Adapting Supported Employment for Emerging Adults with Serious Mental Health Conditions

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Abstract

Effective services are needed to assist young people with serious mental health conditions to successfully transition to employment or education, especially among those with intensive adolescent mental health service utilization. To meet these needs, the Individual Placement and Support (IPS) model of supported employment was adapted and its feasibility was tested in a psychiatric treatment program for early-emerging adults. Participants were 17–20 years old (mean age=18.5 years). Most were African American, under the custody of the state, with a primary mood disorder diagnosis. Adaptations to IPS included adding the following: near age peer mentors, a supported education component, and a career development focus. This open trial feasibility study tracked the model's development, recruitment, and retention and tracked vocational and educational outcomes for 12 months. Model refinement resulted in the development

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of a separate educational specialist position, greater integration of the peer mentor with the vocational team, and further specification of the role of peer mentor. There was an 80% retention rate in the feasibility evaluation. Of the 35 participants, 49% started a job and/or enrolled in an education program over the 12-month period.

Introduction

This open trial feasibility study examined an adaptation of an evidence-based adult mental health service (Individual Placement and Support (IPS) supported employment) for use with early-emerging adults (ages 16 to 21) with serious mental health conditions (SMHCs). This term (SMHC) is used to refer to both the Substance Abuse and Mental Health Services Administration's definition of serious emotional disturbance (SED) in youth up to age 18 as well as serious mental illness (SMI) in adults ages 18 and older, as is used in other research of emerging adults[1] because this population spans both age groups. The IPS[2] model of supported employment was adapted for this population by integrating it with components of supported education, peer mentorship, and career development.

The authors chose to adapt IPS, in part, because of its inherently empowering approach which prioritizes consumer preference and because IPS resonates with the career development needs of this age group emphasizing personal choice, exploration, and agency. The authors also added peer mentors, a component of recovery supports identified in the Substance Abuse and Mental Health Services Administration's working definition of recovery.[3]

A unique population with vocational challenges

Emerging adulthood[4] is a transitional and developmental stage of life in which young people refine skills and capacities that shape their mature adult lives. One of the central tasks of this stage is to complete schooling and launch adult work lives. For young people with SMHC, and especially those with intensive adolescent mental health service use, the school-to-work transition is challenging because a SMHC impacts cognitive, social, and academic functioning and development.[5–7] Positive work and school experiences are important for this population not only because they lead to self-sufficiency, but also because they allow for engagement in the typical activities of emerging adulthood and can provide other benefits, such as bolstered self-esteem, a sense of agency, and decreased stigma.[8]

Of central importance to this study, young people with histories of SMHC have compromised educational attainment. For example, by age 19, for those in special education due to a SED, national survey data suggest that the high school completion rate is 56%.[9] Few students with SMHC diagnosed by high school age go on to attend post-secondary education programs; those who do continue do not complete such programs.[10] Similarly, employment outcomes are also compromised for young people with SMHC.[10] Without employment, many young people with SMHC and intensive adolescent mental health service utilization will likely qualify for federal disability payments (i.e., Supplemental Security Income (SSI)), which can be a disincentive to future work.[11,12]

Selecting and adapting IPS for this unique population

No controlled trials have yet been published evaluating the effectiveness of vocational programs specifically for early-emerging adults with SMHC with current intensive adolescent psychiatric supports and long histories of child mental health service utilization.[13] Given their need for effective vocational supports, the IPS[14] model of supported employment was selected for

adaptation for several reasons. First, IPS is consistently superior in terms of achieving better employment rates than other vocational rehabilitation models in numerous randomized trials with adults with SMI.[15,16] Second, IPS is found to be effective for supporting individuals with pervasive symptoms and poor social functioning,[17] as found among emerging adults with SMHC and intensive adolescent service utilization. Third, while IPS has been tested primarily among mature adults; recently, it has been adapted for emerging adults,[18] which provided initial guidance for model adaptation. Fourth, the IPS model dovetails well with other evidence-informed practices for young adults with SMHC by facilitating self-discovery, creating in vivo learning opportunities, and enhancing emerging adult empowerment and voice in service provision.[19] IPS facilitates individualized client-driven job selection while developing adaptive skills that young people can then build upon with each vocational endeavor.

