Meeting the Developmental Needs of Young Adults Diagnosed with Serious Mental Health Challenges: the Emerge Model

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Abstract

Adult providers struggle to engage 18–25-year olds despite high rates of serious mental health challenges observed among this age group. A new model, called "Emerge," combines the intensive outreach and multidisciplinary team-based approach used in Assertive Community Treatment with Positive Youth Development principles and practices used in the Transition to Independence Process Model. Emerge bridges youth and adult services, focuses on supporting transition-to-adulthood milestone achievement, and is a sister team to Coordinated Specialty Care for recent psychosis onset. This paper describes Emerge components, practices, and findings from a feasibility pilot study using agency administrative data. Most prevalent goals were employment and social support/relationship related. The majority made progress on individual goals, engaged in employment and education, and experienced decreased psychiatric hospitalizations. Community

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mental health policy and practice implications are discussed, including funding blending of evidence-based practices for those transitioning to adulthood with youth-onset serious mental health conditions.

Between 1.2 and 1.9 million 18–25-year olds in the US are diagnosed with a serious mental health condition (SMHC),[1, 2] including schizophrenia, bipolar disorder, or major depressive disorder. SMHC rates increased in the last decade among 18–25-year olds, a trend not observed among middle-aged and older adults.[2] These conditions tend to onset in late adolescence and young adulthood,[3] a phase increasingly described as *Emerging Adulthood*.[4] Emerging adulthood occurs between ages 18 and 29 spanning and expanding upon Erickson's *Adolescence* and *Young Adulthood* stages.[5] It is recognized as an exciting yet stressful time in the life span given the multiple major shifts that occur related to role functioning and expectations, relationships, living arrangements, and vocational engagement.[4, 6, 7] Emerging adults feel *in-between*—no longer identifying as children dependent on others for personal needs, but not yet adults responsible for meeting all of their own or other's needs. With emerging adulthood comes new agency and self-focus in identity exploration through decision making and experimentation in exploring life's options without previous levels of oversight by caregivers, or future responsibility to spouses, children, and community. Both child and adult community mental health systems were not designed to meet the unique developmental needs of this population. Child systems are largely focused on care coordination between schools, families and providers for school-aged youth,[8] while adult systems are primarily oriented around middle-aged individuals with the most severe and chronic of mental health conditions.[9]

Despite the opportunity for positive change and expansive hope observed among emerging adults, the transition to adulthood is incredibly challenging for those with SMHC diagnoses. Young adults diagnosed with SMHCs must navigate evolving formal and informal relationships and social settings with symptoms that significantly impact their cognition and social skills.[10, 11] Core to emerging adulthood is physical, psychological, and emotional instability. For those with SMHCs, stress and instability can be more acute and risky, for example including psychiatric hospitalization, incarceration or homelessness.[12] Young adults with SMHCs are at increased risk for high school expulsion and drop-out (or push-out), delayed high school completion, failure to enroll in or complete post-secondary education, unemployment and underemployment, comorbid substance use disorders, unplanned pregnancy and parenting, and justice involvement.[13–17] It is estimated that over a third of older youth in care and over 40% of homeless youth (up to age 24) meet criteria for serious mental health diagnoses.[18, 19] Young adults with psychiatric disabilities are also the fastest growing group of Supplemental Security Income (SSI) beneficiaries.[20] SSI is a deterrent to competitive employment and can lead to lifelong poverty. There is immense need for the development and evaluation of community mental health programs designed to meet the unique needs of young adults with serious mental health needs.

Emerging adulthood is a rapid period of growth, which creates opportunity for positive change. However, providers face many challenges in engaging and implementing attractive and effective young adult services. Compared to middle-aged and older adults, mental health service utilization is lowest among 18–25-year olds diagnosed with SMHCs.[2] Service barriers include: child to adult system segregation and poor child to adult service transitions;[21, 22] young adults' complex needs, especially those with child system involvement who tend to distrust adult providers;[23] limited developmentally appropriate service availability and antipathy towards adult services.[21] Prefrontal cortex brain development through the early 20s[24] suggests planning, organization and follow-through needed for adult service participation may be lacking. Adult providers may not be used to

involving family in services, despite young adults increasingly living with family into their twenties.[25] Though common and developmentally appropriate, young person distrust, antipathy, apathy, or lack of follow through may be experienced by adult providers as treatment resistance or unwillingness to participate.

