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Mental Health Service Engagement Among Underserved Minority Adolescents and Young Adults: a Systematic Review

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Abstract

Limited ability to engage underserved racial-ethnic minority young adults into treatment contributes to mental health disparities among this population. A systematic literature review was conducted to examine the evidence for interventions that can improve their engagement with mental health services. A database search and bibliographic review yielded 1264 studies that were assessed according to the following inclusion criteria: sample with a mean age between 13 and 27; sufficient ethnic/racial representation (at least 50%); an explicitly stated objective for the intervention of improving mental health treatment engagement among adolescents and young adults (e.g., initiating treatment, retention, completion); and evaluation of an engagement outcome, such as session attendance or service utilization. Ten studies met inclusion criteria. Studies varied according to level of evidence for efficacy with underserved young adults, with four meeting criteria as probably efficacious. Interventions that were family based or were culturally adapted for age group or race-ethnicity also showed possible efficacy and promising results. Although the lack of studies focused on this population limited findings, evidence supports incorporating family and natural supports in a developmentally appropriate way, facilitating independence, and attending to cultural context as key components of interventions designed to address the unmet need in underserved minority young adults.

Keywords Mental health · Engagement interventions · Minorities · Young adults

Introduction

Underserved racial-ethnic groups in the USA experience disparities in mental health care that expose them to lower access to care, lower treatment quality, and lower engagement in treatment [1]. Further, unmet mental health needs among children and young adults (YAs) due to limited access to care and a lack of research into developing innovative, evidence-based treatments [2, 3] raise concerns as to whether underserved minority youth are at heightened risk for poorer outcomes. This article focuses on disparities in engagement with mental health care by systematically reviewing the evidence base for interventions that can improve mental health treatment engagement among underserved racial-ethnic minority YAs.

Client disengagement from mental health services presents a significant obstacle to recovery and symptom improvement. Also described in the literature as premature termination, discontinuation, drop-out, and non-adherence to treatment, disengagement from services is associated with symptom relapse and poorer outcomes, and presents a major barrier to effective mental health service delivery [4–7]. Inconsistent and/or inadequate client engagement introduces additional challenges to providers attempting to deliver mental health interventions that require clients' regular appointment attendance, participation in the therapeutic process, and completion of therapeutic tasks between appointments. Typically, evidence-based interventions for mental health problems are developed under the assumption that mental health outcomes will improve for clients who fully and actively engage in the treatment as specified in the manual or protocol [8]. However, lack of engagement can interfere with receiving the specified treatment and, thus, interfere with a client's ability to benefit from well-supported interventions.

Definitions, measures, and outcomes of treatment engagement vary across studies [9–11]. However, the general process of mental health treatment engagement can be seen as a range of decisions, involving choosing to seek treatment, to remain in treatment, and to actively participate in the therapeutic elements of care (i.e., psychotherapy, medication, adjunctive supportive

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services). Effective treatment requires continuity and optimal doses in all aspects of care, and multiple factors contribute to maintaining someone's commitment and willingness to engage in treatment. Therefore, improving treatment engagement is a broad process consisting of multiple stages of intervention: promoting initial treatment seeking, consistent attendance, and adherence to the treatment plan. All of these aspects of engagement are seen as supporting higher quality involvement of a participant in treatment. Interventions to increase service use often involve addressing the underlying decision-making process that leads to service use via health behavior models (e.g., Health Belief Model, Theory of Planned Behavior) [12, 13]. For individuals that are sufficiently motivated to use services, the objectives in such interventions are to identify factors that influence service use, support those factors that promote the decision to use services, and modify factors that present barriers to service use. For those that are not motivated to use services, interventions to promote engagement often focus on addressing motivation as well via incentives or motivational enhancement (e.g., motivational interviewing) [14].

Disengagement from mental health services is a particular challenge for youth in transition to adulthood (i.e., ages 16–25) and often presents a significant obstacle for YAs with mental health disorders. Developmental milestones such as identity exploration, independence seeking, and increased responsibility for their own well-being are often essential to young people during this phase of life [15, 16]. However, research has shown that approximately half of all lifetime mental disorders start by the mid-teens, three-fourths start by the mid-20s, and severe disorders are typically preceded by less severe disorders that are rarely brought to clinical attention [17]. Compared to their peers, YAs with mental illnesses have lower rates of education and employment, and higher rates of poverty, unplanned pregnancy, substance use disorders, homelessness, and criminal justice involvement that can interrupt their transitions to adulthood [18–20]. Compared to adults in other age groupings (26–49 and 50 years and older), YAs with serious mental illnesses are estimated to use mental health services up to 20% less annually and to have 14–27% higher rates of co-occurring substance use disorders [21]. For example, analyses of data from the 1999 Client/Patient Sample Survey found that mental health service utilization rates at ages 18–19 were about half the rate at ages 16–17, and rates remained low for ages 20–25 [22], suggesting that YAs with mental health disorders may be more likely to disengage from treatment than adolescents and to experience a major decline in service use at a time of significant risk.

Racial/ethnic minority YAs may be at higher risk for disengagement from mental health services than their non-Hispanic White peers. Recent, nationally representative survey data indicated significant racial/ethnic differences in mental health service use among YAs (aged 18–25) with mental illness, with service use by Blacks/African Americans and Hispanics estimated to be about 17% less than service use by Whites [23]. Racial/ethnic disparities in youth mental health service use and factors associated with lack of engagement in services have been documented [24–29], suggesting that provider and health care system level factors, the environmental context, and patient level factors all play a significant role in heightening the risk of disengagement from services for minority YAs.

