown, 2017; Lucksted, et al., 2018; Muralidharan et al., 2020). Interviewers were encouraged to adapt questions during the interview to allow the conversation to flow naturally. Example interview questions are as follows: "What opportunities and

challenges have you encountered in implementing supported employment and education programming?"; "Have you had to make any adaptions to the Individual Placement and Supports model due to the age of your clientele?"; "How have you seen families or supportive others involved in the program?"; and "How do you support the transition to adulthood and changes in consent?"

In addition to the interview data collected, the research team reviewed the fiscal year 2020 performance contract with the LMHAs to understand the characteristics of programs that are enforced by specific standards, rules, and performance measures within formal agreements.

Analysis. Qualitative data was transcribed, and descriptive information was entered into SPSS 26 for descriptive analysis. Data analysis was focused on the implementation timeline (differences between newer vs. older teams) and similarities and differences among programs. Due to the descriptive nature of the study, initial themes were developed a priori and utilized to develop the interview question categories. Transcripts were reviewed independently by each research team member, and the entire group met to discuss how interview responses aligned with the a priori themes. Themes were sorted by category, and similarities and differences among more established teams and urban sites, were compared with newer teams and more rural sites.

Results from the Stakeholder Interviews

Description of the Team Composition. Team composition was fairly consistent across programs. Differences in team structure were primarily related to hiring needs (open positions) and decisions made due to the very rural nature of some programs. The contract states the following staffing requirements: 1) Team Lead who is a Licensed Professional of the Healing Arts (LPHA); 2) Individual Supported Employment/Supported Education Specialist (SEES); 3) Skills Trainer; 4) Psychiatrist, Psychiatric Advanced Practice Nurse, or Physician Assistant; 5) Certified Peer Specialist; and 6) Certified Family Partner. Programs are allowed to combine these roles or share with other programs as approved by the State.

One finding was that there has been about equal use of a combined team lead/primary clinician role and the separation of the roles between two full-time staff members. Twelve CSC teams had a combined team lead/primary clinician and 11 separated the team lead and primary clinician role. A number of programs spoke of "delegating up" program administration duties, such as data reporting, to the manager overseeing FEP, which allowed the combined team lead/primary clinician to provide a more focused clinical supervisor role. Eighteen programs had a supported employment and education specialist (SEES) position, however five were in the process of filling the position. Two sites reported that the SEES, though clearly defined, was combined with other roles, such as case management, family support, and referral outreach. Sites used various titles for the skills trainer position, including case manager, recovery coach, and qualified mental health professional (QMHP), but all appeared to serve the same role across programs. All but three programs had a skills trainer, and in three sites the skills trainer served in multiple roles (i.e., primary clinician, team lead, SEES). The three programs without a skills trainer were new programs and attributed the lack of a skills trainer to the small caseload size of their current program.

Nine of the programs had a family partner fully designated to the FEP program, and five shared the family partner position with other programs across the agency. Seven interviewees reported that

there was no family partner for their program. Sixteen programs had a peer provider, with seven being part-time and/or shared with other programs. Most teams worked with one prescriber, however three teams utilized a different structure. One team without an assigned prescriber scheduled their clients with any adult psychiatrist; another team trained two psychiatrists in the model to serve their clients, and the last team allowed the clients to work with the assigned team prescriber or continue to see any prescriber in the agency with which they had a preexisting relationship. Of note, Emergence worked with Texas Tech University's residency program and a 4th-year resident was assigned to their program every year as the team psychiatrist.

All Team Leads spoke very highly of the CSC model and were very excited to be participating in Texas' adoption of the model. The primary reason provided for their enthusiasm for the model was the multidisciplinary nature and early intervention approach of the program.

> *We, one hundred percent really bought in to the principles of this program. You know, the strengths-based, recovery-first, shared decision-making principles and we do it - not just with our consumers, but with each other as well. That makes challenge with a consumer so much more doable and so much more easy to handle. I think the other thing that I'm really proud of is the level of engagement of our consumers with us. Despite some setbacks, despite some challenges, [they are] still roughing it out with us. Most of our consumers... We've only had in the past year and a half maybe two or three people just kind of drop off and not show back up at all. I have not seen another program with that kind of retention in my seven and a half years at the [agency]. That is remarkable to me.*

Team leads spoke about the collaborative nature of the program and constant communication among team members due to the shared caseload and distinct roles - *"We're all understanding our individual roles and our role as a group."* Team Leads spoke about enforcing the clarity of specific roles, stating "*What we say a lot on our team is, 'Stay in your lane.'*" Various programs stated role clarification and overlapping responsibilities was a problem in the early days of implementation. *"SEES doesn't do peer work, case manager doesn't do peer work. Peer doesn't do employment stuff. Because, initially there was a lot of crossover and it caused some confusion."* Learning how to clarify each person's specific role on the team has helped programs to function better over time. The primary way teams ensure role separation is through their team meetings. The state contract states sites must conduct at least 2 meetings a month to be within compliance. A majority of the teams met more often than twice a month.

> *Well, we're always in constant communication. We have our staffings every Monday, so we sit as a group and go through the list of our clients and discuss what's going on with them. On Wednesdays, we staff with our prescriber, so she's available to us. We talk about the clients that are going to get seen that day.*

Most teams followed a structure of twice weekly meetings, mixed with daily collaboration around scheduling and communication throughout the day to provide updates to other team members as needed.

Coverage across the Catchment Area. It is no secret that Texas is very large, with a diverse geographical landscape and population. The current FEP funding covers roughly one third of the counties (74 of 254) in the state through 23 of the 39 public mental health providers in Texas. Agencies included in this study reflected the diversity of the state, as they ranged from serving one

large, populous county (e.g., Harris County, Houston) to serving as many as 23 rural counties (e.g., West Texas). Based on interview responses, 17 programs serve their entire catchment area which were a mix of LMHAs who serve one large, populous county (e.g., Dallas, Houston, San Antonio, El Paso, and Austin) and others who serve more than one county, and six who selected to serve a portion of their catchment area across multiple counties. The six that served only a portion of their catchment region were all rural, and selected the most populous area of their catchment.

