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Sexual Health

Supplementary Material

Interventions supporting engagement with sexual healthcare among people of Black ethnicity: a systematic review of behaviour change techniques

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Supplementary File 1: Search terms used for use across different databases

| Databases | Search terms |
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| Web of Science | (Black ethnicity OR Black Caribbean OR Black African OR Black Other OR African Ethnicity OR African American OR Afro-Caribbean) AND (Intervention) AND (sexual health OR genitourinary medicine OR sexually transmitted infection OR STI OR sexually transmitted disease OR STD OR Chlamydia OR Gonorrhoea OR Trichomoniasis OR Genital Warts OR Genital Herpes OR Pubic Lice OR Scabies OR Syphilis OR Human papillomavirus) AND (engage* OR attend* OR clinic utilisation OR health service utilisation OR appointment OR test* OR screening OR diagnosis OR treatment) |
| ProQuest | (AB,TI(Black ethnicity OR Black Caribbean OR Black African OR Black Other OR African Ethnicity OR African American OR Afro-Caribbean)) and (AB,TI(Intervention)) and (AB,TI(sexual health OR genitourinary medicine OR sexually transmitted infection OR STI OR sexually transmitted disease OR STD OR OR Chlamydia OR Gonorrhoea OR Trichomoniasis OR Genital Warts OR Genital Herpes OR Pubic Lice OR Scabies OR Syphilis OR Human papillomavirus)) and (AB,TI(engage* OR attend* OR clinic utilisation OR health service utilisation OR appointment OR test* OR screening OR diagnosis OR treatment)) |
| PubMed | (Black ethnicity[tiab] OR Black Caribbean[tiab] OR Black African[tiab] OR Black Other[tiab] OR African Ethnicity[tiab] OR African American[tiab] OR Afro-Caribbean[tiab]) and (Intervention[tiab]) and (sexual health[tiab] OR genitourinary medicine[tiab] OR sexually transmitted infection[tiab] OR STI[tiab] OR sexually transmitted disease[tiab] OR STD[tiab] OR Chlamydia[tiab] OR Gonorrhoea[tiab] OR Trichomoniasis[tiab] OR Genital Warts[tiab] OR Genital Herpes[tiab] OR Pubic Lice[tiab] OR Scabies[tiab] OR Syphilis[tiab] OR Human papillomavirus[tiab]) and (engage*[tiab] OR attend*[tiab] OR clinic utilisation[tiab] OR health service utilisation[tiab] OR appointment[tiab] OR test*[tiab] OR screening[tiab] OR diagnosis[tiab] OR treatment[tiab]) |
| Scopus | TITLE-ABS-KEY(Black ethnicity OR Black Caribbean OR Black African OR Black Other OR African Ethnicity OR African American OR Afro-Caribbean) AND TITLE-ABS-KEY (Intervention) AND TITLE-ABS-KEY(sexual health OR genitourinary medicine OR sexually transmitted infection OR STI OR sexually transmitted disease OR STD OR Chlamydia OR Gonorrhoea OR Trichomoniasis OR Genital-Warts OR Genital-Herpes OR Pubic-Lice OR Scabies OR Syphilis OR Human-papillomavirus) AND TITLE-ABS-KEY(engag* OR attend* OR clinic-utilisation OR health-service-utilisation OR appointment OR test* OR screen* OR diagnosis OR treatment) |

AB, abstract; TI, title; tiab, title and abstract

Supplementary File 2: Intervention characteristics and findings of interventions aiming to increase STI/HIV testing and access to STI treatment