A number of factors across multiple domains, including individual, family, and service level variables, have been associated with disruption to on-going mental health service utilization for youth with major psychiatric disorders [30–32]. Barriers and facilitators to service engagement have been identified at all levels, including personal factors such as insight and mistrust [33]. Factors affecting engagement can vary widely across populations as well [28, 34], leading to marked disparities in mental health treatment. For example, racial/ethnic minorities with mental disorders consistently have less access to care, receive lower quality service, and have higher attrition rates in treatment [1]. Factors associated with treatment dropout among children include older age, ethnic minority status, and externalizing behavior problems [35–37]. In addition, those with serious mental illness (SMI) consistently confront barriers to service access and experience diminished continuity and quality of care [38]. However, despite a growing evidence base for the effectiveness of treatment engagement interventions, it is unclear how widely engagement interventions are implemented effectively and consistently in community settings [39].

Some treatment engagement interventions have demonstrated efficacy among minority children and adults. Interventions designed to target engagement among youth and adolescents were reviewed for evidence of efficacy in Kim et al. [40]. Findings indicated that approaches to improving engagement varied in effectiveness based on level of intervention and that engagement interventions that utilized an ecological approach have the greatest potential for facilitating engagement. However, many of the studies reviewed included younger youth, and few of the studies included a majority of older youth of color. In another example, Lindsey et al. [41] identified common elements of treatment engagement that can be targeted to improve mental health treatment for children of color (mean age 10 years). Assessment, which involved identifying the strengths and needs of youth, was an important strategy for building rapport and treatment alliance with youth. Providing psychoeducation about services, which involved presenting mental health services as a source of support and clarifying the nature of services and client expectations, was found to be a strategy that promoted engagement by establishing a stronger connection to treatment. Motivational enhancement was a third common element of engagement, which involved identifying the advantages of change, optimism, and intention to change in order to mitigate

psychological barriers to service use such as stigma and the perception that services will not be helpful. However, Lindsey and colleagues [41] acknowledged that these treatment engagement strategies primarily applied to parents and caregivers, rather than to the children themselves.

In a review of interventions that can improve mental health treatment engagement among underserved racial-ethnic minority adults (mean ages were between 30 and 45), Interian et al. [10] found that collaborative care for depression was efficacious for engagement (defined as receipt of depression care and medication continuity). Elements of this intervention included use of patient preference to choose a primary care–based treatment, use of a depression care manager who monitors symptoms and medication adherence during a follow-up period, and psychiatrist consultation with the primary care physician. The literature reviewed indicated that primary care models that incorporate collaborative care principles were likely to improve engagement and clinical outcomes among African-American and Latino patients. Other interventions described in the review utilized multifamily groups, motivational interviewing, cognitive training, critical time intervention, and mobile crisis team. However, these interventions did not meet established criteria for efficacy. The authors acknowledged that substantial limitations in the literature prevented them from adequately studying engagement interventions with other underserved racial-ethnic groups (for example, Asian Americans and Native Americans), to examine relative efficacy across racial-ethnic groups, and to better understand the degree to which improved engagement translates to improved outcomes.

Despite growing recognition of the importance of reducing mental health disparities by improving engagement in effective interventions [1, 39, 42, 43], few studies have focused on evaluating interventions designed to increase engagement in mental health services among racial-ethnic minority YAs. Thus, the purpose of this systematic review is to critically evaluate and describe studies of interventions specifically designed to increase mental health service engagement among older youth and YAs from underserved racial/ethnic communities. Such information can help identify evidence-supported approaches for underserved racial/ethnic populations, identify knowledge gaps, and suggest areas for further research.

Methods

This systematic review was conducted using guidelines established in Moher et al. [44] to identify and critically appraise relevant research, and to analyze data from the studies that are included in the review. Since the mental health disparities data underlying the research question were domestic, literature within the domestic context was reviewed. A systematic literature search began with using electronic databases PsychINFO, MEDLINE, EBSCO, and Social Sciences Index to review English language journals from January 1995 to November 2016. The following search terms were entered to identify relevant studies: "engagement," "retention," "attrition," "adherence," "therapeutic alliance," "premature termination," "compliance," "drop-out," "mental illness," "psychiatric," "mental health," "intervention," "youth," "adolescent," and "young adults." Bibliographies of previous reviews of service engagement, reference sections of identified studies, and one manuscript in press were searched. The author extracted all data, compiled it in a master data file, and analyzed all data. Two raters, the author and a colleague familiar with the relevant scientific literature, reached agreement on studies to be included in the review.

Inclusion Criteria

Several inclusion criteria for articles were used: sample with a mean age between 13 and 27; sufficient ethnic-racial representation; an explicitly stated objective for the intervention of improving mental health treatment engagement among adolescents and YAs (e.g., initiating treatment, retention in treatment, completion of treatment); and evaluation of an engagement outcome, such as session attendance or service utilization. Studies whose samples included at least 50% representation of Non-White/Caucasian youth were included. A criterion of 50% representation was chosen based on review of previous studies [3, 10] to allow for inclusion of studies sufficiently applicable to underserved racial-ethnic groups. It was expected that the number of available studies meeting criteria would be small, so the criterion of 50% (as opposed to 75 or 100%) also allowed for the inclusion of enough studies for meaningful review.

Level of Evidence

Previously reported guidelines for evaluating evidence-based practices in health care and psychotherapy were reviewed to assess the level of evidence for engagement interventions [45, 46]. Interventions were termed "probably efficacious" when efficacy was documented by one study involving racial-ethnic minority adolescents and YAs that used randomization, a two (or more) group-design, adequate statistical power, and that demonstrated significant superiority to another intervention. Those interventions lacking randomization or adequate statistical power, but meeting all other criteria described above were termed "possibly efficacious." Interventions were termed "promising" when the evidence was based on preliminary clinical studies with observations that were sufficiently compelling to warrant further testing of the intervention with racial-ethnic minority adolescents and YAs with mental health disorders.