Challenges to implementing a community-based program across a catchment area included barriers related to driving significant distances, lack of public transportation, and scheduling. Indeed, sites serving one large, urban county reported having to navigate seeing individuals at all ends of a major metropolitan area, whereas more rural sites have individuals who live hours apart from each other. These barriers were reflected by team leads across the majority of interviews: *"We serve all of Bexar County (San Antonio) from one end to the next, sometimes in one day."*

> *We are rural. We cover a four-county area. As a small team, it's quite a stretch. We get referrals as far as -- I mean our furthest one was about close to an hour away. And so -- and with the population, the younger people, a lot of them don't drive or they don't have access to public transportation. And so we do the best that we can to transport people as well.*

Although travel can be a barrier, team leads were very committed to the community-based nature of the program and saw it as a necessity and asset.

> *The transportation, that's a huge issue and I think a barrier. But luckily for us, our program, we are more community based, so in the field. So a lot of the individuals that are unable to meet with us maybe at our clinic, we're able to go out to them to meet with them. So maybe in their homes or in their schools, or I don't know, at a restaurant, just to make it a little bit easier for them.*

Notably, all sites reported services largely occurred in the community, and no programs appeared to be providing services in a clinic beyond medication management.

Training and CSC Implementation. During the initial Texas FEP team pilot (Houston and Dallas), the organizations partnered with OnTrackNY for training and implementation support. In subsequent expansions of Coordinated Specialty Care in the state, programs were provided training funds, but were not prescribed which training vendor to employ due to state contracting rules. In expanding the programs, Texas relied heavily on a peer-to-peer mentorship model in which older teams helped to usher in and support newer sites. As new sites were added, they were encouraged to consult with previously funded sites to determine their training plan.

> *I know this year and late last year they were starting up a lot of the newer programs. So it's been really nice to also partner with them and still have those contacts available, with just supporting them and letting them know what has worked for us so they can get their programs running and off the ground. And then continuing to help. So bottom line, we are here to serve those in Harris County. However, we don't shy away from providing education and support to others in surrounding counties.*

Houston and Dallas programs encouraged the second cohort to utilize OnTrackNY training, and the third cohort received the same direction from the first ten established teams. This led to the state

unofficially adopting the OnTrackNY model. Almost all team leads reported their program attended the OnTrack training in-person, while a few of the programs were currently accessing OnTrack online training for new staff. All team leads reported their agency participated in OnTrack consultation calls during the first year of implementation. A challenge for teams with high turnover was that newer staff were not able to receive the intensity or depth of training that providers original to the program had received.

Implementation within each agency was largely guided by the state performance contract, which outlines the following required elements of an implementation plan:
1. Positions and Full Time Equivalent (FTE) if not full time;
2. Plan for staff vacancies;
3. Implementation timeline;
4. Training;
5. Internal fidelity reviews; and
6. Community outreach and engagement, service delivery, and how to mitigate implementation barriers.

Team Leads were overwhelmingly positive about the OnTrackNY training; however, most teams reported implementation difficulties because the primary training and technical assistance was provided by a vendor from New York that conducts a standalone program in a state with a different mental health and Medicaid structure.

It was the actual implementation of how now to translate that into what's allowed in Texas that took time. And I think all of us had questions about Medicaid, about billing, about codes, and those are the questions that, or at least in my experience, [we] had to figure it out by talking to other people, by sending emails, by just figuring things out, because it was the program itself and the services, the manuals, they're very user friendly and they were easy and fun to read and understand, but it was the actual program implementation that was... I think that if that training would have happened where someone from Texas, someone that knew Medicaid billing... And I know they leave it up to the local agency, but it was almost, I don't know, we had to figure things out on our own.

Sites echoed that training in the model was well-received, but that the out-of-state consultants were ill-prepared to support their implementation questions. Team leads discussed the need for actual implementation assistance beyond just an intensive training.

It was great training, but I know that when I talked to some of the other people that attended, one of our biggest concerns with it was that some of it didn't make sense to us because it was very New York. It's how things are done in New York. For example, all their case managers were LPCs. We don't do that in Texas. It's different. And so it would be so much cheaper and I feel like we're starting to have enough experienced people here in Texas. Why can't we do that ourselves?

CSC programs had an overwhelmingly positive perception of the on-going peer-to-peer calls provided by HHSC and the regional SAMHSA technical assistance provider, but expressed the need for on-going, Texas-based trainers to provide annual booster trainers to support new sites and staff turnover - *"I do wish that there would just be more of a state coordinated training every year that we can just do refreshers on with the team."* Several team leads also expressed a need for various

additional trainings beyond the CSC model, including the individual placements and supports model, crisis intervention, and strategies for working with a young adult population.

As expected, the stage of implementation varied greatly between more established and newer sites. Newer sites had recently obtained training, and in many cases were still participating in on-going consultation, and their focus was on conducting outreach activities, gathering referrals, and building a caseload. Older sites were figuring out how to sustain or improve the program as staff turned over and were learning how to successfully graduate and transition clients out of their program. A team lead from a more established program stated:

> We're just right now trying to just really, really understand from the OnTrackNY [consultants] what FEP needs to look like, who needs to be doing what, when, where and how. Because there's a lot, the manual is really, really thick. And so we're doing that. And then the leadership, we're breaking down the team manual and we're each going to present a section to the team.

Another difference that emerged between more established sites and newer sites was internal conflict around productivity and billing. It was clear that more established sites had embraced the difference in structure of CSC versus other state-funded programs, whereas some newer programs expressed a struggle to educate agency leadership that this program was created to be less dependent on a fee-for-service model and that it combines child and adult billable service categories within one program.

> So once every three months, I get an email from the UM department stating, "Family partner services are not for adults." And so I have to send them the email from the state that says, "No, actually we are able to provide family partner services for individuals between the ages of 15 to 30 years old in the coordinated specialty care program." So, that little part has just always been a little bit of a barrier, it's that the UM guidelines doesn't necessarily reflect what actually is in the contract. So, that's has been a barrier.