| Author, country | Sample, inclusion criteria | Description of intervention | Intervention Duration | Findings | Conclusion |
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| Berkley-Patton (2016) USA | Intervention group: 127 Control group: 190 Inclusion: 18-64 years old, African American church members attending church (≥1 times a month) or African American community member receiving church outreach ministries (≥4 times a year) | Intervention group: Culturally and religiously-tailored HIV tool kit delivered through multi-level church outlets, including a) individual-interpersonal contact (self-help HIV testing materials, HIV testing resource cards, phone/text reminders about HIV testing events), b) ministry groups (HIV educational games, printed/video testimonials, facilitated discussions), c) church services (sermons, responsive readings, church bulletins, church HIV stigma video, pastor-modelled receipt of HIV testing, HIV testing events), and d) community outreach ministries (HIV brochures and testing event announcements). Control group: Church health liaisons delivered non-tailored tools (HIV brochures and testing event announcements). | 6 months | Participants reporting receipt of an HIV test increased significantly in both the intervention (23% to 47%, p = 0.01) and comparison group (19% to 28%, p = 0.012) at 6-month follow-up. The intervention group were 2.2 times more likely to have tested for HIV (OR 2.2, 95% CI (0.97 – 5.10), p=0.06). | The findings demonstrate that church leaders can deliver HIV testing interventions and effectively increase HIV screening rates among African American church populations. |
| Chittamuru (2017) USA | Intervention group: 106 Control group: 97 Inclusion: Self-identify as African American, 14-24 | Intervention group: 13-episode serial drama targeting African Americans ages 14-24 with a hip-hop music world theme. Each character has a behavioural trajectory related to HIV | 13 days | No significant differences were found between the intervention group and control group on HIV | The intervention was not found to have a significant effect on HIV testing. |

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| | years old, have a Facebook ID, a smartphone with access to the internet, and reported having sexual intercourse in the previous 90 days. | and HIV-related behaviours and attitudes. Daily email reminders were sent to participants who had not watched the videos available to them. Control group: 13-episode online video-based physical activity intervention tailored to be gender specific. | | testing at a 3-month follow-up. | |
| Diallo (2010) USA | Intervention group: 161 Control group: 152 Inclusion: Self-identify as Black (i.e. African American, African, Caribbean), ≥18 years old, not pregnant or planning to become pregnant, English speakers. Exclusion: Participation in a HIV prevention intervention in last 6 months or whose religious beliefs prevent the use of male/female condoms. | Intervention group: Single session workshop consisting of three modules providing basic information on HIV/AIDs and STIs, identifying personal risk factors for contracting HIV and other STIs, practising correct use of male and female condoms, negotiating condom use with male partners, and demonstrating their increased knowledge concerning HIV infection risks and protective actions. Control group: Single session workshop consisting of one module providing basic information on HIV/AIDs and STIs. | Single 4-hour workshop | Participants in the intervention group reported significantly higher rates of HIV testing and receipt of test results than those in the control group (AOR = 2.30; 95% CI = 1.10, 4.81). | Single session, culturally appropriate workshops can increase HIV testing in women of Black ethnicity. |
| Dolcini (2010) USA | Intervention group: 131 Control group: 133 Inclusion: Female, sexually experienced, African American or mixed African American ethnicity, 14-18 | Intervention group: Group-based intervention focused on increasing connection to culture, utilising educational strategies (didactic teaching, interactive group discussions and exercises and self-risk appraisal), and renewing commitment to STI/HIV prevention within the friendship group. | Single 5-hour workshop | 34.1% reported testing for HIV (experimental: 34.6%, control: 33.6%) and 39.7% reported testing for STIs (experimental :37.0%, control: 42.4%) in prior 3 months. | Findings support the efficacy of a culturally tailored friendship-based STI/HIV intervention for females. Future interventions need |

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| | <p>years old, and willing to nominate 2-5 close female friends to also participate.</p> | <p>Friendship group encouraged behaviour change, discussed how to support each testing for STI/HIVs, solved barriers to preventative behaviours, and developed an action plan to put information into action.</p> <p>Control group: Received a nutrition and exercise health intervention designed for African Americans.</p> | | <p>14- to 15-year-olds in the intervention group were more likely to have been tested for HIV than those in the control group (OR = 7.43, p = 0.05, 95% CI = 0.95–58.33).</p> <p>STI testing did not differ by age.</p> | <p>to be tailored according to developmental age.</p> |
| <p>Frye (2013) USA</p> | <p>Intervention group: 47</p> <p>Inclusion: 18-45 years old, reside in South Bronx or Harlem, self-identify as male, self-identify as African American, Black, Caribbean Black or multi-ethnic Black, report unprotected vaginal or anal intercourse with ≥female partners in past 3 months, self-report as HIV negative/unknown HIV status, understand and read English, willing to provide informed consent.</p> <p>Exclusion – oral or anal sex with a man in past 5 years, injected in past 3 years,</p> | <p>Intervention group: Intervention sought to provide African American heterosexual men with knowledge, skills and the opportunity to consider, practice and adopt new skills to promote sexual health. Content included HIV/AIDS education, condom application and skills training, key relationship and behavioural turning points, and masculinity and fatherhood. Cultural readings were also included.</p> | <p>2 weeks</p> | <p>There was no significant increase in HIV testing at 3-month follow-up (baseline: 62.9%, 3 months: 71.4%; p = 0.63)</p> | <p>Although there was an increase in HIV testing, this was not found to be statistically significant. This may be because of the high level of testing at the baseline.</p> |