In this study, employment services closely mirrored the standard practices for IPS[20] namely: (1) *zero exclusion*: anyone interested in working can participate in IPS, (2) *vocational and mental health treatment integration*: IPS and mental health treatment are offered in the same location, and communication frequently occurs between clinical and IPS staff, (3) *competitive employment*: IPS participants seek community-based employment for a competitive wage, (4) *benefits counseling*: IPS participants need individualized benefit planning support, (5) *rapid job search*: the job search process begins within 1 month of the initial IPS assessment, (6) *systematic job development*: employment specialists build an employer network based on clients' interests, developing relationships with local employers by making systematic contacts, (7) *time-unlimited and individualized support*: follow-along supports are individualized and continued for as long as the client wants and needs the support, and (8) *preferences*: IPS job search and support are based on client preferences.[2] IPS services are delivered by a team of employment specialists trained to support individuals in each of the employment phases, which include engagement, assessment, job placement, job coaching, follow-along supports, and re-engagement in the case of job loss.[2]

Adding Supported Education Due to the known educational struggles of the target population, it was important to address their educational needs as well as their vocational needs. Models that integrate IPS with educational supports (known as Supported Education [SEd]) are available in services designed for young adults with first-episode psychosis.[21,22] Thus, for this adaptation, SEd principles were integrated with IPS as previously done[22] where, in addition to typical employment supports, employment specialists also support exploration and enrollment in post-secondary education programs, financial aid application, advocacy for accommodations, and fostering connections with local training programs, colleges, and universities. In this study, educational goals of participants could include returning to high school (after dropping out), GED training, college enrollment and course completion, or other vocational training.

Peer Mentoring IPS was adapted by including peer mentors as part of the IPS team. Peers exert strong influence in this age group,[23] including influence in academic achievement[24–26] and career development.[27,28] Many diagnoses are associated with social impairments,[29,30] which can impede access to supportive peers. Peers (with similar histories of mental health treatment and diagnoses) have been found to be helpful in engaging adults in mental health treatment.[31] Thus, harnessing the positive influence of peers should provide strong support for this population's educational and employment efforts. Mentors provide knowledge and encouragement[32] and opportunities to feel understood and safe.[33] Mentoring is also related to positive outcomes among older youth in foster care.[34,35] Further, among early-emerging adults with SMHC receiving IPS, those successful with employment had strong relationships with their IPS workers and possessed motivating personal relationships with individuals who role modeled positive work habits.[36] These positive relationships were lacking among those who struggled with maintaining employment or who had

never been employed.[36] For a population that is behind in their vocational development, peer mentors can instill hope, role-model work-appropriate behaviors (e.g., appropriate clothing and language), and support young people with connecting with their vocational specialist. Despite this appeal, the practices of peer mentorship for this population are undeveloped and were new innovations for this study.

Career Development Lastly, IPS was adapted by placing greater emphasis on "career development"[37] than is present in current manuals for IPS.[14] This was done because career path exploration is consistent with vocational developmental needs of emerging adults without disabilities. A study that informed the adaptations of this project[36] found that early-emerging adults with SMHC and lengthy histories in out-of-home care lacked exposure to working adults in their families and those outside the helping professions (e.g., case manager and therapist) who would typically provide opportunities for career exploration. Therefore, the vocational team worked together to ensure that participants were exposed to a variety of careers through visiting potential job sites and schools and attending career and college fairs. Additionally, vocational group activities supported participants in thinking about the kind of career that they desired and developing achievable post-secondary education, job, and career plans.

In the adapted model, called "Supported Employment and Supported Education for Emerging Adults" (SE/SEd EA), participants could enroll in employment services, education services, or both. All participants were paired with a peer mentor.

Research goal

The goal was to refine the SE/SEd EA model and examine its feasibility with the target population. Feasibility was assessed with the following research objectives during the pilot open trial: (1) describe how SE/SEd EA was further specified and modified; (2) explore participant engagement through study recruitment and retention, rates of SE/SEd EA service use, and service barriers; and (3) track participant employment and educational attainment.

Methods

Study context and site

SE/SEd EA was implemented at the Thresholds Young Adult Program (YAP), a specialized residential treatment program that provides comprehensive clinical services (i.e., psychiatry, individual and group therapy, and intensive case management), vocational and transitional services, and community housing young adults (aged 16-21)with at least one Axis-1 DSM-IV diagnosis. YAP referrals largely come from the Illinois Department of Children and Family Services and Division of Mental Health. YAP supports young people with the most serious and persistent mental health needs across the state of Illinois, who often have histories of complex trauma, co-occurring substance use disorders, elopement, and legal involvement. YAP aims to make the transition from child to adult systems less abrupt through tiered housing (e.g., group homes and supported apartments) and transition services. YAP program staff utilizes the Transition to Independence Process model that emphasizes choice and collaboration.[19] Most YAP clients apply for SSI as adults and qualify. YAP was chosen as an implementation site because it provides standard IPS[2] to this age group and is part of a larger organization (Thresholds) where IPS has been developed and studied over the last 16 years.[38] Thresholds currently employs multiple IPS teams that work with hundreds of adults with SMHC, providing local expertise for implementation of this test.

