Although depressive disorders are treatable, many people with such disorders, especially members of underserved minority groups, do not receive treatment. Access to high-quality depression care can be improved through evidence-based programs, but such programs are not widely disseminated in underserved communities. Collective action through cooperative efforts among service agencies and community members may be necessary to increase their implementation. However, little is known about how to engage underserved groups in efforts to improve depression care.

Perceived racism in health care, the stigma of mental illness, and lack of knowledge about depression may result in individuals in the African American community deciding not to seek help for depression. However, as noted by one of the members of the minority community that was the focus of study, “Depression is a silent killer. We need to get the word out to the community that we can do something about it.” In addition, distrust in services and research engendered by travesties such as Tuskegee and experiments on slaves in the antebellum period is a barrier to participation in research among African Americans. According to another study participant, “People in our community … have been involved with research before—the problem is universities never come back … and tell us what they did in our community.”

Community-based participatory research is recommended as one means of engaging members of minority groups in addressing health issues. In public health, community-based research focuses on social, structural, and physical environmental inequities through active involvement of community members, organizational representatives, and researchers in all aspects of the research process.

Partners contribute their expertise to enhance understanding of a given phenomenon and integrate the knowledge gained with action to benefit the community involved.

Both sides can gain from such an approach, as noted by another participating community member:

To participate with academics, the community can develop expertise in research—like institutional review boards, data collection, and methods. The academics get to learn about how to work in the community … being transparent, gaining trust, and planning with community instead of on community.

Community-partnered participatory research (CPPR), a variant of community-based participatory research, emphasizes equal power sharing among community and academic participants while engaging stakeholders and community members in planning, action, and research that have a mutual benefit. For example, as noted by one of the participants in our study: “Allowing the community to participate in the hypothesis, data collection, analysis, and interpretation gave the community partnership over every aspect of the project.”

Our study represented one component of a CPPR initiative called Witness for Wellness (http://www.witness4wellness.org), initiated in 2003 to reduce the burden of depression in underserved communities of color in South Los Angeles. In Witness for Wellness, a multi-agency council was developed under the leadership of Healthy African American Families (HAAF), the University of California at Los Angeles, the RAND Corporation, and Charles Drew University. The council developed a...
written agreement to reinforce CPPR principles and initiated 3 working groups including Talking Wellness, the group we studied.27,28,29

The Talking Wellness group focused on improving the capacity of the community to discuss depression and reduce stigma; community members suggested the approach of presenting community-generated arts events.27

The Talking Wellness group had 74 participants during January 2004 through November 2007, the period of work leading to this article: 10 academic members (7 White, 2 Asian American, 1 African American) and 64 members of the South Los Angeles African American community. We evaluated 2 events for this study: spoken word and comedy presentations and a photography exhibit. (Spoken word is a form of artistic performance in which poetry or stories are recited aloud.)

Our study involved several goals. The first was to explore whether concepts of collective efficacy and community engagement concerning depression care were important in the African American community of South Los Angeles and determine how they were related through causal modeling. Collective efficacy is a group’s shared belief in its conjoint capabilities to improve a problem in the community (in this case, depression care). Community engagement refers to the perception that individual problems (in this case, depression and mental wellness) are problems of the community as a whole. The second goal was to determine whether and how exposure to Talking Wellness arts events and other CPPR initiatives influenced community engagement. The third goal was to determine the feasibility of applying a CPPR paradigm of equal power sharing for community and academic partners through all phases of a rigorous research process, as evidenced through maintaining group membership across phases and completing products such as research protocols, data collection instruments, grant submissions, and research papers.

We expected that low levels of knowledge and high levels of stigma about depression would predict lower levels of community engagement or perceived collective efficacy around depression than would high levels of knowledge and low levels of stigma. In addition, we expected that exposure to Talking Wellness events and CPPR initiatives would increase community engagement.

