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Implementation and uptake of the Conexiones y Opciones en la Argentina (COPA) intervention: Feasibility and acceptability

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Abstract

Challenging HIV-infected patients, those neither adherent nor actively engaged in care, represent an important opportunity for intervention if the HIV epidemic is to be contained. This pilot study assessed the feasibility and acceptability of an adapted patient adherence intervention and a motivational interviewing-based provider intervention in urban Buenos Aires, Argentina, in order to optimize health benefits in challenging HIV-infected patients. To maximize implementation and uptake of both strategies, interventions were adapted to the local setting. Qualitative data and a short quantitative assessment from patients, staff, fellows, residents and physicians (n = 84) were examined to establish the feasibility and acceptability of offering patient and provider evidence-based interventions in both public and private healthcare settings. Results identified key themes on provision of information, use of specialized communication techniques, and group support in the utilization of the interventions. Both providers (n = 12) and patients (n = 120) endorsed the acceptability and value of the interventions, and the feasibility of their delivery. Findings support the use of both intervention modalities with challenging patients in diverse urban healthcare settings.

Keywords

HIV; South America; adherence; motivational interviewing; intervention

Following an HIV diagnosis, patients must be evaluated, engaged and retained in treatment in order to achieve viral suppression through antiretroviral therapy (ART) (Mugavero et al., 2012; Genberg et al., 2012). Late initiation of ART is problematic in many regions, including South America (Nachega et al., 2012). In Argentina, 31% of men and 23% of

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women in Argentina had delayed treatment onset (Crabtree-Ramirez et al., 2011; Ministerio de Salud, 2014), and only 51% had achieved viral suppression (Ministerio de Salud, 2014). Challenging patients, those neither adherent nor engaged in care, necessitate intervention if the HIV epidemic is to be contained (Cohen et al., 2011; NIH, 2015; Soria, Cadille, & Allende, 2008; Ullet et al., 2009).

Interventions to enhance adherence, engagement and retention have primarily targeted patients rather than providers (Mathes, Pieper, Antoine, & Eikermann, 2013). Patient interventions aimed at achieving viral suppression have obtained minimal or short-term gains (Mathes et al., 2013; provider interventions have had similarly brief success (Marquez, Mitchell, Hare, John, & Klausner, 2009; Metsch et al., 2009; Wilson et al., 2010). Challenges have included depression, health literacy and motivation (Nachega et al., 2012; Piña-Lopez & Gonzalez, 2010), although enhancing HIV-related knowledge and decreasing depression appears to facilitate motivation (Gonzalez, Batchelder, Psaros, & Safren, 2011; Laws et al., 2012). However, interventions targeting disengaged patients face challenges in enhancing adherence.

Motivational interviewing (MI) is a patient-centered strategy aimed at promoting long-term health behaviors (Cucciare et al., 2012) and helping patients resolve the discrepancy between desired and actual behavior (Miller & Rollnick, 1983). MI has been applied in Spanish-speaking populations García Pérez, Torres, & Sanchez de la Cuesta, 2004). In the context of HIV, MI has enhanced motivation to engage in health behaviors, e.g., medication adherence (Hill & Kavookjian, 2012; Konkle-Parker, Erlen, Dubbert, & May, 2012; Parsons, Rosof, Punzalan, & Maria, 2005) and engagement in care. Training providers in MI has resulted in sustained provider and patient behavioral change (Miller & Mount, 2001; diabetes, Rubak, Sandbæk, Lauritzen, Borch-Johnsen, & Christensen, 2009), and training physicians in MI may enhance patient outcomes without increasing burden (Levinson, Lesser, & Epstein, 2010).

Purpose of study

This pilot study implemented an adapted patient adherence intervention and a MI-based provider intervention to maximize health benefits among challenging HIV-infected patients (Jones et al., 2015). This manuscript presents the feasibility and acceptability of the implementation of these interventions in public and private clinics in Buenos Aires (BA), Argentina, one of the first Latin American countries to provide no-cost antiretroviral drugs and treatment to HIV-infected individuals. It was theorized that a combined approach (Roberts, 2002) would result in optimal uptake; and that both interventions would be feasible and acceptable when tailored to the local context and implemented with significant buy-in and support from patients, providers and organization leadership.

Method

Prior to study onset, approvals were obtained from the Institutional Review Board at the US site and Research Ethics Committees at the Argentina sites.

Sites

The Argentine health system is composed of three sub-sectors: public, private, and social security. It was anticipated that public and private settings would experience different financial and structural challenges, and one public and one private healthcare clinic were recruited. Both sites were comparable in patient census, staff and services, and in urban BA (Bofill et al., 2015).

