

Program ID#: EPHP6.09

Track: Epidemiology and Public Health Sciences

Using the Theoretical Domains Framework to identify barriers and facilitators for PrEP implementation in Colombia - The PrEP-Col Study.

Jorge Martinez-Cajas¹ , Beatriz Alvarado-Llano¹ , Julian A. Torres ² , Marcela Arrivillaga³, Ernesto Martinez⁴, Pilar Camargo¹, Hector Fabio Mueses⁵. 1. Queens University, Kingston, ON, Canada; 2. Montefiore Medical Center, Bronx, NY, NY, USA; 3. Universidad Javeriana, Cali, Colombia; 4. Universidad del Valle, Cali, Colombia; 5. Corporacion de Lucha contra el SIDA, Cali, Colombia

Correspondence:

jm209@queensu.ca

alvaradb@queensu.ca



Project funded by Colciencias, Colombia



Pontificia Universidad
JAVERIANA
Cali



Montefiore

The authors have no conflicts of interest to disclose

Background

- PrEP provision by health providers is a complex behaviour, yet most studies on PrEP adoption have not used theoretical frameworks of behavioural change.
- Herein, we describe the first steps to identify barriers and facilitators for intention of PrEP prescription in HIV care providers in Colombia, aligning them with the **Theoretical Domains Framework- TDF**.
- TDF incorporates most factors known to be associated with prescription of PrEP. **See TABLE**

Domain	Application to PrEP	Domain	Application to PrEP
Knowledge	HCP are aware of PrEP as HIV prevention strategy, and are familiar with the delivery of PrEP components	Beliefs about capabilities (self-efficacy)	Self-confidence in performing activities related to PrEP and implementing PrEP guidelines
Skills	HCP have received training in different aspects of PrEP	Beliefs about consequences	Beliefs about benefits/disadvantages of implementing PrEP; include subscales of attitudes towards PrEP and reinforcement.
Professional role and identity	The extent to which PrEP implementation is perceived by HCP as part of their work; this includes aspects of compatibility	Characteristics of PrEP	Characteristics of PrEP (simplicity; concerns, relative advantage)
Social influences	Peer opinions about PrEP that may influence implementation of PrEP; this includes aspects related to subjective norms.	External influence	Perception about population needs

Methods

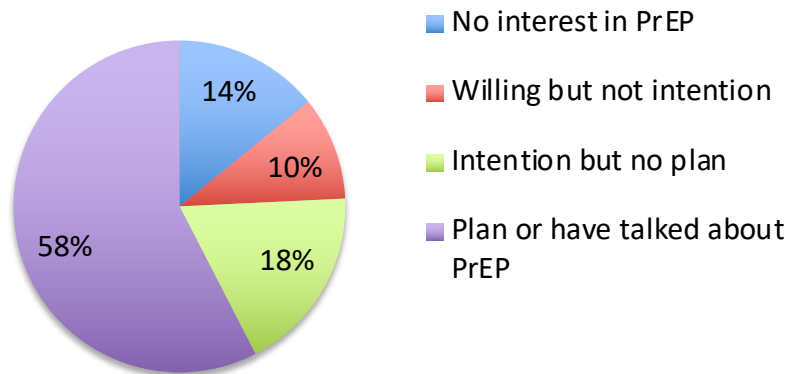
- Cross-sectional analysis of HIV providers (physicians, psychologist, social workers and pharmacists) from 16 clinics representing 18 cities in Colombia.
- 380 HCP and managers were sent an online Qualtrics survey. Three reminders were sent at two-week intervals. A final mailed letter reminder was sent to half of the sample.
- A total of 170 started the survey, 140 of whom completed at least 80% of the questionnaire; 20 were administrators and many of the questions were not applicable to them; only three refuse to participate.
- Descriptive analysis of each item included; factor analysis (exploratory and confirmatory) using STATA. Internal coherence assessed by Cronbach's alpha. Good fit in CFA was: $X^2 > 0.05$; $RMSA < 0.08$; $CFI > 0.90$; $SRMR < 0.08$.

Results

Participants

Average age: 37.5(SD:9.3); 40% men; 42% with more than 5 years of work in HIV; 43% physicians, 25% nurses, 11% pharmacist, 6% social workers, and 12% psychologists .