We are not aware of other studies identifying pathways to community engagement as a means of addressing depression in minority communities.27,28 The attitudinal constructs we used in this study were derived from the Health Belief Model (i.e., in terms of perceived importance of a problem and stigma as a barrier),23,29 the theory of reasoned action and planned behavior (i.e., in terms of perceived norms and attitudes concerning a behavior),23,29 Bandura’s social cognitive theory of collective efficacy as measured through individual perceptions,31–38 and the concept of community engagement from the CPPR model.23 Previous studies have shown that measures of collective efficacy are associated with health outcomes.39–42

METHODS

The Talking Wellness group staged 2 types of art events during the Pan African Film Festival (as part of Black History Month in February 2005) at the Baldwin Hills Mall in South Los Angeles. Self-report surveys were distributed to attendees by academic and community members of Witness for Wellness. The events, venues, survey items, and study design were developed and piloted by The Talking Wellness group in monthly meetings conducted over the course of a year.17

Arts Events

Photo exhibit. This exhibit featured 12 photos taken by community photographers depicting locations in South Los Angeles that they believed represented both positive (e.g., local historical landmarks) and negative (e.g., garbage dumps) environmental influences on mood. The exhibit was displayed at the Baldwin Hills Mall during the film festival; 8464 passersby were approached by trained community and academic staff and asked to view the exhibit and complete a survey after the viewing. Of the 793 (9.4%) individuals who agreed to do so, 746 (8.8%) were eligible for the study (i.e., they were 18 years or older) and provided legible responses.

Spoken word and comedy events. The Talking Wellness group hosted 2 spoken word sessions during the festival, advertised via the festival brochure, circulated flyers, and verbal recruiting at the local mall. The events included a discussion of depression, an introduction to the Talking Wellness mission, and readings of poems by community members concerning their experiences with depression, sources of stress, and other personal experiences. Comedy routines were performed with similar themes. Each event was approximately 90 minutes in duration.

Audience members were asked to complete surveys including both preevent and postevent components. Data on sociodemographic characteristics were obtained from all participants before the event; knowledge and attitude items were completed after the event so as to avoid priming effects or sensitization to outcomes via preevent exposure. To improve the causal inference of our proposed model, we included preevent knowledge and attitude items for a random half of the participants. The 2 survey formats were ordered through a random number table before distribution. Of the 140 audience members, 107 (76.4%) returned surveys; 87 (62.1%) of these individuals were eligible (older than 18 years) and provided legible responses. Forty-three had available data for both preevent and postevent attitude items, and 44 had available data for postevent attitude items only.

Knowledge and stigma items were derived from an earlier survey, Partners in Care,43,44 and attitude items were developed that represented the community’s sense of collective identity. During exploratory data analyses, we empirically identified item clusters post hoc, theorizing their relationship with each other and with constructs they represented (community engagement, collective efficacy, knowledge about depression) according to the community’s lived experience and theory. (The collaborative process of measure construction and construct interpretation is illustrated later in the sections on collective efficacy and knowledge.)

Variables

Community engagement. As mentioned earlier, we defined community engagement in the context of this study as the perception that depression and mental wellness are community problems. Four items were conceptualized as priori as measures of community engagement. Two applied to both the spoken word events and the photo exhibit: “Overcoming depression and wellness in the community requires planning and action” and “Depression and wellness are important issues for my community.” Two applied to the photo exhibit only: “I would...
recommend this photo exhibit to others in my community” and “This photo exhibit reinforced how people in my community are connected by shared experiences and cultural history.” Participants rated all items on a 5-point scale ranging from “strongly agree” to “strongly disagree”; a “don’t know” option was also available. We formed scale scores by averaging pairs in each of these clusters.

Collective efficacy. One item was used as a direct measure of collective efficacy: “I feel hopeful that our community can make progress on improving access to care for clinical depression.” Again, participants rated this item on a 5-point scale ranging from “strongly agree” to “strongly disagree,” with a “don’t know” option also available. Surprisingly, preliminary factor analyses consistently paired this item with a second item: “Depression is a medical illness” (initially conceptualized as a depression knowledge item). When the Talking Wellness community members reflected on the pairing of these 2 items, they suggested the concept of “collectivistic orientation.” Individual community members’ responses to the medical illness item may have reflected their belief that there is hope that depression can be helped through medical treatments, even though it is often viewed as intractable within the community.