Formative work

Patient adherence (Visual Analog Scale adherence measure and viral load; Walsh, Mandalia, & Gazzard, 2002) and engagement—consistent attendance based on appointment records—were selected based on study outcomes and theoretical model. All study materials were adapted for the local setting collaboratively using interviews and focus groups (Aristegui et al., 2014; Bofill et al., 2014). The patient interventions were adapted from the team's prior studies targeting engagement and adherence (Jones et al., 2013; Jones, Zulu, Vamos, Cook, Chitalu, & Weiss, 2013; Peltzer, Jones, Weiss, & Shikwane, 2011) and utilized the Information-Motivation-Behavioral (IMB) skills model (Fisher, Amico, Fisher, & Harman, 2008; Fisher, Fisher, Amico, & Hermann, 2006). Both interventions were tailored utilizing previous research (Valverde et al., 2009) and site visits conducted prior to intervention adaptation. The provider intervention was motivational interviewing training collaboratively developed by US and Argentine researchers (Jones et al., 2015); staff and provider training included manualized slides and “talking points” (Bofill et al., 2015).

Participants

Patients (n=66), clinic stakeholders (n=2), and infectious disease physicians and residents (n=16) were enrolled in the study (see recruitment; stakeholders [Aristegui et al., 2014], providers and patients [Bofill et al., 2014]). Patients were considered non-adherent if they missed 3 pharmacy refills in the past 6 months or 3 consecutive refills in the past 3 months. All participants provided informed consent. Providers from the two sites were briefed on the study objectives by clinic leaders and invited to participate in the study; all agreed to participate.

Design

In Phase 1, participants were randomized to intervention (“patient active”) or SOC (Standard of Care; “patient inactive”). After training providers in MI in Phase 2, patients were randomized to intervention or SOC, and provider participants conducted the “provider active” conditions. Four conditions were tested: inactive patient/inactive provider, activate patient/inactive provider, inactive patient/active provider, and active patient/active provider.

Patient intervention

The intervention consisted of 4-weekly group sessions, 1.5 hours each conducted over one month; training and supervision was provided by US investigators. The IMB-centered (Fisher et al., 2008; Fisher et al., 2006) patient intervention was adapted from an evidence-based intervention (Jones et al., 2015). Adaptations were setting-specific, e.g., transportation, medication protocols, care provision, insurance, and culture-specific, e.g.,

gender roles, family involvement, stigma. Session topics addressed HIV and ART, motivation, coping strategies, and building a “therapeutic alliance.” Sessions clarified adherence, medication, viral load and overall health, stressed patient-provider communication, and enhanced motivation through social support (n = 120 patient participants attended).

Provider intervention

The provider intervention consisted of two 3-hour training sessions conducted over one week (n=12 provider participants [private=6; public=6]), and focused on recognizing ambivalence towards change and evoking commitment in challenging patients (Bofill et al., 2015). Patient-provider interactions were video-recorded throughout the study—including training—for self-monitoring and supervision. Ongoing communication and support was provided by Argentine researchers to ensure fidelity of the intervention and study protocols; 10% of video recordings were reviewed by two Spanish-speaking US researchers.

Qualitative feasibility, acceptability and uptake assessment

Feasibility assessments were conducted using focus groups with participants, and in-depth interviews with clinic leaders. Stems and probes were developed by the US and Argentine investigators (see Table 1). As the foundation for a clinical trial targeting challenging patients being administered by providers, the feasibility of recruiting and retaining challenging patients, and of recruiting and retaining providers was assessed. Feasibility probes targeted recruitment, attendance and session fit; acceptability targeted session topics and materials. As the foundation for the clinical trial for challenging patients, the topics and materials were “key elements” and as such, acceptability assessed content. Evidence of uptake of the patient intervention was established by use of the patient intervention in the clinic setting by site therapists. Evidence of uptake of the provider intervention was established from use of the intervention techniques by providers.

Coding and analyses

Qualitative feasibility and acceptability assessments (duration: ~60 minutes) were audio-recorded with participant consent. Focus groups were conducted in Spanish, transcribed, translated and coded; clinic leaders were interviewed in English, and transcriptions were coded; coding utilized NVIVO9 software. Themes were identified by the US and Argentine investigators to ensure adequate coverage of all topics; disagreements were resolved collaboratively.

Quantitative assessment

Patient satisfaction surveys (duration: ~15 minutes) were developed by US and Argentine researchers and administered by study staff following the final visit of the patient intervention (see Table 2). Provider satisfaction and acceptability surveys were conducted following provider training (n=12 providers) and have previously been described and reported (Bofill et al., 2015).

