Aftercare Engagement: A Review of the Literature Through the Lens of Disparities

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While prior research has well documented racial and ethnic disparities in mental health care broadly, significantly less attention has been given to possible disparities existing in the transition to aftercare. Grounded in Klinkenberg and Calsyn's (1996) framework, we review current research on aftercare, identify commonalities between the prior and current reviews, and highlight gaps for future research. We focus on variables pertinent to our understanding of racial/ethnic disparities. Articles were retrieved via PsycINFO, PubMed, PsycArticles, and Google Scholar. We targeted those written in English and conducted in the United States after 1996 that examined aftercare and disparities-related variables. Accumulating evidence across the 18 studies that we reviewed suggests that disparities exist in aftercare engagement. We found clear support for significant racial/ethnic effects on aftercare engagement, such that racial/ethnic minorities are typically more vulnerable to disengagement than Whites. In addition, we found modest support for the association between aftercare engagement and other individual- and community-level variables, including sex, insurance status, prior outpatient treatment, and residence in an urban versus rural setting. Moreover, extant qualitative research has identified barriers to aftercare engagement including stigma, low mental health literacy, and negative attitudes toward treatment. Finally, systems-level variables including assertive outreach efforts and reduced length of time on waitlists were identified as consistent predictors of engagement. Suggestions for future research and clinical implications are explored.

Keywords: aftercare, aftercare engagement, disparities in aftercare, predictors of aftercare

Decades of research on access to mental health care have consistently demonstrated that utilization of specialty services is low, particularly among individuals from low-income and racial/ethnic minority groups (Cook, Doksum, Chen, Carle, & Alegria, 2013; Jimenez, Cook, Bartels, & Alegria, 2013; McGuire, Alegría, Cook, Wells, & Zaslavsky, 2006). Importantly, among those who do engage with mental health services, minority clients are also at increased risk of prematurely dropping out of treatment (Atdjian & Vega, 2005; Cook et al., 2014; Wierzbicki & Pekarik, 1993). While this research has improved our understanding of general access to outpatient care, less is known about the barriers and facilitative factors associated with patients' transition to and engagement with outpatient care following psychiatric hospitalization, a process termed *aftercare engagement* (Klinkenberg & Calsyn, 1996). More specifically, there is a paucity of research examining potential racial/ethnic disparities existing at this particular juncture in individuals' mental health care.

Aftercare engagement is conceptualized in the literature as part of the spectrum of mental health services that are recommended by inpatient providers to individuals who are being discharged following psychiatric hospitalization, including residential programs, day treat-

ment, and/or outpatient services. This article will focus on aftercare engagement in the context of referred outpatient treatment, which may be provided by a range of service agencies, including community mental health clinics, university-affiliated clinics, and specialized community outreach clinics. Research on aftercare engagement is relatively recent, and it began largely in response to systemic changes in the delivery of mental health treatment that began occurring in the 1980s and 1990s (Klinkenberg & Calsyn, 1996). These changes included reductions in the average length of patients' psychiatric hospitalizations, the introduction of different treatment alternatives within the community, and the refinancing of psychiatric care.

The limited research that has investigated aftercare psychiatric services has not specifically investigated racial and ethnic disparities. However, this work has highlighted the significant public health effects of failure to engage with these services. In particular, findings suggest that patients who fail to attend any outpatient appointments following discharge are twice as likely to be rehospitalized in the same year as patients who keep at least one appointment (Nelson, Maruish, & Axler, 2000). Moreover, while the rate of rehospitalization remains constant among patients who have kept an appointment (approximately 10%), these rates of readmission increase over time (range from 15%–29%) for those who have failed to engage in services (Nelson et al., 2000).

Summary of Findings From Prior Review

In their earlier review of the literature, Klinkenberg and Calsyn (1996) sought to better understand the relationship between aftercare engagement and rehospitalization among patients with serious mental illness. They reported that approximately 40% to 60% of patients discharged from inpatient care connected with follow-up

outpatient services, though rates as low as 22% and as high as 90% had been reported in the literature. They offered a comprehensive model for conceptualizing how clients' receipt of aftercare is a function of three interrelated factors: (a) individual vulnerability characteristics, (b) the availability of community support, and (c) the responsiveness of the mental health service system.

With regard to individual-level demographic variables, Klinkenberg and Calsyn's (1996) earlier review found only modest support for the relationships between aftercare engagement and race, sex, and socioeconomic status, as measured by educational and employment status. Approximately 25% of studies investigating the associations between aftercare engagement and race or sex detected significant effects, such that African Americans were less likely to engage than Whites, and men were less likely to receive services than women. The earlier review found more consistent support (30% of studies reviewed) for significant effects of educational background on aftercare engagement, though the direction of effects was inconsistent across studies. Approximately 25% of studies reviewed reported that being employed was significantly and positively associated with engagement.

Klinkenberg and Calsyn (1996) found somewhat more support for the association between individuals' psychiatric histories and aftercare engagement, although fewer studies explored these questions. Approximately 40% of studies reviewed reported a significant association between aftercare engagement and the number of prior hospitalizations and length of the most recent hospitalization; the direction of effects was not specified. In addition, there was consistent support across studies for the positive association between previous involvement with outpatient treatment and engagement.

More consistent associations were noted between aftercare engagement and factors at the community and systems levels. At the community level, Klinkenberg and Calsyn's (1996) earlier review reported that, among 70% of studies investigating this association, reduced engagement was more likely among those living alone, those with more residences in the past year, and individuals who had lived less than 2 years in their residence. At the systems-level, Klinkenberg and Calsyn (1996) considered the role of waiting lists and assertive outreach on aftercare engagement. Data across all studies that examined these relationships suggested that reduced wait times and "assertive outreach" by the aftercare agency prior to scheduled appointments increased aftercare engagement.

Current Study

In the prior review, Klinkenberg and Calsyn (1996) found that community- and systems-level variables were more influential on the receipt of aftercare than were individuals' sociodemographic backgrounds and/or psychiatric histories. Their failure to detect significant effects of race on aftercare engagement is particularly surprising given decades of research that document racial/ethnic disparities in outpatient engagement more broadly. Importantly, however, they suggested that methodological limitations in the sample compositions, as well as failure to control for socioeconomic status, might have contributed to the absence of any race effects in several of the studies. Though an in-depth examination of racial/ethnic disparities was beyond the scope of their original review, Klinkenberg and Calsyn examined a number of additional variables that have been highlighted in the literature as relevant to

possible racial/ethnic disparities and merit exploration, including educational background, employment status, housing stability, prior involvement with community treatment, and assertive outreach efforts by prospective outpatient providers.

It has been 20 years since Klinkenberg and Calsyn's review of the aftercare literature and an updated review of the literature is needed. Specifically, it is likely that the field has improved the methodological rigor with which researchers investigate the effects of sociodemographic variables on engagement more broadly, including that following psychiatric hospitalization. This is plausible especially in the context of the field's increased attention to understanding and addressing racial/ethnic disparities in accessing mental health services. Moreover, the myriad changes in the health care system since 1996, including the growth in the relative role of Medicaid and the shift in treatment away from hospital to community-based services (Zuvekas, 2010), have significantly impacted the delivery of mental health services and, thus, are likely to influence trends in aftercare engagement as well.