Team leads spoke about the on-going dialogue between themselves, their leadership, and HHSC to articulate the need for agencies to make space for a different philosophy of treatment delivery.

> Sometimes it almost feels like the infrastructure is too rigid to accommodate the flexibility, because, for example, if you provided engagement programs in the other level of care, that's strictly for people that you're trying to engage in services, whereas engagement in our world is really more about building rapport and trust. So you could actually provide that for a while before you might even start providing some of the other services while you're trying to build that. So yes, there's some of the language and just the way that some of the things are set up, that's been problematic because, like I said, FEP system, it's more flexible than a lot of the other levels of care. So that's something that I feel like needs to be worked on or needs to be figured out. Just so we're still meeting HHSC requirements. There again, with the understanding that in a lot of ways, our program is very different from others.

A few of the newer team leads discussed how they have adapted the program to the rigidity: *"The agency isn't going to pay for that. You have to have billable services, otherwise X, Y, and Z. And a lot of what SEES does is just not billable. A lot of it is engagement, trying to get them buy in and we don't have a whole lot of latitude with that."* Others, however, have advocated for greater flexibility: *"we didn't always fit in, but we just persisted and I'm a pretty persuasive person. And it has required*

a lot of advocacy for the program itself." Overwhelmingly, the organizations that have embraced the more flexible structure appear to see the adaptability of the program as an asset, as opposed to a challenge.

Supervision of Team Members. The contract with HHSC requires a supervisory structure outlined in the OnTrackNY manual, which includes bimonthly supervision between the team lead and the SEES to "review individual situations, identify new strategies, and assist individuals in their work lives." With the exception of a couple of newer sites, programs were largely using this supervisory structure. Most team leads were conducting at least monthly one-on-one supervision with each member of the team except for the prescriber. Most team leads also reported that informal supervision occurred frequently, with providers contacting team leads to staff situations and problem solve. The supervisory structure for the Certified Peer Provider and Family Partner was dependent on whether the role was shared with other programs or not. In the instances of a shared staffing model, the Certified Peer Provider and Family Partner were consistently included in team meetings as time allowed, but received supervision from outside of the team.

> *And that's the thing, according to the contract, it states that we have to have a minimum of two meetings as a team. And then it's one-on-one with the supportive employment specialist. So, every Friday we meet as a team in order to review the individuals that the prescriber will be seeing and to just do a full case review with our prescriber as well. So we try to do that every single Thursday. That's when our prescriber day is. So we always do that. And then I'm also meeting with our case manager. We're doing one-on-one supervision. We'll try to do that every week. And that's the thing, we're always constantly in communication, always seeing each other. So it's able to have that rapport, but we also do like a full case review once a week.*

Many programs spoke specifically about using supervision as an opportunity to help staff members implement the program as designed and to encourage them to truly embrace the philosophy of Coordinated Specialty Care.

> *This is shared decision-making and you might not really agree with what the patient's doing right now, but that's their choice. I've had to do some supervision in that regard, it's that some other choices may not be what you think they ought to be doing, but this is what they're choosing and it's not self-destructive. It's their way of choosing what's right for them. Supervision about that, they have the right to make that decision. There's a lot of supervision about that, shared decision-making, that kind of thing, even if that person has had a problem with some of the decisions that the client's made.*

All team leads shared that the implementation process was on-going and noted supervision and team meetings were the places they continuously worked to improve processes. Almost all programs held team meetings weekly.

Community Outreach and Enrollment. Outreach and enrollment processes also differed between older and newer sites. The initial programs were established in the most populous areas and quickly developed multiple referral streams, whereas many of the newer sites stated that they were struggling with outreach and enrollment as a result of being new. They expressed that this challenge was compounded by the coronavirus pandemic.

We have really literally exhausted the internal resources and just, we cannot find people. Either they don't want to participate, they probably do qualify based on what I'm reading or what I'm hearing from LARs [Legally Authorized Representatives], but they just say, no. I mean, we can't find people until they are past the DUP [duration of untreated psychosis] point.

The more established sites provided a number of examples for how they had built a reliable referral network and provided ongoing education in the community.

We have a really good internal referral program. And at any given time, we're working with our psychiatric hospitals, they may identify it first there; we're working with ER's, and working with mental health deputies. We're working with our crisis teams. We're working with our school that we are involved in.

Team Leads reported that the majority of referrals came internally from other agency programs/services and externally from local hospitals. Most organizations worked with the agency's hospital liaison to identify and direct individuals to the program: "*We also have a hospital liaison within [agency] who helps coordinate referrals. So they are stationed at hospitals and their job is to help link people in the hospital to [agency].*" Other than a few organizations, even established teams with steady referrals struggled to recruit and admit individuals under the age of 18: "*We haven't had any adolescents yet on our team. All of our clients right now are early twenties to mid-twenties.*" Reasons for the small number of adolescents served across programs differed across sites. Almost every program was physically located within adult mental health services and many programs spoke of functioning within the structures of the adult mental health programming within their agency. Several team leads spoke of the challenges related to engaging adolescents, whether in obtaining buy-in to even try the program or retaining them once they were enrolled. Additionally, a number of the programs stated that they had encountered apprehension from prescribers and community referral sources to refer youth to the program.

And I think one of the biggest concerns that we came across in the schools is that they're hesitant to refer a child to us, 15 to 17, because they're concerned if this young person doesn't already have a diagnosis or doesn't already have a label on them, they don't want to label them. And so, one of the conversations there was about how and when you refer them to our program, we're not labeling them, first of all, we're having a conversation.

Peer Support Services. Texas has fully embraced the inclusion of peer and family peer support services within the Coordinated Specialty Care program. As stated above, 16 programs have a peer provider and 14 have a family partner assigned to the program. As has been shown in other programming utilizing family partner services in Texas (Peterson et al., 2017), agencies report identification and hiring of family partners as the biggest barrier to family peer services. Team leads spoke uniformly about the admiration their teams had for their peer staff.