Results

Patients reported moderate-to-high satisfaction, acceptability of content, feasibility of the structure, and strong agreement with attending similar offerings (see Table 2). Providers found the MI training useful and acceptable. The MI condition was most effective in enhancing adherence and reducing viral load, as previously reported (Jones et al., 2015). Emerging themes are presented in Table 3.

Feasibility

Study staff utilized several recruitment strategies—on-site recruitment, support groups, and physician referrals—and coordinated study appointments with physician visits to minimize burden, as patients lost to care were difficult to reach.

“The majority (of participants) responded to the invitation well, and that came in part due to the invitation coming directly from their own MD.” (Public recruiter)

Providers reported being tired of “being the father or mother” and “cross examining” their patients, and recognized patients’ potential to change. Providers found video-recording useful for post-training comparison and self-monitoring.

“The patient also gets used to it (communication style), it is hard for them to get used to the changes, too.” (Public physician)

“You can see the change in the videos... I explained things more clearly.” (Private physician)

Staff reported that patients were enthusiastic about the buddy system in the intervention; many reported staying in touch after the intervention ended. Clinic leaders encouraged discussing commitment and attendance at enrollment, given that once participants attended the first session, they attended sessions consistently. Non-attendance was an ongoing challenge; despite comprehensive outreach, drop out (~30%) occurred before the sessions began. Private patients struggled to take time off work to attend groups. Some private patients were lost after job termination, when insurance coverage stopped and they transitioned into the public system. In the public clinic, challenges included illness and hospitalization; four public patients died during the study.

“We are getting to them very late in their illness, the hospital never offered something like this before, and it’s too late in the illness progression...” (Public facilitator)

Patient and provider sessions—Facilitators suggested increasing the intervention by 2 sessions and meeting weekly. Conversely, clinic leaders suggested reduction to three monthly meetings, extra sessions to replace missed sessions, condensing sessions, and allowing patients to choose sessions. In contrast to clinic leaders, patients’ quantitative assessment suggested that participants found the number of sessions to be acceptable. The team opted to follow the recommendations of the facilitators and patients, as the clinic leaders did not participate in the intervention. Patients suggested the inclusion of providers and family:

“The doctors should join!” (Private patient)

“...we should have a family member, or a partner, come to the group, to enrich the meetings. The group opens your mind!” (Public patient)

Providers suggested refresher training twice a year. The majority agreed they would attend further trainings,

“Yes, continuing the training is another vision. If it goes well with the patient, it goes well with us.” (Public physician)

Acceptability and uptake

Public and private staff reported that most patients wanted to continue to meet after the sessions, and patients’ quantitative assessment supported this finding. Uptake was evidenced in the integration of the intervention manual into existing support groups.

Information—Patients agreed that the topics covered helped them be more involved in their treatment. Patients also shared their intervention materials with friends and peers,

“... the patients were carrying the handout forms and using the diagrams... It was really easy for them to understand and to explain to family and friends.” (Private facilitator)

“I didn’t tolerate the medication, and they changed it... The group helped me improve adherence – it was the last type of medication I could take.” (Public patient)

Providers commented that the training was a good fit for their practices, especially with challenging patients.

“The communication improved on both sides, and you can see the change in the videos.” (Private physician)

“It gets the patient out of the passive role. Give the patient their space, and they can see where the problem or difficulty lies.” (Public physician)

Group support—In both settings, facilitators commented that patients used the groups to share information, ask questions, and seek support. Patients commented that the group helped them gain confidence and trust in others and develop healthier lifestyles.

“I felt alone. The group provided encouragement, because I feel supported.” (Private patient)

“During the group I can release everything... The group gave me support to speak to the doctor...” (Public patient)

“One woman was afraid to pick up her labs, and then at the last session she brought it and opened it in the group... the group was there for support, and the last one (labs) was much improved...” (Public facilitator)

“One person was supposed to go to a school interview and didn’t go because she was sure she would be rejected. Some schools require applicants to present HIV

test results... but then she went to the interview afterwards, anyway.” (Private facilitator)

Providers recognized the value of group training for discussing challenging patients. Some suggested regular meetings to share experiences, every 6 months for 3 hours. Evidence of uptake was illustrated as most wanted to continue to collectively review the elements of the MI technique, viewing the training as an investment,

“It would be good to continue the training and sharing experiences. (Public physician)

“More training is helpful to discuss cases, and do dramatizations of the cases to find other alternatives.” (Private physician)

Communication—Clinic leaders felt that that existing staff could be trained to provide information to patients that providers could not convey. Facilitators shared that initially, patients perceived providers as cold, scolding, pressed for time, using complicated language, or unwilling to listen. However, both sites asserted that the intervention encouraged patients to develop a therapeutic alliance. In the patient survey, patients reported that the sessions helped them discuss HIV and treatment with their provider.

