Published in final edited form as:

AIDS Educ Prev. 2019 June ; 31(3): 246–258. doi:10.1521/aeap.2019.31.3.246.

FEASIBILITY AND ACCEPTABILITY OF A BEHAVIORAL GROUP SUPPORT INTERVENTION AMONG TRANSGENDER WOMEN: A SEXUAL AND MENTAL HEALTH MIXED-METHODS PILOT STUDY IN BEIRUT, LEBANON

Rachel L. Kaplan, Cynthia El Khoury, Norma Lize, Sara Wehbe, and Jacques Mokhbat

Rachel L. Kaplan, PhD, MPH, with the University of California, San Francisco Department of Obstetrics, Gynecology, and Reproductive Sciences / Bixby Center for Global Reproductive Health and San Francisco State University Center for Research and Education on Gender and Sexuality, San Francisco, California. Cynthia El Khoury, MPH, Norma Lize, and Sara Wehbe are independent researchers. Jacques Mokhbat, MD, is affiliated with the Lebanese American University, Beirut, Lebanon.

Abstract

Transgender women are among the most at risk of populations for HIV infection and transmission globally. Feasible and acceptable intervention strategies that are culturally and contextually appropriate are urgently needed to address the burden of disease worldwide. The first study to address the unique health needs of transgender women in the Middle East and North Africa, this mixed-methods pilot ($N=16$) demonstrated high levels of feasibility and acceptability among adult transgender women in Lebanon as measured quantitatively and qualitatively in the domains of: time allotment, venue, group dynamics, facilitation, content, and retention. The intervention, adapted from an existing trans-facilitated group support intervention, addresses the sexual and mental health of transgender women with mixed HIV status. Next steps should include scale-up, randomization, and testing to determine larger-scale feasibility, acceptability, and efficacy for mitigating sexual and mental health risk and promoting community connectedness and social cohesion.

Keywords

feasibility; acceptability; Middle East and North Africa; Lebanon; transgender women

Transgender women are among the most at risk of populations for HIV infection and transmission and are 49 times more likely to become HIV positive than all adults of reproductive age worldwide (Baral et al., 2013). Like many other key populations around the globe, actual rates of HIV sero-positivity are higher than self-reported HIV infection among transgender women (21% versus 14%; Becasen, Denard, Mullins, Higa, & Sipe, 2018); this suggests a high proportion of transgender women who are living with HIV/AIDS

unknowingly. Not only are transgender women at increased risk for becoming infected with HIV, but they are also at risk for developing poor mental health due to high rates of sex work, unprotected sex, and substance use (Garofalo, Deleon, Osmer, Doll, & Harper, 2006; Silva-Santisteban et al., 2012).

Despite transgender women's high risk for HIV and mental health symptoms, there are currently only a limited number of evidence-based interventions specifically developed for this vulnerable group. Effective and culturally relevant prevention strategies are urgently needed for transgender women globally.

Transgender women's risk factors are particularly understudied and invisible in the Middle East and North Africa (MENA; Mumtaz et al., 2010). Until 2016, published data were unavailable for HIV-infection rates among transgender populations in MENA, including Lebanon. The current documented prevalence of HIV in Lebanon among transgender women (including trans feminine individuals [hereafter "trans women"]; Kaplan, Sevelius, & Ribeiro, 2016) is 10% (Kaplan, McGowan, & Wagner, 2016) and is higher than among another key population for which data are available (men who have sex with men: 1.5–3.6%; Mahfoud et al., 2010; Wagner et al., 2014). In Lebanon, trans women are among the most at risk for HIV infection in Lebanon.

The first study that included trans women in Lebanon established that members of this marginalized community frequently experience poor mental and sexual health (Kaplan, McGowan et al., 2016; Kaplan, Nehme, Aunon, de Vries, & Wagner, 2016). Trans women in Lebanon experience violence, discrimination, and stigma due in part to rigid expectations of binary gender expression (Kaplan et al., 2015). Because of societal and contextual factors in addition to structural barriers that limit opportunities, many trans women engage in sex work for income. High rates of mental health symptoms and suicide attempts, in addition to family rejection, can negatively impact overall health and well-being (Kaplan, Nehme et al., 2016). MOSAIC (MENA Organization for Services, Advocacy, Integration, & Capacity building), a local nongovernmental organization (NGO), recently published a report that emphasizes the importance of familial support from one another in the absence of acceptance from families of origin (Women's Refugee Commission, 2017). Further, recent research established high rates of sexual risk: condomless receptive anal intercourse in the past 3 months was reported by more than half (57%) of participants, with never having been tested for HIV reported by 40% of participants (Kaplan, McGowan, et al., 2016). All these factors, in addition to the impact of stigma on access to health care, food, shelter, employment, and advocacy, contribute to vulnerability that can deleteriously impact mental and sexual health outcomes.