Social stigma. Six items were used to assess social stigma.43,44 Three items concerned personal attitudes: “I have no patience with a person who is always feeling blue,” “I would be embarrassed if people thought I was depressed,” and “I feel helpless to make a difference with someone who is always feeling blue.” Three items reflected perceived norms: “Most people think less of a person who has been depressed,” “Most people in the community would treat someone who has depression just as they would anyone,” and “Most people would be willing to accept someone who has had depression as a friend.” Respondents rated these items on the same 5-point scale used with community engagement and collective efficacy. Exploratory factor analyses identified distinct constructs for personal attitudes and perceived norms, so we formed 2 scales by averaging items.

Depression knowledge. Six items identified by the Talking Wellness group as measuring “depression knowledge” were included. There was one global item: “How much do you think you know about depression?” Participants rated this item on a 4-point scale ranging from “a lot” to “almost nothing”; a “don’t know” option was also available. Personal experiences with depression were assessed with 2 of the other 5 items: “Someone I know is depressed enough to need treatment” (rated on the same 5-point scale) and “Do you know someone who has received treatment for depression?” (with response options of “yes,” “no,” and “don’t know”).

Although members of the Talking Wellness group assumed that these depression knowledge items (including the medical illness item transferred to the collective efficacy category) defined a single construct, bivariate correlations among the individual items were low (0.08–0.28), failing to identify any item clusters. Furthermore, none of the items displayed meaningful patterns with the other variables in our models. Thus, the depression knowledge items were omitted from the analyses described here.

Event exposure. The spoken word surveys included 2 items assessing individuals’ previous participation in Witness for Wellness and other partnered initiatives sponsored by HAAF. Item scores were summed. Event exposure was measured according to whether the first assessed attitude scores were preevent or postevent scores.

Sociodemographic factors. The survey included items assessing participants’ age in years, gender, self-reported ethnicity and race, education, and zip code of residence.

Data Analyses
We developed structural equation models (SEMs) including 3 latent variables (stigma, collective efficacy, and community engagement) identified in the exploratory factor analyses. A latent variable (similar to a factor in factor analysis) is a conceptual construct that is not directly measured; rather, it is mathematically inferred from 2 or more directly measured variables such as survey items.

In the first step of our modeling, we assigned individual variables as indicators (measures) of one of our 3 latent variables (constructs). In the second and third steps, we used regression procedures to link the latent variables in an effort to highlight the causal implications of our model. These SEMs summarized and reproduced the information in the correlation matrix among all variables.

In the second step, we developed exploratory SEMs based on the photo exhibit data ($n=704$; Figure 1). In this exploratory modeling, we used a combination of theory and trial and error to develop a model that reasonably fit the covariance structure among the individual items. We used a comparative fit index value above 0.90 as the criterion for goodness of fit.

In the third step, we tested the model derived from this post hoc process in confirmatory analyses with 2 new data sets, the spoken word preevent and postevent (within participant) data illustrated in Figure 2 ($n=44$) and the postevent-only (between participants) data illustrated in Figure 3 ($n=87$). The analyses shown in Figures 2 and 3 fit the same model shown in Figure 1 in this new data set. Replication of a model in a new data set eliminated the possibility that the exploratory model was achieved through capitalization on chance.

We used EQS (Multivariate Software Corporation, Encino, CA) to calculate preliminary models (spoken word events and photo exhibit) and the final model for spoken word data. We used Mplus (Muthén and Muthén, Los Angeles, CA) for the model shown in Figure 1 to combine the 20 imputations used to account for missing data at the item level. In all models, we made an a priori decision to model community engagement, the main outcome and an effect caused by other variables in the model.

The confirmatory models shown in Figure 2 (within participant) and Figure 3 (between participants) also modeled community engagement as a consequence of the other variables. These 2 models included as well a measure of CPPR event exposure (previous participation in Witness for Wellness or other HAAF initiatives). Given the small amount of data, we simplified the Figure 2 and Figure 3 models by removing sociodemographic variables and replacing the stigma latent constructs identified in the first modeling step with measured scale scores.