“I speak more with my doctor. The group helps me come to the clinic, it strengthens me.” (Private patient)

“The alliance made them (patients) believe they were both (patients and providers) part of the treatment... They started writing questions about side effects, changing medication, what to do when they missed doses.” (Public facilitator)

“Doctors need to help patients feel comfortable sharing their failures, or behaviors (drinking) to create an environment that allows being honest.” (Private facilitator)

Providers reflected that the communication strategies were challenging; some struggled to synthesize what the patient shared, and realized the need to carefully track the information in order to summarize the consultation. Most providers felt that the MI strategies improved communication and enhanced patient adherence. Several asserted that learning to summarize and to stay silent (listening) was especially challenging.

“At first it took a lot of effort, but it got better. I now do the clinical synthesis with patients that adhere, also.” (Public physician).

“I implement the silences the most with the non-adherent patients.” (Private physician)

Discussion

This pilot study examined the feasibility and acceptability of patient and provider evidence-based interventions in public and private healthcare settings in BA, Argentina. Overall, patients, providers, staff and clinic leaders endorsed the use of both interventions. As previously described, the provider MI intervention was most effective in enhancing adherence and reducing viral load (Jones et al., 2015). As theorized, the fit to the local context was enhanced by preliminary formative work, and implementation and uptake in the

clinical setting appeared successful, as evidenced by use of the patient and provider interventions in the clinic setting during and following the study. The two intervention modalities appeared feasible and acceptable in both private and public settings.

This is the first study utilizing a combined patient and provider format. Due to the differing contexts of public and private healthcare settings (Bofill et al., 2015), implementation in the clinical setting required significant formative work to establish buy-in from providers and organization leadership. The patient intervention experienced the challenge of non-attendance. Most drop-out (70%) occurred following enrollment, which underscores the disconnection between patients' initial motivation and their ability to complete the intervention. Because the current sample was too small to identify patient characteristics associated with drop-out, larger studies are needed.

Provision of health and treatment information to patients and training providers to use MI strategies was acceptable. After intervention sessions, patients appeared more motivated to play an active role in their treatment, as evidenced by reports of increased comfort with patient-provider communication, improved adherence, and a desire to involve potential sources of support. Acceptability outcomes highlight the association between information and motivation (Gonzalez et al., 2011; Laws et al., 2012; Nachega et al., 2012; Piña-Lopez & Gonzalez, 2010).

Social support and group-based interventions were acceptable among patients and providers. As reported previously (Simoni et al, 2009), patients reported identifying with peers, and expressed a desire to continue their relationships. Interestingly, despite previous training in HIV care, providers were receptive to learning new clinical techniques. As previously found (Hill & Kavooksian, 2012; Konkle-Parker et al., 2012; Parsons et al., 2005), MI strategies were useful and acceptable during consultations. Similarly, as previously described (Rubak et al., 2009; Miller & Mount, 2001), the brief intervention was acceptable to providers, though most desired additional training.

Recommendations

Providing enhanced communication skills for providers and patients was acceptable and feasible. Results suggest that patients and providers are enthusiastic about improving communication and implemented learned skills (Jones et al., 2015). Patient-centered strategies have been successful in Spanish-speaking populations (Garcia Pérez et al., 2004) and represent a valuable clinical tool. Future studies could expand provider training, and explore the implementation of support groups in hospitals as the standard of care for patients.

Limitations

This pilot study's sample size limits generalizability to larger populations. Because only 13 of the original 66 participants completed the satisfaction survey during the last study visit, the conclusions reached in this study may not be representative of the original sample. Recommendations should be interpreted cautiously, and further research should ascertain the use of similar interventions in other settings.

Conclusion

This study achieved positive outcomes implementing a novel strategy for challenging patients, offering both patient and provider interventions. Such challenging patients remain a critical intervention target if the HIV epidemic is to be contained (NIH, 2015; Cohen et al., 2011; Soria et al., 2008; Ullet et al., 2009). Uptake of evidence-based interventions in the clinical setting remains the Achilles heel of HIV treatment, and to optimize treatment outcomes, studies must address feasibility and acceptability to ensure their effective implementation.