Effective and culturally appropriate mental and sexual health interventions are urgently needed for trans women in Lebanon. Successful prevention interventions require consideration of trans women's contexts and cultures (Sevelius, Reznick, Hart, & Schwarcz, 2009). "TransAction," one of the few existing HIV-prevention interventions that was developed for transgender women of mixed HIV status (positive, negative, and unknown), has been ongoing since its first implementation in 1995, and has demonstrated reduction in sexual risk (Reback, Clark, & Fletcher, 2018). Therefore, we adapted TransAction to the

local Lebanese context and pilot-tested it among 16 trans women in Lebanon for feasibility, acceptability, and preliminary impact. Here we present feasibility and acceptability results of the pilot study.

METHODS

PARTICIPANTS AND RECRUITMENT

Current best practice recommendations for the recruitment of trans women suggest the employment of peer recruiters from within the community for optimal reach and penetration into a population (Reback, Ferlito, Kisler, & Fletcher, 2015). We therefore hired and trained two peer recruiters to use personal, social, and organization- and venue-based contacts to communicate information about the study to potential participants. The pilot test treatment-only convenience sample included 16 trans women who met the eligibility criteria of being 18 years or older, being able to give informed consent in Arabic or English, having been assigned male at birth, and identifying as feminine, including woman, trans woman, girl, ladyboy, shemale, transgender, and transsexual, or any other identity other than male/man/masculine.

Once interested individuals were determined eligible, they provided informed oral consent and enrolled in the study by completing a researcher-administered baseline questionnaire at a study-affiliated organization or an alternative location of the participants' choosing. Recruitment, enrollment, and baseline data collection were accomplished from September to November 2016. Participants were asked to commit to attending a weekly 3-hour trans-facilitated group-delivered intervention for 6 weeks in Beirut in February and March, 2017. Participants were sent a text message before each weekly meeting with a reminder of the logistics of the intervention meeting. Feasibility and acceptability data were collected after each weekly intervention session via face-to-face researcher administered surveys. Institutional Review Boards at the Lebanese American University and the University of California, San Francisco reviewed and approved this study.

INTERVENTION

The ADAPT-ITT Model (Wingood & DiClemente, 2008) was used to adapt TransAction culturally to the Middle Eastern environment. In-depth interviews, focus group discussions, and community advisory board meetings from April to October 2016 explored themes about gender identity, sexual health, mental health, and feedback about a description of the intervention. Locally referred to as *Baynetna*, Arabic for "between us" and a play on the Arabic word for "girls," the adapted intervention retains the core components of TransAction: six to seven trans-facilitated group-delivered sessions, one-on-one assessments, and a shared meal. The adapted intervention seeks to improve social cohesion, community connectedness, as well as mental and sexual health. A trans woman was trained to facilitate two groups of weekly discussions with a unique topical focus (module) each week. Baynetna's six modules focused on: Gender Affirmation (Week 1); Self-Esteem and Transphobia (Week 2); Safer Sex Work, Safer Dating, and Pleasure (Week 3); HIV and Other STIs (Week 4); Family Acceptance/Rejection and Violence (Week 5); and Working and Skill Building (Week 6). One hour was devoted to discussing the topical focus; another

hour was used for feasibility and acceptability data collection as well as one-on-one check-ins with staff. The final hour was spent sharing a hot meal among participants. Learning objectives for each week of the intervention are available in Table 1. Weekly meetings were held on Monday afternoons and evenings and were conducted in Arabic.

USE OF INCENTIVES

Although incentive amounts used among transgender populations are often \$30–40 or more (Sevelius, Patouhas, Keatley, & Johnson, 2014), based on feedback from formative assessment data, community partners, and other stakeholders, the research team decided that transportation reimbursement of \$10 (Lebanon operates in U.S. dollars as well as Lebanese lira) per activity should be provided instead of incentives as a more culturally appropriate and efficacious approach. Thus, participants were able to receive a total of \$100 if they attended all study activities (Enrollment, Week 1, Week 2, Week 3, Week 4, Week 5, Week 6, 1-month Post-test, 3-month Post-test, and 6-month Post-test). Participants were also offered a list of local trans-friendly providers, condoms, and personal lubricant. At the end of the 6-week intervention, participants received a certificate of completion during a celebratory ceremony honoring their accomplishment.