Model implementation and adaptation

The adaption to SE/SEd EA and its refinement were guided by a steering committee composed of researchers at the University of Massachusetts Medical School and Thresholds, as well as administrators from Thresholds IPS and youth services.

Supported Education At YAP, employment specialists were already trained in IPS and participated in weekly meetings with both the YAP IPS team and the Thresholds Adult IPS teams. During initial adaptation, the IPS team leader and employment specialists at YAP were trained in the principles of SEd.[39] These principles, in many ways, correspond with IPS principles, but they are applied in a different setting, thus requiring specialized knowledge. The title "employment specialist" was replaced with "SE/SEd specialist." At SE/SEd EA intake, the SE/SEd specialist assessed employment, education, and career goals. Like most applications of IPS, participants met with their SE/SEd specialist individually once a week.

Peer Mentors "Near-age" peer mentors who were YAP graduates were employed as agency staff. Peer mentors were hired, trained, and supervised by a licensed clinical social worker who provided clinical services at YAP and thus was very skilled in working with this population, but who was not a member of the Thresholds adult IPS vocational team. Peer mentors were initially paid $20 an hour for up to 8 hours a week and were paired with up to six study participants. A peer mentor training manual was prepared. Peer mentor training consisted of 6 weeks of training (totaling 40 h) where peer mentors completed interactive coursework and participated in supervised group activities with vocational team clients for the first 4 weeks before meeting individually with assigned mentees during the final 2 weeks of training. Peer mentors met daily for 10–30 min with their supervisor, as well as participated in bi-monthly SE/SEd EA meetings and a weekly clinical supervision group. As described below, over the course of the study, meetings between the SE/SEd specialists and peer mentors were used to orient the peer mentors to the vocational/educational goals of mentees and to define next steps and activities for the peers and mentees in support of these goals.

Peer mentors were "matched" with participants based on interests and experience by the vocational team leader and clinical supervisor. Ideally, peer mentors met weekly with each participant individually for 30–60 min. With SE/SEd specialists, peer mentors co-facilitated weekly vocational support groups and monthly vocational activities (e.g., career fairs and college visits). Other peer mentor activities included the following: sharing personal experiences with overcoming vocational challenges in group and individual meetings, teaching schedule management using a smart phone, or role modeling interview question responses. Mentors were provided $5 gift cards for local coffee shops and restaurants to pay for expenses when meeting with mentees in the community.

Career Development The vocational team adopted a career-focused philosophy, which included valuing both work and school equally and supporting young people in basing their vocational choices on career aspirations. Vocational team activities, such as weekly groups, regular vocational outings, and quarterly workshops, prioritized the introduction and exploration of careers, as well as participant self-discovery of career aspirations informed by the TIP model.[19] During implementation, it became clear that this was the first time for many in the study to consider a career, along with employment or post-secondary education. Therefore, SE/SEd specialists and peer mentors engaged participants individually in conversations about career and who the young person wanted to be, while also seeking out and supporting connections in the community to further explore a young person's career aspirations.

Participants

Eligibility criteria for the study included the following: being enrolled in the YAP program, being unemployed and interested in pursuing employment or an education program, and willing to enroll in vocational services, in addition to having an Axis-1 diagnosis, and at least 12 months remaining in the YAP program before "aging out" of child systems of care. The research team utilized the program's electronic medical record (EMR) system to identify potentially eligible participants, of which 65 were identified. Program staff (case managers, SE/SEd specialists) told potentially eligible participants about the study and connected them with a researcher for an eligibility screening. After screening, 21 were not eligible for participation: three were employed and 18 had less than 12 months left in the YAP program. Of the 44 who were eligible to participate, 35 enrolled (an 80% acceptance rate). Reasons for declining participation included not wanting a peer mentor (n=5) or to participate in the study (n=4). All who declined (mean age=18.7 years) were enrolled in high school and were currently unemployed. Similar to those who enrolled in the study (see Table 1), most who declined participation were male (n=5), African American (n=7), and under the custody of the state (n=5). Four of nine who declined were receiving SSI. Participation in SE/SEd EA was voluntary; participants were free to end this service without any consequence to their accessing YAP or other Thresholds services.

Data collection

Data for this study were collected from the following: (1) SE/SEd EA steering committee records, (2) SE/SEd EA participants, (3) the program's electronic medical record (EMR), and (4) peer mentor-reported mentee contacts documented in paper records. Steering committee records included meeting minutes describing changes to the SE/SEd EA during implementation. SE/SEd EA participants completed two interviews that included standardized measures, one at enrollment and another at 12 months post-enrollment. Participants received $20 compensation for each interview. SE/SEd EA participants also consented for the research team to access specific demographic information and service participation rates from their EMR.