With the peer, I think that it's been very mobilizing for a lot of people and their family to see an individual who's described having similar experiences to their young loved ones, and to see how he's mid-30's and doing well. And so it's been a real source of hope. The peer provider to some of our consumers and their family members for them to say, "Oh wow, people can get better. People can go on with their lives and not be consumed by their condition." So that's been a tremendous strength in getting the peer on the team, because it took some time to find the right peer for our young people, for our young adults. The Certified Family Partner strength is

definitely one of support and education to the family at understanding. And when they understand recovery a little bit more and how that can look different, it helps to reset or formulate new expectations on the part of the family. That's been a real strength that we've seen with our family partner.

Aside from the services that peer providers and family partners provide individuals and their families, team leads noted the power of fully including the peer and family partner within the team: *"The peer and the Family Partner have given us a sounding board to help understand the lived experiences of our consumers and our families a little bit more."* Team leads provided explicit examples of times the peer provider advocated for the team to try a different approach with a person served, leading to positive outcomes.

> *We had one patient that's been on an injection this whole time and he really does not like it. She really recognized that and advocated it and said, "Hey, I really think if we work with him on what he wants, if he says he'll take the oral meds, let's maybe try and switch it to get his buy-in." We all listened and the doctor listened, and they changed his medicine to oral medication. He's been compliant with those, I don't like to use that word. But he's been taking his meds, and so he is now engaging with our supported employment specialists.*

A topic of discussion within the larger mental health research community is the concept of near-age peer providers (Delman & Klodnick, 2017; Hermsen-Kritz, 2020; Simmons et al., 2020) for youth and young adults. The CSC program serves individuals 15- to 30-years-old and only 21% of peer providers in Texas are under the age of 40 (Early, et al., 2016). The majority of team leads interviewed for this study indicated that the peers in their programs were not near-age.

> *Our peer specialist, I would say, I think she's in her 50s. The age difference has been a concern, but that's something that I know we've thought about since this is a younger group, a younger population. What's interesting though is the individuals that do receive her services, they love it. And so I think we got really lucky, and they, actually what's interesting is they can relate. He's very relatable, so that's been an added benefit. However, I do think that if there was a peer specialist that was around their age, then that definitely, I think, would also have an impact because they would be closer in age and they might feel like they are relatable. But, if that makes sense.*

Family Involvement in Care. The approach to family involvement between child and adult mental health services varies greatly (Burns & Goldman, 1999; Curtis & Singh, 2016; Doody, et al., 2017; Mottaghiour & Bickerton, 2005). Due to the inherent legal role of the caregiver in child mental health services, they typically play a much larger role in decision-making and inclusion in service planning. Conversely, adult mental health services do not tend to prioritize or make significant attempts to engage families in service provision (Doody et al., 2017; McFarlane, et al., 2003). CSC programs, however, provide an opportunity to support families during the overwhelming diagnostic process, provide psychoeducation, and serve as mediator to reduce family conflict, which has been shown to increase the risk of a psychosis episode (McFarlane et al., 1995; McFarlane et al., 2003).

> *I think that's a success with what I found, though, is that family involvement with the kids is a lot easier than family involvement with the adults. So we're really, throwing down the towel or they're like, "Hey, let's get these adult families in, but just as involved as the kids." And so really*

trying to engage those adult families. And so I think that we're really focusing more on engaging families rather than serving a person.

Unlike in child mental health services where family involvement is the expectation (Stroul & Blau, 2008), almost all team leads spoke of a career in adult mental health in which they had little exposure to family involvement practices. As such, many team leads expressed challenges with engaging families and/or understanding how to mediate and set boundaries with families.

How we're going to reorganize to be able to involve families from the very beginning and help them to encourage their participation and how it'll improve the outcome of the services and the recovery. But definitely is it going to be a challenge? I think so, because the majority of our parents are working. Some of them are not receptive to meeting with us on a monthly basis. We're trying to find ways of being able to involve them. We did start off having a kind of family day type of thing, where we would bring all the families and provide family education while we were providing childcare for the little ones.

Many team leads spoke about learning to have conversations from the beginning around consent to involve at least one chosen family member with participants in their program.

I think that's something we could do better in. We definitely start with making sure we get some level of consent so that we can reach out to them. We let the consumers know that if we reach out to family, we're going to inform them and that usually makes them a little bit more comfortable. We share our phone numbers or work cell numbers with family and let them know that we're available to answer questions. If we haven't talked to a family in a month, we do reach out to them and just check in with them. Like, what's your point of view on how things are going?

Although many Team Leads spoke about being new to family involvement, many appeared to fully embrace the importance of family members in the treatment process.

We 100% believe in support, family support and any kind of support for the individuals because yes, we are temporary. We are a three-year program. Once we leave, we need to know that somebody is going to be able to help them stay focused on their recovery and navigate it and have the tools so that they're not lost and being drained by everything, because it's just scary and it's different.

For the teams that had a Family Partner, they used this role to provide an outlet to the families, to work through education about the illness, and to help mitigate and diffuse family conflict.

So, I would say one of the key strengths is that for the parents that utilize it, there has been a lot of support, and the conflicts that occur between the individuals we see and the parents greatly diminish because there's more of an understanding. They have more of an area to express their frustrations, especially with their family partner.

Beyond individual family peer support services, a number of the programs provided family groups. In some cases, they were family-only psychoeducation and/or support groups, and in other cases they were using the multi-family group model (McFarlane et al., 1995; McFarlane et al., 2003; McFarlane et al., 2016).

We found that there was a big disconnect between clients and the barriers with their families and support because the families don't understand their mental illness and what they're going through. So we started family support and it has been really good. We have families that come every single week. We even have families that come, even when the clients don't show up, and they've been able to build like a little network within themselves. And also that's giving even additional perspective to the clinical staff of what the support system is like at home.

Supported Employment and Education. Along with community outreach and enrollment, supported employment and education implementation was an area in which newer sites were struggling. Although the Individual Placement and Supports (IPS) model of supported employment is the approved employment model for Texas public mental health, very few team leads reported their organizations provided the service within the mental health division, aside from the CSC team. Team leads routinely reported that supported employment was only provided within Intellectual/Developmental Disability programming within their agency. Those that did report employment services were provided within their adult mental health programs expressed that these services did not fully follow the IPS model, as they did not embrace the value of zero exclusion. Furthermore, only two team leads reported that anyone on their team had engaged in IPS training, and many expressed a desire for training and additional support in this area.