It is an ideal time to understand how providers design services to meet young adult needs. Unprecedented federal funding has paved the way for examining community-based treatment models and innovative interventions addressing engagement and access issues, as well as treatment outcomes.[26, 27] Collectively, these efforts are producing knowledge guiding national young adult treatment model development and implementation, including a swiftly growing evidence-base on Coordinated Specialty Care (CSC) for recent onset of psychosis.[28, 29] There is immense need for examining provider experiences in applying emerging research to build programs for young people with a variety of SMHCs beyond recent onset of psychosis.

The Emerge Model

Recognized young adult mental health best practice is to integrate elements of both child and adult treatment models and rigorously evaluate these efforts.[30] This paper examines a new evidence-informed community-based service model for 18–26-year olds diagnosed with SMHCs called *Emerge.* The age range 18–26 was selected in order for optimal integration into fee-for-service Medicaid-reimbursable services in Illinois' adult community mental health system. See Table 1 for the Emerge Logic Model. Emerge serves as a (1) transition team to support child to adult services transfers, (2) young adult specific alternative to services designed for middle-aged and older adults, and (3) sister-team to CSC for first episode psychosis for those who are ineligible for CSC or need a step-down from CSC.

Emerge is a program without walls, serving 45–50 young people at any given time. Over 80% of Emerge interactions with participants take place in the community (as opposed to the office).

Table 1
Emerge logic model

Contextual inputs	Core strategies and practices	Team roles	Participant outcomes
• Agency experience implementing evidence-based adult • Agency experience blending and adapting models for TAY • Embedded Quality Improvement and Evaluation • Affordable Care Act and Medicaid	• Blended evidence-based approaches • Transition and Complimentary Function • Lengthier engagement and technology • Discovery-based practice and career focus • Involving young-person defined family and social network	• Community Support Specialists • Certified Recovery Support Specialist • Licensed Clinician • Employment Specialist • Education Specialist • Prescriber • Team Leader and Program Director	• Increased individual goal attainment • Increased work and school engagement • Decreased psychiatric hospitalizations

Emerge is a multidisciplinary, community-based, evidence-informed team approach that blends Assertive Community Treatment (ACT) and the Transition to Independence Process (TIP) Models. ACT is a transdisciplinary (e.g., social work, counseling, psychology, nursing, peer support, psychiatry, substance use, and vocational rehabilitation) total-team approach that tailors intensive community-based outreach and support to participants in their homes or in the community.[31, 32] ACT team members rotate to see participants multiple times a week based on individual participant needs. Staff-to-participant ratios are approximately one to ten and services are available 24 h a day, 7 days a week. ACT has been adapted for a variety of contexts and populations and successfully implemented with adolescents.[33, 34] Given multiple concurrent young adult developmental needs (i.e., work, school, housing, relationships, independent living), a multidisciplinary approach like ACT with embedded specialists across various developmental areas holds promise for this population. A team approach offers a high level of flexibility to respond to variation in participant need, which changes often for young adults, and provides participants the opportunity to meet multiple staff—and *choose* who they want to work with.

Emerge uses the Transition to Independence Process (TIP) as its foundational practice. TIP is a nationally recognized, evidence-informed, positive youth development approach.[35, 36] TIP is best implemented in team service models.[35] TIP privileges young person voice and preference, experiential learning, in-vivo coaching, and building on identified personal strengths and competencies. TIP empowers young people to (1) be more involved in shaping their life planning and (2) make informed decisions, experience outcomes of decisions, and learn from experiences with a supportive group of professionals and self-identified supportive adults.[37] TIP focuses on five transition domains: (1) employment and career, (2) education opportunities, (3) living situation, (4) community life, and (5) personal effectiveness and wellbeing. Emerge participates in required TIP trainings, bi-weekly *TIP Solutions Reviews* to review and enhance TIP Model application, and TIP fidelity assessments every 3 years.[35]

Emerge team roles Emerge modified the ACT total-team approach by having one team member specified as each participant's *primary* staff person (while continuing to see one or more staff weekly) to increase trust and strengthen bonds between participants and team members. Emerge has three full-time Community Support Specialists (CSSs; one of whom is a Certified Recovery Support Specialist), a full-time masters level licensed clinician, a part-time Employment Specialist, a part-time Education Specialist, a part-time prescriber, and a full-time team leader. The Emerge team leader coordinates team activities, directly supervising CSS and clinician, while also serving as a secondary staff for some participants. CSSs are bachelors or masters level generalists responsible for participant care coordination, focusing on understanding and fostering participants' individual strengths and emerging adult skills (e.g., organization, communication, planning, coordination, and follow-through) through experiential learning activities linked to personal goals. Prescribers are either nurse-practitioners or psychiatrists trained in latest prescribing best-practices used in CSC ("start low, go slow")[28] who use shared-decision making practices with participants, including educating about medication benefits and side effects, co-developing a medication adherence plan, co-monitoring medication impact on health, daily living, and personal goals, and evaluating medication experiences to refine prescribed medication regimen at least quarterly.

