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Explaining the Intention to Use HIV Pre-Exposure Prophylaxis among HIV-Negative Men who Have Sex with Men in Switzerland. A Theory-Based Analysis.

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Background

Almost half of the 500 to 700 HIV infections yearly diagnosed in Switzerland are among men who have sex with men (MSM) (1). Although HIV pre-exposure prophylaxis (PrEP) has not been approved in Switzerland, there is a discussion about its potential and adequacy as an additional prevention method especially for MSM.

The aim of the study was to explain the intention to use PrEP among MSM by developing and empirically testing a model based on the Unified Theory of Acceptance and Use of Technology (UTAUT) (cf. Figure 1) (2).

Research Questions:

1. What are the predictors of the intention to use PrEP among MSM living in Switzerland?
2. How well fits the theoretical model based on the UTAUT as an explanation model for the intention to use PrEP among MSM living in Switzerland?

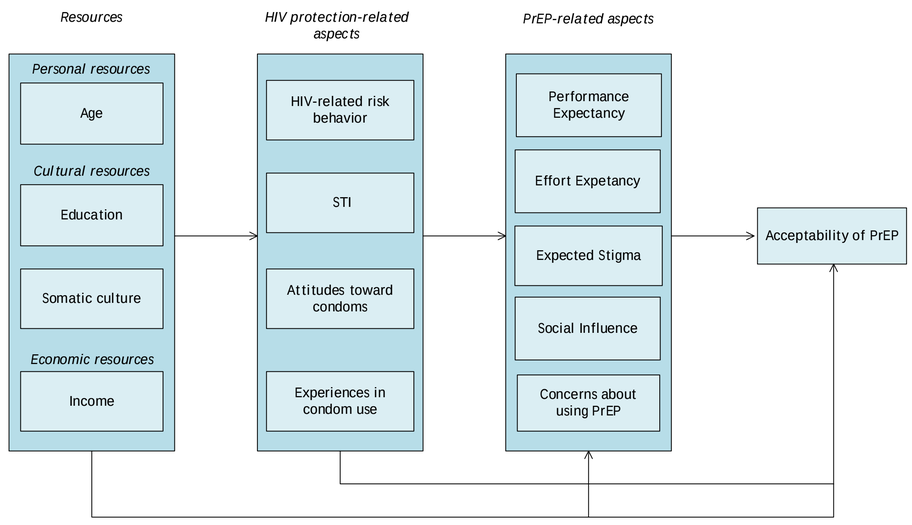


Figure 1: Theoretical model based on the UTAUT

Methods

Procedures:

The study design was cross-sectional. During an eight-month period in 2015, we collected data of 556 MSM living in Switzerland aged between 15 and 81 years (M=40.6; SD=11.9) using a self-administered standardized questionnaire, either online or paper-and-pencil. Participants were addressed by flyers, advertisements in gay magazines, social media, specific dating web pages, and gay health clinics.

Measurements:

The intention to use PrEP according to current guidelines was measured by one item ("*How likely would you use PrEP if it would be available in Switzerland*?") whereby answers ranged from 1="very unlikely" to 7="very likely".

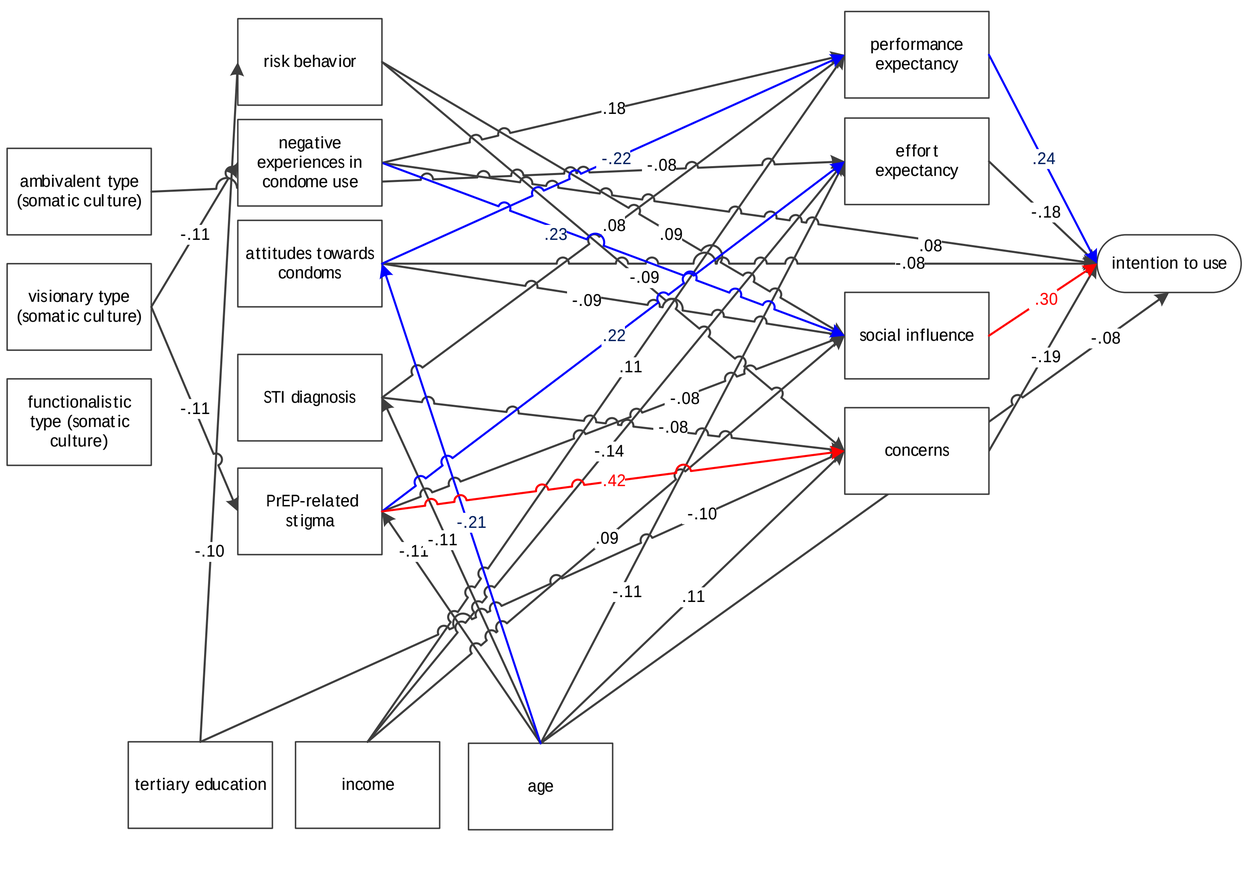
Analysis:

We analyzed the data by descriptive and bivariate statistics. The model was tested by means of structural equation modeling using SPSS 22.0 and AMOS (3).

Table 1: Sample description (N=556)

Variable		n	%
Sexual orientation	gay	489	88.1
	bisexual	62	11.2
Relationship status (multiple answers possible)	single	243	43.7
	stable relationship with a man	283	50.9
	stable relationship with a woman	32	5.7
Sex with casual partner (in the past 6 months)	yes	464	83.5
	no	92	16.5
STI diagnosis (in the past 6 months)	yes	91	16.4
	no	465	83.5
Educational level	non-tertiary education	309	55.7
	tertiary education	246	44.3
Annual income	median 91'900-105'000 USD		

Results



Note: method: scale-free least square estimate; $X^2(51, N=556)= 52.47$; AGFI=0.968; SRMR=0.0269; adj.R^2=0.51, p<.001;
Caption: black ß=.08-.19, blue ß=.20-.29, red ß≥.30.
Correlations among the predictors are not illustrated.

Figure 2: Predictors of intention to use PrEP (direct and indirect effects)

The final model fits the data well (cf. Figure 2). The intention to use PrEP was moderate (M=3.7, SD=2.1). Thirty-nine percent of the participants would likely use PrEP if available.

Direct effects

Increased intention to use PrEP was predicted by higher performance expectancy, less effort expectancy, greater social influence and less concerns about using PrEP. The PrEP-related stigma expectancy had no direct effect on intention. But having a more negative attitude towards condoms and stronger negative experiences in condom use directly predicted increased intention to use PrEP as well as decreasing age.

Indirect effects

Performance expectancy, effort expectancy, social influence and concerns served as intervening variables between HIV protection-related aspects and resources (cf. Figure 2).
For example:

- Increased income, more negative experiences in condom use, greater negative attitudes towards condoms and having had an STI diagnosis during the past 12 months predicted higher performance expectancy which predicted increased intention to use PrEP.
- More sexual risk taking and negative experiences in condom use, greater negative attitudes towards condoms, decreased PrEP-related stigma expectancy and higher income predicted increased social influence which predicted higher intention to use PrEP.
- Increasing education predicted decreased sexual risk taking.
- Belonging to the visionary type of somatic culture decreased negative experiences in condom use and PrEP-related stigma expectancy.

Conclusion

The results suggest that the intention to use PrEP is not only predicted by anticipations related to PrEP (as expected performance, efforts or concerns, and social influence). It also seems to be determined by HIV-protection related aspects and behavioral patterns drawing from biographical experience and therefore, in place before PrEP came into the participants' view.

Considering the impact of higher social influence and higher performance expectancy on increased intention, a broader information about PrEP as a measure within a combined HIV prevention is needed. Also for MSM with increased negative experiences in condom use and negative attitudes towards condoms PrEP could be an additional option to prevent an HIV infection.

References

(1) Federal Office of Public Health. (2015). HIV- und STI-Fallzahlen 2014: Berichterstattung, Analysen und Trends. *Bulletin*(21), 341-374.

(2) Venkatesh, V., Morris, M. G., Gordon, B. D., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly, 27*(3), 425-478. doi:10.2307/30036540

(3) Byrne, B. M. (2010). *Structural Equation Modeling with AMOS. Basic Concepts, Applications, and Programming.* (2 ed.). Ontario and Ottawa: Routledge. Taylor and Francis Group.

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