DATA COLLECTION AND MEASURES

Feasibility and acceptability data were collected from the facilitator in addition to 15 participants for a total sample size of 16; the facilitator rated all areas of feasibility and acceptability with the exception of questions about facilitation/facilitator. After each weekly Baynetna meeting, feasibility and acceptability questionnaire data were collected by research team members using a combination of pen and paper and laptop computer using REDCap (Harris et al., 2009; hosted at University of California, San Francisco), a software program that facilitates quantitative data collection. The team of researchers developed the feasibility and acceptability questionnaire in English, which was then translated into Arabic and back-translated to ensure accuracy and consistency in meaning.

Demographics.—All participants, including the facilitator, were asked demographic questions at the beginning of the study. Demographic information included: age; country of birth; citizenship status; highest level of education; average monthly income; financial status; importance of religion; relationship status; stability of living situation; current health insurance; current work; past and current sex work; and HIV status.

Quantitative.—After each group meeting of Baynetna, participants were asked to indicate degree of agreement or disagreement with feasibility and acceptability statements in the following domains: Venue, Group Dynamics, Facilitation, and Content. Most items required a response based on a 5-point Likert scale: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree. Additionally, three statements about the timing and time allocation of the sessions had three possible responses: Agree; No, allocate more time; and No, allocate less time. Retention was observed and calculated throughout the study.

Venue.—Participants were asked to rate four statements to measure acceptability of the venue each week of the 6-week intervention. Due to the highly stigmatizing environment for trans women in Lebanon (Kaplan et al., 2015), logistical planning and feedback were key to a successful pilot. For example, because of safety concerns, the venue at which Baynetna was held was chosen carefully. The research team, informed by formative qualitative inquiry, identified an NGO to host the intervention group meetings. The NGO is centrally located near a major thoroughfare in Beirut.

Additionally, there are no police/state security checkpoints near it, which made the location appealing for the target population. As an organization, it is known among some transgender individuals in Lebanon because it provides services and programming for marginalized groups including sexual and gender minorities and refugees. Thus, participants were asked questions about the venue's safety, accessibility, suitability, and whether it fostered an environment for exchange.

Group Dynamics.—The feasibility of group interventions among trans women has been established in the United States (Garofalo et al., 2012). However, because the group support model, in which a group of peers gathers to discuss and provide support for one another around a particular commonality or challenge, is not extensively used in MENA, we were unsure whether participants would feel comfortable in a peer group setting. Additionally, previous research in Lebanon described perceptions of the transgender community from within as disconnected and competitive (Kaplan et al., 2015), rather than supportive as in other settings. Anecdotally, we were also aware that there had been violence from within the community toward one another in the past 5 years. We therefore assessed group dynamics by asking participants to rate: comfort expressing oneself, confidence in confidentiality, feeling respected, learning from others, and relating to others' experiences.

Facilitation.—Similar to our concerns about the use of the group support model in a novel setting, we were unsure how receptive the target community would be to peer facilitation. Peer facilitation has been successfully used among key populations (Pascom et al., 2016) and LGBTQ individuals (Israel, Willging, & Ley, 2016) both within and outside the United States. Findings from the intervention adaptation process, which took place prior to the pilot, indicated that half of the participants interviewed felt that the intervention should be peer-facilitated (by another trans woman). The remaining half either did not have a strong preference or indicated a preference for a non-transgender individual (such as a non-transgender woman or a non-transgender gay man). Because only half of the participants were in favor of peer facilitation, we were concerned about feasibility and acceptability of this model. Participants were asked to rate how much they agreed with statements about the peer facilitator's attentiveness, content mastery, clear articulation of topic, and communication skills.

Content.—Participants rated the relevance of module content each week by stating the strength of their agreement or disagreement with the following four statements: The theme/topic/content was relevant to the local/my context; The theme/topic/content was relevant to my experience; I learned something that I can apply to my life/situation; and The topic helped me understand what my peers might be going through.

Retention.—Retention was calculated for 6-week intervention participation and at 3- and 6-month post-test follow up.

Qualitative.—Following quantitative survey items, participants were asked about whether they had any other feedback about the intervention; the open-ended query, noted verbatim by a member of the research team, allowed for more depth and/or data not covered by the quantitative statements described above.

DATA ANALYSIS

Descriptive statistics were computed for demographic variables using REDCap, a web-based software package designed to help researchers manage and analyze small/medium-sized projects. Proportions and percentages for every response to the 17 total statements were summed, calculated, and aggregated in the four domains described above. We combined Strongly Agree with Agree and Strongly Disagree with Disagree, and, as there was not a great deal of variation from week to week, tallied participants' rating of each statement across all 6 weeks of the intervention.

