

Which factors may affect the willingness to take the HIV test? A research on Italian adults' sample

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Abstract. *Background and aim:* Why people do not take the HIV test? The literature on the health-related behaviors associated with HIV infection has highlighted the role played by socio-demographical, behavioral, and cognitive variables. Less often has been studied the impact of psychosocial and normative factors that can affect willingness to test HIV. The aim of this study was to investigate which were the main psycho-social factors that promote/inhibit the intention to take the HIV test. *Method:* A questionnaire was submitted to a sample of 775 Italian adults (50.7% female; mean age = 37.24; SD = 10.94; range 17 - 66 years). *Results:* Logistic Regression Analysis shown that age, risk behaviors, and personal concern are significantly predictors of the intention even if a positive attitude towards HIV test is the strongest predictor. Results showed also that the normative component of attitude (perception of social disapproval) and emotional component (shame and embarrassment) discouraged people from taking the test, while the cognitive-rational component did not. *Conclusions:* Are the perception of social disapproval by "significant others" and the social emotions of shame and embarrassment that discourage people from taking the test. Implications will be discussed. (www.actabiomedica.it)

Key words: HIV test, willingness to HIV test, attitude toward HIV test

Introduction

Despite of the decline in cases of AIDS and death, the number of people who live with HIV and who discover their HIV positive status at the time of diagnosis, or shortly before, continues to increase (1). In 2007 in Italy, among people who had been diagnosed with AIDS, less than half had been previously tested for HIV and over 60% of new cases did not receive any therapy before the AIDS diagnosis (2) particularly who acquire the infection through sexual contact. It represents the most common way of HIV transmission and could lead to a further increase in infections (3-5).

These findings suggest the need to develop appropriate interventions of prevention, especially those oriented to an early access to the HIV test. Failure to undertake the HIV test is a serious risk behavior: people infected cannot take advantage of the highly effective therapies (HAART), can avoid adopting protective behaviors and become a tool for spreading the virus to others. The negative consequences are therefore obvious.

There are several reasons for why people do not take the HIV test. The literature has highlighted the important role played by different factors: *socio-demographic* (6-8); *cognitive*, as risk perception and knowledge about HIV/AIDS (6, 9, 10); *psychosocial*, as atti-

tudes towards People With Aids (PWA) (11) and perceived HIV-related stigma (12). The researches have shown, for example, that many people don't take the test because they do not recognize a personal vulnerability, because they consider the test not convenient or because they feel fear and shame. But, what kind of processes could explain how all these factors may lead people to act or no preventive behaviors, such as taking the HIV test? The psychosocial theories have suggested three theoretical models.

The *Health Belief Model*-HBM- (13-15) is one of the most acknowledged theories concerning health risk behaviors. It was applied to different areas of disease, such as the adherence to screening programs and preventive recommendations (16-23). According to the model, the adoption of a preventive behavior depends on the perceived threat of disease, that includes personal vulnerability against the disease and severity of the disease. The perception of threat can be influenced by socio-demographic (e.g. age, sex, ethnicity), socio-psychological moderating factors (e.g. personality, belonging to certain groups, knowledge on the topic) and by some behaviors inductors (e.g. mass media campaigns, medical and health articles, experiences of illnesses, self-perceived symptoms) (24). The possibility of adopting a preventive behavior also depends on the belief that the perceived benefits of a preventive action are higher than the perceived costs. The perception of personal vulnerability and the costs and benefits ratio have shown the greatest predictive values (25, 26).

The HBM applied to HIV protective behaviors, has confirmed its effectiveness with respect to the contraceptive use (19-21), the decrease of sexual partners and the adherence to safer sex practices (27). Other studies, however, have shown that the health beliefs have only a small impact on self-reported long-term protective behaviors (28-31). HBM did not show its effectiveness with respect to the willingness to the HIV test because of the complexity of the behavior and because of specific measures of the beliefs are required (32). The variables included in the HBM are then unable to give a good account of the HIV preventive behaviors (25, 26, 29, 31) showing that other measures, including social norms, self-efficacy, and contextual factors, were greatest predictors of pro-

tective sexual behaviors (33-35), such as the use of contraceptives (36-42). As Mancini and Coll. (43) have suggested, a high level of perceived threat can increase defensive attitudes that, in turn, is aimed at denying the awareness of the risk exposure and reduce the implementation of protective behaviors.