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References

- Aristegui I, Dorigo A, Bofill L, Bordatto A, Lucas M, Cabanillas GF, Jones D. Percepciones del personal de salud y los pacientes sobre los facilitadores y obstáculos para la adherencia al tratamiento y retención en el sistema de salud público y privado. *Actualizaciones en Sida e Infectología*. 2014; 22(86):71–80. [PubMed: 26878024]
- Bofill LM, Lopez M, Dorigo A, Bordato A, Lucas M, Cabanillas GF, Jones D. Patient–provider perceptions on engagement in HIV care in Argentina. *AIDS Care*. 2014; 26(5):602–607. [PubMed: 24138788]
- Bofill L, Weiss SM, Lucas M, Bordato A, Dorigo A, Fernandez-Cabanillas G, Jones D. Motivational Interviewing among HIV Healthcare Providers Challenges and Opportunities to Enhance Engagement and Retention in Care in Buenos Aires, Argentina. *Journal of the International Association of Providers of AIDS Care (JIAPAC)*. 2015; 14(6):491–496. [PubMed: 26056148]
- Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, Fleming TR. Prevention of HIV-1 infection with early antiretroviral therapy. *New England Journal of Medicine*. 2011; 365(6):493–505. [PubMed: 21767103]
- Crabtree-Ramírez B, Caro-Vega Y, Shepherd BE, Wehbe F, Cesar C, Cortés C. CCASAnet Team. Cross-sectional analysis of late HAART initiation in Latin America and the Caribbean: late testers and late presenters. *PLoS ONE*. 2011; 6(5):e20272. [PubMed: 21637802]
- Cucciare MA, Ketrosier N, Wilbourne P, Midboe AM, Cronkite R, Berg-Smith SM, Chardos J. Teaching motivational interviewing to primary care staff in the Veterans Health Administration. *Journal of general internal medicine*. 2012; 27(8):953–961. [PubMed: 22370769]
- Fisher JD, Amico KR, Fisher WA, Harman JJ. The information-motivation-behavioral skills model of antiretroviral adherence and its applications. *Current HIV/AIDS Reports*. 2008; 5(4):193–203. [PubMed: 18838059]
- Fisher JD, Fisher WA, Amico KR, Harman JJ. An information-motivation-behavioral skills model of adherence to antiretroviral therapy. *Health Psychology*. 2006; 25(4):462–473. [PubMed: 16846321]
- García Pérez AG, Torres DP, Sanchez de la Cuesta F. Cumplimiento terapéutico en pacientes con hipertensión arterial y diabetes mellitus tipo 2. *SEMERGEN-Medicina de Familia*. 2004; 30(2):55–59.
- Genberg BL, Wilson IB, Bangsberg DR, Arnsten J, Goggin K, Remien RH. MACH14 Investigators. Patterns of antiretroviral therapy adherence and impact on HIV RNA among patients in North America. *AIDS (London, England)*. 2012; 26(11):1415.
- Gonzalez JS, Batchelder AW, Psaros C, Safren SA. Depression and HIV/AIDS treatment nonadherence: a review and meta-analysis. *Journal of Acquired Immune Deficiency Syndromes*. 2011; 58(2)