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| | participated in any HIV or substance prevention studies in past 6 months. | | | | |
| Frye (2020) USA | <p>Intervention group: 89</p> <p>Control group: 99</p> <p>Inclusion: 18-34 years old, assigned male sex at birth, self-identified as Black, African American, Caribbean Black, African Black, or multi-ethnic Black, resided in the NYC area, self-reported as not HIV+, reported insertive or receptive anal intercourse with a man or transwoman in the last 12 months, willing to participate in study for 12 months, could communicate in English, provided informed consent.</p> <p>Exclusion: enrolled in another HIV-related research study involving HIV testing or a HIV vaccine trial.</p> | <p>Intervention group: Friend pairs did a self-sampling HIV test together, followed by an interactive psycho-educational session mobilising social support, enhancing motivation, and increasing knowledge and skills to adopt and maintain HIV testing. Friend pairs developed personalised plans to support each other in staying HIV negative and testing.</p> <p>Control group: Friend pairs did a self-sampling HIV test separately. Friends shared results before participating in didactic information sessions for common health conditions.</p> | Single session workshop | <p>Participants in the intervention group had twice the odds of reporting HIV self-testing in the past 3 months (OR 2.29; 95% CI 1.15, 4.58) and almost twice the odds at the 6-month follow-up point (OR 1.94; 95% CI 1.00, 3.75).</p> <p>In the intervention group, self-reported HIV testing increased from 2% at baseline to 57% at 3 months ($p = 0.02$), 54% at 6 months ($p \leq 0.05$), 39% at 9-months ($p = 0.34$), and 48% at 12-months ($p = 0.49$).</p> <p>In the control group, self-testing was 7% at baseline, 42% at 3-months and 6-months, 39% at 9-months, and 41% at 12-months.</p> | Interventions enhancing peer support and motivation can increase consistent HIV self-testing. |

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| | | | | Self-testing was statistically significant by arm at 3-month follow-up ($p < 0.05$) and was marginally statistically significant at 6-month follow-up ($p \leq 0.05$). | |
| Harawa (2020) USA | Intervention group: 34 Control group: 27 Inclusion: Self-identify as an African American man, ≥ 18 years old, reside in Los Angeles County, HIV negative/ unaware of status, report condomless anal sex with man or transgender female in the last 6 months. Exclusion: used PrEP in the prior 6 months. | Intervention group: Participants were provided with a "Personalised Wellness Passport" customised to participants' wellness goals and sociodemographic background. Passports included a referral to health and support services and were awarded gift cards for accessing those services. Participants were paired with a trained peer who provided support, encouragement and accompanied participants to appointments. Social/educational outings were provided which aimed to increase participants' pride in their Black history, and provide health information and stress release. Control group: Participants were provided with a "Personalised Wellness Passport" which included referral to health and support services, and were awarded financial incentives for accessing those services. | 6 months | There was a statistically significant increase in STI screening in the intervention group (pre: 32%, post: 88%) and the control group (pre: 23%, post: 70%). The between-group changes were not statistically significant. There was no significant increase in HIV testing. | Findings show promise for increasing engagement with HIV and STI testing in Black MSM. However, larger studies are needed to demonstrate efficacy. |
| Jones (2021) | Intervention group: 85 | Intervention group: Check It | Duration not specified | Index men were significantly more likely | Adapting partner services to reduce |