We review herein the research that has been published since Klinkenberg and Calsyn's (1996) seminal review, focusing our discussion on those variables pertinent to our identification of any racial/ethnic disparities in this area, in particular. Prioritizing more recent research facilitates a targeted examination of the current state of the field with regard to racial/ethnic disparities that have persisted in mental health services more generally, despite consistent evidence of their existence (Alegria et al., 2002; Atdjian & Vega, 2005; Cook et al., 2013, 2014; McGuire et al., 2006; Wierzbicki & Pekarik, 1993). We use their original model to organize our literature review and consider how clients' race/ethnicity and other related individual vulnerability, community support, and system responsiveness characteristics inform aftercare engagement. We also identify commonalities across the prior and current research and highlight gaps for future research to investigate. Given that aftercare engagement is associated with significant public health effects (i.e., decreased risk for rehospitalization), and that racial/ethnic minorities are most likely to experience difficulties when accessing services, identifying which community support and system responsiveness variables are most successful in enhancing their aftercare engagement is paramount.

Method

The articles reviewed in this article were retrieved through searches of PsycINFO, PubMed, PsycArticles, and Google Scholar and restricted to those written in English, conducted in the United States, and published after 1996. Search terms included *aftercare, community mental health centers and services, psychiatric patients, professional referrals, continuity of care, outpatient treatment, aftercare engagement, psychiatric aftercare engagement, aftercare compliance, adherence with psychiatric aftercare, disengagement from aftercare*, and *predictors of aftercare engagement*. In addition, we also reviewed the reference lists of the articles we retrieved in order to target other relevant articles not previously identified. Particular attention was paid to distinguishing between studies pertaining to engagement with aftercare specifically, as opposed to outpatient appointments more broadly that are not preceded by hospitalization. In our review of the literature, we identified 18 empirical articles that examined predictors of aftercare engagement and/or identified relevant barriers and facil-

itative factors to engagement, and had been conducted in the United States after Klinkenberg and Calsyn's (1996) review.

Among these selected empirical articles, our review of the quantitative research focused on analyses that were relevant to expanding our understanding of racial/ethnic disparities in this domain; these included both bivariate and multivariate analyses published in the original articles. We selected relevant variables from among those included in Klinkenberg and Calsyn's (1996) prior model, as well as others that have been identified by other researchers as related to disparities in outpatient engagement more broadly. We chose only to include in our review those variables that were investigated in at least two empirical articles; variables that were only investigated in one article are not discussed. We also extended our review of the literature to include relevant qualitative research. Central themes from these articles are presented as well and incorporated into the existing comprehensive model.

Results

Across the 18 studies we identified, researchers most typically operationalized aftercare engagement as whether or not patients attend their first outpatient appointments postdischarge (i.e., dichotomous yes/no). Study samples were methodologically diverse and included the following: five studies that examined aftercare engagement by utilizing large data sets (i.e., Medicaid/Medicare data, HEDIS); four studies that focused on follow-up among individuals discharged from university-affiliated hospitals; three studies that collected data among small, diagnostically specific samples; two studies that explored these questions about individuals engaged with the VA system; two additional studies that explored these questions among individuals discharged from large, urban hospitals; one study that utilized nationally representative survey data; and one study that examined follow-up among discharges from the psychiatric emergency room (see Tables 1 and 2). Overall, the studies we reviewed generally reported engagement figures similar to those reported by Klinkenberg and Calsyn (1996), with just over one third (35%) of patients in the study samples engaging in aftercare following inpatient hospitalization (Boyer, McAlpine, Pottick, & Olfson, 2000; Compton, Rudisch, Craw, Thompson, & Owens, 2006; Klinkenberg & Calsyn, 1997; Stein, Kogan, Sorbero, Thompson, & Hutchinson, 2007). The variance in engagement was high across these studies, with rates of engagement as low as 20% (within 7 days of discharge) and as high as 82% (Carson, Vesper, Chen, & Lê Cook, 2014; Kruse, Rohland, & Wu, 2002).

Individual Vulnerability Characteristics

With regard to client vulnerability characteristics, Klinkenberg and Calsyn (1996) examined several demographic variables, including race, sex, age, marital status, education level, and work status, as well as patients' psychiatric history and status. In addition to race/ethnicity, there are a number of other variables we examined given their strong associations to racial and ethnic disparities. For example, we investigated the role of socioeconomic status, as measured by income, education, and employment status, given that racial/ethnic minorities are significantly more likely than Whites to be unemployed and to have lower educa-

tional attainment (American Council on Education, 2006; U.S. Department of Labor, 2014; Rodgers, 2008). Similarly, we reported here on prior treatment history given that minority clients have reduced contact with the mental health system, such that they are not only less likely to access outpatient specialty care, but are also more likely to drop out once connected with services (Cook et al., 2013, 2014).

Additionally, we examine the relationship between aftercare and variables not included in Klinkenberg and Calsyn's (1996) original review, but that have been established in the broader literature as important to our understanding of disparities in outpatient engagement more broadly. Specifically, we reviewed the association between insurance status and aftercare engagement given extensive data suggesting that insurance status is an important predictor of access to health care and mental health treatment more broadly, and that minorities are significantly more likely to be uninsured (Alegria et al., 2002; Wang et al., 2005). We also considered the role of psychological variables including stigma, mental health literacy, and attitudes toward treatment. Research has consistently demonstrated that stigma acts as a barrier to accessing specialty mental health treatment, particularly among racial/ethnic minority groups. In fact, given the prejudice and discrimination minorities may already face given their group membership, perceived stigma of mental illness may result in what some have called "double stigma" (Gary, 2005). Similarly, lower mental health literacy represents another barrier that is more often observed among cultural minorities, whose traditional explanatory models of mental disorder may delay or impede formal help-seeking (Jorm, 2000).

Background variables.

Race/ethnicity. We identified nine studies that examined the relationship between race and aftercare engagement, with all but two of these studies finding significant effects of race (Boyer et al., 2000; Compton et al., 2006). It is noteworthy that failure to detect significant racial effects within these two studies may be attributable to methodological limitations. Specifically, Compton et al. (2006) found no significant difference in engagement on the basis of race among a relatively homogenous study sample in which 84% was African American. Although Boyer, McAlpine, Pottick, and Olfson (2000) did not explicitly report the racial composition of their final sample, it can be assumed from analyses that approximately 50% of the sample is White. However, they noted that among 111 patients excluded from their final study sample (for a variety of methodological reasons) 45 clients had not received outpatient referrals. Among other distinctive characteristics, clients without a referral were more likely to be members of a minority group.