And one of the things I found also was that in our system supported employment was treated like for folks that are in the action stages of change. So I had to go and rehabilitate and redefine what supported employment looks like when people are in different stages of change. And so that was a barrier and a challenge. And I think in that, we're really working to overcome that by explaining, "okay, well, in this three contemplated stages, this is what supported employment looks like."

Unlike the case manager/recovery coach, primary clinician, or prescriber role, the role of a standalone supported employment and education specialist was new to many of the organizations. This led to conflicts around what is considered a productive use of time. One team lead stated, *"You have to have billable services, otherwise X, Y, and Z. And a lot of what SEES does is just not billable."* Due to these conflicts, a few programs did not have a designated supported employment and education specialist and spoke of the inability to prioritize the service: *"I guess, the consistency of trying to provide the support and employment services to each of our clients, can become an issue from time to time."* This lack of prioritization likely contributed to the fact that it was reported that many of the SEES were conducting case management, outreach, and clinician duties. Some of the more established programs, however, appeared to embrace implementing the IPS model to fidelity. Indeed, many expressed that supported employment and education quickly became the selling point of the program.

I think for our program, it draws people into our program. When we're explaining our services to, especially our 18 and older population, that's a part of our services that they're really excited about. And so that's almost a selling point for us when we say we have a supportive education employment specialist who can help you with job hunting and with resumes, or even with going back to school, if that's what you're wanting to do. That's actually one of the things that people are like, I want that, that's why I want this program. So it's been actually, she's like "Quit using me as a selling point." Yeah. So I think that's one of the reasons that people agree to our program sometimes it's because they want that piece.

Team leads whose programs were actively providing supported employment and education services echoed theoretical conversations around the IPS model's applicability to adolescents and young adults. This was specifically around its creation of a "return to work" model for middle-aged adults with a serious mental illness (Bond, Drake & Becker, 2012; Cohen et al., 2020; Ellison et al., 2015) as opposed to young adults who may be working for the first time and are still exploring their career aspirations. Team leads discussed the need for the supported employment and education specialist (SEES) position to support career exploration and develop pre-employment opportunities such as volunteering to develop the skills to prepare for employment readiness.

> I would say that we've definitely made adaptations from the model… And also, volunteer opportunities have not been historically thought of as a viable asset of supported education and employment. But for young people who don't have much work experience and don't really have much sense of agency, volunteering can be a real safe way to develop occupational skills and social skills.

Various team leads identified certain skills required to be a successful SEES for the program, such as being comfortable working with the developmentally normative, but also somewhat taxing behaviors of adolescents. One team lead stated, *"What we found also is that not everybody that is trained in supported employment really wants to work with individuals who are experiencing their first episode."* Additionally, the SEES position requires staff members to be comfortable building a network of employers and educators, and the necessary skills for this are not standard practices taught within any human services education program. One team lead stated, *"Like when I was hiring the second time for the SEES position, I wasn't looking for a mental health professional. I was actually wanting either an education or a business major person because I can teach somebody the mental health stuff necessary to handle that position. But I can't teach those specific qualities that a SEES position requires."*

Beyond hiring needs, supported employment and education was one of the specific areas that interviewees stated they would like further training.

> I would say having a local Texas SEES conference would make a lot of sense too. Yeah, because it might be, it might just be a day conference... So I think in the overall conferences that we have, that position kind of gets screwed because their needs aren't really being taught and covered. It's a really unique position and job.

Most team leads were very passionate about the need for continuing education, and supported employment and education was a specific topic that was highlighted by a number of organizations.

Use of Technology in Care. The collection of these interviews occurred during the COVID-19 pandemic, which introduced additional technology options for the delivery of services. Prior to COVID-19, the State of Texas did not allow for telemedicine use beyond psychiatry within community mental health providers. As a result of stay at home orders, and new statewide regulations allowing for the expansion of telemedicine offerings, many CSC teams were using telemedicine to provide services. At the point of the interview collection, stay at home orders had expired, but Texas was experiencing a surge in new COVID cases. During interviews, all but two team leads reported that their programs were using video conferencing for some service provision. The two programs not using video conferencing were conducting services via telephone. In most

cases, the addition of telemedicine was welcomed by organizations, however they encountered barriers such as internet connectivity issues, lack of devices within individuals' homes, and individuals' preference for face-to-face services.

> *Well, for the team meeting we're using Microsoft Teams. We have offered virtual counseling for the clients that are interested in counseling. A lot of them are not, but a lot of them don't even have that capacity. They don't have a smartphone, they don't have a laptop or a computer. So there is no way for that.*

The majority of sites reported that at the point of the interview (June-July 2020), their agencies had developed policies and procedures around personal protective equipment (PPE), social distancing, and determination of in-person service provision. One program stated, *"So right now the state has given us approval to use Zoom if absolutely necessary. However, we are providing face-to-face services, since June 1st."* The distribution of telehealth, telephonic, and in-person services varied by site. A number of programs stated they were primarily providing telephonic services due to telehealth barriers, while others reported an equal mix across modes.

> *Now with COVID-19 and things of that nature, especially early on, such as like back in April and things of that nature, we definitely did telehealth services, Zoom, or phone calls to individuals that didn't have a webcam, or something of this nature. So, we tried to meet all their needs. And if someone needed medication injection or needed to go to the food pantry, we would still take them. I would still meet with them, complete the screening form that we had for COVID-19 symptoms, and then I would take them to go get those things done because we deemed those as absolute necessities.*

Many sites reported they had prioritized in-person visits to individuals who had disengaged during stay at home orders. One team lead stated, "*We probably went out and saw eight people this week. because either they are not answering their phone."* Team leads reported barriers to conducting assessment due to needing to utilize senses beyond sight. Although every site reported various barriers to telehealth and telephonic service provision, a number of the programs stated the flexibility of mode allowed them to increase the number of people they could serve on an individual day due to the reduction of travel time.