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| USA | <p>Control group: 99</p> <p>Inclusion: Identify as African American or Black, male, 15-24 years old, lived or spent most of his time in Orleans Parish (county), vaginal sex with at least one woman in past 60 days, no reported use of azithromycin in past 7 days.</p> <p>Exclusion: Unwilling or unable to provide consent, unable to speak or understand English, self-reported previous enrolment in the study.</p> | <p>man with test results via preferred contact method (letter/telephone call). Subsequent interactions were based on permission from the index men and staff availability was expanded. Sexual partners were required to initiate contact with study staff. Patient-delivered partner therapy was added as an option for partner treatment, and home and mail delivery options for medication was provided for the index men and partners.</p> <p>Control group: Third-party original partner services intervention whereby the Office of Public Health used standard contact-tracing approaches to notify the index man and his sex partner(s) of the results and arrange treatment. Prescriptions were faxed to local pharmacies.</p> | | <p>to be contacted after adaption compared to the original intervention (RR, 1.14; 95% [CI], 1.02-1.27; p = 0.02). In the adapted intervention, index men were significantly more likely to make a treatment plan (RR, 1.14; 95% [CI], 1.01-1.27; p = 0.03) and significantly more likely to complete treatment compared to the original intervention (RR, 1.45; 95% [CI], 1.20-1.75; p = 0.0001).</p> <p>Partners of participants in the adapted intervention were significantly more likely to complete treatment compared to those via contact tracing in the original intervention (RR, 3.02; 95% [CI], 1.81-5.05; p = 0.0001).</p> | barriers and increase trust significantly improved rates of Chlamydia treatment in young African American men and their female sex partners. |
| Kenya (2016) USA | <p>Intervention group: 30</p> <p>Control group: 30</p> | Intervention group: Community health workers selected based on familiarity and cultural norms. Community health workers provided pre- and post-test | Single session | Intervention participants were significantly more likely to complete the home- | Participants who tested in the presence of community health |

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| | <p>Inclusion: Self-identify as African American, not completed HIV test within previous 12 months, 18-60 years old, live in Overtown, Miami, and not known to be HIV positive.</p> | <p>counselling, which included an action plan to deal with positive or negative results and HIV education. Participants completed home-based rapid HIV testing kit in the presence of community health worker and discussed participants' support system and reviewed action plan while waiting for test result. Community health worker followed up with participants with phone calls following positive test and supported confirmatory testing and access to HIV care.</p> <p>Control group: Community health workers provided pre-and post-test counselling, which included action plan to deal with positive or negative results and HIV education. Participant was instructed to complete a home-based rapid HIV testing kit independently.</p> | | <p>based rapid HIV testing kit than the control participants ($p \leq 0.05$).</p> <p>Intervention participants were also significantly more likely, if positive, to access HIV care than the control participants (100% vs. 83%) $\chi^2 (1, N = 60) = 5.46, p \leq 0.02$.</p> | <p>workers were more likely to complete HIV tests and access care.</p> |
| <p>Sánchez (2009) USA</p> | <p>Intervention group: 461 (Black, n=206; Hispanic, n=197, Other, n=58)</p> <p>Inclusion: MSM</p> | <p>Intervention group: Syphilis testing promoted at monthly health promotion events (LGBT venue). Palm cards and emails were distributed highlighting the syphilis epidemic. Outreach staff talked to venue attendees about the syphilis outbreak and event promoters made announcements to inform attendees about the free testing opportunity. Other health tests were also available at the event (e.g. Chlamydia, HIV testing, diabetes screening).</p> | <p>Single event</p> | <p>69 (33.5%) of Black participants had a syphilis test. There were no significant differences in syphilis testing between ethnic groups.</p> <p>Black participants were less likely than Hispanic and Others to select any physically invasive</p> | <p>Health service events are a feasible approach for promoting syphilis testing among individuals of Black ethnicity and may help to offset distrust of health care systems.</p> |

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| | | | | service (e.g. glucose screening, HIV testing) except for syphilis testing. | |
| Seguin (2018) UK | <p>Intervention group: 119</p> <p>Inclusion: ≥18 years old, self-identify as Black African, and able to provide informed consent</p> <p>Exclusion: if unable to read and understand English and/or unable to provide means of contact for result notification</p> | <p>Intervention group: Practice nurses and community workers distributed HIV self-sampling kits and used scripted discussion which provided rationale for HIV testing and instruction on how to use the kit. Access to an online video with instructions was also provided. Reminder text messages were sent to participants if the HIV self-sampling kit was not returned within 2 weeks.</p> | 2 weeks | The HIV self-sampling return rate was 55.5% (66/119, 95% CI 46.1% to 64.6%). | Findings suggest that the opportunistic offer of HIV self-sampling kits can increase the uptake of testing in Black Africans. |
| Washington (2017) USA | <p>Intervention group: 20</p> <p>Control group: 22</p> <p>Inclusion: African American, 18-30 years old, had sex with a man in the past 3 months, HIV status unknown and not tested within the past 6 months, resident of Los Angeles County, California, had condomless receptive or insertive anal sex at least once in lifetime, English speaking, and a valid email address.</p> | <p>Intervention group: reviewed 5 videos per week. Content included HIV knowledge, risk and stigma, benefits of knowing one's HIV status and the importance of social support. At the end of each video, participants were asked to comment on the group page in response.</p> <p>Control group: viewed standard HIV text information weekly. Participants were asked to comment on the group page in response.</p> | 5 weeks | The intervention group had 7 times greater odds of testing for HIV at 6-week follow-up than the control group (OR = 7.00, 95% CI [1.72, 28.33], p = .006). | Short video clips delivered via social media are feasible for increasing HIV testing. |