Missing Data
Nonresponses and “don’t know” responses were defined as missing data. Missing data rates for items in the samples retained for analysis ranged from 0% to 28%. In the case of the photo data, we used a multiple imputation technique to account for item-level nonresponse and uncertainty in imputed values. Predictive mean matching methods were used...
**FIGURE 1**—Post hoc model for the photography exhibit data set illustrating an analysis of 3 latent variables (stigma, collective efficacy, community engagement) and 3 single-item measured variables: Talking Wellness, South Los Angeles, CA, 2005.

Note. All pathways are standardized parameter estimates.

**FIGURE 2**—Confirmatory model focusing on within-participant (preevent–postevent) spoken word and comedy event data: Talking Wellness, South Los Angeles, CA, 2005.

Note. HAAF = Healthy African American Families. All causal pathway values are standardized parameter estimates. The composite stigma and community engagement variables were formed by averaging the 2 corresponding variables in Figure 1.
to create 20 imputed data sets.\textsuperscript{45,46} We then used standard complete data methods to analyze each of the 20 complete data sets. The results across 20 imputed data sets were averaged via Mplus. We replaced missing values for spoken word data with means.

**RESULTS**

**Sample Demographic Characteristics**

Table 1 summarizes the demographic characteristics of the respondents. The majority of respondents were African Americans from Los Angeles County. Ethnic diversity was somewhat greater among the spoken word audience, and educational levels were higher among these individuals. Few respondents were without a high school education, and most (more than 70\%) were employed.

**Structural Models**

*Exploratory analysis of photography exhibit data.* Figure 1 shows the results of the post hoc SEM focusing on (1) the relationships between measured variables (rectangles) and the latent variables (ovals) to which they had been assigned and (2) the relationships among the latent variables SEMs. The arrows emanating out to measured variables are analogous to factor loadings (i.e., the correlation between an item and a mathematical construct representing the variance shared by all indicators). Paths connecting latent variables are analogous to regressing one latent variable on another, although all parameters are estimated simultaneously in an SEM. All of the parameters illustrated in Figure 1 were statistically significant ($P < .05$).

In the upper left corner of Figure 1, the latent construct of stigma is identified according to 2 measured constructs (norms and attitudes). This latent construct was influenced by gender (perceived stigma was higher among men; $B = 0.17$) and education (higher educational levels led to lower perceived stigma; $B = -0.18$); education accounted for 3.2\% and gender for 2.9\% of the variance in stigma. The fact that the stigma construct was split into distinct subcomponents (norms and personal attitudes) was of little practical significance given the lack of relations between the stigma latent variable and the other key latent constructs (collective efficacy and community engagement). Collective efficacy, defined according to 2 measured items, was unrelated to stigma but strongly influenced community engagement ($B = 0.97$).

**Confirmatory analyses of spoken word data.**

This a priori model fit the data extremely well (comparative fit index $= 0.96$, root mean squared residual $= 0.03$; $\chi^2_{22} = 27.47$; $P = .19$; Figure 2). The model confirmed that (preevent and postevent) stigma measures were not related to either collective efficacy or community engagement. There was a strong causal link from preevent collective efficacy to postevent collective efficacy ($B = 0.92$). As with the previous model, postevent collective efficacy was a strong precursor of postevent community engagement ($B = 0.84$). Consistent with our expectations, previous attendance at Witness for Wellness and HAAF initiatives (not measured in the photo data set) was associated with preevent collective efficacy ($B = 0.24$; $z = 5.57$; $P < .001$) and thus was indirectly related to both postevent collective efficacy and community engagement. It is highly unusual for a model to fit so well when applied to a new data set.

Figure 3 shows the alternative preevent–postevent analysis that allowed a between-participants evaluation of exposure to the spoken word event. Because the preevent data were common to both models, this analysis was not independent of that shown in Figure 2. Again, the a priori model provided an excellent fit to the data (comparative fit index $= 0.96$; root mean squared residual $= 0.03$; $\chi^2_{22} = 27.47$; $P = .19$; Figure 3). The expected path from collective efficacy (as initially assessed) to postexposure community engagement was strong and significant ($B = 0.61$).