Measures

Service Delivery Measures Implementation outcomes included participant (1) engagement in SE/SEd EA and (2) gaps in services delivery. On a monthly basis, a research assistant reviewed each participant's EMR for SE/SEd EA session notes (written by the SE/SEd specialist) and barriers to service receipt (e.g., hospitalization and incarceration) (written by other YAP staff). Quantity of contact, the frequency, and duration (in minutes) of meetings with the SE/SEd specialist were also recorded. Researchers tabulated the number and duration of peer monthly contacts from peer mentor notes. Service gaps due to being away from the program through hospitalization, incarceration, or elopement (absence without leave) were also recorded. All service receipt and barrier data were entered into a SPSS database.

Participant Measures Participant measures included (1) vocational assessment data (e.g., goals), (2) vocational/educational outcomes, and (3) scores on an academic achievement measure at baseline. Vocational/educational data, such as goals and vocational barriers at baseline, dates of job/education program types, and starts and stops, were documented in the EMR by the SE/SEd specialist and copied by a research assistant into a SPSS database. At enrollment, participants completed a standardized measure, the Wide Range Achievement Test (WRAT-3), which is

Table 1
Demographics

(*N*=35)	*N*	%
Gender		
Male	18	51.4
Female	17	48.6
Race		
Black/African American	26	74.3
Caucasian American	9	25.7
Ethnicity		
Hispanic	3	8.6
Non-Hispanic	32	91.4
Level of education completed at enrollment		
Some high school	27	77.1
High school diploma	7	20
GED	1	2.9
Residential status at enrollment		
Supervised agency setting	26	74.3
Independent setting	9	25.7
Primary Axis-1 diagnosis		
Mood disorder	28	80
Psychotic disorder	5	14.3
Impulse and addiction disorders	2	5.7
Social security benefits status at enrollment		
Supplemental Security Income (SSI)	24	68.6
No SSA benefits	11	31.4
Guardianship status		
DCFS ward of the state	29	82.9
Parent guardian	6	17.1

commonly used in research with students with psychiatric conditions and has been normed with African Americans.[6] The WRAT-3 is a brief paper and pencil measure that provides information about academic performance grade level in reading recognition, spelling, and arithmetic.[40]

Fidelity A fidelity measure was developed for this program. The Supported Employment/Supported Education for Emerging Adults Fidelity Scale (SE/SEd EAFS) is a 30-item fidelity scale that is an augmentation of the IPS-25 fidelity scale (also known as the SE Fidelity Scale), which assesses adherence to the evidence-based principles of supported employment.[20] The IPS-25 has adequate inter-rater reliability and predictive validity[41,42] and is used to monitor quality of implementation in hundreds of programs in the USA and internationally. Fidelity items are rated on a five-point rating scale, with a rating of 5 indicating close adherence to the model and 1 representing substantial lack of model adherence. Assessors follow a detailed protocol with instructions for preparing sites for the visit, critical elements in the fidelity assessment, and sample interview questions.[20] The SE/SEd EAFS includes 24 of the IPS-25 items with mostly minor modifications. An example of a modification for emerging adults is the competitive employment

fidelity item, which has been expanded to include paid internships. In addition, the SE/SEd EAFS has added a parallel set of items related to supported education, using IPS principles translated to the educational realm. For example, the disclosure fidelity item includes two sub-items, one for employment and the other for education. Items rated separately for employment and education are averaged. The SE/SEd EAFS includes five additional items, two specific to supported education (Academic Accommodations, Enrollment Supports) and three addressing peer mentors, confidence and knowledge-building activities, and peer support services. The scoring system for the SE/SEd EAFS is an average across the 30 items, with a score of 4.0 or higher considered high fidelity.[43] Two subscales for SE and SEd are also scored, using 4.0 benchmark for high fidelity.

Analysis Plan First, steering committee minutes were reviewed for any changes to SE/SEd EA during implementation and the rationale for these changes. Second, descriptive analyses were conducted to explore participant utilization of SE/SEd EA, including number of meetings with SE/SEd specialists and peer mentors on a monthly and quarterly basis, as well as service gaps due to elopements, hospitalizations, or other reasons. Third, descriptive analyses were conducted for participant measures and vocational/educational outcomes.

Results

Participant characteristics

Participant demographic characteristics are in Table 1. Participants were between the ages of 17 and 20 at study enrollment with a mean age of 18.5 years. The majority were African-American (74%), lived in a supervised setting (74%), and had primary diagnosis of a mood disorder (80%). Participants had substantial educational impairments. At study enrollment, participant mean grade levels were sixth grade for reading, seventh grade for spelling, and orthird grade arithmetic as determined by the WRAT-3.

SE/SEd EA modifications during implementation

Two major additional modifications to SE/SEd EA were made after implementation began. These were prompted by the following: (1) lack of education program starts and (2) peer mentor turnover.