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| <p>Wilton (2009) USA</p> | <p>Intervention group: 164 Control group: 174 Inclusion: Self-identify as Black MSM, ≥18 years old, willing to attend STI/HIV prevention intervention retreat, reside in New York City, no plans to relocate within 6 months, HIV negative or unknown, not previously partook in intervention.</p> | <p>Intervention group: Two-and-a-half-day prevention intervention retreat with 6 sessions: 1) the culture of Black MSM, 2) STI/HIV prevention for Black MSM, 3) STI/HIV risk assessment and prevention options, 4) intentions to act and capacity for change, 5) relationship issues, and 6) social support and problem solving to maintain change. Participants were invited to return to the intervention offices 2 weeks after the retreat to receive information about services for Black MSM in the community, including STI/HIV testing and treatment, mental health and substance use treatment and access to healthcare. Control group: Wait-list comparison condition.</p> | <p>2 weeks</p> | <p>Statistically no significant differences in self-reported HIV testing at 3-month follow-up. However, at 6-month follow-up intervention participants had 81% greater odds of testing for HIV than comparison participants (OR = 1.81, 95% CI = 1.08-3.01, p = 0.023). Across entire study period, intervention participants had 33% greater odds of testing for HIV than comparison participants (OR = 1.33, 95% CI = 1.05-1.68, p =0.016). There was no statistically different intervention effect on testing for STIs at 3- or 6-month follow-up assessment.</p> | <p>This study demonstrates the efficacy of an STI/HIV prevention intervention for Black MSM.</p> |
| <p>Wingood (2013)</p> | <p>Intervention group: 452</p> | <p>Intervention group: Group sessions sought to increase participants'</p> | <p>2 weeks</p> | <p>Participants in the intervention group were</p> | <p>Findings indicate that two group</p> |

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| USA | <p>Control group: 183</p> <p>Inclusion: Self-identify as an African American woman, 18-29 years old, unmarried, sexually active in prior 6 months, and a member of one of the three Kaiser Centers in Atlanta, Georgia.</p> <p>Exclusion: currently married, using condoms 100% of the time, want to become pregnant in the next year, or live outside of the state</p> | <p>attitudes and skills in abstaining from sexual intercourse, practising low-risk sexual behaviours, avoiding untreated STIs, using condoms consistently, and refraining from multiple and concurrent sexual partners. Content regarding concurrency emphasized perceiving one's body as a temple (culturally appropriate connotation), informing participants of a heightened risk of STI/HIV when engaging in concurrency, discussing partner selection strategies that encouraged monogamy, gender-related HIV prevention strategies, enhancing sexual communication and encouraging male partners to seek STI testing and treatment.</p> <p>Control group: Group sessions providing nutritional education.</p> | | <p>more likely to communicate STI test results to their primary sexual partners (OR=1.52; 95% CI=1.11-2.06) and more likely to report that their primary male sexual partner was treated for STIs (OR=1.41; 95% CI=1.05-1.90).</p> | <p>sessions can increase communication of STI test results and in turn increase male sexual partner testing and treatment for STIs over 12 months.</p> |
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CI, confidence interval; PrEP, post/pre -exposure prophylaxis; LGBT, lesbian, gay, bisexual, transgender; MSM, men who have sex with men; ORs, odds ratio