Another psychosocial model, the *Protection Motivation Theory* (PMT) (44, 45), can explain the reasons of preventive behaviors. PMT defines the motivation of protection from the disease as the result of *threat appraisal* - perception of *severity* of a threatened event and *personal vulnerability* - and *coping appraisal*, that includes the *self-efficacy* (46-48) and *response efficacy* (44).

The PMT has been applied to the prediction of prevention programs and health behaviors (49), related to AIDS (50) also. Researches data shown that only the *coping appraisal* predict the willingness to get tested for HIV, and especially the self-efficacy shown the greatest power (49). However the link between perception of risk/personal vulnerability and preventive behaviors was not always confirmed, especially in cases of sexual behaviors (29, 34).

Not only HBM but also PMT assumes that people who perceive themselves at risk and are motivated to protect themselves, produce a protective behaviors after rationally cost-benefit ratio. However, also people who believe they are at risk of contracting AIDS/HIV, might not have reasons to change their behavior (33). Even if they could not deny the risk, they might believe is possible to contract HIV regardless of the precautions they could take: adopting this fatalistic attitude they are not motivated to protect themselves. In addition, the previous models have not considered the impact of some biases and heuristic judgments (51-53), as the "comparative" or "unrealistic" optimism (54-57). These biases would imply an underestimation of the personal risk aimed at strengthening self-esteem and improving personal well-being. In essence, the HBM and PMT remain exclusively focused on individual cognitive processes, (*risk perception*), ignoring the influence both of the *emotional risk assessment* and of the *social-cultural processes*. As research data have shown, people can assess risks in different ways: an individual may think that taking precautions in some areas can compensate

for the failure in others (58); for another, the risk of being stigmatized and rejected may affect the risk of contaminating others (33); furthermore, the *meaning of risk* for a particular individual may be determined by disease experience, personal beliefs or values (50) and by time, mood and past experience (33). Finally, both HBM and PTM have neglected the dynamic aspects of risk assessment, which vary depending on the social and cultural context in which the subject is intertwined (34). Individuals do not act independently from their social ties, in a social vacuum, led only by ration strategies without the possibility of irrational decisions (26, 29, 59).

These aspects are instead considered in the *Theory of Reasoned Action* (TRA) (60). Compared to previous models, TRA has introduced a new mediation variable between the beliefs/attitudes and the behavior: the *intention* to implement the behavior. It is the result of the *attitudes* about the behavior (*beliefs and evaluation of the behavior*) and of the perception of *subjective norms* (*normative beliefs and motivation to complying social expectations*). Some studies demonstrated the importance of personal standards (61); others of the quality of the social context and of the normative beliefs on risk perception (62); others of the influence of group norms on preventive behaviors (63). A more recent version of TRA, the *Theory of Planned Behavior* (TPB) (64) considered also the *perception of behavioral control*, which is the person's beliefs regardless of how ease or difficulty are the actions to be taken. If the perception of control is low, the probability that a person will undertake a preventive action would be restricted, even when the subject agrees on the importance of adopting the behavior and assesses the consequences of the adoption. Empirical studies have confirmed the very high predictive power of the TPB on the adoption of health behaviors, including the contraceptive use (65-72).

Method

Aims

This research was aimed at assessing the impact of some of the most important explanatory variables

identified by the models previously presented on a particular preventive behavior: *the intention to take the HIV test* in a sample of Italian adults. Believing that the *intention* is able to predict the preventing *behavior* here considered (60, 73), we formulated two specific aims:

1. The first was to investigate *which factors* have the greatest effect on the intention to get/not to get tested for HIV, assuming the *attitude towards the HIV test* as the most important predictor of the intention (64). In addition to the attitude, the other predictors considered were divided into: a) "cognitive variables" as the perception of *probabilities of contamination* (*Severity*) and the *personal concern of contracting HIV* (*Vulnerability*); "personal experiences" as variables related to the "familiarity" with HIV/AIDS issues (i.e. *had carried out risky behaviors; had contact with people with HIV/AIDS; had never taken the HIV test and knowledge about issues related to HIV/AIDS*); "socio-demographic data" as *gender, age, and educational level*.

2. The second aim was to analyze the impact of the *cognitive, emotional and social dimensions of attitude* towards HIV test on the intention to take the test. According to some studies (31), we assumed that, in predicting the intention, the cognitive-emotional dimension might have more power than social-normative.