Education Specialist Role Creation Originally, SE/SEd EA specified that SE/SEd specialists could provide both employment and education services, and participants could choose to receive either education or employment supports or both. However, early into the study, there were few participants who had educational program starts despite many having education goals. The steering committee attributed this to SE/SEd specialists focusing on employment instead of education and their unfamiliarity with education programs, funding sources, and disability policies at education programs. To address this issue, a new role was created: the "education specialist". Distinct from the employment specialist, the education specialist supports the following: (1) navigation of education programs and funding opportunities, (2) participants in connecting with school counseling centers and opportunities for assistance (e.g., tutoring), and (3) learning about education programs' disability policies and academic accommodation advocacy. The educational specialist's role and duties continued to develop as need arose. The education specialist also helped participants pick and enroll in classes; develop a study schedule; shop for books; prepare for the GED exam; learn email and phone etiquette; address course add and drop issues; and navigate meetings with teachers or school administrators.

The final makeup of the EA-IPS team included a full-time team leader, two full-time *employment specialists*, one full-time *educational specialist*, and two part-time peer mentors. Coordination of support for both education and employment goals formally occurred during weekly vocational team meetings guided by the team leader. Education and employment specialists and peer mentors were co-located, which allowed for daily information communication between team members to support participant career development.

Peer Mentor Hiring and Integration Recruiting peer mentors for the SE/SEd EA team proved challenging, as it was difficult to find individuals with lived experiences who were achieving vocationally, had time to be a part-time mentor, and were far enough along in their own recovery to share their stories of overcoming adversity. Turnover was high for peer mentors: 13 were employed over 2.5 years of the study. Peer mentor median age was 22 years with a range of 20–30 years. Nine peer mentors were African American, three White, and one Latino. Ten were receiving SSI, nine had emancipated from child welfare system, and all but one reported having a SMHC. Peer mentors were either high school graduates (n=11) or enrolled in a GED program (n=2); four were currently enrolled and three were previously enrolled in coursework at a community college, while two were currently enrolled in a 4-year university. Two peer mentors were currently employed part-time, while ten had been employed part-time and two full-time in the past.

Peer mentor employment was terminated due to a resurgence of mental health symptoms after position start (n=3), an inability to manage the position with other competing commitments (e.g., college coursework, employment, and parenting) (n=4), or boundary violations (e.g., such as fighting with or romantic involvement with participants) (n=4). Due to the limited pool of YAP graduates who were eligible peer mentor candidates and turnover struggles, the definition of "peer" was expanded to include individuals other than YAP graduates who had mental health struggles and a history of the following: child welfare and/or juvenile justice system involvement, residential care, and/or inpatient hospitalization. This adaptation expanded the pool of potential peer mentors and resulted in the hiring of slightly older peer mentors, ages 28 and 30 years (i.e., near-age mentors), who had lived experience, but were far enough along in their own development and recovery to maintain strong boundaries with participants.

One issue identified as related to peer mentor turnover was that peer mentors were not fully integrated into the SE/SEd EA team. This was attributed to the following: (1) the supervisor of the peer mentors being a YAP clinical team member and not a SE/SEd EA team member, (2) poor peer mentor role clarification, and (3) a lack of SE/SEd specialist interactions or relationships with peer mentors. After consultation with the steering committee and experts in transition age youth mental health interventions, job supervision of peer mentors was moved to the SE/SEd EA team. However, peer mentors continued to receive weekly clinical supervision from a licensed clinical social worker who was not a part of the SE/SEd EA team but employed as a clinician at YAP. Peer mentor training was augmented to include the shadowing of employment and educational specialists. Rather than being guided solely by their supervisor, peer mentors were assigned specific tasks (individualized for each participant) by SE/SEd specialists. These ranged from addressing professionalism (e.g., speech and clothing) to tutoring. All of these efforts improved the level of integration of the peer mentors on the vocational team, clarified peer mentor job duties, and decreased peer mentor turnover.

Turnover was also attributed to peer mentor struggles with connecting with participants who did not frequent the agency location where the SE/SEd EA team was housed. Although peer mentors met with participants in the community, meetings typically occurred within a few blocks of the agency. With increased integration on the team, SE/SEd specialists offered to transport peer mentors to meet participants further off-site. During implementation, it became clear that peer mentors needed the same tools as SE/SEd specialists: cell phone and travel reimbursement (i.e.,

Chicago transit cards) in order to support their connections with participants, especially those who were unlikely to be actively engaged in SE/SEd EA and YAP services.

