Couple-centered HIV Prevention and Treatment: Considerations for Translation and Uptake in the United States (abstract ID: 99771)

Leblanc NM[1], McMahon J[1], Zhang C[1], Braksmajer A[2], Babu T[1], Crean H[1], Nelson L[4]

1: University of Rochester, School of Nursing Rochester, NY, 2: State University of New York, Geneseo, Geneseo, NY; 3: Yale University School of Nursing, New Haven, CT

INTRODUCTION

- The end the epidemic (EtE) campaign incorporates the concept that those with an undetectable HIV viral load are incapable of transmitting HIV to others - untransmittable (U=U) due to the demonstrated efficacy of HIV medication. [1-3]
- However couple-based HIV transmission remains a significant health problem and contributor to US health disparities in HIV.
  - **39% - 65%** of HIV incidence among U.S. men who have sex with men (MSM) are from main partners. [4]
  - **Heterosexual contact** (2010-2015) **with partners** known to be HIV infected accounted for **>40%** of HIV infections among males and **>50%** of HIV infections among females. [5]
- Specific recommendations introduced by the EtE campaign calls for the adoption of innovative strategies to engage people across the HIV care continuum (HCC). [2]
- Couple-centered HIV prevention and treatment (CCHPT) is a dyadic approach that integrates treatment and prevention modalities to facilitate engagement across the HCC. [6-8]
- Couple-centered HIV prevention and treatment (CCHPT) warrant consideration:[6-13]
  - Couple-centered research in HIV prevention demonstrated the efficacy of pre-exposure prophylaxis for HIV (PrEP) as a biomedical intervention and the efficacy of anti-retroviral treatment.
  - Optimizes advances in HIV testing technology and biomedical options for HIV prevention and treatment.
  - Addresses psycho-socio- behavioral factors in HIV transmission and support people living with HIV.
  - Can be facilitated by couples in the form of a sexual agreement – an explicit understanding of sexual behavior in and out of the relationship.
  - Has psycho-social and bio-behavioral merit in improving patient outcomes across the HCC including reductions in STI acquisition, and extra partners.
  - Such interventions are effective and efficient in reducing HIV transmission.
- Despite the evidence that supports U=U, universal uptake of CCHPT in the US has been slow.

OBJECTIVES

Efforts toward achieving HIV prevention and treatment goals to EtE should consider an uptake of a couple-centered integrated HIV prevention and treatment (CCHPT) in the U.S.

To facilitate this we have outlined components of an integrated couple-centered HIV prevention and treatment effort:

1) Initiation of CCHPT either by a self-defined couple seeking joint HIV screening or a provider as part of routine practice or post-patient assessment;
2) Couples and providers' awareness of CCHPT approaches;
3) A shared decision-making process between the provider and a couple determines the appropriateness of a joint sexual health strategy which is conducive to the couple's needs or which may be clinically indicated; and
4) Monitoring and evaluation of the couple/partners' adherence to the strategy.

The objective is to propose an outline of what is considered the 3 main phases and considerations for an integrated couple-centered HIV prevention and treatment (CCHPT) continuum. This is modelled after the HIV care and PrEP uptake continuums, in consideration with the existing Centers for Disease Control and Prevention protocol for couples HIV testing and counseling.

DISCUSSION

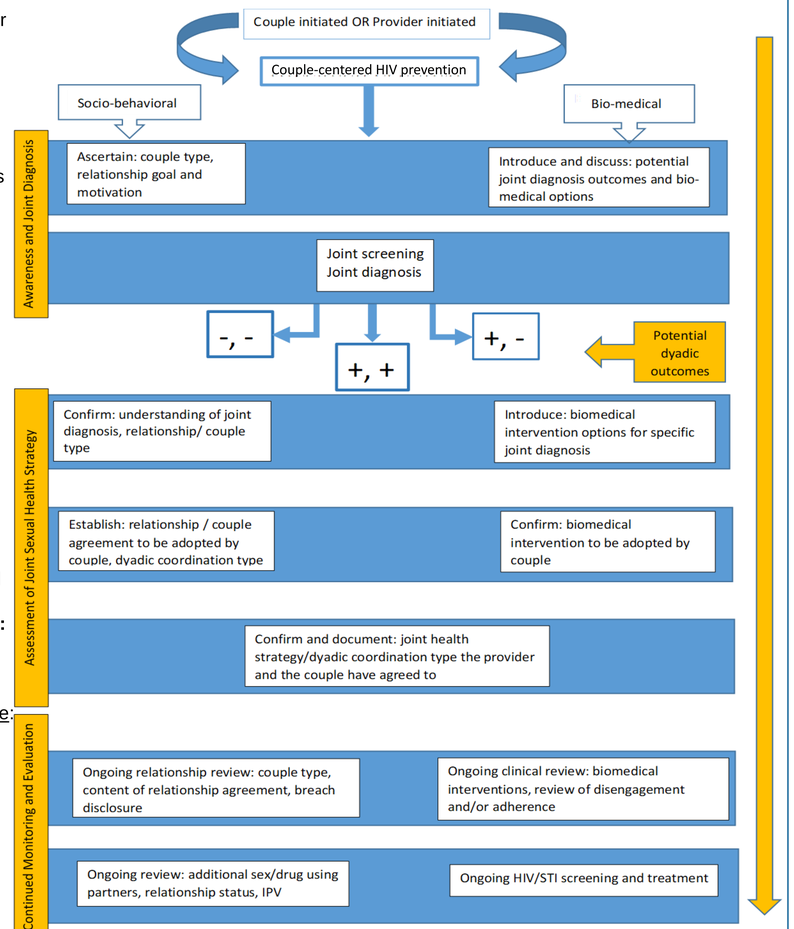
A Proposed Couple-centered HIV Prevention and Treatment Continuum Consists of 3 Main Phases:

PHASE 1: Awareness and Joint Diagnosis:
- An awareness that couples can be tested together or seek care jointly must be established. Awareness can be initiated by the couple requesting joint HIV screening/care, or by the provider as routine practice.
- The couple type and relationship goal(s) are determined.
- The couple is tested together and their joint status is discussed.
- The couple may have entered into care with knowledge of their joint serostatus in that case establishing HIV prevention/care goals is priority.

PHASE 2: Assessment of Joint Sexual Health Strategy:
- Joint sexual health options are assessed via a shared decision-making process. Contingent on couple testing results and relationship goals a specific joint health strategy is discussed.
- Appropriate biomedical interventions are introduced, in which couples self-assess their needs. Certain standards should be maintained like ART for those diagnosed, and sexual agreements.

PHASE 2a: Engagement and Uptake of a Joint Sexual Health Strategy:
- Couple determines and confirms their joint sexual health strategy (biomedical and behavioral).

PHASE 3: Continued Monitoring and Evaluation :
- There is an ongoing clinical review whereby biomedical and behavioral interventions are assessed for maintenance.
- Continued monitoring and evaluation could include:
  - Frequency of routine HIV/STI screening, planned discontinuance of PrEP,
  - Assessment of the couple's joint serostatus and strategy adherence,
  - Assessment of any breaches to the strategy,
  - Continued biomedical and behavioral assessments for disengagement and non-adherence to PrEP and/or ARTs,
  - Assessment of medication side effects.
- If the relationship has dissolved and/or there are new sexual partners the continuum begins again.



RECOMMENDATIONS

- There are certain considerations to be made in the translation of CCHPT in US health settings. This approach conjure certain sensitivities that require mentioning.
- Awareness of the couple and relationship type, and confirmation of the couples mutual understanding of their joint serostatus is necessary for the uptake of a joint sexual health strategy.
- Over time partnerships may change because individual partners or the couple may have redefined themselves. Due to these changes, there is a potential fluctuation in one's vulnerability to acquiring HIV, resulting in a joint HIV serostatus that may also change. Monitoring and evaluation activities must keep this in mind.
- Provider-based sexual health studies have indicated the importance of self-awareness, a biased-free practice, shared decision-making practices and working within a team-based interdisciplinary environment as necessary components for translation of couple-centered HIV prevention and treatment in US health settings.

Table: Couple Serostatus and Relationship Type Considerations

	Relationship type:	
Couple type	Monogamous (Closed relationship)	Open Relationship
Serodifferent	• Immediate ART initiation for the HIV+ partner • PrEP use by HIV- partner until HIV+ partner's viral load is undetectable or indefinitely • Relationship/sexual agreement that stipulates condom use or a breach clause in the event there are other partners	• Immediate ART initiation for the HIV+ partner • PrEP use by HIV- partner until HIV+ partner's viral load is undetectable • Open relationship/sexual agreement that stipulates condom use with all external partners as well as within the relationship, frequent/routine HIV/STI screening
Seroconcurrent positive	• Immediate ART initiation and ART adherence • Relationship/sexual agreement that stipulates terms of condom use or a breach clause in the event there are other partners	• Immediate ART initiation and ART adherence • Relationship/sexual agreement that stipulates condom use with all external partners as well as within the relationship, frequent/routine STI screening , extra-dyadic partner terms, breach clause in the event that extra partner terms are not followed
Seroconcurrent negative	• PrEP use by one or both partners for the first 6 months to confirm serostatus • Relationship/sexual agreement that stipulates condom use, a breach agreement in the event there are other partners, routine HIV/STI screening	• PrEP use by one or both partners ongoing and/or with new casual partners • Negotiated safety: Open Sexual agreement = i.e. condom use with all external partners, condom use only or none, breach agreement, routine HIV/STI screening

CONCLUSION

- The proposed continuum is inclusive of the possibility that serodifferent couples may want to be actively or passively involved in their seropositive partners HIV care by attending clinical visits and speaking with the provider, or that other partners may prefer offering support to the partner but not being as involved in the seropositive partner's HIV care.
- It should be noted that contingent upon the joint HIV serostatus and the couple/relationship type, relationship dissolution is a possibility at any point on this CCHPT continuum.
- It should also be noted that couples are self-defined, partners may not be married nor monogamous, and often enter a relationship without mutual knowledge of their HIV status.
- Such possibilities warrant ongoing monitoring of the relationship type and the relationship/sexual agreement, in addition to the couples' adherence to the biomedical intervention adopted or plans for disengagement.
- Advances in HIV prevention and treatment make couple-centered HIV approaches feasible in US health and community settings. The availability of protocols for couple-based approaches, current patient demand, and renewed momentum in ending the epidemic allows for new innovations in HIV prevention and treatment to be implemented.

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