Emerge shares one space with an open floor plan and a conference table. Meeting two mornings a week, the team reviews the participant roster, divides tasks, reports progress and struggles, and solicits support and ideas from one another. Team members have tablets with WIFI to document participant interactions in real time and smartphones to communicate with participants and team

members. Emerge hosts its own crisis line, rotating between CSSs, clinician and Team Leader to support evening and weekend emergencies.

Young adult tailored engagement strategies Emerge is designed to be responsive and attractive to young adults. Emerge avoids language that may be perceived by participants and families as stigmatizing. The word "therapy" is rarely used despite team employment of non-traditional therapy approaches, including art therapy, movement, and mind-body-based practices, in addition to Dialectical Behavior and Cognitive Behavior Therapies. Emerge "meets young people where they are"—physically, socially and developmentally in order to effectively engage and maintain engagement. Staff-participant interactions occur in the community, either in participants' homes or nearby public spaces (e.g., library, coffee shop, or park). Emerge uses text messaging for appointment reminders, encouragement and check-ins. Akin to CSC,[38] Emerge conducts their own screening and intake assessments to (1) minimize time between referral and assessment, (2) be specifically tuned into young adult life experiences, and (3) effectively begin engagement with the team. Initial Emerge engagement lasts approximately 2 to 3 months while participants and the team get to know each other in order to establish the best way to partner.

Consistent with TIP[37] and CSC,[39] Emerge focuses on what matters to young adults: work and school, building meaningful relationships with peers, managing finances and time, being a part of the community and giving back, and/or becoming more independent. The team emphasizes connecting on young adult self-identified goals rather than mental health concerns. Challenges with mental health are explored and addressed effectively as they become barriers self-identified life goal achievement. Emerge hosts weekly community-based social activities to foster natural connections between Emerge participants, especially those with socialization goals. Activities are based on current participant interests and range from small (three participants) to large groups (25 participants). Activities have included physical health and wellness activities (e.g., basketball, bike riding), community service learning projects, and social gatherings in free public places (e.g., local parks and beaches), or cultural activities (e.g., museums and festivals).

Discovery-based practice Emerge embraces the concept of *Discovery* in addition to *Recovery.* Defined by SAMHSA,[40(p.1)] recovery is "a process of change through which individuals improve their health & wellness, live a self-directed life, and strive to reach their full potential." The general notion of living a self-directed life and reaching one's full potential are applicable to young adults, however, the word *recovery* connotes individuals are getting something back or returning to some previous level/type of functioning. Young adults are developing self-knowledge for the first time—about their health, about who they are—as they experience developmentally appropriate changes and instability. The concept of *recovery* addresses change in relation to health and wellness, while young adults are simultaneously dealing with seismic, developmentally appropriate role shifts and new demands related to career, social network, and community.

Young adults are also in various stages of integrating their mental health experiences into their still-forming identities, depending on how recent the onset of their SMHC was. The stigma of identifying as someone with *mental illness* is felt profoundly by adolescents and young adults.[41] Emerge staff remain curious and frame their work as "discovering" or learning something for the first time: exploring, engaging in making sense of these new experiences, and identifying insights (related to all life domains) without making assumptions or assuming the role of expert guide. Emerge embraces mutuality. When relevant and appropriate, staff share their own experiences, e.g., managing money, dealing with roommates and family, figuring out career to validate and provide concrete examples of navigating complex and stressful situations common in the transition to adulthood.

Career focus Emerge uses an enhanced version of evidence-based Individual Placement and Support (IPS) Supported Employment.[42] IPS is highly effective and widely adopted in the US.[43] IPS has eight principles, including zero exclusion (participation not based on absence of symptoms) and rapid job placement (within 1 month of enrollment, participants have face-to-face employer contact),[44] which resonate with young adults. IPS enhancements include Supported Education[45] and a career development focus that values developmentally appropriate vocational activities, e.g., internships, volunteer opportunities, high school and GED course completion. Annually meeting high fidelity since 2015, Emerge has embedded Specialists trained in IPS and Supported Education who support career exploration; role model and coach on professionalism, organization and communication; and develop relationships with local employers and education programs based on young person interest.