Results

The initial search (conducted November 2016) yielded 1264 articles after which 778 were excluded based on title review and 463 were excluded based on abstract review. A subsequent bibliographic review identified an additional 22 articles, for a total of 45 to be reviewed for inclusion. Articles were initially excluded for factors such as: engagement outcomes were not a target of intervention; an adult sample older than 27 years; substance use diagnosis only; and intervention with family/caregiver only. Forty-one studies reported both a measure of treatment engagement in mental health services as an outcome and a sample that targeted youth, however, 22 studies were excluded due to reported samples younger than 13 years old. Nineteen studies met all inclusion criteria except for sufficient racial-ethnic representation. This criterion further excluded 9 (47%) articles of which 4 did not report racial-ethnic data and 5 had less than 50% racial-ethnic minority representation. Ten articles met all inclusion criteria (9 published and 1 in press).

Table 1 summarizes key characteristics of the ten articles identified by this review. Selected studies consisted of several different research designs and provided various levels of evidence for efficacy. None of the identified studies met established criteria to be considered efficacious for racial-ethnic minority adolescents and YAs. Six of the studies were randomized clinical trials (RCT) [47–49, 51, 52, 55]. One study used a quasi-experimental design with comparison group and pretests [53] and one study used a pre-experimental design that measured the impact of the intervention over time but lacked a comparison group [54]. Two of the identified studies used qualitative analysis to determine whether and how interventions were fostering engagement [50, 56].

Descriptions of Interventions by Level of Evidence

Probably Efficacious Only four of the RCTs [47–49, 51] had sample sizes large enough to detect meaningful differences for a median effect size [57], and thus, provide the best evidence of efficacy with racial/ethnic minority adolescents. As indicated by these studies, the interventions with the strongest evidence of efficacy used family therapy and multisystemic approaches to address barriers to treatment engagement.

Family therapy based on concepts from *Strategic and Structural Family Systems Theory* informs many engagement interventions designed for children and adolescents [40, 41]. Parental attitudes about mental health services and providers, their receptivity to involvement in services, and their previous experiences with the mental health care system have been indicated as central elements to the engagement of youth in mental health services [58]. Two of the reviewed studies developed engagement interventions under the theoretical principle that disengagement with treatment can be understood as a manifestation or symptom of a family's current pattern of interaction and can be addressed by treating the family's dysfunction. Coatsworth et al. [49] randomly assigned adolescents with co-occurring substance use and depression, anxiety, and externalizing disorders to either Brief Strategic Family Therapy (BSFT) or a comparison condition. The BSFT intervention used Joining, Family Pattern Diagnosis, and Restructuring strategies to target engagement with treatment. Individual sessions and family sessions were available to all family members without any formalized engagement procedure in the comparison condition. Adolescents were assessed prior to randomization and again at completion of treatment. Successful treatment retention was defined as completing the course of clinically recommended treatment and successful engagement was defined as the adolescent and at least one other adult family member attending both the initial assessment and first therapy session. BSFT cases (72%) were retained at a significantly higher percentage compared to the comparison condition (42%) and BSFT was significantly more successful in engaging cases (81%) than the comparison condition (61%).

Santisteban et al. [48] used Strategic Structural Systems Engagement (SSSE) to engage Hispanic adolescents at risk for co-occurring disorders and their family members into treatment by restructuring their resistance during the engagement process. The results of the study demonstrated the efficacy of SSSE for engaging families of underserved minority youth. Similar to BSFT, SSSE uses joining and restructuring skills from the initial contact to the first therapy interview to overcome a family's resistance to engagement. Participants were randomly assigned to one of three conditions: (a) family therapy plus SSSE; (b) family therapy (FT) without SSSE; and (c) group therapy (GT) without SSSE. Successful engagement in therapy was defined as the family attending the intake session and one in-office therapy session within a 4-week period following initial contact. Successful maintenance in therapy was defined as completion of at least eight therapy sessions and a termination assessment battery. SSSE increased attendance at the first appointments, but results were unclear with regard to rates of maintenance. SSSE demonstrated an initial engagement rate of 81%, compared with a 60% engagement rate for youth and families in the control conditions (57% of FT without SSSE, 62% of GT without SSSE). There were no significant differences between the experimental and control conditions on maintenance, with successful maintenance for 69% receiving SSSE, 67% receiving FT, and 63% receiving GT.

Interestingly, Santisteban et al. [48] reported that culture moderated the efficacy of the experimental intervention in the study. While all participants in this study were Hispanic, 97% of the non-Cuban Hispanic families receiving SSSE were successfully engaged, compared to only 64% of the Cuban Hispanic families receiving SSSE ($p = .002$). There was no significant effect for culture on the engagement rates of control condition families. In a secondary case-by-case analysis to

Table 1 Summary of intervention studies: mental health treatment engagement among adolescents and young adults