The seven studies that found significant associations between patient racial background and aftercare engagement were methodologically diverse. The direction of findings, however, was relatively consistent in that individuals from racial minority backgrounds were typically less likely to engage with aftercare services than Whites. Two of these studies examined this relationship among Medicaid-enrolled individuals comprising racially/ethnically diverse samples and found that Black patients were significantly less likely than White patients to engage with aftercare (Marino et al., 2015; Stein et al., 2007). Two others relied on retrospective chart reviews, including Kruse, Rohland, and Wu (2002), who found that White individuals were about eight times more likely to engage with aftercare than racial/ethnic minority

Table 1
Quantitative and Qualitative Research on Aftercare Engagement (1996–Present)

Study	Type/Method	Participants	Demographics	Aftercare engagement rate	Significant predictors of engagement
Klinkenberg and Calsyn, 1997	Quantitative: analysis of admissions data and chart review	319 individuals admitted to the psychiatric emergency room of Malcolm Bliss Mental Health Center in Missouri	Half of the sample was White, the other half was African American; approximately 65% of the sample was men	39% of African Americans and 42% of Whites engaged with aftercare	(1) Race: separate logistic regression models required for Whites vs. African Americans (2) Sex***: Whites only (3) Prior Hospitalization**: Whites only
Boyer, McAlpine, Pottick, and Olfson, 2000	Quantitative: analysis of discharge data and chart review	229 individuals discharged from two large, urban, acute-care general hospitals	Approximately half of the sample was White, the other half was composed of racial/ethnic minorities; approximately 53% of the sample was women	35% of sample engaged with aftercare	(1) Sex*** (2) Insurance status*: trend-level significance only (3) Prior hospitalization*** (4) Predischarge contact, inpatient/outpatient providers*** (5) Starting Outpatient Treatment Pre-Discharge**
Kruse, Rohland, and Wu, 2002	Quantitative: chart review	158 individuals discharged from a university-affiliated psychiatric hospital in the Midwest	Predominantly White sample (92%); 52% of the sample was women	82% of sample engaged with aftercare	(1) Race*** (2) Residence location, urban vs. rural*** (3) Length of time on waiting list***
El-Mallakh et al., 2004	Quantitative: chart review	81 individuals discharged from two psychiatric inpatient units as a large, university-affiliated, acute general hospital in the Midwest	Racial/ethnic composition of the sample is unknown; approximately 66% of the sample was women	62% of sample engaged with aftercare	(1) Insurance status* (2) Prior outpatient treatment*
Kilbourne et al., 2005	Quantitative: retrospective cohort study analyzing data from VA National Patient Care database	2,316 individuals diagnosed with bipolar I disorder who had received care within one of ten facilities within the Veterans Affairs (VA) system in the mid-Atlantic region	Majority of the sample was White, with 13.1% being African American; predominantly men, with just 9.4% of the sample being women	54.3% of sample engaged with aftercare within 30 days postdischarge	(1) Race*
Compton, Rudisch, Craw, Thompson, and Owens, 2006	Quantitative: chart review	221 individuals discharged from two psychiatric inpatient units at a large, urban, public-sector hospital serving a predominantly low-income population	84% of the sample was African American, with the remainder of the sample being White; 56% of the sample was women	36% of sample engaged with aftercare	(1) Socioeconomic status, employment status*: trend-level significance only (2) Prior outpatient treatment***

Table 1 (*continued*)

Study	Type/Method	Participants	Demographics	Aftercare engagement rate	Significant predictors of engagement
Orlosky, Caiati, Hadad, Arnold, and Camarro, 2007	Quantitative: analysis of discharge data and the Health Plan Employer Data and Information Set (HEDIS)	1,313 individuals discharged from Northeast hospitals in 2003 and 1,804 discharges in 2004; all patients were managed by Anthem Behavioral Health-Northeast	(none provided)	Precare coordinators: 66.6% of sample engaged within 7-days postdischarge and 84% engaged within 30-days postdischarge Postcare coordinators: 71.6% of sample engaged within 7-days postdischarge and 88.3% engaged within 30-days postdischarge	(1) Assertive outreach/care coordination*
Stein, Kogan, Sorbero, Thompson, and Hutchinson, 2007	Quantitative: analysis of Medicaid claims data	6,730 individuals discharged from psychiatric facilities comprising the largest Medicaid-managed behavioral health organization in a mid-Atlantic state	60% of the sample was White, 33.6% was African American, 6.5% was "Other;" 54% of the sample were women	30% of sample engaged with aftercare within 7-days postdischarge; 49% engaged within 30-days postdischarge	(1) Race**: 7- and 30-days postdischarge (2) Sex***: 30-days postdischarge only (3) Insurance status, Medicaid-eligibility category**: 7- and 30-days postdischarge (4) Prior outpatient treatment**: 7- and 30-days postdischarge (5) Residence location, urban vs. rural***: 7-days postdischarge only
Trivedi, Swaminathan, and Mor, 2008	Quantitative: analysis of Medicare HEDIS data	43,892 individuals who were enrolled in Medicare and had been hospitalized for a mental illness	Approximately 83% of the sample was White, 11.8% was African American, and 5.5% was "Other;" approximately 60% of the sample were women	(numbers not presented)	(1) Insurance parity**: 7- and 30-days postdischarge
Olfson, Marcus, and Doshi, 2010	Quantitative: retrospective longitudinal cohort study analyzing Medicaid claims data supplemented by data from three other sources	59,567 treatment episodes (i.e., discharges from the hospital) for 49,239 unique individuals who were diagnosed with schizophrenia	Approximately 53.3% was White, 36.9% was African American, 6.9% was Hispanic, and 2.9% was "Other;" 54.9% of the sample were men	41.7% of the sample engaged with aftercare within 7-days postdischarge; 59.3% engaged within 30-days postdischarge	(1) Race***: 7-days postdischarge only (only bivariate analyses significant at 30-days postdischarge) (2) Sex***: both 7- and 30-days- 7- and 30-days postdischarge (3) Insurance status, Medicaid-eligibility category***: 7- and 30-days postdischarge (4) Prior outpatient treatment***: 7- and 30-days postdischarge

(*table continues*)

Table 1 (*continued*)

Study	Type/Method	Participants	Demographics	Aftercare engagement rate	Significant predictors of engagement
Carson, Vesper, Chen, and Lê Cook, 2014	Quantitative: analysis of nationally representative dataset	339 individuals who participated in the Medical Expenditure Panel Survey (2004–2010), a nationally representative survey of mental health care utilization by the noninstitutionalized U.S. population	Approximately 61% of the sample was White, 23% was Black, and 16% was Latino; approximately 55% of the sample were women	Approximately 20% of sample engaged with aftercare within 7 days postdischarge (21.3% of Whites, 15.8% of Blacks, and 22.2% of Latinos); at 30 days postdischarge, about 40% of sample had engaged	(1) Race**: 30-days postdischarge only (2) Socioeconomic status, income***: 30-days postdischarge only (3) Employment status**: 7-days postdischarge only, trend-level significance (4) Prior outpatient treatment**: 7- and 30-days postdischarge (5) Residence location, urban vs. rural**: 30-days postdischarge only, trend-level significance
Marino, Wissow, Davis, Abrams, Dixon, and Slade, 2015	Quantitative: analysis of administrative claims data among Medicaid users in Maryland public mental health system	1,127 young adults who were enrolled in Medicaid and had at least one inpatient episode of mental health care at either a general or psychiatric hospital in Maryland; service use data was available via Maryland's Department of Mental Hygiene Administration	46.2% of the sample was White, 46.6% was Black, and 7.2% was Hispanic/Other/Unknown; approximately 52% of the sample were women	Roughly half (51.2%) of sample engaged with aftercare within 30 days postdischarge	(1) Race*** (2) Insurance status, Medicaid-eligibility category* (3) Prior Hospitalization*: trend-level significance only (4) Prior outpatient treatment***