Frequency of intention to prescribe PrEP in the next 12 months



Distribution of previous training in PrEP in the sample of HIV providers

Ever received training in:	% yes
PrEP guidelines	23.8
Provision of care to PrEP patients	18.5
Counseling for PrEP patients	20.1
Use of instruments to identify PrEP candidates	9.7
Need more training to be able to provide care to PrEP patients	
Cronbach's alpha	0.84

Factor analysis and description of items in scales included in knowledge scale

Knowledge- familiarity (range 1-5)	Mean
PrEP Efficacy in HIV prevention	3.52
Frequency and severity of adverse effects of medications used in PrEP	3.36
Selection of persons who could benefit from PrEP	3.84
PrEP-related counseling	3.38
Medications used for PrEP	3.82
Factor and confirmatory analysis; Cronbach's alpha	One factor, Good fit, alpha 0.92

Factor analysis and description of items in scales included in self-efficacy scale

Beliefs about skills, range 1-10	Mean
I can provide care to PrEP patients	7.9
I can provide PrEP-related counseling to PrEP patients.	7.8
I can use algorithms to identify PrEP candidates	7.3
I can provide care to PrEP patient if I have access to a clear PrEP protocol	8.5
I can effectively collaborate with colleagues to provide PrEP in my clinical practice	8.5
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.92

Factor analysis and description of items in population needs Scale

Population Needs:	%
It is possible to adapt PrEP protocols to the needs of the people at risk of HIV	88
There is enough support from community LGTBI organizations for PrEP implementation	40
PrEP is something that the people at risk of HIV want	88
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.60

Factor analysis and description of items in the relative advantage scale

Relative advantage	%
PrEP should start to be used as soon as possible as an HIV prevention strategy	71
I think PrEP would be a great complement to condom use promotion programs	76
PrEP use would have positive effects to people at risk of HIV	87
I think PrEP would be more affordable than HIV treatment	71
I think PrEP would be a good element to improve the health of people at risk	72
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.82

Factor analysis and description of items in the relative advantage scale

Social influences	%
Many colleagues around would approve that I provided PrEP patients	88
I would receive recognition from professional I value if I provided care to PrEP patients	32
Many colleagues think that it would be important that I provided care to PrEP patients	54
In our clinic there are many people with motivation to provide care to PrEP patients	52
I think my colleagues would support PrEP implementation in our clinic	77
Factor and confirmatory analysis; alpha Cronbach	One factor Good fit, alpha 0.77

Factor analysis and description of items in the professional role Scale

Professional role/compatibility	% completely agree/agree
I see my personal values reflected in PrEP implementation	60
I see my clinic values reflected in PrEP implementation	67
Providing PrEP-related care is compatible with the work I do in my clinic	90
PrEP would fit well in the institution I work at.	88
Prep would be easy to implement in my clinic	60
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.80

Negative attitudes	% agree
PrEP could do more harm than good if not carefully implemented	68
I believe PrEP would lead to less condom use	82
I believe it is not ethical to give antiretroviral drugs to people who do not have HIV	12
I believe that there are better alternatives to prevent HIV than PrEP	35
PrEP would not be better than the already existing programs	46
In Colombia, there are very few people who need to use PrEP	4
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.71

Factor analysis and description of items in the concerns scale

Concerns about medications and adherence	% High concern
Emergence of drug resistance	58
Non-adherence by PrEP patients to monitoring visits	72
That medication adherence is not optimal	86
PrEP medications misuse, e.g. illegal selling or counterfeiting PrEP meds	85
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.65

Health system barriers	% high concern
Lack of time to do monitoring and counseling to patients taking PrEP	70
That the health system does not approve PrEP medications	69
That health plans do not include PrEP in their prevention programs	67
That the health system does not allow follow-up visits to PrEP patients	73
Factor and confirmatory analysis; Cronbach's alpha	One factor Good fit, alpha 0.86

Conclusions

- 10 scales assessing 10 TDF domains were found in this study, with good construct validity.
- Colombian HIV-care providers felt capable of and willing to provide PrEP.
- HIV care professionals have good knowledge of PrEP but felt they required more training.
- An important domain of our study where professionals felt greater concern was related to health system, adherence, and compatibility of PrEP with their own values.
- Levels of agreement in subjective norms were not high as expected
- Provider perceived low support from LTBQ communities

Acknowledgements:

We thank all participants who responded the survey from the 16 participating clinics of the Colombian Network of HIV clinics.