Authors	Sample	Intervention	Design	Engagement measures	Outcomes/ findings
Henggeler et al. [47]	Juvenile offenders with co-occurring disorders. 50% African American 79% Male Mean age = 15.7 *N* = 118	T = Multisystemic Therapy C = TAU	RCT	Treatment Completion	**T = 98%** C = 22%
Santisteben et al. [48]	Families with adolescents at risk for co-occurring disorders. 100% Hispanic 70% Male Mean age = 15.6 *N* = 179	T = Strategies Structural Systems Therapy and Family Therapy C1 = Family therapy only C2 = Group Therapy	RCT	Session Attendance, Treatment Completion	**T = 81%** C1 = 57% C2 = 62% *T* = 69% (*NS*) C1 = 71% C2 = 62%
Coatsworth et al. [49]	Adolescents with behavioral problems, depression, anxiety, or substance use. 76% Hispanic 24% African American 75% Male Mean age = 13.1 *N* = 104	T = Brief Strategic Family Therapy C = TAU	RCT	Session Attendance, Treatment Completion	**T = 81%** C = 61% ***T* = 72%** C = 42%
Jackson-Gilfort et al. [50]	Adolescents with substance abuse and externalizing disorders. 100% African American 100% Male Mean age = 15.1 *N* = 18	Multidimensional family therapy adapted to include culturally-themed discussion.	Qualitative thematic analysis	Therapy participation	Culturally salient and meaningful content themes encouraged active participation in therapy
Grote et al. [51]	Young adults with perinatal depression 62% African American 100% Female Mean age = 24.5 *N* = 53	T = Culturally tailored Brief Interpersonal Therapy C = TAU plus brief psychoeducation	RCT	Treatment Completion	**T = 68%** C = 7%
Breland-Noble and Board [52]	Adolescents with depression 100% African American 68% Female Mean age = 15.06 *N* = 16	T = Culturally tailored Motivational Interviewing C = Delayed enrollment group	RCT	Attendance at first session	*T* = 100% (*NS*) C = 75%
Gilmer et al. [53]	Young adults receiving treatment for mental health disorder. 9% African American 38% Latino 6% Asian 53% Female Mean age = 21 *N* = 2505	T = Youth specific outpatient treatment C = Standard Adult outpatient treatment	Quasi-experimental	Service Utilization	**T = 21.9** visits C = 9.2 visits
Munson et al. [53]	Young adults diagnosed with a serious mental health condition. 46% Black/African American 8% Latino/Hispanic 21% Multiracial 50% Female Mean age = 21.5 *N* = 27	*Just Do You:* Pilot group intervention, using manualized art therapy, cognitive behavioral therapy, and narrative therapy.	Qualitative Interviews	Attendance, Adherence, Attitudes, and Motivation	Co-facilitation by a recovery role model, art therapy, and narrative mental health communication for positive messages about mental health services were found to promote engagement.
		The RAISE Connection Program: Team based	Pre-experimental	Service Utilization	

Table 1 (continued)

Authors	Sample	Intervention	Design	Engagement measures	Outcomes/ findings
Dixon et al. [54]	Young adults experiencing early psychosis suggestive of schizophrenia. 43% Black 25% Latino/Hispanic 6% Asian 63% Male Mean age = 22.2 *N* = 65	medication support, employment, education, and family support, psychoeducation, cognitive behavioral methods, substance abuse treatment, and suicide prevention.			Participants used services for 91% of the possible time they could be engaged.
Gearing et al., [55]	Adolescents and young adults experiencing depression and their parents. 20% African American 30% Hispanic 80% Female Mean age = 14.1 *N* = 40	T = *Tech Connect Program:* Manualized between-session text messages to youth and phone calls to parents based on Health Beliefs Model. C = TAU	RCT	Session Attendance, Therapeutic Homework Completion	**T = 80%** C = 40% *T* = 60% (*NS*) C = 44%

T treatment condition, *C* control condition, *TAU* treatment as usual, *RCT* randomized controlled trial, *NS* non-significant, Numbers in bold indicate $p < 0.05$

identify the relationship of culture to resistance to engagement, researchers found that 89% of the engagement failures involved parental resistance and, in the SSSE condition, all cases of engagement failure with parental resistance were Cuban Hispanic families. Study authors suggested that, among these families, there was a "special type" of parental resistance that was not effectively addressed by the intervention procedures.

Multisystemic interventions involve using problem-solving to comprehensively address barriers to treatment at multiple system levels and improve service engagement using an ecological approach. Multisystem level interventions have been associated with initial involvement as well as treatment retention and completion in youth mental health care [59]. Two of the identified studies used an ecological-based intervention to improve engagement in services. Henggeler et al. [47] found that treatment completion was higher (98%) in families of juvenile offenders with co-occurring substance use disorders who received multisystemic therapy compared to families receiving usual community-based services (22%). Multisystemic therapy uses multiple strategies to support engagement including home-based services that mitigate missed clinic appointments, therapists available 24 h a day, and individualized services tailored to meet the multiple and fluctuating needs of youth and families. Youth in the comparison group received outpatient substance abuse services and a range of mental health services available in the community, including 12-step and adolescent group therapy. In this study, families were randomly assigned to either condition and monitored for 5 months via monthly telephone interviews documenting their utilization of mental health services.

In another study using an ecological approach, Grote et al. [51] tested a culturally adapted, multi-component, enhanced brief interpersonal psychotherapy (IPT-B) intervention. Low income, depressed, pregnant and parenting young adult mothers were recruited for treatment of interpersonal problems in one of four areas related to a depressive episode (role transition, role dispute, grief, and interpersonal deficits). IPT-B provided an engagement session that utilized motivational interviewing and ethnographic interviewing. The engagement session involved interviewing participants about unique barriers to care and engaging them in collaborative problem solving for each barrier. The next eight sessions were provided before the birth, and maintenance sessions were provided postpartum for up to 6 months. Maintenance IPT sessions were designed to prevent recurrence of depressive symptoms by addressing any social or interpersonal stressors. Participants assigned to the control condition (enhanced usual care) were informed of their diagnoses, given educational materials about depression, provided childcare, bus passes, and referrals and were strongly encouraged to seek treatment at the behavioral health center. While this study did not compare two active therapies, results indicated significant responses to the multi-component engagement intervention, with 68% of mothers in the intervention group completing treatment, compared to 7% of control group.