Engagement and attrition

Of the 35 enrolled, 12-month assessment data were not obtainable for four participants who were incarcerated within the first 3 months of enrollment, had recurring incarceration, and were discharged from YAP services including SE/SEd EA. These participants were all male and unemployed. Two of four were African American, receiving SSI, and had completed high school. Due to the small sample size, a formal dropout analysis was not conducted. An additional three participants were not contactable at 12-month follow-up (two had moved to independent apartments away from the agency and one had been absent without leave for the last month of the study). Of these three, none had obtained employment, all were receiving SSI, and two of three had completed high school. Overall, 80% of the 35 participants (N=28) were retained in the feasibility study and completed the 12-month assessment.

At study enrollment, the majority of participants (n=20, 57%) of the full sample (n=35) elected to receive both employment and education services, 13 (37%) enrolled only in employment services, and two (6%) enrolled only in education services. Of the 35 participants, only one participant never met with either an education or an employment specialist. Fifteen individuals met with either an employment and/or an education specialist at least once during each of the four quarters of the 12-month study, ten met a SE/SEd specialist in three of the four quarters, and six met a SE/SEd specialist in one or two quarters.

All participants were assigned a peer mentor. Thirty of the 35 enrolled met with a peer mentor at least once during their 12 months in the study. Four met with a peer mentor at least once every quarter, while 17 met with a peer mentor at least once in three of four quarters and nine met with a peer mentor at least once in one or two quarters.

Over the 12-month period, on average, most participants started, stopped, and re-enrolled more than one time in SE/SEd. Gaps in SE/SEd were a result of hospitalization, eloping, or becoming incarcerated in the second, third, and fourth quarters of the study. Excluding the participants who were incarcerated long-term since their first quarter, 26 of the remaining 31 were missing from YAP services an average of seven times over the 12-month period (range=1–32). Nineteen eloped at least once (M=4; range=1–32), 15 experienced at least one psychiatric hospitalization (M=6; range=1–14), and three were incarcerated at least once (M=2; range=1-4). These episodes away from services lasted, on average, 1 week (range=1–40 days). On average, incarceration episodes lasted 28 days (range=1–43 days), psychiatric hospitalizations lasted 6 days (range=1–9), and episodes of elopement lasted 4 days (range=2–13). Overall, participants were missing from services (for any of the reasons cited) for approximately 12% of the year (M=42 days; range=1–174).

Among the 31 who did not experience long-term incarceration and thus remained eligible to receive services, participants met with their SE/SEd specialist over a 12 month period, on average, once a month (range=1–3) for, on average, 40 min (range=21–63 min). Of the 31 participants who were not incarcerated long-term, peer mentor meetings occurred, on average, one time per month (n=30; range=1–3) and lasted, on average, 38 min (n=30; range=15–60 min).

SE/SEd fidelity

SE/SEd fidelity was assessed twice during the project period in 2011 and 2012. Two experienced IPS fidelity assessors completed both reviews, joined by a third assessor for the third review. The overall scores increased as follows from 2011 to 2012: supported employment subscale (4.2 to 4.7), supported education subscale (3.8 to 4.6), and combined scale (4.2 to 4.5). Except for SEd in 2011, all ratings were in the high fidelity range using a benchmark score of 4.0, though there is no

normative data to validate this new scale. The increase in fidelity over time was congruent with qualitative observations of an absence of job development and a lack of community involvement for the SEd program in 2011. In the 2012 review, the fidelity assessors commended the SE/SEd team for making changes consistent with their 2011 recommendations.

Vocational and educational outcomes

Career development outcomes were measured in terms of employment and educational outcomes. Details of the educational and vocational outcomes, the types of job and education starts and stops, and participant-noted barriers to school and work are portrayed in Table 2. Of all participants (N=35), 49% (n=17) worked or enrolled in an education program; 51% (n=19) neither worked nor enrolled in an education program. Of the 33 enrolled in SE/SEd EA *employment* services, eight (24%) found at least one job. There were 13 job starts and 10 job endings across these eight participants. Most job endings (n=6, 60%) were due to employer termination for poor attendance. Three maintained employment after the 12-month study period ended.

Of the 22 enrolled in SE/SEd EA *educational* services, 15 (68%) enrolled in an education program. Among these 15, there were 18 education program starts across the 12 months of the study. Six participants completed their education programs or a college course. Nine discontinued their education program prior to completion. Participant-reported education struggles included the

Table 2
Employment and education outcomes

	Employment track (N=33)		**Education track (N=22)**	
Number of participants with education/job starts	8 (24%)		15 (68%)	
Number of education/ job starts	13		18	
Type of education/ job starts	Food service	5	Enrolled in alternative high school or GED	8
	Retail sales	4	Community college	8
	Other	4	Certificate program	2
Work/school outcomes	Mean job tenure	11 weeks	Number of education completions	6
	Wage range	$8.25–$8.50	Completion types	
	Mean weekly hours	20	Certificate program	2
			High school diplomas	2
			College courses	2
Discontinued job/ education starts	10 (termination, quits, or other)		9 (dropped out and other)	
Barriers to employment or education noted at enrollment	Physical limitations (e.g., energy and med. side effects)	80%	Physical limitations (e.g., energy and med. side effects)	88%
	Stress, fears, and symptoms	76%	Uncertain goals and lack of knowledge about school	82%
	Structural/ environmental (e.g., transportation)	65%	Lack of social supports and skills	76%

following: time management and organization issues, enrollment in too many courses at once, and difficulties in adapting to college course expectations resulting in stress and mental health symptoms. Although 20 participants (57%) elected to work on both employment and education goals, no participants both worked and enrolled in an education program.