Study	Type	Participants	Demographics	Factors influencing aftercare engagement
Pollack, Stuebben, Kouzekanani, and Krajewski, 1998	Qualitative: collected original data (focus groups, individual interviews) and chart review	46 individuals with dual diagnoses who were currently undergoing psychiatric inpatient treatment	Approximately 61% of the sample was White, 28% was African American, 11% was Latino; approximately 72% of the same were men	A number of factors in the social, intrapersonal, environmental, and interpersonal domains were identified as relevant to aftercare engagement • of particular relevance, logistical barriers including transportation, finances, and employment were identified, as well as psychological obstacles including stigma Individuals' needs from staff to facilitate aftercare included attitudinal, informational, and service-based aspects of care • specifically, individuals cited honesty about aftercare, psychoeducation about illness, information about outpatient referrals including correct contact information, and appointment reminders (i.e., checkup calls) as relevant needs for engagement
Compton, 2005	Qualitative: analysis of case reports	6 individuals with nonaffective psychosis who were referred to aftercare in an urban community mental health center	All of the individuals were African American; half of the sample was men, half were women	Barriers to engagement were identified on the individual-, community-, and systems-levels • of note, irrespective of whether these factors pertained to clients or their families, negative attitudes about illness and treatment, inadequate knowledge about illness and treatment, and perceived stigma served as barriers

* Significant in bivariate analyses only and/or only bivariate analyses conducted.   ** Significant in multivariate analyses only and/or data from bivariate analyses unavailable.   *** Significant in both bivariate and multivariate analyses.

Table 2
Intervention-Based Research on Aftercare Engagement (1996–Present)

Study	Type	Participants	Demographics	Intervention elements	Aftercare engagement outcome
Kopelowicz, Wallace, and Zarate, 1998	Intervention: collected original data	59 individuals who were recently admitted inpatients at a university-affiliated county hospital and met criteria for schizophrenia or schizoaffective disorder	42% of the sample was Latino, 39% was White, 12% was Black, 5% was Asian, and 2% was "other;" 71% of the sample were men	Individuals randomized to intervention arm participated in "community re-entry program." Eight sessions were conducted focused on the following: (1) psychoeducation (2) developing an aftercare treatment plan, including problem-solving barriers (3) healthy coping strategies and stress management (4) organizing daily schedules to facilitate engagement	As compared with individuals in the control group (i.e., occupational therapy), intervention participants were significantly more likely to engage with aftercare.
Olfson, Mechanic, Boyer, and Hansell (1998)	Intervention: collected original data (i.e., longitudinal patient outcome phase of the Rutgers hospital and community survey)	104 individuals with schizophrenia or schizoaffective disorder who were approaching discharge and had been given a referral to aftercare with a new provider	Approximately 51% of the sample was African American, 47% of the sample was White, and 2% was Asian; approximately 62% of the sample were men	Researchers investigated the effects of predischarge communication between clients and their new outpatient providers on subsequent aftercare engagement. Specifically, predischarge contact pertained to either, (1) an evaluation by the outpatient clinician on the inpatient unit, (2) telephone contact between outpatient providers and their clients, (3) in-person interview at the outpatient program and/or starting the program before discharge	Individuals who had communicated with their outpatient provider prior to discharge were significantly more likely to engage with aftercare than those who had not.
Dixon et al., 2009	Intervention: collected original data	135 veterans who were diagnosed with severe mental illness and were discharged from one of four acute inpatient units within the Department of Veterans Affairs Capitol Healthcare Network	43% of the sample was White, 2% was Latino, and the remaining racial composition is unknown; 90% of the sample were men	Participants were assigned a clinician trained to administer a "brief critical time intervention," and who were responsible for the following: (1) identifying barriers and developing individualized treatment plan (2) providing ongoing case management (3) emphasizing systems coordination and psychiatric stabilization, while also offering support for medication adherence, family involvement, integration of medical care, etc. (4) conducting home visits, accompanying participants to appointments, and providing emotional and practical support	Individuals who participated in the brief intervention, as compared with those randomized to "treatment as usual," were significantly more likely to engage with aftercare within 30 days postdischarge. They also had significantly fewer days between discharge and their aftercare appointment.

(table continues)

Table 2 (continued)

Study	Type	Participants	Demographics	Intervention elements	Aftercare engagement outcome
Batscha, McDevitt, Weiden, and Dancy, 2011	Intervention: collected original data	15 individuals who met diagnostic criteria for a primary diagnosis of psychosis and whose aftercare appointments were scheduled at the participating outpatient clinic	60% of the sample was African American, 27% was White, 7% was Latino, and 7% chose not to disclose their race; 60% of the sample were women	All participants took part in a three-part intervention that included a predischarge interview, an appointment orientation and reminder letter, and a brief meeting with the investigator at the aftercare appointment. Specifically, the predischarge interview focused on the following: (1) identifying barriers to engagement (2) exploring topics of conversation for discussion with the outpatient provider	Effects of intervention could not be directly tested in absence of control group. However, researchers observed unusually high engagement rate (92%) following implementation of the intervention.

patients, despite having a sample that was over 90% White. In Klinkenberg and Calsyn's (1997) empirical study, in which half of the sample was White and the other half was African American, bivariate analyses did not offer support for significant effects of race on aftercare engagement. However, separate logistic regression models for African American versus White clients found unique predictors of aftercare between the two groups, which we discuss further below. Finally, Carson, Vesper, Chen, and Lê Cook (2014) explored similar questions in a diverse sample of mental health consumers who had participated in the Medical Expenditure Panel Survey (2004–2010). In their sample, 61% of participants were White, 23% were Black, and 16% were Latino. Even after adjustment for clinical needs, Blacks were significantly less likely than Whites to receive any follow-up within 30 days of discharge. They were also one third as likely to have begun *adequate* treatment within this time frame. No difference was observed between Whites and Latinos.

The remaining two groups of researchers examined aftercare engagement among diagnostically specific samples and both found support for significant racial effects. In a study on aftercare engagement among individuals with bipolar disorder, Kilbourne et al. (2005) found that Black participants (13.1% of the sample) were significantly less likely to engage than Whites, comprising the remainder of the study sample. Olfson, Marcus, and Doshi (2010) examined similar questions among individuals diagnosed with schizophrenia. African American (36.9% of the sample) and Hispanic patients (6.9% of the sample) engaged with aftercare at similar rates to White patients at 7- and 30-days postdischarge. However, "other" patients (2.9% of the sample) were significantly more likely than Whites (53.3% of the sample) to engage with aftercare within 7 days of discharge; this difference was not observed at 30-days postdischarge. It is important to note that the researchers did not provide information on how race/ethnicity was defined in their sample, such that it is unclear whether or not Hispanic ethnicity was assessed separately from race.