Leveraging agency data for a feasibility pilot study Before more rigorous research of community mental health service models like Emerge can be conducted, young adult providers must (1) clarify their program structures and core practices and (2) examine their regularly inputted "practice as usual" clinical data to better understand the needs and desires of the population they are serving, service experiences, and service impact. Much can be learned from analysis of agency clinical record data, despite limitations introduced by not having an external research team systematically collecting participant behavioral indicators or standardized measures. Evidence-based practices develop through operationalizing promising programming, developing quality measures, and tracking early outcomes.[46]

Emerge components and practices are described above. Emerge feasibility was assessed through the following objectives during the pilot study: (1) describe participant characteristics, (2) explore participant goal types, prevalence, and progress, and (3) track education and employment engagement and psychiatric hospitalizations.

Methods

This study was approved by the Institutional Review Board at the Illinois Institute for Technology. Specific EHR data for this project was extracted and de-identified by agency informational support staff for the specified time period to allow for retrospective analysis.

Participants

Emerge participants enrolled within a 3-year period, January 1, 2014 to December 31, 2016, were selected for this study. To qualify for Emerge, individuals must (1) be between 18 and 26 years old, (2) meet DSM-V mental health disorder diagnostic criteria,[47] (3) not have a primary substance use or developmental disorder, (4) have a total score a 2, 3, or 4 on the Level of Care Utilization System tool,[48] and (5) live within a particular geographic region. Diagnosis is achieved through an in-person mental health assessment and consultation with a prescriber, licensed clinician, and clinical director. The psychosocial assessment used to collect demographic and life experience information is described in "Measures" below.

Measures

Psychosocial assessment Using a semi-structured psychosocial assessment at enrollment, a master's level clinician (in consultation with the team's prescriber) assessed and recorded participant demographics, diagnosis, prior and current life experiences (i.e., history of

psychiatric hospitalizations, education status and attainment, employment status and history, Supplemental Security Income (SSI) receipt, and living situation). The tool was not a standardized assessment, nor did it include standardized assessments. It met state Medicaid guidelines to establish need and level of care. Diagnosis was established at intake and refined overtime if necessary by the clinician with prescriber consultation. Most recently recorded primary diagnoses were selected for this analysis. Symptom severity was not recorded in the psychosocial assessment tool.

The tool included 20 psychosocial domains, each with an embedded form with both open text boxes and drop-down menus to select predetermined responses. For example, the *Mental Health Treatment History* section of the tool had closed and open-ended questions including: *number of previous hospitalizations*, a scale to select from: "0," "1–5," "6–10," "11–20," "over 20," and an open text box for *hospitalization details*. The *Education & Employment* section of the tool had these fields: *current enrollment in school* (Yes/No); *currently employed* (Yes/No); *highest education level completed* (grade and degree list); *desire to return to school* (Yes/No); *desire to obtain employment* (Yes/No), *current and previous employment start and stop dates, location, role, and pay*, and open text boxes for additional *education and employment details*. The financial section of the tool had a field for SSI status and eligibility and income: *SSI/SSDI, income from job, benefits collected.* The tool's daily living section had fields capturing current and previous living situations: *programs lived in, home situation, issues in the home*; self-care: *activities of daily living, hygiene,* home care: *cleaning, cooking, managing own space;* community access: *transportation, community safety, access to grocery stores, engagement in community*.

Care plans Goal type and progress were captured in participants' Care Plans. Multiple goals could be selected from a pre-populated drop-down menu (438 possible goal types across 58 domains). Examples included: *will learn and use at least three skills and strategies to manage negative feelings* or *will identify at least one barrier to education program enrollment.* After a goal was selected by the Emerge staff and young person, the next field was an open text box where the staff listed efforts to support the participant with this goal. Care Plan goals were reviewed by staff and rated on the following scale: achieved goal, moderate progress, some progress, no progress, or deterioration. Staff described goal progress in linked open text boxes.

Life events Participant work, school, and psychiatric hospitalization dates and details, were recorded in the EHR in the "life event" tab. The tab had a drop-down menu to select life event type, start and end date, and an open text box for details.