Beyond video conferencing, the use of text messaging continues to be a contentious topic among providers. Eleven team leads reported they were allowed to text individuals and eight reported that they were explicitly not allowed to text people. For the sites with policies that allowed texting, team leads reported that they included texting within their typical consent to treat documentation. One team lead stated: *"We fill out a regular consent and it's filled out for themselves for the purpose of communicating via electronic devices, such as email and text."* A minority of providers did not see a need to change practices to include texting, while others felt it was a developmentally appropriate need to adequately serve the population. One team lead commented about the internal conflict on the issue: *"And again, I'm not trying to complain about my agency, but my agency will not allow us to text clients. They consider it a violation of protected health information. And you need to understand, we're dealing with 15, 16, 17, 18 year olds. That's all they do."* In contrast, a number of other programs had fully embraced technology in service delivery to engage their clientele in developmentally appropriate ways.

We are really comfortable texting our consumers. So, with their consent, we use a lot of texts and with youth, it's just so much easier to get ahold of somebody versus calling them. Pre-COVID we would sometimes, like in counseling, we would watch some videos and then discuss it. We have made lists of helpful apps that we hand out. We use a lot of apps and in helping them keep track of symptoms sometimes, or help with medication reminders or sleep hygiene, regular hygiene, exercise. We meet them where they are with their technology, because we have some that are really into it and some that are not.

Developmental Needs of Individuals. Transition-age youth (i.e., 15-30) are a unique population whose developmental needs do not naturally fit into the service provision of typical child or adult mental health services (Clark & Davis, 2000; Davis, 2003; Davis, Koroloff & Ellison, 2012). The implementation of CSC programs has provided a unique opportunity to explore the impact of adolescent and young adult specific programming within more than half of the Texas mental health providers. With the exception of a couple of sites who physically located their program within a building that serves individuals across the child and adult divide (e.g. crisis services), the majority of the programs were positioned alongside adult mental health programming, and primarily staffed with individuals who had historically worked in adult mental health.

Several team leads reported that they had previously worked in an ACT Team, and many expressed that they saw their FEP work as similar to that of an ACT Team: *"I think we're more closely aligned with an ACT Team, than Adult Mental Health Services."* Although ACT and CSC share a similar structure, the level of disability experienced by their clients is disparate. The expectation for ACT programs is to be a hospital without walls and serve the person for the rest of their life, whereas CSC is designed to prevent the need for long-term intensive mental health services (Deci, et al., 1995; Dixon, 2000; Stein & Santos, 1998). Due to this difference in experience, many of the providers were new to working with a population moving through adolescent developmental behaviors and less interested in the typical culture of adult mental health. Team leads spoke of the need to strike a balance between approaching young people paternalistically and providing them full autonomy.

We're working with her and trying to nail something down of what she wants to do or if she's actually going to try and do it. Sometimes, it's like nailing Jello to a wall. Because she's in that in-between stage of, "Do I want to be an adult or do I still want my family to take care of me?" Like relationship-wise, she wants to be an adult, when it comes to the opposite sex. But when it comes to actually providing for herself, she doesn't want to do those things. Or she is just stuck on, if she did do those things, then will the expectations at home change. Yes, we definitely have to make some changes and maybe that means we'd spend a whole lot longer on identifying what they enjoy doing to help nail that down too.

Many team leads also expressed struggles within their team to adequately engage individuals and noted the differences between their past experiences working with middle-aged adults.

I still have not been able to identify exactly why I don't get as many referrals from the children's hospitals as I do the adults'. So that's the first thing. But then, when we do get to the referrals, making sure that we can try to keep them engaged despite the education and the barriers and the family issues. I think there's a lot that goes into it with the adolescents' enrollment.

Unlike middle-aged adults who may be well-established and connected to programming in the agency, team leads expressed that many of the adolescents and young adults served within the CSC program wanted the flexibility to engage and reengage as they wanted or needed supports.

I think there's a challenge there of teaching them that even though they're doing all these things successfully on their own and they might not need us as much, it might still be really important every now and then to talk with a peer about little things because sometimes little things can turn into big things if you don't talk about them. So I think that's the challenge and that's also a challenge for the whole team.

Although most team leads expressed difficulties traversing the typical adolescent and young adult individual and family dynamics, many of the providers expressed joy in developing a young adult-friendly environment that supported the preferences of the persons served. As one team lead stated: *"Sometimes for our folks, we do birthday parties for them at our office. So, our client will come in and we'll have a cake or something for them."* Many team leads also expressed pride in the substantial accomplishments that would observe: *'They're staying in school or they're getting their GED or they're going back to school or they're starting college classes. And I think that's something that is really great because a lot of them have told us, "I don't think I'd be able to do this without this help."*

Transitioning Care. Although programs were in different stages of implementation, with newer sites not yet transitioning clients out of the program, every site employed the exact same plan to transition. This plan consisted of the team first starting to reduce the number of services they were providing to individuals, and then transitioning them to another program based on the level of care they were prescribed by the Adult Needs and Strengths Assessment (ANSA).

And then when it seems like they've reached the point that they no longer feel like they need us and there again, clinically, we don't feel like they need extension of services. Then that's what we would do, is get with the program manager of say our Level of Care 1 services, which is our least intensive. And discuss the client and then yes, drop them down into that where they're mainly just doing ongoing medication services and they do have case management.

Aside from step-down practices of the program, a number of team leads discussed needing to coordinate transfers between program referrals and appropriate program when individuals referred were determined to not meet diagnosis eligibility categories. Almost all team leads spoke to the importance of effectively coordinating with other programs in order to provide a "warm handoff" during transition.

We can still do that seamlessly because of the way the program and our doctor is set up. We are embedded within the agency so we can do an extremely...we've really coined the term, "a hot handoff." We try to always do warm handoffs, but when we tell other providers how we're doing this, they're like, "That's a hot handoff." Yes, we want everybody to stay engaged. We want you here with us while we do our last two sessions, so they can start seeing you, getting used to you, seeing that we're all on the same team. So with that being said, if we find out that we can't treat people within our team, our doctor has another team that he works with less intense providers and we can transition that person to that team and they still keep the same doc.