Sex. We identified nine studies that examined the relationship between sex and aftercare engagement. Five of these nine studies failed to detect a significant association (Carson et al., 2014; Compton et al., 2006; El-Mallakh et al., 2004; Kruse et al., 2002; Marino et al., 2015). In contrast, the four remaining studies reported significant effects of sex on aftercare engagement, with three studies finding that women were more likely to engage in aftercare than men (Boyer et al., 2000; Klinkenberg & Calsyn, 1997; Stein et al., 2007).

Klinkenberg and Calsyn (1997) only detected this relationship among the White participants in their sample. Stein, Kogan, Sorbero, Thompson, and Hutchinson (2007) found that women were significantly more likely than men to engage with aftercare services within 30-days of discharge, but this difference was not observed at 7-days postdischarge. Finally, though Boyer et al. (2000) did not find a significant association in bivariate analyses, their final logistic regression model indicated that that being a woman was associated with significantly greater likelihood of engagement. In contrast to the direction of the above findings, Olfson et al. (2010) were the only research team to find that men were more likely to engage with aftercare services in a sample of individuals with schizophrenia.

Socioeconomic status. In our current review, we only identified three studies that examined the relationship between socio-

economic status and aftercare engagement, with one study failing to detect significant effects (Klinkenberg & Calsyn, 1997). Among the studies reporting significant effects, Carson et al. (2014) investigated the role of socioeconomic status by examining the effects of income, educational status, and employment status, on aftercare engagement. The researchers found that individuals whose income was greater than or equal to 200% of the federal poverty level, as compared with those with incomes below 200%, were almost three times as likely to engage with aftercare within 30 days of discharge. While they failed to detect a significant association between aftercare engagement and educational level, individuals with less than a high school degree were less likely than those with high school or college degrees to have begun *adequate* treatment within 7- and 30-days postdischarge. Lastly, researchers reported that individuals who were employed were twice as likely as those who were unemployed to engage with aftercare services within 7 days of their discharge, though this difference only reached trend-level significance. This difference was not observed at 30-days postdischarge.

Compton et al. (2006) similarly investigated the relationship between aftercare engagement and socioeconomic status, focusing their examination on the role of education and employment status. They failed to detect significant effects of education on engagement in a sample in which the mean educational level was less than college. The authors did report that clients working part time or full time were more likely than unemployed clients to be engaged in aftercare services, though this difference only reached trend-level significance and was not a significant predictor of engagement in the final logistic regression analysis.

Insurance status. We identified nine studies that examined the relationship between insurance status and aftercare engagement, with three studies reporting no significant effects (Carson et al., 2014; Compton et al., 2006; Kruse et al., 2002). The remaining six studies had different foci including the impact of Medicaid-eligibility categories, insurance parity, and insurance type.

Among the six other studies that did find an association between insurance status and aftercare engagement, three examined this relationship among Medicaid-enrolled clients only. Stein et al. (2007) found that clients receiving supplemental security income with Medicare were significantly less likely to engage with aftercare than those receiving temporary assistance for needy families at 7- and 30-days postdischarge. Olfson et al. (2010) reported that individuals who had obtained Medicaid coverage as a result of disability, as compared with those receiving Medicaid due to poverty, were significantly more likely to engage with aftercare at 7- and 30-days postdischarge. Similarly, Marino et al. (2015) found that engagement was significantly associated with Medicaid eligibility based on Supplemental Security Income (SSI) and/or disability support, whereas disengagement was significantly more likely among those enrolled in Medicaid due to financial reasons. Medicaid eligibility failed to be a significant predictor in researchers' final logistic regression model.

One study researched the effects of insurance parity for mental health and primary care on aftercare engagement among individuals enrolled in Medicare (Trivedi, Swaminathan, & Mor, 2008). Rates of engagement at 7- and 30-days postdischarge were greater in plans with equivalent cost sharing for mental health and primary care as compared to those in which there was no parity. This

relationship was magnified for individuals from areas of lower income and education.

The two final studies investigated the association between aftercare engagement and insurance type more broadly. Boyer et al. (2000) found that individuals receiving Medicaid were more likely than those receiving Medicare or paying privately to engage with aftercare, although this association only reached trend-level significance, and insurance status failed to be a significant predictor of engagement in the final logistic regression analyses. El-Mallakh et al. (2004) examined this relationship in a sample where all participants were given an aftercare appointment within 2 weeks of discharge, despite being uninsured or covered by public insurance. Insurance status was still significantly associated with engagement, such that patients without insurance had the lowest rate of engagement, while those with Medicaid had the highest.

Stigma, mental health literacy, and attitudes toward treatment. We identified two qualitative studies that examined the possible impact of psychological variables, including stigma, mental health literacy, and attitudes toward treatment, on aftercare engagement. Findings suggested that stigma, low mental health literacy, and negative attitudes toward treatment, serve as barriers to aftercare engagement. Specifically, Compton (2005) found that inadequate knowledge about illness and treatment, endorsement of negative attitudes toward treatment, and perceived stigma of mental illness served as barriers to aftercare engagement. Similarly, Pollack, Stuebben, Kouzekanani, and Krajewski (1998) found that fear of stigmatization acted as a barrier to engagement, particularly in the context of complying with their prescribed medication regimen. Other barriers included resentment over lack of autonomy with regard to aftercare planning, as opposed to a patient-centered approach.

Psychiatric status.

Prior psychiatric hospitalization. In our review, six studies investigated the relationship between patients' prior hospitalizations and aftercare engagement with similarly mixed findings. Half of these studies reported no significant differences in engagement on the basis of prior hospitalizations (Carson et al., 2014; Compton et al., 2006; El-Mallakh et al., 2004). Of the three studies that did find a significant effect, two reported that prior psychiatric hospitalization was significantly associated with aftercare engagement.

Specifically, Boyer et al. (2000) found that patients with prior psychiatric hospitalizations were significantly more likely than those who had none to engage with aftercare. Klinkenberg and Calsyn (1997) found that having previous psychiatric admissions was a significant predictor of aftercare engagement among White patients, but not among Black patients. In contrast, Marino et al. (2015) found that prior hospitalization was associated with disengagement, though this relationship only reached trend level significance, and failed to be a significant predictor in the final logistic regression model.

Previous involvement with community treatment. We identified six studies that examined the relationship between prior involvement with community treatment and aftercare engagement, all offering support for a significant association. In three of these studies, the researchers investigated this association among Medicaid-enrolled individuals and found that individuals who had previously engaged with outpatient services, as compared with those who had not, were significantly more likely to engage (Marino et al., 2015; Olfson, Marcus, & Doshi, 2010;

Stein et al., 2007). Two other studies found support for this relationship in samples that were methodologically diverse (Carson et al., 2014; Compton et al., 2006). Carson et al. (2014) also found that individuals with prior outpatient treatment were significantly more likely to have begun *adequate* treatment at both 7- and 30-days postdischarge. Lastly, El-Mallakh et al. (2004) reported similar findings, though their analyses only found a trend-level association between prior outpatient treatment and aftercare engagement.

