Remote Recruitment and Training Methods as a Way to Increase Diversity in Community

Samples for EMA Studies: A Research Note

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Abstract

Researchers have only recently recognized the paucity of research on sexual minority samples and the need to diversify research samples. However, recruiting sexual minority samples of sufficient size to allow for adequate statistical power can be challenging, particularly when the goal is to compare heterosexual with sexual minority subsamples. We describe successful efforts to recruit same-sex male and female intimate couples in sufficient numbers to permit comparison with a larger sample of primarily mixed-sex community couples participating in a 30-day ecological momentary assessment (EMA) study of alcohol and relationship functioning. Our efforts involved targeting Facebook ads to appeal to same-sex couples, expanding the geographic reach of the ads beyond the local area, and conducting videoconference as opposed to in-person orientation sessions. Efforts yielded sufficient numbers of same-sex couples meeting stringent eligibility criteria to permit statistical comparisons and offer a potentially cost-effective means for recruiting hard-to-reach populations.

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Intimate partner violence (IPV) is widely studied and recognized as a prevalent public health problem worldwide. Yet, just 3% of IPV studies have included gay, lesbian, bisexual, or other non-heterosexual populations (Edwards et al., 2015). IPV studies that permit comparison of heterosexual with sexual minority individuals are particularly rare (see Graham et al., 2019; Kurdek, 2004, 2006 for exceptions). Addressing this research gap can be challenging since traditional recruitment methods are often ineffective with minority samples (Knight et al., 2009; Krueger et al., 2020), making it difficult and expensive to recruit sufficient numbers of same-sex couples to ensure adequate representation and statistical power. This Research Note describes our success in recruiting a sexual minority subsample of adequate size to permit comparison with the main heterosexual sample. We used Facebook advertisements directed toward same-sex couples with a broad geographic reach; completed all screening and consent processes online or by phone; and used video conferencing rather than on-site sessions for orientation training. Ten months into this fully-remote method, the Covid-19 pandemic necessitated the cessation of in-person research activities at our university. We were able to continue data collection uninterrupted and assist colleagues as they adapted their studies for online operations.

Acute Effects of Substance Use Episodes on Intimate Partner Violence

Most IPV research has used survey methodology, showing that heavier drinkers are more likely to perpetrate (and experience) partner violence (see Cafferky et al., 2018 for a meta-analytic review). Our research program is one of the few to consider the acute effects of substance use events on relationship conflict and aggression using dyadic daily reports and ecological momentary assessment (EMA) over several days. Among mixed-gender couples, episodes of drinking (Testa & Derrick, 2014) and cannabis use (Testa et al., 2018) by either partner increase the likelihood that an episode involving partner conflict or aggression will

follow in the next few hours. To participate in these studies, married and cohabiting community couples must meet stringent eligibility criteria to ensure reporting of sufficient numbers of events of interest - such as drinking, cannabis use, or partner aggression- to allow within-person comparisons. One or more times each day, each partner is asked to report independently on current affect and relationship functioning and on recent episodes of drinking, cannabis use, and couple conflict and intimacy since the last report. Data are analyzed using dyadic multilevel modeling, in which the contribution of each partner's report to the outcome of interest is considered.

Daily report and EMA studies of substance-using couples are expensive to conduct and, consequently, rare. To date, most daily report studies of intimate partner aggression have relied on samples of heterosexual individuals (e.g., Moore et al., 2011; Rothman et al., 2018; Shorey et al., 2014). Our research program is unusual in its inclusion of couples, which permits examination of the contribution of each partner to the outcome using dyadic data analysis (Eckhardt et al., 2019). Although same-sex couples were allowed to participate in our studies, the numbers were so small that analyses were limited to mixed-sex couples. Given recent expansion of research to include gender minority samples and recognition of the need to understand the role of alcohol in same-sex IPV (Shorey et al., 2019), a few daily report studies involving substance use and relationship functioning are currently being conducted using gender minority individuals (Shorey et al., 2020) and same-sex couples (Heron et al., 2019; Parrott, 2018-2021). However, to date, no current or published studies have compared mixed-sex to same-sex couples with respect to daily relationship functioning or the role of alcohol in couple conflict and aggression. It would be particularly helpful to know if processes identified in mixed-sex couples extend to same-sex couples. Adding a sample of same-sex couples to an existing EMA study of alcohol

and couple functioning is a relatively cost-effective means of permitting these comparisons, using the same measures and procedures.