Qualitatively, we reviewed and noted any reflections that were the most or least common, the most poignant, and/or any exceptional responses via the constant comparative method (Glaser & Strauss, 1967). Selected quotations reflect the most important qualitative feedback from participants in that they were most emphatic as well as reflected in other participants' responses.

RESULTS

DEMOGRAPHICS

Demographic data are summarized in Table 2. Sixteen participants were enrolled at baseline and included in this analysis. The median age of the sample was 26 years, with a range from 22 to 50 years. Most participants were born in Lebanon (81%); one participant was born in Syria and two participants were born in Iraq. All three participants who were not born in Lebanon were registered refugees. Half of the sample was unmarried without a serious partner. More than half (63%) of the participants had unstable housing and most (81%) said that they could not manage or could barely manage with the money/income they had. Most (75%) were uninsured and half (50%) had not studied at the college level. About half (56%) said that religion is important to them.

QUANTITATIVE

Overall, participants rated all domains highly, demonstrating excellent feasibility and acceptability of the adapted intervention. Ninety-one percent of participants agreed or strongly agreed that the timing of the sessions was convenient. The time allocation of intervention activities was also highly rated. Most participants (an average of 75–100% each week during weeks 1–6) agreed or strongly agreed with the following statements: There was the right amount of time for me to express myself; and There was the right amount of time for us to cover all topics in the session. Almost all participants who disagreed with these two statements desired more (rather than less) time on the topical focus of the session. Table 3

provides a complete summary of percentages and proportions of feasibility and acceptability responses to statements about: venue, group dynamics, facilitation, and content, as described below. If all 16 participants had responded to all statements at each of the 6 sessions, there would be a total of 96 responses. However, because of absences or declines to respond, the denominators in Table 3 vary.

Venue.—Almost all participants (an average of 98–100% each week during weeks 1–6) agreed or strongly agreed with the following statements: I think the venue is in a safe area (99%); I think the venue is accessible (98%); I found that the space was suitable for the session (100%); and I found that the setting fosters an environment for exchange (100%).

Group Dynamics.—Group dynamics statements were also rated highly overall among participants during all 6 weeks of the intervention. More than half of the participants agreed or strongly agreed with statements about group dynamics throughout the intervention.

Facilitation.—Most participants (88–98%) agreed or strongly agreed with the positive statements about the facilitator’s attentiveness, mastery, articulation, and communication skills.

Content.—Most participants also rated the content of the intervention highly. Specifically, during all 6 weeks of Baynetna, 93–95% of participants agreed or strongly agreed with the statements: “The theme/topic/content was relevant to the local / my context” and “The theme/topic/content was relevant to my experience.” Throughout the intervention, most participants reported satisfaction with the module content.

Retention.—Enrollment and retention showed that participants, although from diverse backgrounds and countries of origin within the region, were enthusiastic about active engagement both with module topics (including Gender Affirmation; Self Esteem and Transphobia; Safer Sex Work, Safer Dating, and Pleasure; HIV and other STIs; Family Acceptance/Rejection and Violence; and Working and Skill Building) and about developing rapport with one another. Specifically, the retention rate for participation in the 6-week intervention was exceptionally high at 94% (15 out of 16 participants). At the 3-month post-test follow-up assessment, two participants were lost to follow-up, but none were lost at 6 months, resulting in a retention rate of 81%. These results suggest excellent feasibility and acceptability despite considerable social, cultural, institutional, and political obstacles during implementation.

QUALITATIVE

Overall, participants described feeling less alone because of their engagement in Baynetna. One participant had not previously joined any activities or events for trans people; she reported feeling more encouraged to become involved in community gatherings and events. Many participants articulated sadness when the intervention concluded and wanted more time to spend together; some made plans to continue seeing one another after the 6 weeks were completed. Almost all qualitative comments were positive about each domain of feasibility and acceptability. One exception suggests the need for further training of the peer

facilitator and/or the presence of an HIV/STI prevention specialist for more in-depth and detailed information about prevention and treatment beyond the scope and expertise of facilitators without public health/medical backgrounds. Table 4 provides some of the comments that reflect common sentiment about intervention participation from different participants.

DISCUSSION

The methods used for this intervention pilot test indicate that the study was acceptable to participants and feasible to conduct. The results demonstrate that Baynetna—a behavioral group support trans-delivered intervention—was feasible and acceptable in Lebanon. The importance of identifying appropriate venues for promoting healthy behavior has been established as a key component for HIV prevention strategies (Baytop et al., 2014; Hippolyte, Phillips-Caesar, Winston, Charlson, & Peterson, 2013). The venue where Baynetna was held was indeed found to be regarded as a safe and accessible space and location. Likewise, the timing of the sessions was important for both feasibility and acceptability given participants' schedules and availability and to minimize attrition for logistical reasons.