Procedure

Psychosocial assessment Within 30 days of enrollment, an Emerge CSS explored participant life experiences across the 20 life domains and entered corresponding information into the EHR psychosocial assessment tool forms. For example, in the *Mental Health Treatment History* section, staff asked: "Have you been hospitalized?; How many times?; How old were you the first time?" and then entered hospitalization history details in an open-text box, selected *number of previous hospitalizations* from a drop-down scale ("0," "1–5," "6–10," "11–20," "over 20") and indicated age at first hospita*lization* in a separate field. The assessment took approximately 2 h and was augmented with collateral information, e.g., family member input and record review.

Care plans During the first month of Emerge enrollment, each participant developed individualized care plan goals with their primary CSS. Goals were reviewed every 6 months with participants and rated by the primary CSS who then reviewed the ratings with their supervisor before submission. The CSS solicited Emerge team feedback on ratings if additional information is needed to rate progress on particular goals.

Life events Participant work, school, and psychiatric hospitalization dates and details were recorded in real time by Emerge staff in the EHR. To ensure data validity and reliability when work, school or hospitalizations were discussed in team meetings, the Emerge Team Leader prompted the participant's primary CSS to record these life events in the EHR. Emerge's Quality Improvement Specialist also sent a monthly reminder email to the team to enter all life events. Quarterly, these events were summarized using descriptive statistics and reviewed with Emerge for quality improvement and to reinforce the importance of accurate EHR data entry.

Analysis Demographic variables, including diagnosis, living situation, and education attainment, were recoded into new categories for simpler summarization using descriptive statistics. Participant care plan goals were thematically coded by three research assistants (including two with lived mental health experience) to generate young adult specific goal categories (see Table 2). Then, each participant's categorized care plan goals were reviewed for progress based on Emerge Team ratings at 6, 12, and 24 months of enrollment. Goal types were ranked in order of prevalence. Total number of goals where progress was made (i.e., some progress, moderate progress, or achieved goal) was compared to total number of goals for participants enrolled 6, 12, and 24 months. Work, school, and psychiatric hospitalizations were analyzed for frequency of occurrence across participants longitudinally: from enrollment to 6, 12, and 24 months. Employment details were thematically coded into categories; pay rates and employment length were summarized using

Table 2
Goals and progress

n = **78**	**Participants with at least 1 goal in specified area**	**% who made progress on goal in specified area**
Employment	54	83%
Social support and relationships	48	88%
Education	47	62%
Mental health symptom management	44	89%
Safe and affordable housing	35	83%
Financial management	35	71%
Medication	34	79%
Self-awareness and coping	33	82%
Physical health/overall health	30	70%
Independence/independent living	25	84%

descriptive statistics. Education programs were coded by type and summarized using descriptive statistics.

Results

Participants

Emerge had 110 participants within the 3-year period. Emerge referrals came from family (25%), Thresholds YAYAS (18%), Thresholds Adult Crisis, Linkage, & Support teams (15%), psychiatric hospitals (13%), other community-based providers (13%), self or friend (11%), and post-secondary education programs (3%). It took approximately 1 year for Emerge to enroll 45 participants. Eligibility screenings for those who did not enroll were not recorded in the EHR. Overall, mean enrollment length for the 110 participants (based on either their individual exit or the 3-year cutoff date) was 373.7 days (SD = 292.6; range = 7–1041). Of the 110 participants, 76 had exited services by the 3-year cutoff date (mean days enrolled = 282.9; SD = 224.9; range = 7–813). Participants exited services for a variety of reasons, including planned positive exits to higher or lower levels of care (45%), unplanned passive exits (26%), abrupt move far out of geographic region (8%), inconsistent engagement at too low of a level to remain enrolled (8%) or limited or no engagement after enrollment meeting (8%).