Discussion

This is the first adaptation reported in the literature of IPS specifically aimed to support the vocational development of early-emerging adults with SMHC with intensive adolescent mental health service utilization. This study's findings provide initial evidence as to how IPS can be tailored for an at-risk population with compromised academic attainment and little previous work history. The adaptation added developmentally appropriate supports (educational specialists and peer mentors) and included a focus on career development and exploration. This study's service engagement findings suggest that the adapted model can be implemented successfully in a specialized emerging adult psychiatric treatment program, though the nature of the program and child system policies also contributed challenges to continuous service.

IPS adaptation

During implementation, it was concluded that adaptations were needed to further tailor the model for the target population. Initially, the inclusion of supported education via employment specialists proved challenging until the creation of the education specialist role, which is unlike previous research of IPS with supported education for young people with first-episode psychosis where both education and employment support is provided by the same IPS worker.[18,44] Education program enrollment increased with the addition of a separate education specialist role. Despite education enrollment rates, education dropout rates were high, and continued innovation is warranted for addressing the education challenges facing young people with long psychiatric histories and who experience delayed high school completion. The authors also note that although most requested both employment and education supports, no participant worked and attended school at the same time. This is not uncommon for this age group, as emerging adults with first-episode psychosis enrolled in early intervention programs with IPS also often engage in education before employment.[22]

Despite the growing state and provider interest in peer support for this population,[45–47] current approaches to integrating emerging adult peers into clinical service models have had mixed success. Initial struggles with peer mentor integration in the SE/SEd EA team were successfully addressed through operationalizing peer mentor tasks, improving intra-team relationships, and expanding how criteria for hiring apeer were defined. However, research is needed to identify optimal strategies for hiring, training, and supporting emerging adult peer mentors. Research is also needed to examine the subjective experience of peer mentoring and young person outcomes, in order to create best peer support practices.

For providers interested in implementing peer support as part of vocational services, policy and agency cultural shifts need to occur for this new position that bridges the personal and the professional. Peer mentors in this study were both agency staff who advocated on behalf of their mentees and reliable confidants with shared-lived experience who connected with mentees on a personal level. Communicating with the vocational team and agency staff about new peer mentor positions is insufficient to integrate peer mentors into a vocational service model or agency. Ethical dilemmas, such as staff being unsure of what they could or could not discuss with peer mentors, can be addressed through policy changes. Peer mentors necessitate ongoing regular clinical supervision and support as they are especially subject to vicarious trauma because of their personal mental health and treatment history.

An additional challenge identified by other IPS researchers, and perhaps especially pertinent to the role of peer mentor given the bond developed through mentoring, is the limited ability for the SE/SEd EA team to provide continued support to participants after exiting the program.[48] This limitation is an artifact of the discontinuities in funding for youth and adult services in the USA. Once young people age out of child system services provided by YAP, clients are not automatically enrolled in Medicaid, which is the primary source of funding for adult mental health services at Thresholds and in most of the USA. Thresholds did not have the financial resources to provide continuing employment services. An adequate test of the viability of the SE/SEd EA model would require a funding model to support continuing services.

Regarding career development, future research is needed that operationalizes the elements of career development for emerging adults with SMHC, systematically measures career development elements, and explores the career development process in conjunction with evidence-based practices, such as IPS. This was not possible in this limited feasibility study.

SE/SED EA feasibility

Overall, SE/SEd EA is feasible. Participants utilized their SE/SED specialists and peer mentors at reasonable rates. Moreover, the 20% study dropout rate compares favorably with IPS adaptation research with similar populations. For example, among homeless young people, the attrition rate was 10% for those receiving IPS and 50% in the comparison group.[49] SE/SEd EA service receipt gaps were prominent and primarily resulted from hospitalizations, arrests, and program elopement episodes, rather than disinterest in employment or education or dissatisfaction with the associated services. The four participants who were sentenced to long-term incarcerations highlight the importance of continuous supports and coordination across service systems for this population. Contributing to service gaps was the context in which participants transitioned to independent community living and disengaged from YAP services in general before their child system funding ceased. Understandably, locating affordable housing, applying for benefits, entering the adult system, and adjusting to independent living took precedence over vocational attainment and service engagement. Vocational models serving early-emerging adults must take this critical "transition" period into account. Recognized in this study and by others,[50] centralization of transition, vocation, and clinical services is needed to foster and concurrently support the multiple simultaneous developmental tasks faced when transitioning to adulthood.