Notably, Grote et al. [51] incorporated ethnographic interviewing into the IPT-B intervention, in which therapists adopted a "one-down position" as learners; tried to understand the cultural perspectives and values of patients without bias; inquired about the patient's view of depression, health-related beliefs, and coping practices (e.g., the importance of

spirituality or familismo); and asked what patients would like in a therapist, including the importance of race/ethnicity. This element was designed to test a strategy for reducing racial and economic disparities in access to and engagement in mental health treatment, and given that the majority of the sample was low income and African-American (62%), this aspect of the intervention may have constituted a key ingredient that was particularly appropriate to the sample.

Possibly Efficacious Three studies reported efficacy of an engagement intervention with racial/ethnic minority adolescents and YAs in a two group-design that demonstrated superiority to another intervention; however, two were limited by insufficient statistical power and one was limited by the lack of random assignment.

In one study, Breland-Noble, Board [52] tested a two-session, culturally tailored motivational interviewing intervention to promote engagement for depressed African-American adolescents and families. A small sample of participants (16) was randomized to AAKOMA FLOA (African American Knowledge Optimized for Mindfully Healthy Adolescents, Family Leadership Over Adolescent Depression) or a delayed control condition. Intervention youth/families received a 10–20-min phone call from the clinician briefly discussing resistance to depression treatment based on findings from their initial assessments and two scheduled treatment sessions. In the first session, parents worked with clinicians to review confidentiality guidelines, gain a better understanding of the definition and course of depressive disorders in adolescents, learn about the types and roles of mental health professionals, resolve past negative experiences with mental health services and develop skills to encourage service use. Adolescents worked with clinicians to discuss their readiness for depression treatment and their concerns about any familial problems impacting their ability to utilize services. Parents and youth typically received homework involving lessons learned in treatment to encourage more open communication patterns. In the second session, the family unit worked with the clinician to discuss progress on obtaining depression treatment for the adolescent. At the conclusion of the second session, patients received current clinical referrals to several local mental health providers and assistance to schedule their first depression treatment appointment (i.e., calling providers from the study office or agreeing to participate in the depression treatment offered in the current clinical setting).

Breland-Noble, Board [52] designed the intervention to address culturally embedded beliefs about depression and depression care that contribute to the underutilization of depression care by African-Americans. Thus, the central goal of each treatment session was to increase engagement via reduction of identified culturally encapsulated psychological barriers to depression treatment utilization. Engagement was defined as attendance at the initial depression treatment session. One-hundred percent of youth that received the AAKOMA FLOA intervention completed the intervention and initiated depression treatment compared to 75% of youth in the delayed control group.

In another study, Gilmer et al. [53] examined changes in mental health service utilization among YAs (aged 18–24) receiving youth-specific services compared with those in traditional adult outpatient mental health programs. All of the programs included in this study followed a psychiatric rehabilitation model for adults, but the age-specific programs were tailored for youths ages 18–24.The youth-specific programs employed staff experienced with providing services to youths and collaborated with agencies within the children's system of care and the child welfare system to assist with transition into the adult system of care. Youth-specific programs focused on independent-living skills and age-appropriate social skills such as therapeutic groups on relationships and dating, family supports, housing, and living with roommates. Supportive educational and vocational services included a staff person who accompanied a youth to a community college or potential job site. Youth-specific clubhouses were provided for youths to gather and socialize. Trained peer specialists provided mobile outreach to youths where they were most comfortable to begin treatment engagement.

Gilmer et al. [53] used a quasi-experimental design with comparison group and pretest that was supported by a large sample ($N = 2505$), but was limited by potential selection bias.

Findings showed that youth-specific programs were associated with increased outpatient service use. In the 12 months before the initiation of treatment at a youth-specific program, youths averaged fewer than six visits to outpatient mental health providers. However, after initiating treatment in youth-specific services, youths averaged more than 20 outpatient sessions. Compared with youths in adult outpatient programs, clients in youth-specific outpatient programs had 12.2 more outpatient visits ($p < .001$).

In another study, Gearing et al. [55] developed and tested Tech Connect, a brief, personalized, between-session intervention (8 text messages and 3 phone calls) to promote treatment adherence in adolescents receiving psychotherapy for depression. Designed to increase engagement in the early stage of treatment, adolescents received 1 text message 48 h before each of their initial 8 scheduled sessions from their service providing clinicians. Also, a parent received three separate phone calls from the clinicians during the initial 8 sessions (48 h before sessions 1, 2, and 5). All between session contacts used semi-structured scripts that allowed personalization of care based on client issues and progress, and used health belief model [60] constructs (perceived benefit, perceived barriers, self-efficacy). For example, clients would be reminded of their next appointments and assisted to address any barriers to attending. They would be asked about their progress on homework or on practicing coping skills learned

in the previous session, and offered encouragement and reinforcement.

Gearing et al. [55] randomly assigned a small sample (20) of depressed adolescents that were at high risk for premature treatment dropout to Tech Connect (psychotherapy and medication support with manualized between session contact) or standard community-based mental health care (psychotherapy and medication support with between session contact as usual). Both groups were also provided weekly structural supports (transportation and childcare) as needed. Results found significant differences between the number of treatment sessions attended by the adolescents assigned to Tech Connect and those of the control group. Adolescents receiving Tech Connect attended 91.3% of their initial eight sessions, while 66.3% attended in the control condition. Satisfaction with the helpfulness of between session contacts was high, with the majority of adolescents and parents reporting "very satisfied" or "satisfied." Most adolescents reported being satisfied with the number of contacts, whereas most parents reported that they would like to receive more contacts. All adolescents in the treatment condition attended the first treatment session, with 80% attending the targeted first 8 sessions. In comparison, only 40% of adolescents in the control condition completed the first 8 sessions.