Many sites attributed inappropriate referrals to individuals seeking adolescent and young adult-specific programming that does not exist outside of the CSC program. Finally, many team leads spoke of the power of early intervention and the ability of individuals to regain much of their functioning after obtaining support through the program.

We had a client who was just not interested in taking medicine. She basically fired us all like a million times. Then just finally kind of came around, a lot thanks to her family. Her family really kind of gave her an ultimatum actually about living in her house or getting on medicine. But I was able to kind of come in and made it so that she felt really comfortable about the terms of the agreement, and make her feel like she had some say in it. Now we're looking at finding her a job. This was someone who hadn't left her room for a year. It's just little things like that. The individual success stories that we're seeing with the program, I think amount to really big successes.

Overall, team leads shared much pride in the opportunity to support an individual early in the illness trajectory and were hopeful for the possible to change the future of public mental health.

Conclusions and Next Steps

Summary of Findings

The quantitative evaluation of the CSC program yielded the following conclusions:

1. The CSC programs have enrolled diverse participants over the operational period. While a greater proportion of participants have a diagnosis of Schizophrenia, affective diagnoses of Schizoaffective Disorder, Bipolar Disorder, and Major Depression with Psychosis are common. Children make up about 30 percent of the participants, with the two initial sites in Houston and Dallas enrolling a smaller proportion of children. There are more males than females in the CSC programs, but the proportion of females is increasing over time.
2. Fifty percent of CSC participants are predicted to remain in care for 354 days, or around one year. Most participant characteristics were not found to be related to treatment retention, including age, gender, and race or ethnicity. However, individuals with a diagnosis falling within the Other Psychosis category or Major Depressive Disorder were retained for shorter periods.
3. Most CSC participants received medication management and skills training or rehabilitation while in care. Psychotherapy, case management, continuity of care/engagement, peer services, and crisis services were received by about half of the participants. Other key CSC services, such as supported employment and family peer support were less frequently received, suggesting that these components of the team-based structure could be further strengthened.
4. Participants who received peer support services within the first 180 days in the program were retained in care for a longer period of time than those either never receiving peer services or receiving it after the first 180 days of care.
5. Participants who received family peer support services with the first 90 days in the program were retained in care for a longer period of time than those either never receiving peer services or receiving it after the first 90 days of care. There tended to be a greater lapse in time before families received family peer support than before participants received peer support, as well as a smaller proportion receiving family peer support.
6. Fifty-one percent of participants received further services from the LMHA after discharge from the CSC program. A little more than half received an authorization for additional services immediately following discharge, suggesting continuity of care. Adult participants were most likely to receive a low intensive level of care upon discharge. Child participants were more likely to receive moderate intensity levels of care upon discharge. Adult participants who accessed services after a gap in care were more likely to enter through crisis services than those transitioning in the first 90 days.

The qualitative evaluation of the CSC program yielded the following conclusions:

1. Echoing findings from previous evaluation reports, interviewees reported that most individuals were referred to services through a behavioral health provider or hospital/emergency room. Referrals from schools, the legal system, family and friends were uncommon, suggesting possible avenues for additional education and outreach. Newer sites reported difficulty recruiting individuals outside of their agency or local psychiatric hospitals.

2. Team leads held positive views of the selected evidence-based approach to early psychosis and were committed to implementing the model to the best of their ability. Interviewees did, however, express one concern about the OnTrack model, namely the trainers' lack of knowledge of community mental health structures, and specifically, Texas public mental health. This was often noted by rural organizations who expressed the greatest disconnect between trainer's knowledge of their context.

3. Team leads highlighted the value brought by interagency, peer-to-peer learning, which they reported has led to a connected network of CSC programs that support one another in their site-specific implementation processes. This peer-to-peer network is supported through FEP group calls facilitated by HHSC and participation in the South Southwest Mental Health Technology Transfer Center's first episode psychosis learning collaborative. Team leads reported that they appreciated the learning and problem-solving opportunities provided by these calls. Overall, team leads expressed gratitude for the peer support provided by more experienced sites, and yearned for more Texas-specific implementation support as they navigate internal hurdles.

4. Supported employment and education services implementation was the largest area of divide between more established and newer sites. Many of the newer sites noted significant struggles implementing the components of supported employment and education, while older sites referred to these services as their best recruitment strategy. This echoes findings from the RA1SE Connection study (establishing the OnTrackNY model), in which participants stated supported employment and education services were one of the reasons they engaged in the program (Lucksted, et al, 2015). Although no team leads expressly stated that SEES was not a priority, several reported that the SEES provider within their program often acted as a case manager and did not engage in job development practices. Furthermore, only two SEES and one team lead had been formally trained in the IPS model of supported employment and education.

5. Outreach and enrollment was also a struggle for newer sites and rural sites, and many noted their implementation progress was complicated by the safety guidelines required by the COVID-19 pandemic. Many described extensive planning and work that had gone into creating an outreach and enrollment strategy prior to COVID-19 restrictions. To work around these restrictions, team leads stated that they began their search for clients within their internal medical records, but additional referral pathways have been limited.

6. Team leads acknowledged that they struggle to attract child participants in their program. A number of team leads hypothesized this was due to stigma and a hesitancy of child providers to formally diagnose individuals under age 18 with a psychotic disorder. It is also possible that the struggle to engage adolescents is associated with a lack of adolescent- and young adult-friendly engagement practices. For example, almost all sites stated their program was physically and organizationally located within adult mental health programming. Further, most team leads reported that most of their team members' past clinical experience occurred within adult mental health programming. While this experience is valuable, best practices and strategies for serving and engaging young adults vary greatly from strategies for serving older adults.