- Hill S, Kavookjian J. Motivational interviewing as a behavioral intervention to increase HAART adherence in patients who are HIV-positive: a systematic review of the literature. *AIDS Care*. 2012; 24(5):583–592. [PubMed: 22292452]
- Jones DL, Sued O, Cecchini D, Bofill L, Cook R, Lucas M, Weiss SM. Improving Adherence to Care Among "Hard to Reach" HIV-Infected Patients in Argentina. *AIDS and Behavior*. 2015:1–11. [PubMed: 24668254]
- Jones DL, Zulu I, Vamos S, Cook R, Chitalu N, Weiss SM. Determinants of engagement in HIV treatment and care among Zambians new to antiretroviral therapy. *Journal of the Association of Nurses in AIDS Care*. 2013; 24(5):e1–e12. [PubMed: 23009738]
- Jones D, Sharma A, Kumar M, Waldrop-Valverde D, Nehra R, Vamos S, Weiss SM. Enhancing HIV medication adherence in India. *Journal of the International Association of Providers of AIDS Care (JIAPAC)*. 2013; 12(5):343–348. [PubMed: 22628369]
- Konkle-Parker DJ, Erlen JA, Dubbert PM, May W. Pilot testing of an HIV medication adherence intervention in a public clinic in the Deep South. *Journal of the American Academy of Nurse Practitioners*. 2012; 24(8):488–498. [PubMed: 22845032]
- Laws MB, Rose GS, Bezreh T, Beach MC, Taubin T, Kogelman L, Wilson IB. Treatment acceptance and adherence in HIV disease: patient identity and the perceived impact of physician–patient communication. *Patient Preference and Adherence*. 2012; 6:893–903. [PubMed: 23271898]
- Levinson W, Lesser CS, Epstein RM. Developing physician communication skills for patient-centered care. *Health Affairs*. 2010; 29(7):1310–1318. [PubMed: 20606179]
- Marquez C, Mitchell SJ, Hare CB, John M, Klausner JD. Methamphetamine use, sexual activity, patient–provider communication, and medication adherence among HIV-infected patients in care, San Francisco 2004–2006. *AIDS care*. 2009; 21(5):575–582. [PubMed: 19444665]
- Mathes T, Pieper D, Antoine SL, Eikermann M. Adherence-enhancing interventions for highly active antiretroviral therapy in HIV-infected patients—a systematic review. *HIV medicine*. 2013; 14(10):583–595. [PubMed: 23773654]
- Metsch LR, Bell C, Pereyra M, Cardenas G, Sullivan T, Rodriguez A, Del Rio C. Hospitalized HIV-infected patients in the era of highly active antiretroviral therapy. *American Journal of Public Health*. 2009; 99(6):1045–1049. [PubMed: 19372520]
- Miller WR, Mount KA. A small study of training in motivational interviewing: Does one workshop change clinician and client behavior? *Behavioural and Cognitive Psychotherapy*. 2001; 29(04):457–471.
- Miller, WR.; Rollnick, S. *Motivational interviewing: Preparing people for change*. 2nd. New York: Guilford Press; 1983.
- Ministerio de Salud [Internet]. Buenos Aires: Dirección de Sida y ETS; c2014. Boletín N° 31 sobre el VIH-SIDA en la Argentina: Año XVII Diciembre, 2014. 2014 Dec. [about 92 screens]. Retrieved from: http://www.msal.gov.ar/images/stories/bes/graficos/0000000601cnt-2015-01-29_boletin-epidemiologico-vih-2014.pdf
- Mugavero MJ, Amico KR, Westfall AO, Crane HM, Zinski A, Willig JH, Saag MS. Early retention in HIV care and viral load suppression: implications for a test and treat approach to HIV prevention. *Journal of Acquired Immune Deficiency Syndromes*. 2012; 59(1):86–93. [PubMed: 21937921]
- Nachea JB, Morroni C, Zuniga JM, Schechter M, Rockstroh J, Solomon S, Sherer R. HIV treatment adherence, patient health literacy, and healthcare provider–patient communication: results from the 2010 AIDS Treatment for Life International Survey. *Journal of the International Association of Physicians in AIDS Care (JIAPAC)*. 2012:1–6.
- NIH [National Institutes of Health]. Bethesda: National Institute of Allergy and Infectious Diseases. Starting antiretroviral treatment early improves outcomes for HIV-infected individuals. 2015 May. Retrieved from: <http://www.niaid.nih.gov/news/newsreleases/2015/Pages/START.aspx>
- Parsons JT, Rosof E, Punzalan JC, Maria LD. Integration of motivational interviewing and cognitive behavioral therapy to improve HIV medication adherence and reduce substance use among HIV-positive men and women: Results of a pilot project. *AIDS Patient Care and STDs*. 2005; 19(1):31–39. [PubMed: 15665633]