Community-Level Variables

In addition to considering the relationship between individual vulnerability characteristics and aftercare engagement, Klinkenberg and Calsyn (1996) also explored the role that community support efforts have in patients' attendance at referral appointments. Specifically, they reviewed research that examined engagement in relationship to individuals' living situations, including number of residences in the past year, living less than 2 years in a residence, and overall residential stability, as well as in association with their informal social support systems, such as being accompanied to the emergency room by a family member, number of visitors while hospitalized, and the presence of family members at therapy sessions.

Given our focus on racial/ethnic disparities, we focus here on clients' housing arrangements both in terms of housing stability and with regard to residence in an urban versus rural setting. Data suggest that racial/ethnic minorities experiencing mental health challenges, African Americans in particular, are overrepresented among the homeless population (Folsom et al., 2005). Residence in an urban versus rural setting is a variable that has been cited in the literature as important to engagement with outpatient care more broadly (e.g., Larson & Fleishman, 2003; Roberts, Battaglia, & Epstein, 1999) and, thus, we have also explored its association with aftercare engagement.

In our review of the literature, we identified five studies that examined the relationship between patients' residences and their aftercare engagement. Two studies examined the relationship between patients' engagement and homelessness at admission. Neither study found a significant association, though only 25% and 10% of participants in each of the respective samples were homeless (Compton et al., 2006; El-Mallakh et al., 2004). In contrast, the remaining three studies that investigated the association between aftercare engagement and residence in an urban versus rural area, all reported significant effects.

Kruse et al. (2002) found that patients' residence in an urban versus rural county was a significant predictor of aftercare engagement, such that those living in an urban location were more likely to engage with aftercare than those residing in a rural county. Stein et al. (2007) reported similar results when examining this relationship at 7-days postdischarge. However, residence in an urban setting failed to be a significant predictor of aftercare engagement at the 30-day follow-up. Finally, Carson et al. (2014) found that participants residing in an urban versus rural area were almost twice as likely to engage with aftercare 30-days postdischarge, though this difference only reached trend-level significance.

Systems-Level Variables

Finally, Klinkenberg and Calsyn (1996) also examined the relationship between aftercare engagement and system responsiveness variables, including medication services, referral appointments, outpatient outreach services, and waiting lists. In their earlier review, they indicated that system responsiveness might be of particular importance for individuals vulnerable to disengagement. As we have established in our discussion of individual- and community-level variables, racial/ethnic minority clients represent a particularly vulnerable group for myriad reasons. We considered all of the system responsiveness variables pertinent to our exploration of racial/ethnic disparities with the exception of receipt of psychotropic medication during an emergency room visit, as only one recent study examined the relationship between this variable and aftercare engagement. Importantly, we were unable to investigate the association between referral appointments and engagement as all participants in the reviewed studies had been given referrals, which represents a methodological shift from earlier research.

Outreach. We identified seven studies that examined the relationship between engagement and assertive outreach, all reporting a significant association. Four of these studies were intervention-based and will be discussed further below. Among the nonintervention studies, Boyer et al. (2000) found that individuals whose discharge plans were discussed between inpatient and outpatient providers were more likely to engage with aftercare than those without predischarge contact. In addition, individuals who had started their outpatient program predischarge were also significantly more likely to engage. Similarly, Orlosky, Caiati, Hadad, Arnold, and Camarro (2007) examined whether the use of care coordinators enhanced aftercare engagement after their introduction into the health care system. Engagement rates indeed improved after their inclusion, such that patients were significantly more likely to engage with aftercare within 7- and 30-days of discharge.

We identified four additional studies that investigated the effectiveness of interventions aimed to enhance aftercare engagement via assertive outreach and care coordination (see Table 2). Kopelowicz, Wallace, and Zarate (1998) explored the effects of a community reentry program that focused on psychoeducation, aftercare planning, and stress management. Individuals enrolled in the program were significantly more likely that those receiving traditional occupational therapy to attend their aftercare appointments. Olfson, Mechanic, Boyer, and Hansell (1998) conducted an intervention study aimed to examine the effects of predischarge communication with outpatient providers on outcome variables including aftercare engagement. They found that patients who had predischarge contact with their outpatient providers were significantly more likely to engage than those who had none. Dixon et al. (2009) assessed the effectiveness of a brief "critical time intervention" (B-CTI) model which included case management, identifying treatment goals, and reducing barriers to care. As compared with individuals in the control group (i.e., "treatment as usual"), those participating in the B-CTI group were significantly more likely to engage with aftercare within 30-days postdischarge. Finally, Batscha, McDevitt, Weiden, and Dancy (2011) conducted an uncontrolled pilot study to explore the outcomes of a transition intervention, whereby patients discussed barriers to engagement and

planned for outpatient sessions with an advanced practice nurse. The effects of the intervention could not be tested directly, though researchers were encouraged that 92% of the sample had engaged with aftercare.

The facilitative role that assertive outreach has in aftercare engagement has also been examined through qualitative research. Pollack et al. (1998), in an interview study, found that staff honesty regarding aftercare, checkup calls, appointment reminders, and accurate information regarding aftercare appointments (i.e., contact names and phone numbers, directions), were facilitative factors for engagement.

Our results suggest that increased rates of engagement are observed among individuals who have had predischarge contact with outpatient providers and/or staff, including those who are receiving more intensive case management. More recent research has documented the importance of utilizing nonclinical staff as specialized care coordinators and/or case managers who can bridge individuals' transitions via coordinating referrals, facilitating direct contact with the outpatient clinic, and problem-solving barriers to engagement.

Length of time on waiting lists. We identified two recent studies that examined the relationship between the length of time from discharge and aftercare engagement, both reporting that engagement is significantly associated with shorter wait periods. Specifically, Kruse et al. (2002) found that length of time from discharge to individuals' first outpatient appointments was a significant predictor of engagement, such that individuals with aftercare appointments within two weeks of their discharge were significantly more likely to engage as compared with those whose appointments were more than two weeks away. Compton et al. (2006) similarly found that longer intervals of time between discharge and patients' aftercare appointments significantly predicted disengagement.

Given that racial/ethnic minorities are less likely to have engaged with formal services in the past, they may be particularly vulnerable to longer wait times as new clients. This may be especially true if individuals are referred for treatment at community mental health centers, frequently known to have longer wait lists given the number of individuals with limited financial and/or insurance resources who are seeking care.

Discussion

In this article, we reviewed 18 empirical research studies that examined predictors of aftercare engagement published in the 18 years since Klinkenberg and Calsyn's (1996) seminal review. We conducted this review through the lens of understanding racial/ethnic disparities in aftercare engagement, and we grounded our efforts in the framework first developed by Klinkenberg and Calsyn, focusing on the individual-, community-, and systems-level variables considered pertinent to our examination of disparities.