At enrollment, participants' ages ranged from 18.3 to 27.9 years (eligibility exceptions were made for five individuals over age 25 identified as good fits for Emerge). Mean age was 21.9 years (SD = 2.2 years); 60% were male and 40% female; 52% were African American, 27% were White, 13% Latino, 4% were mixed race/ethnicity, 2% Asian, and 2% unknown. See Table 3 for diagnoses. Common comorbid diagnoses include: post-traumatic stress disorder (17%), substance use disorder (13%), other anxiety disorders (12%), and attention-deficit hyperactivity disorder (12%). Ninety percent had experienced at least one psychiatric hospitalization prior to enrollment. Mean age at first hospitalization was 14.7 years (SD = 4.67; range = 4–23 years). Mean length of time between age at

Table 3
DSM-V primary diagnosis and psychiatric hospitalization history

Diagnoses (*n* = 110)	
Mood disorders	68%
Bipolar disorder	28%
Major depressive disorder	20%
Mood disorder NOS	15%
Other	5%
Psychotic disorders	29%
Schizoaffective disorder	14%
Schizophrenia	11%
Other	4%
Behavioral disorders	3%
Prior psychiatric hospitalizations (*n* = 90)	
1–5	59%
6–10	21%
11–20	9%
Over 20	11%
Age at first psychiatric hospitalization (*n* = 90)	
Child (4–12 years)	27%
Adolescent (13–18 years)	51%
Young Adult (18–24 years)	20%

enrollment and age at first psychiatric hospitalization was 7.01 years (SD = 4.72; range = 43 days to 21 years). The vast majority (87%) experienced their first psychiatric hospitalization over 1.5 years prior to Emerge enrollment, suggesting most were not experiencing early condition onset at enrollment. See Table 3 for additional details. At enrollment, 25% had aged out of the child welfare system, 46% had current or previous involvement in justice system, and 48% were receiving SSI.

Living situation varied at enrollment: 37% lived with a parent(s), 19% in their own apartment, 14% with sibling or other family, or partner, 13% with friends, 9% in semi-institutional setting (e.g., nursing home or adult group home); 8% homeless (streets or shelter).

At enrollment, 86% were unemployed, of whom 88% were interested in employment services. Of those employed (14%), all were working part-time. At enrollment: 43% did not have a high school diploma; 38% had a high school diploma; 18% had some post-secondary completion. Most (75%) were not enrolled in school at enrollment, of whom 85% desired to further their education. Of those enrolled in school ($n = 25$), 48% were enrolled in college/university, 44% in an alternative high school or GED program, and 8% in post-secondary training programs.

Goals and goal attainment

Of the 110 participants enrolled in specified period, 78 were enrolled for at least 6 months, 58 for at least 12 months, and 31 for at least 24 months. Across 78 participants, there were 471 unique goals (mean = 6.2 goals, SD = 2.4, range = 1–12) across 10 goal categories. See Table 2. *Employment goals* included looking for work, completing applications, interviewing, and securing and maintaining employment. *Social Support & Relationship* goals included: connecting, building, and maintaining healthy relationships; expanding social network, being more comfortable and confident around people; and learning and applying social skills. *Education* goals included exploring, applying, enrolling, attending, competing courses, and graduating from a variety of education programs. *Mental Health Symptom Management* goals named specific symptoms or conditions: avoiding re-hospitalization, increasing service engagement, identifying symptoms and impact on wellness, exploring and practice strategies for decreasing symptoms, developing and using skills to manage stress, distressing thoughts or feelings related to specific condition, and decreasing substance use. *Safe & Affordable Housing* goals included: locating housing, getting on housing waitlists, submitting housing applications, moving, or ending a bout of homelessness.

Financial management goals included learning and applying budgeting skills, opening a bank account, or applying for benefits. *Medication* goals included learning about psychiatric medications and side effects, regularly and consistently taking medications as prescribed, and discussing medication concerns with the team. *Self-awareness and coping* were wellness goals that were not specifically symptom or diagnosis focused: exploring and identifying what gives meaning and purpose in life—or what gives strength and hope, identifying and applying wellness tools, increasing awareness of how current perceptions and reactions are impacted by past life experience, discussing and practicing positive self-talk, identifying and applying coping techniques to reduce stress. *Physical health/overall health* goals included exercising, improving sleep, eating well, and physical condition medication management. *Independence/independent living* goals included: maintaining one's living place, and learning skills to live on their own (e.g., cleaning, cooking), enacting daily routines, and connecting to resources to maintain level of independence.

See Table 2. Independent of enrollment length (6, 12, or 24 months), participants on average made progress on 80% of their collective goals. See Table 2 for the prevalence of goal categories across participants and progress made based on those enrolled at least 6 months. By 6 months of enrollment ($n = 78$), 51% made progress on at least 70% of their

goals. By 12-month enrollment ($n = 58$), 71% made progress on at least 70% of their goals. By 24-month enrollment ($n = 31$), 94% made progress on at least 70% of their goals.