Promising Three studies reported encouraging results when testing an engagement intervention with racial-ethnic minority adolescents and YAs. Dixon et al. [54] tested a team-based intervention, RAISE (Recovery After an Initial Schizophrenia Episode), designed to promote engagement and treatment participation among individuals experiencing early psychosis. While primary outcomes included social and occupational functioning and symptoms, engagement was also reported as an outcome. Engagement was defined as service utilization and measured as use of services and number of treatment visits by each participant from the date of their first clinical visit. Results indicated that a multi-element intervention focused on shared decision making and family involvement achieved high rates of engagement and participation in treatment. Although there were no required components, the RAISE Connection Program used a multidisciplinary team that provided a range of treatment components, including medication, supported employment and education, family support and education, psychoeducation, skills training and support based on cognitive-behavioral methods, substance abuse treatment, and suicide prevention. Teams served up to 25 individuals and included a full-time team leader, individual placement and support (IPS) worker, part-time recovery coach, and a psychiatrist. The treatment emphasized shared decision making, recovery, and the view that disability can be minimized by treatment and community support. To focus on maintaining engagement and facilitating treatment participation, the team also provided services in the community when needed. Frequency of contact with participants was flexible and depended on a participant's needs and preferences. In addition to meetings with participants, treatment teams met together weekly for communication and coordination. Program discharge occurred when individuals made a satisfactory transition to other services or when an individual declined further contact. The treatment model specified that participants would receive services for up to 2 years (on average).

Dixon et al. [54] enrolled a total of 65 individuals in RAISE Connection Program services across two sites. Standardized assessments were conducted at baseline and at 6, 12, 18, and 24 months. Use of services and treatment visits were aggregated by service quarter and documented to measure engagement. Findings indicated that participants met with team members most often during the first quarter after entering the program. Staff encounters decreased over time from a mean of 23.2 in the first quarter to 8.8 in the last quarter in treatment. On average, participants received services from the teams for 91% of the total time that was possible. Client outcomes also showed improvements in both symptoms and functioning comparable to those seen in other successful interventions. However, due to the lack of a comparison group, the study is limited to demonstrating the feasibility of this program model and a promising approach to engagement with often difficult-to-engage YAs experiencing early psychosis.

In another study, Jackson-Gilfort et al. [50] tested a culturally responsive form of Multidimensional Family Therapy (MDFT) [61] to address the problem of low levels of therapy engagement and participation among African American youth. Results indicated that discussing research-derived, culturally relevant content themes, such as issues of anger/rage, alienation, respect, and the journey from boyhood to manhood can improve therapy engagement of Black male adolescent clients. The pattern of results suggested that talking about culturally salient and meaningful content themes encouraged more active engagement and participation in therapy, and that once an adolescent was actively engaged in treatment, he was then able to talk more openly about developmentally critical life domains in the psychotherapeutic process. MDFT allows for considerable flexibility in its format (e.g., intensity of treatment, number of sessions), service delivery context (e.g., sessions held in clients' homes, clinic, school, court, juvenile detention centers). Informed by culturally responsive treatment models, risk and protective factors of substance abuse and conduct disorder, and by scholarly works advocating the use of African-American culture in the design of behavioral treatments, the intervention was designed by incorporating multiple embedded cultural influences (e.g., mainstream, African-American, street culture), current relevant adolescent developmental research, and direct involvement in the multiple systems (e.g., school and family) of the adolescents. In MDFT, engagement is a process that occurs throughout the course of treatment rather than as a simple event that begins

and ends in the first stage of therapy. Thus, for the purposes of this study, engagement was defined as (a) the extent to which the client participated in the therapy session (adolescent therapy participation), (b) the extent to which the client examined his feelings and experiences in session (adolescent therapy exploration), and (c) the level of client hostility in session (adolescent negativity in therapy).

Jackson-Gilfort et al. [50] studied 18 adolescents over 87 family therapy sessions. Six culturally relevant themes were used in therapy: (a) mistrust, (b) anger/rage, (c) alienation, (d) disrespect, (e) the journey into manhood, and (f) racial socialization due to their salience in scholarly literature and media sources, as well as evidence suggesting that intervening in these areas can affect positive adolescent development. Sessions in which each individual theme received the highest rating were chosen from each of the 18 cases to predict adolescent engagement and therapist-adolescent relationship in the following session. Discussion of trust/mistrust negatively predicted ratings of the therapist-adolescent relationship ($R^2 = .21$, $p = .09$) in the subsequent session, whereas the discussions of alienation ($R^2 = .23$, $p = .08$) and respect/disrespect ($R^2 = .19$, $p = .09$) positively predicted ratings of the therapist-adolescent relationship in the subsequent session. Overall adolescent engagement ($R^2 = .27$, $p = .04$) and the therapist-adolescent relationship ($R^2 = .20$, $p = .08$) were able to predict the discussion of the journey from boyhood to manhood theme in the subsequent therapy session. The study was limited by its small sample size and lack of a comparison group. However, it provides useful information on intervention for engagement of a particular minority adolescent group: African American male adolescents with co-occurring drug and mental health problems.

In another study, Munson et al. [56] pilot-tested *Just Do You*, an intervention designed to improve young adult mental health treatment engagement through the enhancement of acceptance, hope, literacy, and efficacy, as well as the decrease of negative attitudes, mistrust, and negative emotion toward mental health care. The intervention was based on positive identity development and identity formation through the modeling of a positive orientation toward mental health care. Engagement was defined for purposes of this study as consistent session attendance, adherence to therapeutic treatment, reporting a positive attitude about treatment, and reporting sufficient motivation to maintain adherence to treatment. The intervention was provided in a group format over eight sessions that incorporated narrative therapy [62] to communicate individual narratives of group members and narratives of others (peer co-facilitators and public figures) with serious mental health conditions. The intervention also included introduction of the principles of evidence-based treatments (e.g., cognitive behavioral therapy and psychoeducation). YAs were encouraged to learn about mental health and how services can help address symptoms and enhance functioning.