Individual Vulnerability Factors

With regards to individual-level background variables, we found clear support for significant effects of race/ethnicity on aftercare engagement, such that seven out of nine studies (78%) we reviewed reported significant findings. This represents a notably greater proportion of studies than reported in the earlier review. Findings were generally consistent, with six studies reporting that individuals from racial minority backgrounds were less likely to engage with aftercare services than Whites; only one study reported the opposite. This pattern of findings is consistent with findings in the broader outpatient literature that racial/ethnic minorities report worse engagement with services (e.g., Alegria et al., 2002; Atdjian & Vega, 2005; Cook et al., 2013). Research conducted since the prior review may have overcome some of the methodological limitations that impeded Klinkenberg and Calsyn (1996) from detecting significant racial effects, such as ensuring greater heterogeneity in sample composition and/or controlling for socioeconomic status.

We also found occasional support for the association between other individual-level factors and aftercare engagement. Specifically, our review noted that participant sex (four of nine studies, 44%) and insurance status (five of nine studies, 56%) were sometimes associated with aftercare engagement. While the relationship between participant socioeconomic status and aftercare engagement was only investigated in three studies, two of these studies found support for the relationship between lower socioeconomic status (i.e., lower income and/or unemployment) and disengagement. This overall pattern of findings is generally consistent with findings in the outpatient literature more broadly that men report worse engagement with services, while being insured and higher socioeconomic status are consistently associated with engagement (e.g., McGuire et al., 2006; Satcher, 2003; Wang et al., 2005; Wierzbicki & Pekarik, 1993).

Taken together, these findings provide support for the increasing attention to inequities in the health care system, whereby individuals with particular sociodemographic backgrounds are not accessing the system despite clearly documented need. Of note, in addition to one study reporting that individuals without insurance were less likely to follow-up with aftercare services, two studies reported that individuals with Medicaid had higher rates of engagement than those with other insurance types. This finding has been reported in the outpatient literature, but it is somewhat counterintuitive given that recipients of Medicaid tend to be from lower-income backgrounds. As demonstrated by findings from three included studies, determining individuals' Medicaid eligibility category (i.e., as due to financial constraints vs. disability status) has proved an important distinction when investigating the relationship between insurance and engagement. Nonetheless, research on access to and utilization of specialty mental health treatment among individuals with serious mental illness has indicated that having public insurance greatly increases access to specialty care (McAlpine & Mechanic, 2000), and that Medicaid, in particular, plays a significant role in the provision of mental health care in community settings (Samnaliev, McGovern, & Clark, 2009). It is also possible that individuals with Medicaid receive coverage not only for their hospital stay, but also for ongoing psychiatric treatment postdischarge, thus serving as a facilitative factor for aftercare engagement.

The two qualitative studies we found also reported findings that were consistent with the outpatient literature (e.g., Gary, 2005; Jorm, 2000). Specifically, these two studies indicated an inverse relationship between engagement and individual-level psychological variables including stigma, low mental health literacy, and negative attitudes toward treatment. It may be the case that low

mental health literacy results in a mismatch between how the patient versus provider conceptualizes the illness and appropriate treatment, and/or that negative attitudes toward treatment are informed by prior negative experiences in treatment or cultural differences regarding treatment preference. More research is needed to understand this relationship.

Our review also found that previous involvement with outpatient treatment was consistently associated with aftercare engagement (five out of six studies, 83%), although prior psychiatric hospitalization was not (two out of six studies, 33%). Data included in both the prior and current reviews consistently demonstrate that prior outpatient treatment facilitates aftercare engagement, whereas findings were mixed across both reviews regarding the relationship between previous hospitalization and engagement. These findings suggest that some prior (and perhaps ongoing) contact with the mental health system can be beneficial. It is unclear how to explain how some prior contact operates to increase aftercare engagement; plausible explanations include greater familiarity with the system and/or continuity of care, positive and/or helpful experiences with prior treatment, and more severe and/or chronic symptom profiles. More research is needed to evaluate these possibilities.

Community-Level Variables

Our findings regarding the association between community-level variables and aftercare engagement were also mixed. Specifically, our review noted that living in an urban versus rural setting (three of three studies) facilitated engagement, whereas homelessness (zero of two studies) was not related to engagement. Whereas the prior research reviewed by Klinkenberg and Calsyn (1996) had focused on the relationship between aftercare engagement and housing instability/ homelessness, more recent attention has been given to understanding the potential facilitative role of residing in an urban versus rural location. That residence in an urban location can enhance treatment engagement has been well documented in the literature examining access to health care more broadly, as well as mental health services specifically (Larson & Fleishman, 2003; Roberts et al., 1999). It is plausible that individuals who live in an urban environment face similarly fewer logistical barriers in accessing and engaging with aftercare services. The finding that homelessness was not related to aftercare engagement was surprising, given both the outpatient literature and that pertaining specifically to racial/ethnic disparities in treatment engagement (Acevedo et al., 2012; Kim et al., 2007; McCarthy et al., 2007). Importantly, the research team for one of these studies speculated that they failed to detect a significant effect in part due to a community-based homelessness initiative that was ongoing at the time of the study (El-Mallakh et al., 2004). More research is needed to comprehensively evaluate the relationship between homelessness and aftercare engagement in particular, especially as only two recent studies investigated this association.

Systems-Level Variables

With regard to systems-level variables, our review found that interventions including assertive outreach efforts as well as specialized care coordination enhanced aftercare engagement (four of four studies), while long wait lists (two of two studies) served as a barrier. We also identified one qualitative study that pointed to the importance of checkup calls, appointment reminders, and accurate information regarding the referral (i.e., contact names, directions to the appointment, etc.) for aftercare engagement (Pollack, Stuebben, Kouzekanani, & Krajewski, 1998). Klinkenberg and Calsyn (1996) similarly found consistent support the importance of systems-level variables. That wait lists function to impede engagement has been an ongoing area of research in the outpatient literature (Brown, Parker, & Godding, 2002), and it is unsurprising that we also noted this barrier in aftercare engagement specifically.

Implications for Racial/Ethnic Disparities in Aftercare Engagement

Taken as a whole, our review identified a number of individual-level, community-level, and systems-level factors that likely play a role in racial/ethnic disparities related to engagement in aftercare services. In addition to a number of studies providing explicit support for the existence of racial/ethnic disparities, a pattern emerged whereby factors that would likely disproportionately affect racial/ethnic minorities also emerged as relevant factors. For example, lack of insurance was associated with decreased likelihood of engagement in aftercare services; research has consistently documented that racial/ethnic minorities are more likely than White Americans to be uninsured (Alegria et al., 2002; Wang et al., 2005). Similarly, although prior involvement in outpatient treatment emerged as a facilitative factor for aftercare engagement, it has been well-documented that racial/ethnic minority clients are less likely than Whites to access outpatient specialty care (Cook et al., 2013; McGuire et al., 2006), and are more likely to drop out once connected with services (Atdjian & Vega, 2005; Cook et al., 2014; Wierzbicki & Pekarik, 1993). Moreover, given that racial/ethnic minorities are less likely to have engaged with formal services in the past (Cook et al., 2013; McGuire et al., 2006), they may be particularly vulnerable to longer wait times as new clients. This may be especially true if individuals are referred for treatment at community mental health centers, historically known to have longer wait lists given the number of individuals with limited financial and/or insurance resources who are seeking care (Cheung & Snowden, 1990; Swenson & Pekarik, 1988). Mental health literacy, stigma, and attitudes toward treatment have also been identified as particularly important barriers to accessing specialty mental health treatment among racial/ethnic minority groups, who may have non-Western explanatory models of mental illness (e.g., Jorm, 2000), as well as experiences of prejudice and discrimination within health care systems (Burgess, Ding, Hargreaves, van Ryn, & Phelan, 2008; Spencer, Chen, Gee, Fabian, & Takeuchi, 2010).