Supplementary File 3: Intervention characteristics and findings of interventions aiming to increase HIV treatment adherence and appointment attendance

| Author, country | Sample, inclusion criteria | Description of intervention | Intervention Duration | Findings | Conclusion |
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| Bogart (2017) USA | Intervention group: 107 Control group: 108 Inclusion: ≥18 years of age, self-identify as Black African American, on ART, self-reported adherence problems (reported missing ≥1 dose in the past month, less than 100% in the past month, stopping ART if they felt worse, and/or missing any doses last weekend). | Intervention group: Client-centred counselling was used to reduce barriers to adherence through building treatment knowledge and adherence skills, self-efficacy and motivation, and problem-solving. Cultural issues associated with non-adherence (e.g. discrimination and disparities) were acknowledged and addressed. Referrals for any unmet basic and mental health needs were provided. Individual short- and long-term goals were developed and reviewed in each session. Control group: received routine ongoing care and treatment from their healthcare provider (which included behavioural and supportive services). | 6 months | ART adherence in the intervention group increased over time relative to control group, OR = 1.30 per month (95% CI = 1.12-1.51), p = <0.001) representing a large cumulative effect after 6 months (OR = 4.76, Cohen's <i>d</i> = 0.86). | Culturally congruent interventions can effectively increase ART adherence in Black people living with HIV over time. |
| Bouris (2017) USA | Intervention group: 45 Control group: 53 Inclusion: self-identify as Black African American, aged 16-29 years old, assigned male sex at birth, self-reported anal or oral sex | Intervention group: Participant and support confidant met with the interventionist to discuss the importance of HIV care, social support for people with HIV, and to problem-solve barriers to social support and engaging in HIV care. A tailored "Care and Support Plan" was developed. The interventionist delivered booster sessions over the telephone to | 11 months | Participants in the intervention group were 3.01 times more likely to have had ≥3 HIV primary care visits in the past 12 months (95% CI: 1.05-8.69, p=0.04) than the control participants. | A social support intervention can be used to improve attendance to HIV primary care appointments and ART treatment among young Black MSM. |

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| | <p>with a cisgender male in the past 2 years, spoke English, diagnosed with HIV ≥ 3 months ago. Had to own cell phone that was not shared with another person, agree to receive text messages and have at least one person in their social network who knew of their HIV diagnosis.</p> <p>Exclusion: unable to provide assent/consent, planned to move out of study area in next 12 months.</p> | <p>participants and support confidants to support implementation of the “Care and Support Plan”.</p> <p>Control group: treatment as usual</p> | | <p>Participants in the intervention group were 2.91 times more likely to have $\geq 90\%$ medication adherence (95% CI: 1.10-7.71; $p=0.031$) than the control participants.</p> | |
| <p>Guy (2020) USA</p> | <p>Intervention group: 16</p> <p>Inclusion: ≥ 18 years of age, self-identify as African American, understand English, live in the metropolitan area served by the recruitment site, HIV+, a history of self-reported serious mental illness and one of the following; 1) missed a dose of any medication within the past 3 months, 2) missed a medical appointment within the past year, or 3) missed a psychotherapy appointment within the last year.</p> | <p>Intervention group: Included discussion-based group sessions on stigma and goals; myths and facts about HIV and serious mental illness; appointment attendance, obtaining medications, side effects and communicating with healthcare team; benefits of emotional support; coping strategies, and creation of daily medication schedule.</p> | <p>4 weeks</p> | <p>An average 8% increase was reported in ART adherence from pre- to post-intervention ($p=0.63$). Adherence increased by 17.5% for participants who attended all sessions ($n=9$). Medical appointment attendance decreased from pre- to post-intervention by 12.5% ($p=0.39$).</p> | <p>Findings support the feasibility and acceptability of a psycho-educational behavioural intervention to increase HIV treatment adherence in African Americans living with HIV and serious mental illness.</p> |