Furthermore, both event exposure ($B = 0.19$) and previous attendance at Witness for Wellness and HAAF initiatives ($B = 0.24$; $z = 5.57$; $P < .001$) were independently associated with collective efficacy and thus indirectly related to community engagement.

**Feasibility of Community-Partnered Participatory Research**

Community participants took responsibility for designing and implementing the arts events. Survey constructs and items were collaboratively developed. Research participants were recruited and data were collected by community and academic members. Hypotheses and analysis plans were developed in joint meetings. Estimation of SEMs relied on academic expertise, but interpretation and modifications benefited from the input of all participants.

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**FIGURE 3**—Confirmatory model focusing on between-participant (first assessed or postevent only) spoken word and comedy event data: Talking Wellness, South Los Angeles, CA, 2005.
Thus, CPPR principles can be used to support a rigorous if exploratory research effort.

**DISCUSSION**

Our exploratory factor analyses, exploratory SEMs, and confirmatory SEMs showed that perceived collective efficacy for improving depression care led to community engagement and the view of depression as a community concern. The models for which measures were available and appropriate revealed that previous exposure to partnered research initiatives and exposure to the spoken word event increased collective efficacy to improve depression care, thereby indirectly increasing community engagement.

Thus, initiatives and events designed to increase community engagement in mental health may do so through instilling a sense of collective efficacy. The arts events described here represented collaboration in action and, moreover, may have received attention because they were implemented through a research partnership, an unusual context for the sponsoring festival. They offered direct role modeling of commitment to discussing depression, which may have enhanced collective efficacy.33–37

In surprise to the academic members of the Talking Wellness working group, stigma constructs were not significantly associated with community engagement or collective efficacy, despite the good reliability of these constructs (i.e., they loaded strongly on the stigma latent variable and had strong test–retest reliability). Community members of the Talking Wellness group were not surprised that stigma was unrelated to other variables, believing that this result may have reflected the broader community’s interest in advocating for increases in availability of and access to quality health care for depression in South Los Angeles.

The failure of stigma to relate to other variables could also have been related to lower stigma levels among our educated sample. Alternatively, social stigma may be more salient to personal help-seeking outcome measures rather than to our community engagement outcome measure. Furthermore, we did not find an effect of partnered research initiatives or spoken word on stigma constructs. It may be important to initially build collective efficacy and engage the community in addressing depression and then lower social stigma with respect to care through targeted stigma-reduction interventions.47,48

Approaches designed to address collective efficacy may be especially important given the “collectivist” mind-set in most African American communities.40,49,50 Because reducing stigma was a goal of Talking Wellness, this was a difficult but important lesson.

**Limitations**

We relied on self-reported data from a convenience sample recruited from festival attendees in a single geographic area. We may have found different relationships among constructs outside the context of arts events or with African Americans of lower socioeconomic status. We defined several latent constructs post hoc but replicated them in an independent sample. As a result of the small samples for the spoken word and comedy events, we had low power to detect a link between other attitude constructs and stigma measures; thus, the absence of a link may have been a type 2 error. The individuals agreeing to complete the survey may have been more “engaged” members of the community, and our results may have overestimated the link between event attendance, collective efficacy, and community engagement.

**Summary and Implications**

In the context of CPPR, perceived collective efficacy may be an important precursor to community engagement. This article makes an important, if preliminary, contribution to the CPPR literature. We have shown that such interventions may require additional features to address the stigma of mental illness.

Furthermore, this study illustrates the promise of CPPR to support community and academic collaboration across the full range of rigorous research activities and community program development. “It was a breakthrough...
and a milestone. You got to see and know academia on a personal level. That was important for trust,” said one community member. “I saw this as validating my experience. And we got to show that the community has scholars as well,” said another.

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Contributors
B. Collins originated and supervised the study, led the writing, and worked with B. Collins to complete the analyses. L. Jones originated and assisted with the study, contributed to analysis and writing, and supervised the study. A. Jones supervised the study. C. E. Corbett and T. Booker originated and supervised the study and contributed to the analyses and to the writing of the study. K. B. Wells led the writing and study development. B. Collins originated and completed the analyses, contributed to the writing of the article, and supervised the study.

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