Developing an increased awareness of the potential risk factors affecting racial/ethnic minorities pursuing aftercare facilitates improvement in our provision of culturally sensitive, patient-centered clinical care. In particular, given what we know about the importance of assertive outreach efforts and reduced wait times, systems-level changes could be implemented that would facilitate engagement for individuals at greatest risk for disengagement, including racial/ethnic minorities. Specifically, organizations might consider changing their practice to regularly include predischarge contact between patients and their outpatient providers. Additionally, though it may not be feasible to schedule all aftercare

appointments within 2 weeks of discharge, regular outpatient practice would do well to include outreach phone calls and/or visits to the outpatient site prior to patients' first appointments. Relatedly, inpatient providers could involve clients more closely in discharge planning to explore their preferences for aftercare, as well as facilitate discussions about the potential barriers they may face in pursuing referrals. Together, these changes would help clinicians to facilitate the transition from inpatient to aftercare settings, particularly when long wait times are anticipated, as well as acquaint newer clients with the mental health system. Though such systemic changes may require more effort and coordination on the front end, successfully engaging patients in aftercare will likely prove to be a more efficient allocation of resources in the long run, particularly if they lead to reductions in rates of rehospitalization and reduce financial burden on health care systems.

It is important to note that many of these individual-, community-, and systems-level vulnerability factors have overlapping features. In particular, in several of the studies we reviewed, the participant samples were composed of low-income, racially diverse individuals receiving psychiatric care from public-sector hospitals. These overlapping characteristics may have contributed to some studies not finding significant associations between some of the individual vulnerability factors and engagement. For example, in the Boyer et al. (2000) study, one of the two studies that did not find significant racial differences in engagement, the overall engagement rates were quite low (less than 35%), 85% of the sample did not have a college degree, and almost 70% of the sample had Medicaid insurance coverage. These overlapping constructs highlight the multifaceted ways in which individuals are vulnerable to disparities, and attempts to disentangle individual variables (i.e., race, socioeconomic status, urbanicity) is difficult. This is a limitation of research that is not specifically designed to investigate racial/ethnic disparities, and so does not have the necessary methodological characteristics to disentangle these constructs, or explore the ways in which intersectionality might influence access in unique ways (Collins, 2000).

Nevertheless, the picture that emerges from this review is generally consistent with both Klinkenberg and Calysn's (1996) earlier review, as well as the larger literature on mental health care disparities (e.g., Alegria et al., 2002; Atdjian & Vega, 2005; Cook, McGuire, & Miranda, 2007), whereby racial/ethnic minorities may be more likely to experience the individual-, community-, and systems-level factors that make it more difficult to engage with aftercare services.

Research Recommendations and Concluding Thoughts

Although the studies we reviewed provided important information related to aftercare engagement, there were a number of methodological limitations that we identified that subsequent research would do well to address. One limitation was the preponderance of research characterized by retrospective reviews of medical records and/or claims data. To more fully understand the factors that affect aftercare engagement, especially with regards to racial/ethnic disparities, a wider range of methodological approaches are needed. Prospective research that collects outcome data beyond attendance at the initial scheduled appointment, but also for subsequent follow-up appointments, would allow for a fuller understanding of the facilitative factors and barriers to

trajectories of care and would better inform intervention efforts. Similarly, research that more fully investigates data regarding referral appointments, including type of provider and/or visit, or clinic characteristics would help to determine whether risk of rehospitalization is reduced by attendance at any visit, or whether there are specific facilitative factors of engagement per appointment/provider type.

We were also struck by the relative paucity of research dedicated to understanding the psychological processes underlying this transition in care, which has implications both for research on disparities and engagement more broadly. Theoretically grounded individual differences research, as well as qualitative approaches, have been notably absent from this body of research. These approaches offer opportunities to understand the impact of specific psychological factors on aftercare engagement, including illness conceptualization, attitudes toward treatment, and experiences with mental health services. These approaches would also allow flexibility in our conceptualization of "engagement," as individuals may discuss both formal and informal sources of support they have found helpful in maintaining wellness. These methods also allow researchers to follow-up with individuals who have transitioned back into the community and learn more about their experiences with aftercare services, which can provide direct feedback to intervention and policy efforts. Finally, qualitative methodologies are particularly well suited to examine the "why" behind extant quantitative research findings. They facilitate, for example, an exploration of possible explanations for the disproportionately lower rates of referral we see among racial/ethnic minorities.

Finally, we note that the field would benefit from research whose primary aim is to fully understand and begin to address mental health care disparities. This would allow researchers to design their studies around particular potential variables of interest to more fully explore their possible effects. First, failing to collect comprehensive demographic information with regard to individuals' ethnic backgrounds precluded researchers' efforts to distinguish effects of race versus ethnicity. Instead, most of the research we reviewed focused on understanding differences in aftercare engagement between Whites and African Americans, whereas other racial/ethnic minority groups were underrepresented in the data. It is possible that researchers were restricted in the analyses they could conduct as a result of the demographic data collection standards in their state. Specifically, it may not be the standard across all jurisdictions and/or states that demographic data be collected according to two races and five ethnicities. Given these inadequate numbers and/or discrepant standards in collecting and reporting demographic data, researchers in some cases chose to compare Whites versus "non-White" or "other" participants. Unfortunately, combining racial/ethnic minorities in this way falsely assumes homogeneity across groups and complicates researchers' ability to meaningfully describe effects (Bernal et al., 2014). Second, only three studies examined the association between socioeconomic status (SES) and engagement and, among these studies, it is plausible that failure to detect significant effects was the result of limited variance in this variable. In particular, among the three studies examining the relationship between socioeconomic status and aftercare engagement, the majority of participants had less than a college degree and most of them were unemployed. In order to fully investigate the relationship between SES and engagement, samples should not be restricted to those individuals

from lower SES backgrounds. Lastly, studies whose samples are composed of individuals with multiple vulnerable characteristics (e.g., race, class, gender) are not ideal contexts for examining between-groups effects, but rather are better situated to investigate research questions targeted at holistic contextual effects. Research that foregrounds questions about mental health care disparities would be well-positioned to advance the field in these important ways.

Despite these current gaps in the literature, our review noted a number of ways in which the field has increased its attention to better understanding barriers and facilitators to aftercare engagement since Klinkenberg and Calsyn's (1996) seminal review. Specifically, along with offering additional support for the significance of community- and systems-level variables on aftercare engagement, research conducted since 1996 has advanced the field's knowledge of how influential individuals' sociodemographic backgrounds and prior treatment histories are as well. Current research has also begun exploring the role of individual-level psychological variables. Even with accumulating data on predictors of aftercare engagement, further research is needed to more fully address, in particular, racial/ethnic disparities at this transition in care.

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