7. Team leads also noted an on-going challenge to attracting and retaining Certified Family Partners, which is echoed in other studies of Texas child mental health services (Peterson et al., 2017). Research on parents of children with a variety of disorders show that caregiving for a "special needs" child is associated with an array of deleterious outcomes for parents at midlife and beyond (e.g., greater allostatic load, impaired cognition; Song et al., 2018; Ha et al., 2008). Access to support from another caregiver during the diagnostic process and

afterwards can provide an opportunity to mitigate initial family conflict and support family unity long-term (McFarlane et al., 1995; McFarlane et al., 2003).

8. Team leads pointed to the flexibility in billing practices, the ability to provide child and adult services within the program, and the encouragement to enact various non-traditional engagement practices with individuals and their families as major benefits to the program. Programs that were able to implement multiple modes of communication, such as texting, telehealth, telephonic, and in-person services appear to have the greatest ability to meet the participants "where they are at" and have a greater ability to balance traveling throughout the community to provide services. This flexibility of mode of engagement is particularly important to rural sites that were challenged by the size of their catchment area.

Recommendations

The evaluation team offers the following recommendations:

- Consider opportunities to document and communicate specific strategies that Texas CSC programs have found successful in implementing the early psychosis program. This practical guidance should include issues such as obtaining leadership awareness and buy-in, screening and referral processes, eligibility determination processes, team structures and hiring processes, initial and booster training of staff, authorization and billing processes, and transitions to other services. Best practices across the network should be identified and shared.
- Research shows that employment and education opportunities are developmentally normative for this population and that they increase the likelihood of mental health stabilization (Ellison et al., 2015). As such, programs should prioritize training of the IPS model for team leads and SEES, as well as ensuring that SEES are able to fulfill this role to fidelity. Since a significant proportion of SEES activities are not billable to insurance, this should be considered a priority for the use of the Block Grant funding supporting CSC programming.
- CSC programs should receive training and support in best practices for engaging the adolescent and young adult population. This may include training on topics such as positive youth development, promoting youth voice and choice, creating youth-friendly environments, in activities that promote authentic youth-adult relationships. CSC programs should also consider prioritizing the hiring of staff who enjoy and are experienced working with this age group.
- Texas HHSC should continue to promote flexibility within this program and communicate with LMHA leadership about its value. In future iterations of the contract, it will be important to explore ways to encourage the use of technology and texting across all sites to expand flexibility.
- Further research should examine the increased risk of treatment drop-out for individuals with other psychoses or major depressive diagnoses. If found to be associated with a lack of clarity in the diagnosis at program entry, the CSC programs should consider an eligibility process that allows for greater diagnostic precision for these participants to ensure a good fit with the CSC program.

- Programs should consider engagement processes that allow for a rapid connection with peer and family peer support services. Initiation of services within the first 60 to 180 days suggested lower risk of treatment disengagement.

The Future of the Evaluation: Developing the Early Psychosis Intervention Network

With the growing number of early psychosis intervention programs across the country, there has been a recognition that clinical and evaluation data collected by individual or groups of programs can be leveraged for greater learning and healthcare improvements. The Early Psychosis Intervention Network (EPINET) was introduced through a collaboration between the National Institute of Mental Health and the Substance Abuse and Mental Health Services Administration. The goal of EPINET is to create a national network of treatment centers that offer evidence-based specialty care to persons experiencing a first episode of psychosis. EPINET links treatment programs through common data elements, data sharing agreements, and a unified informatics approach for aggregating and analyzing pooled data.

In March 2020, the TIEMH partnered with the Health and Human Services Commission and 16 Local Mental Health Authorities to apply for EPINET-TX. EPINET-Texas will establish a learning healthcare system—utilizing low burden, valid data measurement and technological infrastructure to drive the process of on-going discovery. Through this effort, EPINET-Texas will help CSC programs better meet the diverse needs of individuals, families, communities, and systems through meaningful health services research. The following specific project aims are proposed:

Figure 9. *Counties in EPINET-TX*

Aim 1: Utilizing a participatory action research framework, establish the Texas EPINET Consortium (TEC). The TEC will bring together key participants needed to develop a learning healthcare system focused on ensuring services and supports that maximize the functional outcomes and recovery of young persons with psychosis. The TEC will serve as the executive committee for the regional network, consisting of at least 20 early psychosis programs within Texas.

Aim 2: Develop and implement an efficient data management system and informatic tool that integrates reliable and valid person-level measures of clinical features, services, and treatment outcomes. The Texas FEP sites participating in the initiative will gather key measures on all individuals served within the program and submit data to the data informatics platform. The data system will also incorporate data that is submitted to the state's public mental health database, with all data submitted to the EPINET National Coordinating Center. The regional data system will allow each site to access individual and program-level reports to inform service provision and quality management processes.

Aim 3: Describe the real-world use of substance use interventions in CSC programs and program participants' trajectory of outcomes over time. CSC models in the U.S. incorporate therapeutic approaches to addressing substance use; however, little is known about the use of these approaches within a program that values the decision-making autonomy of the person in care. A prospective, chart review study will be conducted to document the use of substance-focused interventions in CSC programs, the inclusion of goals reflecting reduced use, and changes to mental health, substance use, and functional outcomes.

Aim 4: Design and pilot a peer-provided manualized intervention that aims to increase the proportion of young people with FEP who reduce or stop substance use and improve outcomes. Partnering with peer specialists and individuals receiving CSC services, the investigators will use qualitative methodologies to inform the development of a flexible, manualized program for providing substance use recovery supports. A pilot study, with teams randomized to the peer intervention or usual care, will examine the feasibility of the intervention, acceptability to program participants, and estimates of potential outcomes. Primary outcomes of interest are substance use and functioning (social/role); secondary outcomes are psychiatric symptomatology, stage of change, quality of life, and self-assessed recovery.

EPINET-TX, starting in the Fall of 2020, will result in a change to the evaluation activities supported by the Mental Health Recovery and Resiliency (MHRR) initiative. While the primary data collection and analysis will occur under the EPINET grant, MHRR will allow for greater involvement of individuals with lived experience in the development of evaluation or research questions, the conduct of studies, and the dissemination of findings. Funding will be used to expand the number of LMHAs participating in the network, as well as supporting at least one study driven by individuals with lived experience. Individuals will receive training in research activities to support a participatory action research framework.

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