Life events

Employment and education Of those enrolled at least 6 months ($n = 78$), 27% obtained employment or enrolled in school (22% were employed, 8% were in school) in the first 6 months of enrollment. Of those enrolled at least 12 months ($n = 58$), 53% obtained employment or enrolled in school by 12 months (43% were employed and 19% were in school between 6 and 12 months enrollment). Of those enrolled 24 months or more ($n = 31$): 65% obtained employment or enrolled in school (45% were employed and 35% were in school between 12- and 24-month enrollment). Employment was primarily part-time and short-term. Participants had on average 3.5 jobs (range = 1–6) while enrolled. Average length of employment was 12 weeks (SD = 11; range = 1–54). Types of jobs were primarily entry-level food service, retail, child care, customer service, shipping/receiving, moving, security, administrative assistant, and janitorial work. Education programs included (a) 2- and 4-year college and universities (36%); (b) high school (29%); GED preparation course (18%); certificate (e.g., culinary or certified nursing assistant) programs (7%); auditing a college course with institution permission (7%); and online post-secondary coursework (4%).

Psychiatric hospitalization Of the 78 enrolled at least 6 months to over 24 months, 87% either avoided psychiatric hospitalization or experienced decreased hospitalizations while enrolled (71% avoided; 29% decreased). For the 25 enrolled between 6 and 12 months, 92% either avoided psychiatric hospitalization or experienced decreased hospitalizations while enrolled (74% avoided; 26% decreased). For the 22 enrolled between 13 and 24 months, 91% either avoided psychiatric hospitalization or experienced decreased hospitalizations while enrolled (80% avoided; 20% decreased). For the 31 enrolled over 24 months, 81% either avoided psychiatric hospitalization or experienced decreased hospitalizations while enrolled (60% avoided; 40% decreased).

Discussion

This paper describes the feasibility of community-based developmentally attuned multidisciplinary team services with a racially and ethnically diverse, urban, and low socioeconomic group of young adults with variety of diagnoses and length of time since condition onset. Findings suggest that the model is feasible and appears promising. Many young people remained enrolled in Emerge for over 2 years. Participants had a variety of individual goals related to key developmental milestones. Most made progress on the majority of their goals while enrolled. Despite the value of tailoring team-based service models for young adults found in this study and elsewhere,[28, 29, 49] state mental health system and insurance policies need amending to provide the funding and flexibility needed to effectively engage and treat young adults.

The analysis of individual goals and goal progress helps providers to understand what young adults want to focus on in their mental health treatment. Goal types aligned with TIP Model aims to support young adult specific milestone achievement.[35] Employment was the most prevalent goal category across all participants, followed by social support and relationships, education, and mental health symptom management. The prevalence of work and school—and the progress in these domains compliments CSC research, suggesting that

integration of Employment and Education supports on multidisciplinary teams boost engagement and impact outcomes.[39] There is evidence that Supported Employment services decrease symptoms and hospitalizations among adults,[50, 51] which needs to be examined among young adult populations. Also, SSI receipt as a young adult can be a barrier to workforce engagement.[52] Nearly half of Emerge participants were receiving SSI at enrollment, likely impacting their engagement in employment. SSI receipt and employment will be explored in future analyses. Also, Emerge participants have similar rates of psychiatric hospitalization, employment and education trends as observed in CSC research, which includes primarily older youth and young adult clients. For example, among NAVIGATE participants, 34% experienced a psychiatric hospitalization and 45% were working or in school by 24 months of enrollment.[53] This study's participants included young adults with a wide array conditions and condition durations. For providers with CSC teams interested in building sister teams to refer clients who do not meet criteria for CSC, Emerge may be a helpful model to consider.

Limitations There are a number of limitations in this pilot study. This study lacks comparison groups (e.g., those in regular adult services or in other young adult specialized services) to assess Emerge impact. Participant goal progress was not rated blindly, but rather by Emerge staff. Future research exploring Emerge participant goal progress should include independent goal progress raters and participant perspectives to increase rigor. Although Emerge staff are required to enter life event information and are reminded monthly, work, school, and hospitalizations may be underestimated in this study due to under-reporting. Education outcomes (e.g., course completion, graduation, or dropout) were not systematically tracked, thus not included in the analysis. Additional limitations include lack of measurement of symptom severity, medication adherence, quality of life, housing stability or service satisfaction. There is also a need for further specification, refinement, and evaluation of the Emerge Model. Next steps include development of a fidelity scale capturing Emerge principles, practices, and systems, as well as examining exit reasons and associated individual participant characteristics.