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| <p>Jones (2018) USA</p> | <p>Intervention group: 10</p> <p>Inclusion: Self-identify as gay, bisexual or a MSM; assigned male sex at birth and currently identifies as male; HIV+; have an active antiretroviral medication prescription; demonstrated difficulty with antiretroviral medications; African American; 18-65 years old; current cigarette smoker; desire to quit smoking and agree to using NRT patches; no contraindications to use NRT (cardiovascular disease, uncontrolled hypertension) or prior adverse reactions to NRT; currently have a primary care provider; agree to carbon monoxide breath monitor screening.</p> | <p>Intervention group: Included an individual counselling session, group sessions and support phone calls. In the individual counselling session, the participant articulated personal values and goals for smoking cessation, medication adherence and coping with HIV. Specific behaviour goals were developed to address in group sessions. Goals were reviewed in support phone calls, barriers and triggers addressed and participants were encouraged to attend group sessions.</p> <p>Participants received treatment manuals containing worksheets to help identify barriers to smoking cessation and medication adherence and information about behaviour change. Participants also received NRTs.</p> | <p>3 months</p> | <p>At baseline, participants took approximately 76% of prescribed daily HIV medication.</p> <p>At 1-month follow-up, participants reported 100% adherence and 99.17% at 3 months.</p> <p>There was a trend towards an increase in the proportion of pills taken from baseline to 1 month ($F(1,7) = 4.54$, $p = .07$) and trend maintained at 3 month follow-up ($F(1,7) = 4.07$, $p = .08$).</p> | <p>Pilot study suggests participants generally found this culturally targeted intervention acceptable.</p> |
| <p>Ma (2008) USA</p> | <p>Intervention group: 31</p> <p>Inclusion: ≥ 18 years of age, African American, currently on HAART, missed $\geq 10\%$ of prescribed HAART doses over a 4-day period, history of substances abuse.</p> | <p>Intervention group: An outreach worker met with participants 5 days a week to observe morning dose. Evening and weekend doses self-administered. Outreach worker addressed possible concerns regarding daily visits, reminded participants of clinic appointments and communicated participants' side effects and medical concerns to healthcare providers.</p> | <p>6 months</p> | <p>At the baseline, none of the participants met the 80% criterion for adherence. At 3 months, 75% met 80% criterion for adherence and at 6 months, 67% met 80% criterion for adherence.</p> | <p>Findings indicate that treatment adherence can be increased in African American substance users in the Southern United States and RCTs are warranted.</p> |

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| | | Outreach visits were gradually tapered from 5 days per week to one day per week during the final 3 months. | | | |
| Magidson (2022) USA | <p>Intervention group: 32 Control group: 29</p> <p>Inclusion: HIV+, 18-65 years old. Participants recruited from treatment centre for substance abuse.</p> <p>Exclusion: Active, untreated psychotic symptoms that would interfere with study participation, inability to provide informed consent, below 3rd grade English reading level</p> | <p>Intervention group: Participants set goals, identified barriers to HIV-related self-care (e.g. ART adherence) and formulated plans to achieve goals. Participants were encouraged to focus on values specific to scheduling medication, appointments and prescriptions refills. Participants also focused on linking mood, urges and behaviour, and generating, scheduling and engaging in substance-free behaviours.</p> <p>Control group: The time-matched control also included motivational interviewing and problem-solving components to improve ART adherence. Participants were also provided with a list of topics they wished to talk about in therapy and assigned homework of writing journal entries on these topics, or a topic of their choice, in between sessions.</p> | 4 weeks. Additional 8 weeks offered following discharge from treatment centre. | <p>ART use increased from 46.9% at baseline to 85.7% at the 12-month follow-up in the intervention group.</p> <p>ART use increased from 65.5% at baseline to 86.7% at the 12-month follow-up in the control group.</p> <p>Across both groups, there was a significant increase in the likelihood of being on ART over time (logs odds = 0.71, p = 0.001).</p> | Findings provide preliminary support for a behavioural activation intervention that can improve ART use in a vulnerable, hard-to-reach population. |
| Pagan-Ortiz (2019) USA | <p>Intervention group: 21</p> <p>Inclusion: African American, HIV+, ≥50 years of age, currently on ART and has difficulty remembering to</p> | Intervention group: Participants sent the following text messages: a) personalised daily pill reminders for ART and other chronic medications; b) biweekly health education messages targeting health beliefs and general | 8 weeks | After 8 weeks, 86% reported perfect ART adherence within the last 4 days compared to | Findings suggest that a mobile-phone based intervention for ART medication with culturally |

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| | <p>take pills or occasionally chases to skip pills.</p> <p>Exclusion: dementia, other life-threatening diseases, no mobile phone, current participation in other research studies, undergoing exploratory treatments for HIV or other illnesses, and/or discomfort with privacy loss risks associated with study.</p> | <p>strategies to support adherence; and c) biweekly motivational messages targeting self-efficacy and promoting positive effect.</p> | | <p>38% with perfect adherence at baseline.</p> | <p>sensitive motivational and health educational messages is feasible for older HIV+ African Americans.</p> |
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ART, Antiretroviral treatment; HAART, highly active antiretroviral therapies; MSM, men who have sex with men; NRT, nicotine replacement therapy, RCT, randomised controlled trials.