Munson et al. [56] recruited 43 participants for the study including YAs ($N = 27$), recovery role models (N = 2), and key stakeholders (e.g., clinic staff, administrators, and experts in the field) ($N = 14$), from three agencies serving YAs with serious mental health conditions. Qualitative interviews were conducted to critique the program manual and provide post-intervention feedback. Results suggested that YAs found the program to be engaging, helpful, and for some, the program improved attendance, adherence, attitudes, and motivation. Results also suggested that the co-facilitation model of a clinician and a peer is promising, with YAs reporting acceptance of the role model and the program components delivered by the recovery role model. Data also suggested that many YAs found a recovery role model who is approximately a decade older than the participants relatable. Results also suggested reducing the number of sessions from eight sessions over 4 weeks to four sessions over 2 weeks due to some redundancy in discussing principles of evidence-based treatments and clinic challenges of delivering an eight-session engagement intervention.

Discussion

Family-Based and Individual-Oriented Interventions

Most of the research identified by this study, and the majority of the interventions considered probably efficacious, included some form of family level engagement. Engagement of family is clearly important with adolescents because, as minors, they are typically living in a family and are dependent on the family structure (or at least a parent) to access and participate in mental health services. However, the involvement of family may be less important for YAs. For example, much of the current literature on treatment and supportive services for transition-age youth (frequently identified in literature as roughly aged 16 to 25) with mental health disorders is less directed at family-oriented approaches and more focused on transitioning youth to independence [43, 63, 64]. While family involvement is frequently encouraged as a support, it is recognized that YAs may not have access to a supportive family relationship given that high rates of transition-age youth with SMI are homeless and have been in child welfare systems [20, 65]. In contrast to family-oriented interventions, key features in therapeutic interventions for YAs with SMI include empowering participants and building their self-determination, and "person-centered planning" to coordinate their services and supports [66]. Services frequently needed by YAs with SMI are those that provide assistance with obtaining employment, education, housing, community integration, mentoring and peer supports, and/or developing social networks [67]. Dixon et al. [54] utilized several of these strategies in their RAISE Connection Program as part of a multi-element

approach to meet emergent needs of participants. These types of interventions involve the participation of transition-age youth "natural supports," which may include family but are not directed at working with family structure or dynamics as several of the engagement interventions identified by this study were [47–50]. As in therapeutic interventions for transition-age youth, future research on engagement interventions may demonstrate that those focused on multiple life domains, therapeutic alliance, or accessing services needed for independent living are more appropriate than family level interventions.

Age-Based Cultural Adaptations

YAs with mental illnesses experience limited access to developmentally appropriate services [43]. Research on the developmental needs of YAs has demonstrated important differences between YAs and other age groups and that there is a lack of evidence of efficacy in YAs from evidence-based practices that were developed for other age groups [68]. Three studies identified in this review used young adult-oriented, age-based cultural adaptations to address engagement in mental health services [53, 55, 56]. These represent novel approaches to addressing the gap in interventions designed for adolescents and YAs. Tech Connect [55] used text message communication in between sessions to promote psychotherapy adherence and engage youth in a way that they were comfortable interacting in daily life. About 78% of US adolescents have a cell phone [69] and use of mobile technology has become a primary mode of communication in youth culture [70]. Regarding underserved racial-ethnic minority youth, the Pew Research Center (2013a, 2013b) [71, 72] reported that Latinos own and use mobile technology at similar, and sometimes higher, rates than do other groups of Americans, and there are few differences between whites and blacks across demographic categories when it comes to cell phone ownership. This suggests that Tech Connect is well adapted for adolescents and YAs and may present a widely applicable engagement intervention for racial-ethnic minority YAs with mental health conditions.

In *Just Do You,* Munson et al. [56] used mentors to model aspects of living independently as an adult with a mental health disorder and narratives through web videos, books, and articles that provide examples of public figures who have been diagnosed with a mental health disorder. In addition, engagement facilitators were focused on enhancing the relational qualities and dynamics in order to improve the connection that YAs have to the clinic and their providers. The intervention was informed by Relational Cultural Theory [73], which suggests that mutual attachments are essential to psychological well-being throughout the life cycle, and for adolescents, changing the dynamics of support relationships as they transition to becoming independent promotes healthy development. For youth, the changing nature of service use over time and experiences associated with service use at a given point in time are related to their developmental and maturation process [74]. The health decision-making process for YAs is not static, but dynamic and contextual. The mentoring and relational aspects of the *Just Do You* engagement intervention specifically target a key characteristic of older youth and YAs by addressing their unique position of being in transition from childhood to adulthood.

Race-Ethnicity-Based Cultural Adaptations

Three engagement interventions identified by this study used various types of racial-ethnic cultural adaptations to engage adolescents and YAs [50–52]. Research has shown racial-ethnic differences in factors that affect engagement in mental health services (e.g., stigma, therapeutic alliance, and health beliefs) [75–77]. However, the role of racial-ethnic culturally tailored approaches is somewhat ambiguous with regard to engaging minorities in treatment [78], with some evidence showing that it may increase session attendance and treatment retention among minorities and some indicating that mainstream engagement strategies can be effective with racially and ethnically diverse populations.