Implications for Behavioral Health

The Emerge Model's strongest engagement tool is its intentional focus on supporting young people with their transition to adulthood milestones, not their mental health (despite service eligibility requiring DSM-V diagnosis). Rather than educating young adults about their condition and focusing on symptom mitigation, the team works with participants to understand and address their mental health and related symptoms when it becomes clear that mental health is a barrier to success with their personal goal achievement. To effectively bill Medicaid for services rendered, the team must document their interventions based on medical necessity. However, daily in the field with young adults, Emerge works on participant goals related directly to mental health or not. Medical necessity does not need to be specifically mental health symptoms, but rather the many social determinants of health that impact mental health and wellness. A goal can be to improve a relationship with a parent, but part of the work to reach this goal may involve developing new anxiety management skills. Or, a goal can be to stay employed, but an objective will be to improve anger management and learn conflict resolution skills. This process of understanding how mental health is interconnected with all life domains during the transition to adulthood is an important element of self-discovery for young adults. This has implications for how psychoeducation is conducted with young adults who do not identify with their mental health condition (nor should providers or systems want them to).

Telehealth approaches may be particularly valuable for participants who with housing instability or who move out of a team's geographic catchment area, but still want to keep working with the team. In order to meet the socio-developmental needs of emerging adults, services should be flexible between in-office and in-community locations. Young adults are more likely to engage when they are in a location that is most comfortable and less stigmatizing, for some, this is a community setting or in one's home—not in a clinic setting. However, for others, it can be less stigmatizing to come to an office where their loved ones or peers do not see or interact with teams coming in and out of their homes and communities.

The largest hurdle facing providers who aim to implement intensive team-based service models like Emerge is funding. It is particularly challenging to effectively fund dynamic services that are sufficiently responsive to young adults' changing needs with Medicaid or commercial insurance. The ebb and flow of service participation is often too high and young adults present with varying *levels of care* that change (and should change) overtime. Providers must respond to intense times of need, spending more time and resources on in-person interactions, and conversely, decrease support when appropriate, e.g., using brief phone or text check-ins instead of in-person visits. Core engagement strategies used in Emerge threaten team sustainability. These include peer and vocational supports; small and large group social activities, texting and time spent communicating to young people, which are largely not reimbursable by Medicaid or commercial insurance. Most providers and systems successfully blending evidence-based practices to meet young adult needs do so through federal grants, e.g., SAMHSA Healthy Transition Initiative and System of Care. However, this study demonstrates that weaving a total team approach with evidence-based practices and a positive youth development framework is feasible and sustainable with Medicaid. Illinois also recently passed the Early Mental Health Act to provide Medicaid reimbursement for youth and young-adult specific treatment teams with increased flexibility to meet needs and include key service elements (e.g., Supported Education) not previously Medicaid reimbursable.[54] This legislation is the first of its kind in the U.S. and will allow for expansion, evaluation and refinement of the Emerge Model.

Conclusion Due to the lack of evidence-based practices for marginalized and vulnerable young adults with SMHCs, this paper outlines a new multidisciplinary community outreach and support model that appears feasible and warrants future research for young people with a variety of serious mental health needs. This study provides insight into the kinds of goals young adults develop when they have the opportunity to individualize their services. Adult providers who aim to or currently serve young adults should consider multidisciplinary team and community-based approaches with foundations in developmental theory and practice.

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Compliance with Ethical Standards

Conflict of Interest Dr. Klodnick is the Thresholds Youth & Young Adult Services Director of Research & Innovation and completed her NIDILRR Switzer Research Fellowship at Thresholds. Dr. Klodnick is also a UT-Austin Texas Institute Excellence in Mental Health affiliate faculty. Candy Malina is the Senior Director of Clinical Practice who oversees Youth & Young Adult Service development and implementation. Dr. Fagan is a Vice President of Clinical Operations at

Thresholds, overseeing Youth & Young Adult Services. Rebecca Johnson is an Evaluation Coordinator for Thresholds Youth & Young Adult Services Research & Evaluation. Ariel Brenits is an Evaluation Specialist for Thresholds Evaluation. Eva Zeidner is Emerge Assistant Program Director. Jose Viruet is the Emerge Program Director. We have no special interests to report.

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