The utility of group models for delivery of HIV prevention-intervention programs has been demonstrated among trans women both within the United States (Kuhns, Mimiaga, Reisner, Biello, & Garofalo, 2017) and Peru (Perez-Brumer et al., 2017). However, prior to the implementation of this study, information was unavailable about the cultural acceptance and logistical feasibility of a group intervention in the Middle Eastern context. In a country where psychological counseling is only beginning to be culturally acceptable in the general population, it was unclear whether giving and receiving psychological support in a group of peers would be viewed as desirable among trans women in Lebanon, where relationships within the trans community had been historically disconnected and competitive (Kaplan et al., 2015). Within-community violence had been reported prior to study implementation. However, despite these potential barriers, participants largely reported feeling comfortable expressing themselves, confident in the group's confidentiality, respected by others, able to learn from others, and able to relate to the experiences of others.

Existing literature emphasizes the importance of peer involvement in health promoting strategies among trans women, including peer-delivered HIV testing and counseling (Veronese et al., 2018) and peer education in HIV prevention (Silva-Santisteban, Eng, de la Iglesia, Falistocco, & Mazin, 2016). Although only half of participants in the formative phase of the study indicated the desire for a peer (trans woman) facilitator for the intervention, the feedback provided about the facilitator's attentiveness, mastery, articulation, and communication skills were overwhelmingly positive. Similarly, ratings for content satisfaction were high. In addition, the strategies used to recruit and retain trans women in this study indicate that best practice evidence in other settings is applicable to Lebanon: peer recruiters are best able to navigate and communicate within their own social networks (Reback et al., 2015).

One limitation of this study is that it was implemented with a small sample size, which restricted the ability to draw statistically-significant conclusions. Additionally, because this was a pilot study, we did not have a control or comparison group and we therefore cannot delineate differences between trans women who participated in the intervention and those who did not. Feasibility and acceptability data were collected by research team members who also implemented Baynetna, thereby introducing the possibility of social desirability bias.

CONCLUSIONS

This is the first study to tackle HIV prevention among a transgender population in MENA. In summary, we have shown for the first time that a group support trans-facilitated HIV intervention developed in the United States can be adapted for feasible and acceptable use in Lebanon. This holds great promise for scale-up in order to test, in a randomized control trial, larger-scale feasibility and acceptability, in addition to effectiveness for impacting sexual and mental health of trans women.

Acknowledgments

This study was funded by the National Institute on Mental Health (K01MH102142). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute of Mental Health or the National Institutes of Health.

First and foremost, we acknowledge with deep gratitude and respect, the contributions of all participants, without whom this study would not have been possible. We also acknowledge and thank study team members for their hard work and commitment, and our partner NGOs for their collaboration and dedication.

The first author would also like to thank the following colleagues for their support and solidarity: Dr. Judy Tan, Dr. Nadia Diamond-Smith, Dr. Alison El Ayadi, and Dr. Meghan Morris.

REFERENCES

- Baral SD, Poteat T, Stromdahl S, Wirtz AL, Guadamuz TE, & Beyrer C (2013). Worldwide burden of HIV in transgender women: A systematic review and meta-analysis. *Lancet Infectious Disease*, 13, 214–222. 10.1016/s1473-3099(12)70315-8
- Baytop C, Royal S, Hubbard McCree D, Simmons R, Tregerman R, Robinson C, ... Price C (2014). Comparison of strategies to increase HIV testing among African-American gay, bisexual, and other men who have sex with men in Washington, DC. *AIDS Care*, 26, 608–612. 10.1080/09540121.2013.845280 [PubMed: 24116886]
- Becasen JS, Denard CL, Mullins MM, Higa DH, & Sipe TA (2018). Estimating the prevalence of HIV and sexual behaviors among the U.S. transgender population: A systematic review and meta-analysis, 2006–2017. *American Journal of Public Health*, e1–e8. Advance online publication. 10.2105/ajph.2018.304727
- Garofalo R, Deleon J, Osmer E, Doll M, & Harper GW (2006). Overlooked, misunderstood and at-risk: Exploring the lives and HIV risk of ethnic minority male-to-female transgender youth. *Journal of Adolescent Health*, 38, 230–236. 10.1016/j.jadohealth.2005.03.023 [PubMed: 16488820]
- Garofalo R, Johnson AK, Kuhns LM, Cotten C, Joseph H, & Margolis A (2012). Life skills: Evaluation of a theory-driven behavioral HIV prevention intervention for young transgender women. *Journal of Urban Health*, 89, 419–431. 10.1007/s11524-011-9638-6 [PubMed: 22223033]
- Glaser BG, & Strauss AL (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine Publishing.
- Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, & Jose CG (2009). Research electronic data capture (REDCap)— A metadata-driven methodology and work-flow process for providing

translational research informatics support. *Journal of Biomedical Informatics*, 42, 377–381. [PubMed: 18929686]