- Peltzer K, Jones D, Weiss SM, Shikwane E. Promoting male involvement to improve PMTCT uptake and reduce antenatal HIV infection: a cluster randomized controlled trial protocol. *BMC Public Health*. 2011; 11(1):778–788. [PubMed: 21985332]
- Piña-Lopez JA, González MT. Un modelo psicológico de adhesión en personas VIH+: modelamiento con ecuaciones estructurales. *Revista Iberoamericana de Psicología y Salud*. 2010; 1(2):185–206.
- Roberts KJ. Physician-patient relationships, patient satisfaction, and antiretroviral medication adherence among HIV-infected adults attending a public health clinic. *AIDS patient care and STDs*. 2002; 16(1):43–50. [PubMed: 11839218]
- Rubak S, Sandbæk A, Lauritzen T, Borch-Johnsen K, Christensen B. General practitioners trained in motivational interviewing can positively affect the attitude to behaviour change in people with type 2 diabetes: One year follow-up of an RCT, ADDITION Denmark. *Scandinavian Journal of Primary Healthcare*. 2009; 27(3):172–179.
- Simoni JM, Huh D, Frick PA, Pearson CR, Andrasik MP, Dunbar PJ, Hooton TM. Peer support and pager messaging to promote antiretroviral modifying therapy in Seattle: a randomized controlled trial. *Journal of Acquired Immune Deficiency Syndromes*. 2009; 52(4):465–473. [PubMed: 19911481]
- Soria EA, Cadile II, Allende LR, Kremer LE. Pharmacoepidemiological approach to the predisposing factors for highly active antiretroviral therapy failure in an HIV-positive cohort from Cordoba City (Argentina) 1995–2005. *International journal of STD & AIDS*. 2008; 19(5):335–338. [PubMed: 18482965]
- Ulett KB, Willig JH, Lin HY, Routman JS, Abrams S, Allison J, Mugavero MJ. The therapeutic implications of timely linkage and early retention in HIV care. *AIDS patient care and STDs*. 2009; 23(1):41–49. [PubMed: 19055408]
- Valverde EE, Cassetti I, Metsch LR, Bugarin G, Bofill L, Laurido M, McCoy C. Sex risk practices among HIV-positive individuals in Buenos Aires, Argentina. *AIDS patient care and STDs*. 2009; 23(7):551–556. [PubMed: 19530955]
- Walsh JC, Mandalia S, Gazzard BG. Responses to a 1 month self-report on adherence to antiretroviral therapy are consistent with electronic data and virological treatment outcome. *AIDS*. 2002; 16(2): 269–277. [PubMed: 11807312]
- Wilson IB, Laws MB, Safren SA, Lee Y, Lu M, Coady W, Rogers WH. Provider-focused intervention increases adherence-related dialogue, but does not improve antiretroviral therapy adherence in persons with HIV. *Journal of Acquired Immune Deficiency Syndromes*. 2010; 53(3):338–447. [PubMed: 20048680]

Table 1

Focus group and interview stems and probes

Providers
1. What do you think of the motivational interview (MI)? Has it helped with the trainings? How do you use it?
2. What about COPA [*] was the best for you?
3. How was COPA useful to you? What did you like about COPA?
4. How was COPA NOT useful to you?
5. Would you want more training?
6. What would improve COPA?
7. How often should you meet for training?
8. Did COPA change anything?
9. Did you notice any difference in your relationship with your patient after COPA?
10. Do you like to receive more training in MI if it is available?
11. How was it to participate in COPA?
Patients
1. How did you feel during COPA?
2. Why do you think people do not come to the groups, there were only 3 or 4 per group? ¿Do you think that WhatsApp, Facebook or another technology can replace coming here?
3. Did you feel uncomfortable or overwhelmed during COPA?
4. Did the group help the way you take your medication?
5. Was it difficult to juggle COPA and your daily routine?
6. Would you like to continue with the groups?
7. Would you change anything about COPA?
8. Did you notice any difference in your relationship with your doctor after COPA? How did it change?
9. Is there anything you would change to improve the experience of COPA?
10. Do you think that continuing with the groups would help you now? Would you change anything about them?
11. Do you think groups should be separated for women and men or mixed?
12. Did the group help you?

Note.

^{*}
Conexiones y Opciones en la Argentina

Table 2

Patient survey and mean scores (N = 13 patients)

Mean score	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 About Equally Agree and Disagree	5 Slightly Agree	6 Agree	7 Strongly Agree	9 Can't Say or Doesn't Apply
1. I enjoyed attending the program sessions								
x = 6.5	1	2	3	4	5	6	7	9
2. The program sessions taught me new information								
x = 6.3	1	2	3	4	5	6	7	9
3. The topics discussed in the sessions were well suited to my needs (relevant to me)								
x = 6.9								
X = 6.9	1	2	3	4	5	6	7	9
4. The program sessions helped me to take care of my health								
X = 6.4	1	2	3	4	5	6	7	9
5. The program sessions helped me to talk with other people about HIV								
X = 6.4	1	2	3	4	5	6	7	9
6. The program sessions helped me talk with my doctor about HIV and my treatment								
X = 6.6	1	2	3	4	5	6	7	9
7. This program sessions helped me make a commitment to my treatment								
X = 6.5	1	2	3	4	5	6	7	9
8. The program sessions helped me to take my medication correctly (to be more adherent)								
X = 6.7	1	2	3	4	5	6	7	9
9. The program sessions helped me make a commitment to attending my doctor appointments								
X = 6.6	1	2	3	4	5	6	7	9
10. The program sessions helped me make a commitment to attending my lab appointments								
X = 6.5	1	2	3	4	5	6	7	9
11. The topics in session 1 (HIV, medication, barriers to being adherent) were well suited to my needs (relevant to me)								
X = 6.8	1	2	3	4	5	6	7	9
12. The topics in session 2 (resistance, coping with HIV) were well suited to my needs								