Breland-Noble, Board [52] used a community-based participatory research (CBPR) approach to gather a knowledge base from community members relevant for understanding African-American adolescent depression in context. While the central goal of the engagement intervention was reduction of culturally encapsulated barriers to depression treatment, the intervention itself was culturally informed motivational interviewing (MI). MI has been shown to be effective in interventions for adolescent health behavior [79] and, among minority adolescents, most studies demonstrating its success were addressing substance use [80]. MI has been described as implicitly culturally sensitive because it is person-centered, accommodating of the client's own assumptions and experiences, and attentive to the client's intrinsic beliefs and goals [81], which may make it more compatible and useful with youth in transition to adulthood as well as YAs from underrepresented cultural backgrounds.

Similarly, Grote et al. [51] used culturally adapted IPT, also an intervention that has shown effectiveness with diverse youth populations [82, 83]. The racial-ethnic cultural adaptation involved using therapists who were trained in cultural competence and had considerable experience working with persons of racial-ethnic minority groups. The intervention also displayed culturally relevant pictures of racially and ethnically diverse infants in the therapist's office and used stories from the participants' cultural background to reinforce treatment goals. Therapists also provided education about depression in a way that was congruent with the participant's culture and used the words like "stressed" instead of "depressed," if

that was aligned with the participant's expression, to minimize her perceived stigma of depression. The cultural adaptation also involved exploring coping mechanisms and cultural resources, such as spirituality or familismo, that had helped participants through adversity in the past. Rather than adapting the intervention to any one particular racial or ethnic group, Grote et al. [51] used a personalized, cultural competence approach to tailor the intervention to the individual client's culture.

Jackson-Gilfort et al. [50] used an adaptation to family therapy that was designed to engage African-American youth specifically, but still seemed to be addressing issues identified as salient to adolescents in transition to adulthood in general. Expressions of anger and a sense of alienation, discussion themes that encouraged engagement in therapy, were described as adolescents talking about not having close friends and feeling that decisions were made for them by "outsiders." These are frustrations that might also be present in YAs of diverse backgrounds and, alongside the other discussion theme associated with engagement *journey from boyhood to manhood*, represent likely widespread adolescents concerns. Addressing key developmental tasks of adolescence involving the changing dynamics of social supports, transitioning to independence, and maturation were found to encourage engagement in African-American adolescent males by Jackson-Gilfort et al. [50], just as they did in other studies identified by this review [54, 56] that were not specifically racially-ethnically tailored.

The literature on mental health service engagement among underserved minority young adults has several limitations in this study. Due to a scarcity of studies on adolescent and young adult service engagement that include sufficient representation of racial-ethnic minorities, only 10 studies met criteria for the present study. Studies that did not include a sample of majority Non-Hispanic White youth were few, and the studies that were located lacked representation of Asian and American Indian adolescents and young adults. This places limitations on generalizability and the breadth of information that can be drawn from them. Additionally, there was no standardized measure for mental health service engagement across studies or a reliable method for evaluating engagement processes independent of a single intervention. Multiple measures of engagement in the reviewed studies make it difficult to compare results across studies. This lack of specificity makes it unclear from the studies in this review when engagement was tied to the intervention as a whole, to specific elements of the intervention, or when it was related to other contextual factors. Studies reviewed did not report on how important factors that intersect with being from a racial-ethnic minority group (e.g., gender, sexual orientation, class, location) affected engagement outcomes. More information is needed on how the efficacy of these interventions may vary among young people at different cultural intersections.

Conclusion

This study has identified several strategies that have been useful for engaging minority youth in mental health services, such as incorporating family and natural supports in a developmentally appropriate way, facilitating independence, and attending to the cultural context of minority YAs. The literature indicates that cultural adaptation seems to play an important role in engagement with YA minorities when it is focused on age-based culture and is inclusive of diverse racial-ethnic contexts. As culture determines meaning [84], the cultural context should be the starting point for conceptualizing, developing, and designing treatment engagement interventions to benefit underserved YAs.

The predominance of efficacious family-based interventions in the literature and the fact that the literature poorly discriminates among adolescents, young adults, and adults are important findings of this study. The developmental processes that occur between adolescence and adulthood shows signs of being a distinct and critical period [85, 86]. Yet, the research on interventions specifically for YAs and the evidence of efficacy in YAs from evidence-based practices developed for other age groups is scant and marks a significant gap in mental health services research [68]. In terms of practice-level strategies, engagement interventions that have been demonstrated to be effective with racially-ethnically diverse populations of all age groups include letter and phone prompting, addressing practical and family-related barriers to treatment attendance, psychoeducation, and motivational interviewing [78]. However, it is difficult to determine to what degree these interventions are appropriate for YAs in particular without more focused studies. To complicate matters further, the effects of ethnicity or race on mental health service use disparities in youth have been related to poverty status and environmental context [87] as well, creating an added level of complexity to the research still needed to address the unmet need in underserved minority YAs.

Lastly, the youth population in the US is becoming more and more comprised of a heterogeneous group of individuals with multiple racial and ethnic identities. According to the 2010 US Census, the number of people who identified as multiracial grew by 32% since 2000, more than any other single racial classification [88]. Data such as these indicate that youth may have differing racial-ethnic identities from their parents and families of origin, generating an exceptionally diverse cultural context indeed as they transition to adulthood. Interventions designed to engage youth by addressing family and cultural identities will need to be exceedingly

flexible to allow for a great variety of experiences and situations in the lives of multiracial and multiethnic minority YAs. Therefore, cultural adaptations to improve engagement in mental health services will need to be highly adaptive to YAs individual identities as well as to their developmental needs to be relevant and effective.

Compliance with Ethical Standards

Conflicts of Interest The author declares that there is no conflict of interest.

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