Hippolyte JM, Phillips-Caesar EG, Winston GJ, Charlson ME, & Peterson JC (2013). Recruitment and retention techniques for developing faith-based research partnerships, New York City, 2009–2012. *Preventing Chronic Disease*, 10 10.5888/pcd10.120142

Israel T, Willging C, & Ley D (2016). Development and evaluation of training for rural LGBTQ mental health peer advocates. *Rural Mental Health*, 40, 40–62. [PubMed: 27516816]

Kaplan RL, McGowan J, & Wagner GJ (2016). HIV prevalence and demographic determinants of condomless receptive anal intercourse among trans feminine individuals in Beirut, Lebanon. *Journal of the International AIDS Society*, 19(3 Suppl 2), 20787 10.7448/ias.19.3.20787 [PubMed: 27431468]

Kaplan RL, Nehme S, Aunon F, de Vries D, & Wagner G (2016). Suicide risk factors among trans feminine individuals in Lebanon. *International Journal of Transgenderism*, 17, 23–30. 10.1080/15532739.2015.1117406 [PubMed: 27616943]

Kaplan RL, Sevelius J, & Ribeiro K (2016). In the name of brevity: The problem with binary HIV risk categories. *Global Public Health*, 11, 824–834. 10.1080/17441692.2015.1136346 [PubMed: 26824592]

Kaplan RL, Wagner GJ, Nehme S, Aunon F, Khouri D, & Mokhbat J (2015). Forms of safety and their impact on health: An exploration of HIV/AIDS-related risk and resilience among trans women in Lebanon. *Health Care for Women International*, 36, 917–935. 10.1080/07399332.2014.896012 [PubMed: 24588138]

Kuhns LM, Mimiaga MJ, Reisner SL, Biello K, & Garofalo R (2017). Project LifeSkills—a randomized controlled efficacy trial of a culturally tailored, empowerment-based, and group-delivered HIV prevention intervention for young transgender women: study protocol. *BMC Public Health*, 17, 713 10.1186/s12889-017-4734-5 [PubMed: 28915919]

Mahfoud Z, Afifi R, Ramia S, El Khoury D, Kassak K, El Barbir F, ... DeJong J (2010). HIV/AIDS among female sex workers, injecting drug users and men who have sex with men in Lebanon: Results of the first biobehavioral surveys. *AIDS*, 24(Suppl 2), S45–S54. doi:10.1097/01.aids.0000386733.02425.98

Mumtaz G, Hilmi N, McFarland W, Kaplan RL, Akala FA, Semini I, ... Abu-Raddad LJ (2010). Are HIV epidemics among men who have sex with men emerging in the Middle East and North Africa?: A systematic review and data synthesis. *PLoS Medicine*, 8, e1000444 10.1371/journal.pmed.1000444 [PubMed: 21829329]

Pascom AR, Dutra de Barros CH, Lobo TD, Pasini EN, Comparini RA, & Caldas de Mesquita F (2016). Point-of-care HIV tests done by peers, Brazil. *Bulletin of the World Health Organization*, 94, 626–630. [PubMed: 27516641]

Perez-Brumer AG, Reisner SL, McLean SA, Silva-Santisteban A, Huerta L, Mayer KH, ... Lama JR (2017). Leveraging social capital: Multilevel stigma, associated HIV vulnerabilities, and social resilience strategies among transgender women in Lima, Peru. *Journal of the International AIDS Society*, 20, 1–8. 10.7448/ias.20.1.21462

Reback CJ, Clark K, & Fletcher JB (2018). TransAction: A homegrown, theory-based, HIV risk reduction intervention for trans-gender women experiencing multiple health disparities. *Sexuality Research and Social Policy*, 1–11. 10.1007/s13178-018-0356-7

Reback CJ, Ferlito D, Kisler KA, & Fletcher JB (2015). Recruiting, linking, and retaining high-risk transgender women into HIV prevention and care services: An overview of barriers, strategies, and lessons learned. *International Journal of Transgenderism*, 16, 209–221. 10.1080/15532739.2015.1081085 [PubMed: 27110227]

Sevelius JM, Patouhas E, Keatley JG, & Johnson MO (2014). Barriers and facilitators to engagement and retention in care among transgender women living with human immunodeficiency virus. *Annals of Behavioral Medicine*, 47, 5–16. 10.1007/s12160-013-9565-8 [PubMed: 24317955]