We had no reason to hypothesize that the effect of drinking episodes on subsequent relationship functioning or IPV would differ between mixed-sex and same-sex couples, making it difficult to determine a sample size. We targeted a sample of 25 same-sex male and 25 same-sex female couples as reasonable numbers to permit basic comparisons. These sample sizes would allow us to detect differences in daily relationship processes between mixed-sex and either same-sex male or same-sex female couples as small as $d = .05$ and differences between same-sex male and same-sex female couples as small as $d = .07$. Effect sizes in this range are similar to those observed in Testa et al. (2021), in which gender differences in the effects of drinking events on relationship functioning had effect sizes ranging from $d = .02$ to $d = .04$.

Facebook Recruitment

Conducting intensive longitudinal research requires within-person variance on variables of interest, that is, participants with substantial numbers of drinking or cannabis events as well as episodes of partner conflict and aggression. Given the stringent eligibility criteria, we have found Facebook advertisements to be an efficient and cost-effective means of recruiting community samples of substance-using couples. Community couples for the studies described above were recruited using Facebook advertisements targeting young adult couples in the local area (Buffalo, NY). Advertisements used images of romantic couples, alcohol, or couples with alcohol (images are rotated), along with text indicating, “Couples needed for paid research.” Clicking the ad took potential participants to a description of the research and a brief screen for initial eligibility criteria (e.g., age, relationship/marital status, alcohol or cannabis use). Individuals who met initial eligibility criteria and were interested in the daily report study were asked to provide

contact information to permit more extensive telephone screening. For the present study, participants were required to be 21-35 years old, married or cohabiting for at least six months, drink 4/5 drinks per occasion at least twice monthly (for women/men), and report verbal aggression by both partners or physical by one partner. They were excluded for psychopathology, substance treatment, pregnancy, and life-threatening or injurious partner violence. If the first partner was eligible, the second partner was also screened using the same criteria.

Facebook ads proved highly cost-effective for recruiting couples who binge drink or use cannabis frequently (Testa et al., 2018; Testa et al., 2021). Although couple gender composition was not a criterion for eligibility, the proportion of same-sex couples recruited via these methods was very small. In the cannabis study, 8/191 (4.2%) participating couples were same-sex (Testa et al., 2018). In the first 22 months of the alcohol study, which led to the changes described here, 6 (5 female, 1 male) of the initial 182 couples (3.1%) were same-sex (Testa et al., 2020), an average of 1 same-sex couple every four months of recruitment. The proportion of same-sex couples recruited using these methods was higher than 2019 U.S. Census figures that estimate the proportion of same-sex households (out of all coupled households) at 1.5% nationally (Walker & Taylor, 02/23/2021). However, the numbers were so small that data from these couples were dropped from analyses so that we could analyze the data as distinguishable dyads (Kashy & Donnellan, 2012). Rather than continue to limit analyses to mixed-sex couples in the current study and lose the rare opportunity to examine alcohol use and IPV in same-sex couples, we instead sought to increase representation of same-sex couples.

Our first effort involved changing the images and wording of ads to target same-sex couples specifically. From October 2018 – March 2019, we used pictures of same-sex couples,

male and female, and wording that specified, “Seeking same-sex couples for paid research.” During this 6-month period, 15 mixed-sex and 15 same-sex couples (5 male, 10 female) were recruited and successfully completed the study, an average of 2.5 same-sex couples per month. Recruitment of local same-sex couples waned over time, suggesting that we were close to exhausting the local pool and would be unable to recruit an adequate sample before funding ran out.

In April 2019, we extended the geographic range of Facebook ads to New York state using the same advertising images and text seeking same-sex couples. Because this made in-person orientations untenable for participants outside Buffalo, we simultaneously adjusted orientation and training procedures to a fully remote, online model, described in detail below. The change in geographic range of recruitment had the intended effect. Over the next 11 months, 37 same-sex couples (25 male, 12 female) were recruited and completed the 30-day EMA protocol, an average of 3.36 per month. The greater number of male couples reflects the disproportionate use of images of male couples in ads, designed to balance the number of same-sex male and female couples. We stopped screening and recruiting any mixed-sex couples who responded since we already had sufficient numbers. With these changes, we successfully recruited a total of 31 same-sex male and 27 same-sex female couples, permitting comparison with the 191 mixed-sex couples.