Vocational/educational attainment

Nearly half of study participants worked or enrolled in an education program in the year after enrolling in SE/SED EA. This is encouraging, given the limited academic skills and exposure to work of the sample. It was the first time that many participants entered the workforce. These rates were comparable to the rates of employment across 16 studies of adult IPS recipients (52–60%),[16] as well as the 49% competitive employment rate in eight studies of early intervention studies with supported employment services,[51] but lower than the 82% employment rate of IPS recipients under age 30 with first-episode psychosis across four randomized control trials.[52]

Observed rates of education program completion and job retention were low overall. The rates of education program completion and job retention are much lower than observed in the research of emerging adults with first-episode psychosis participating in supported employment.[22] It is likely that the lower rates observed in this study, in part, reflect the cumulative adverse childhood experiences that many of these emerging adults sustained throughout their development (e.g., repeated removals from family for treatment or protective purposes and histories of chronic childhood trauma). Research is needed to understand the characteristics and circumstances that

contribute to education program dropout and job termination in early-emerging adults with SMHC and intensive psychiatric histories. It is notable that education starts were more frequent than vocational starts in this study. While it is difficult to determine exactly why this occurred, it is possible that participants were more focused on completing or advancing education than on securing employment. Educational attainment is a reasonable priority for this sample as 77% lacked a high school diploma at study enrollment. With support, it is likely easier to enroll in an education program than to secure employment. Local high schools and GED programs are free, while certificate programs and community college courses could be accessed through student loans and system benefits. Dropping out of education programs was especially problematic because of the debt incurred. Some participants dropped out of community college courses after the official course add/drop period, which resulted in a large debt to be paid before re-registering for courses. Participants who incurred these debts never re-enrolled in an education program because they were unable to pay off the debt, later discharging from Thresholds with this debt as well. Supporting improved study habits, organization skills, and time management may prevent post-secondary dropout, and these may be important components of SE services for early-emerging adults with histories of SMHC.

Limitations

Given its open trial design with no comparison group, the outcomes may well have been the results of causes other than the intervention. Further, the unique setting of Thresholds and its population suggest that continued examination of the model in more typical settings and populations is warranted. Study methods were also limited by reliance on program records, which may reflect some level of bias.

Conclusion

The adaptations to IPS were novel in this unique setting and sample of early-emerging adults facing multiple barriers in their vocational development. This study supports other research that IPS is adaptable for younger populations.[18,51,52] Findings suggest that this is a feasible model that should be tested in a randomized control trial in a community-based setting that serves emerging adults with SMHC and intensive adolescent mental health service utilization. Lessons learned include the difficulty in providing both SE and SEd through the same staff person and the importance of clearly defining the peer mentor role and its integration into the IPS team. These adaptations together are promising for a highly vulnerable population in which evidence-based practices that support vocational development are lacking. Basic insights into the challenges of peer support for this unique population were achieved through this project, laying the foundation for future projects that explore the integration of peer mentors into transition age youth service models.

Implications for Behavioral Health

There is great interest in the use of peer mentors for this age group in behavioral health systems. Peer mentors may be uniquely important in vocational and identity development. The authors have provided some cautionary lessons learned in the feasibility of hiring peer mentors. Further research is needed to understand the impact of peer mentors as part of IPS and SEd and successful models for implementing peer mentors in vocational teams.

One of the intriguing findings from this study was the opportunity to observe ways in which SE and SEd specialists and peer mentors engaged this age group using methods that were not specified by the intervention. With young person permission, the SE/SEd EA team frequently texted

participants of SE/SEd EA to positively reinforce work and school, check in, and provide reminders regarding vocationally related events and appointments. Text messaging is controversial due to the risk in violating HIPAA through the sharing of personal health information via text.[53] Some providers forbid texting, but it appears to be a key tool for engaging transition age youth in services. Most participants in this study had smart phones providing continued access to the internet, social networking sites, and email. Substantial opportunity exists for service designers to study text messaging as a transition age youth engagement tool and develop smart phone technology to support IPS and SEd for younger populations.

Overall, this feasibility study lends support to an adaptation of IPS that integrates supported employment and education to support either or both of these goals, which is age-appropriate for this population. Further, adding peer mentors may increase motivation or hopefulness that engaging in schooling or employment activities will lead to work lives that appeal to this population. Future research should examine this model in a clinical setting that allows continuous access to the service and determines the efficacy of the model to increase academic achievement and employment success.

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