Sevelius JM, Reznick OG, Hart SL, & Schwarcz S (2009). Informing interventions: The importance of contextual factors in the prediction of sexual risk behaviors among transgender women. *AIDS Education and Prevention*, 21, 113–127. 10.1521/aeap.2009.21.2.113 [PubMed: 19397434]

- Silva-Santisteban A, Eng S, de la Iglesia G, Falistocco C, & Mazin R (2016). HIV prevention among transgender women in Latin America: Implementation, gaps and challenges. *Journal of the International AIDS Society*, 19(3 Suppl 2), 20799 10.7448/ias.19.3.20799 [PubMed: 27431470]
- Silva-Santisteban A, Raymond HF, Salazar X, Villayzan J, Leon S, McFarland W, & Caceres CF (2012). Understanding the HIV/AIDS epidemic in transgender women of Lima, Peru: Results from a sero-epidemiologic study using respondent driven sampling. *AIDS and Behavior*, 16, 872–881. 10.1007/s10461-011-0053-5 [PubMed: 21983694]
- Veronese V, Oo ZM, Thein ZW, Aung PP, Draper BL, Hughes C, ... Stoové M (2018). Acceptability of peer-delivered HIV testing and counselling among men who have sex with men (MSM) and transgender women (TW) in Myanmar. *AIDS and Behavior*, 22, 2426–2434. 10.1007/s10461-017-2022-0 [PubMed: 29427231]
- Wagner GJ, Tohme J, Hoover M, Frost S, Ober A, Khouri D, ... Mokhbat J (2014). HIV prevalence and demographic determinants of unprotected anal sex and HIV testing among men who have sex with men in Beirut, Lebanon. *Archives of Sexual Behavior*, 43, 779–788. 10.1007/s10508-014-0303-5 [PubMed: 24752791]
- Wingood GM, & DiClemente RJ (2008). The ADAPT-ITT model: A novel method of adapting evidence-based HIV Interventions. *Journal of Acquired Immune Deficiency Syndrome*, 47(Suppl 1), S40–S46. <https://doi.org/10.1097/QAI.0b013e3181605df1>
- Women's Refugee Commission. (2017). Supporting transwomen refugees: Tailoring activities to provide psychosocial support and build peer networks among refugee and host community transwomen. Retrieved from <http://wrc.ms/urban-gbv-case-studies>

TABLE 1.**Baynetna Weekly Module Topics and Objectives**

Week	Weekly Module Topics	Module Objectives	
1	Gender Affirmation	1	Explain and define some of the ways people identify as trans.
		2	Explain and identify the many options of gender transition.
		3	Identify the pros and cons of supervised hormone therapy.
		4	Identify the most appropriate bodily transition steps for oneself and the local availability and accessibility of bodily procedures.
2	Self-Esteem and Transphobia	1	Define “gender,” “sex,” “transphobia,” and “internalized transphobia.”
		2	Define self-esteem.
		3	Identify how everyday experiences can increase or decrease one’s self-esteem.
		4	Examine “passing” and understand why it’s problematic; Reframe the focus on self-esteem and gender recognition.
3	Safer Sex Work, Safer Dating, and Pleasure	1	Identify what “safer sex work” or “safer dating” means to the individual.
		2	Recognize the safety risks involved when working the streets, the bars, and personal ads.
		3	Develop a personal “Safer Sex Work Plan” or “Safer Dating Plan.”
4	HIV and other STIs	1	Identify which sexually transmitted infections (STIs) are viral or bacterial and why this is important.
		2	Understand the mode of transmission, symptoms, and prevention for each STI.
		3	Understand how, if exposed to HIV, having an STI makes it easier to transmit HIV.
5	Family Acceptance/Rejection and Violence	1	Define the role of (nuclear and extended) families in our context.
		2	Explain the interdependence we have with our parents in our society and what that means for “coming out.”
		3	Recognize the pressure/influence that our families face.
		4	Give examples of discrimination, transphobia, and rejection experienced by trans feminine folks from family members (nuclear, extended, friends’ families, and partner’s family) and identify their effect on our self-esteem and self-worth.
		5	Give examples of harassment, verbal and physical abuse, hate incidents, and hate crimes that participants have either experienced, witnessed, or heard of toward trans feminine people and learn what to do in threatening situations and/or other security concerns.
6	Working and Skill Building	1	List jobs that trans feminine people might secure.
		2	Identify our interests and how we can turn our interests into skills.
		3	Identify agencies, NGOs, and peers that offer skill building workshops and potential employers who hire/might hire trans people.
		4	Explain some of the obstacles that we might face while looking for work or building our skills.
		5	Identify allies that might help us (inside and outside our communities).