Remote Orientation

Compliance and data quality for daily report and EMA studies are better when participants complete an orientation that provides definitions of events to be reported and allows for practice (Moskowitz & Sadikaj, 2012). Thus, we always conducted in-person orientation sessions to offer instruction and practice completing reports and provide smartphones to

participants who need them to make study reports. When we began conducting these studies several years ago, most participants borrowed study-provided smartphones (76.8%, Testa et al., 2018); however, by 2019, most owned smartphones and used them for making daily reports (93.7%, Testa et al., 2020), eliminating one of the reasons for in-person orientation.

As we expanded the geographic range for recruitment, we made minor adjustments to allow orientations to be conducted using video-conferencing. Just as in-person participants were sent emails providing appointment date, time, and directions, participants scheduled for remote orientations were sent emails containing orientation date, time, link, and instructions for joining the Zoom sessions. Whereas in-person participants completed the baseline questionnaires (taking about 45 minutes) at the lab just before the orientation, remote participants were asked to complete them online no later than a day before the scheduled video orientation. Thus, the email/letter included a link to the questionnaire and an attached questionnaire guide in pdf. Research staff monitored questionnaire status and sent text reminders. If either participant failed to complete by the day of the orientation, they were asked to reschedule. Wording for the baseline questionnaire guide was carefully composed to mirror the clarity and specificity of the in-person training and to encourage participants to contact research staff with any difficulties or questions. The questionnaire began with an electronic version of the study consent form; participants clicked to give consent in order to begin the questionnaire

Once both partners' questionnaires were complete, they were sent confirmation emails that contained pdfs of the EMA training guide, which they were asked to have available at the orientation. Partners were expected to be together for the approximately 45-minute appointment. Once the couple joined the online session, research staff read through the consent form, allowing time for questions. They were then given the same training on completing the EMA reports as

the in-person participants were given. They completed practice reports on their smartphones while still on call with research staff to ensure that the reports functioned well on their phones and allowing them to ask questions. Participants were reminded of the multiple ways they could contact research staff if they had questions or technical issues during reporting. Research staff carried a study cell phone at all times and were able to address questions and occasional difficulties with reports with minimal delay for both in-person and remote participants.

Given the extensive eligibility screening process, most couples who agreed to participate actually did, although orientation sessions occasionally had to be rescheduled. The proportion of eligible couples who completed the study with in-person orientation (212/247, 85.8%) was comparable to the proportion who completed the study with remote orientation (37/45, 82.2%).

Conclusions

With modest modifications to Facebook recruitment (expanded geographic reach) and use of remote orientation sessions, we were able to increase substantially the recruitment of same-sex intimate couples, permitting valuable comparison with a primarily mixed-sex sample. Our efforts to garner an adequate subsample of same-sex couples using the same methods used for studies on mixed-sex couples (i.e., Facebook ads and on-site orientations for local couples) proved effective. However, broadening the geographic area for recruitment, which necessitated a change to fully online training sessions, proved considerably more effective. Research intending to study the unique experiences of sexual minority couples as an exclusive group may have recruitment methods effective for minority samples embedded in their design. By contrast, research intending to study experiences across and between mixed-sex and same-sex dyads may have to adjust for these particular challenges. We did not begin the study using comparable methods and were unable to make systematic methodological comparisons. However, we believe

that the strategies that we developed to enhance recruitment of a hard-to-reach population may be of interest to other researchers, who can undoubtedly enhance and build upon these initial efforts.

We implemented the changes discussed here nearly a year before the Covid-19 pandemic necessitated the change to remote research practices. As a result, we experienced no disruption to data collection and found ourselves serving as a resource to colleagues needing to change quickly to remote methods. The near-ubiquity of videoconferencing and availability of smartphones should make possibilities for creative recruitment and training practices beyond geographic boundaries increasingly successful.

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