Mean score	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 About Equally Agree and Disagree	5 Slightly Agree	6 Agree	7 Strongly Agree	9 Can't Say or Doesn't Apply
(relevant to me)								
X = 6.6	1	2	3	4	5	6	7	9
13. The topics in session 3 (communication with providers, coping with stressors) were well suited to my needs (relevant to me)								
X = 6.8	1	2	3	4	5	6	7	9
14. The topics in session 4 (beliefs about HIV, alliance with providers, sex) were well suited to my needs (relevant to me)								
X = 6.3	1	2	3	4	5	6	7	9
15. The program sessions fit into my schedule well								
X = 6.6	1	2	3	4	5	6	7	9
16. The length of each session was good (2 hours)								
X = 6	1	2	3	4	5	6	7	9
17. The length of the session was too short (2 hours)								
X = 4.7	1	2	3	4	5	6	7	9
18. The length of the session was too long (2 hours)								
X = 3.5	1	2	3	4	5	6	7	9
19. The number of sessions (4) was good								
X = 6.8	1	2	3	4	5	6	7	9
20. The number of sessions was not enough (4)								
X = 5.2	1	2	3	4	5	6	7	9
21. The number of sessions was too many (4)								
X = 2.4	1	2	3	4	5	6	7	9
22. I would like to attend another program with sessions like these								
X = 6.8	1	2	3	4	5	6	7	9

Table 3

Primary themes arising, staff, facilitators, clinic leaders, patients, providers

Theme	Patient Intervention	Provider Intervention
Feasibility		
1. Recruiting	Recruiters reduced patient burden by coordinating their study appointments with physician visits; there were no differences between sites in recruitment. Utilizing several strategies to recruit, staff recruited from support groups by physician referrals; patients in the public setting were difficult to telephone.	Providers were recruited by clinic leaders prior to the onset of interventions; the majority of providers agreed to participate. Most agreed to participate.
2. Attendance	Non-attendance was an ongoing challenge, despite reminder phone calls and confirmations. Private setting, some patients were challenged by work and travel time, facilitators in both settings were flexible with meeting times. Both settings had drop out (~40%) before the sessions began. Encouraged discussion about commitment to care and attendance at the time of enrollment & in first session.	No issues
3. Session Length & Frequency	Facilitators felt sessions could not be reduced in length should be increased by 2 sessions, meeting weekly was a good fit. Clinic leaders felt that four sessions was too many, recommended once a month for 3 months, extra sessions offered to those who miss a session. Clinic leaders advised to condense sessions, offer a menu of sessions to attend. Patients wanted sessions to continue, once a month, suggested providers and family members attend.	Providers felt that the length of the training was appropriate, and suggested additional training twice a year, as a refresher. The majority agreed they would attend further trainings, and that the role playing of patient interactions was helpful.
Acceptability		
1. Information	Patients shared their new information from their intervention materials on HIV and the body with friends and peers, and reported to the group facilitators information was new and helpful.	Providers commented that the intervention training and techniques were a good fit for their practices, especially with challenging patients.
2. Group support	In both settings, facilitators commented that patients used the groups as an opportunity to share information, ask questions, and seek support. Patients commented that they 'felt good about hearing others' stories,' that they had felt isolated with HIV. The group had helped them gain confidence and trust in others, and to develop healthier lifestyles.	Providers also recognized the value of the group training strategy, commenting on the value of discussing patients. Most wanted to continue to collectively review the elements of the technique, viewing the training as an investment in themselves and their patients. Some suggested regular meetings to share experiences, every 6 months for 3 hours.
3. Communication	Facilitators shared at intervention onset, patients from both sites voiced anxiety about communicating with their physicians; patients sometimes experienced providers as 'freezers' (cold), scolding, pressed for time, and to be using complicated language. Patients were uncomfortable with asking questions when they had doubts or confusion, and felt their	Providers stated communication strategies were challenging, but helpful; some did not implement all of the methods in each consultation. Some struggled to synthesize what the patient was

Theme	Patient Intervention	Provider Intervention
	physicians were not listening to them. However, both sites asserted that the group intervention encouraged patients to ask questions and 'wake up,' and to develop the idea of an alliance with their physician.	telling them, and realized the need to more carefully track what they were being told to summarize the consultation. Most felt the strategies improved communication with patients and enhanced adherence. Several asserted learning to summarize and to stay silent was especially useful.