TABLE 2.**Participant Demographics (*N* = 16)**

Variable	<i>n</i> (%)
Country of birth	
Lebanon	13 (81)
Iraq	2 (13)
Syria	1 (6)
Refugee status	
Not a refugee	13 (81)
Registered refugee	3 (19)
Highest level of education	
Completed primary school	2 (13)
Did not complete secondary school	2 (13)
Completed secondary school	4 (25)
Some college/university	6 (38)
Graduated from college/university	2 (13)
Current average monthly income (from any source)	
\$0–500	9 (56)
\$501–1000	4 (25)
\$1001–2000	1 (6)
\$2001–3000	1 (6)
\$3001–4000	1 (6)
Financial status	
I have enough money to live comfortably.	3 (19)
I can barely manage with the money I have.	7 (44)
I cannot manage with the money I have.	6 (38)
Importance of religion (yes)	9 (56)
Relationship status	
Unmarried and no partner	8 (50)
Unmarried and serious partner	5 (31)
Unmarried and casual partner(s)	1 (6)
Married	2 (13)
Stability of living situation (yes)	6 (38)
Current health insurance (yes)	4 (25)
Currently working (yes)	9 (56)
Past sex work (yes)	1 (6)
Current sex work (yes)	5 (31)
HIV status (positive)	1 (6)

TABLE 3.Quantitative Participant-Rated Feasibility and Acceptability (*N*= 16)

	Strongly Agree or Agree	Neither Agree Nor disagree	Strongly Disagree or Disagree
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Venue			
I think the venue is in a safe area.	80/81 (99)	0	1/81 (1)
I think the venue is accessible.	79/81 (98)	1/81 (1)	1/81 (1)
I found that the space was suitable for the session.	81/81 (100)	0	0
I found that the setting fosters an environment for exchange.	81/81 (100)	0	0
Group Dynamics			
I felt comfortable expressing myself with other participants.	72/81 (89)	5/81 (6)	4/81 (5)
I felt I could trust the participants with what I share.	66/81 (82)	9/81 (11)	6/81 (7)
I felt respected by the other participants.	77/81 (95)	3/81 (4)	1/81 (1)
I learned from my peers' experiences.	59/81 (73)	16/81 (20)	6/81 (7)
I felt I could relate to the participants' experiences.	59/81 (73)	13/81 (16)	9/81 (11)
Facilitator			
The facilitator was attentive to the participants.	79/81 (98)	1/81 (1)	1/81 (1)
The facilitator displayed mastery over the content.	71/81 (88)	8/81 (10)	2/81 (3)
The facilitator articulated the topic clearly.	74/81 (91)	3/81 (4)	4/81 (5)
The facilitator demonstrated good communication skills.	77/80 (96)	2/80 (3)	1/80 (1)
Content			
The theme/topic/content was relevant to the local/my context.	77/81 (95)	2/81 (3)	2/81 (3)
The theme/topic/content was relevant to my experience.	75/81 (93)	3/81 (4)	3/81 (4)
I learned something that I can apply to my life/situation.	53/81 (65)	14/81 (17)	14/81 (17)
The topic helped me understand what my peers might be going through.	72/81 (89)	7/81 (9)	2/81 (3)

TABLE 4.

Selected Qualitative Acceptability Quotations

General	"I love our group."
	"Mondays at 6 pm are sacred."
	"I realized today that I have self-confidence and it encouraged me to keep pushing forward."
Venue	"It's a space where I can talk to people who are like me."
Group Dynamics	"There is respect inside Baynetna. Outside Baynetna, there's no respect."
	"I saw how strong [other participants] are and I am inspired that I can be strong too. I am learning how to be strong."
	"I wish we had more time to spend together."
	"I like how participants are taking turns and respecting each other."
Facilitator	"The facilitator is simple, easy, and eloquent. She is not boring, is flexible, and makes people feel at ease."
	"This topic [HIV and Other STIs] needs a specialist. [The facilitator] did not have all of the detailed information."
	"The facilitator speaks our language and she is from the community. We relate to her. The language she uses makes us comfortable."
	"The facilitator is down to earth and lovable. She is one of us."
Content	"Baynetna is very beneficial. I learned new things."
	"Every Monday I learn something new. Every person is a lesson."
	"This content [Week 2: Self-Esteem and Transphobia] made me want to love myself more."
	"I learned more about hormones and their effects and how important it is to be followed up by a physician and not to self-medicate."
	"I learned a lot about [HIV] transmission and protection methods."