Measures

Participants completed a questionnaire divided into following areas:

- *The Attitudes towards HIV test* (20 item). The scale adapted from Peltzer and Coll. (74) measures: the beliefs towards HIV test, to have been test in the past, the intention to take the HIV test in the future and the reasons that may encourage/discourage access to the test. Each statement is measured through an 8-point scale (1 = completely false; 8 = completely true).

- *The Perception of Severity* (13 items). The scale adapted from Centre of Epidemiology of Lazio Region (75) measures the *probabilities of contamination*. Participants indicated how much they considered themselves at risk of contagion (0 = not at all risky; 5 = very risky) in each of the situations presented. Some (sexuality and contact with infected blood) are associated with a risk of transmission, others (physical con-

tact with a person with HIV/AIDS and use of public spaces) are not *per se* associated with it.

- *The Perception of Vulnerability*. It measures how much participants considered themselves at risk of being HIV/AIDS infected, over the next five years, through a 5-point scale (5 = I feel very much at risk; to 0 = I not feel at risk) and the personal concern of contracting HIV/AIDS (5 = I feel very worried; 0 = I do not feel worried).

- *The Risky Sexual Behaviors*. This scale has investigated (*Yes, No*) the use of condom during the last sexual intercourse, the intention to use condoms in the next sexual intercourse, the use of alcohol or drugs during intercourses, having contracted a sexually transmitted infections (e.g. chlamydia, candida) in the last year and the number of sexual partners in the last year.

- *The Level of Knowledge of HIV and AIDS Concerns*. To investigate the *Knowledge about AIDS and HIV*, for each statement proposed (11 items) participants has to indicate if it was *true, false*, or whether they *don't know*. Some of these statements were actually correct, others wrong.

- *The Contact with People with HIV/AIDS*. Some question was designed to investigate whether the participants knew people who have contracted HIV/AIDS (*I know a lot, I know a few, I do not know any*) or frequent people that currently live with HIV/AIDS (*Often, Sometimes, Never*).

- *To Have Took the Test and Intention to Take it*. Participants were asked if they have never been tested for HIV (*Never; Once; More than once*), and if they

planned to make it / make it again in the next 6 months (*Yes, No*).

- The last area investigates the *socio-demographic* data (sex, age and educational qualifications).

Participants

From 776 Italians adults that took part in the survey, one case was excluded because resulted as an outlier (by Mahalanobis distance test, $p > .001$). Of the remaining 775 participants, 372 (49.3%) were males, 382 (50.7%) females; 21 did not indicate their gender. The age ranges from 17 to 66 years ($M = 37.24$ years, $SD = 10.94$). 161 (21.2%) reported to have obtained a high school diploma, 430 (56.7%) bachelor's degree and 167 (22%) master or post-graduate degrees; 17 did not answer the question.

474 (61.6%) participants claimed to had never been tested for HIV, 162 (21.1%) to have done it one time, and 133 (17.3%) to have done it several times; 6 did not answer the question. 472 participants (65.8%) had no intention to take HIV test over the next six months, while 245 (34.2%) declared the intention to take it; 58 did not answer the question (Table 1).

Preliminary Analyses

Principal Axis Factoring (eigenvalues > 1 , Varimax rotation) was conducted on the 15 of 20 items of the *Attitudes towards HIV test* scale: 5 items were deleted because they showed, after extraction, a com-

Table 1. Participants characteristics (N. 776)

Characteristics	Values	n	%
Gender	Male	372	(49.3%)
	Female	382	(50.7%)
Qualification	High school	161	(21.2%)
	Bachelor's degree	430	(56.7%)
	Post-graduate degree	167	(22.0%)
Did the HIV test	Never	474	(61.6%)
	One time	162	(21.1%)
	Several Times	133	(17.3%)
Intention to re-take the HIV test in the next 6 months	No	472	(65.8%)
	Yes	245	(34.2%)
	Missing	58	

munity of less than one third. The scale shown three factors (52.63% of variance). The first (6 items; 19.74%), refers to *Shame and Embarrassment (Emotional)*. The second (6 items; 18.25%), refers to *Social Support* of family, friends and acquaintances perceived by the participants if they get the opportunity to be tested (*Normative*). The third (3 items; 14.64%) refers to *Cognitive-Rational* dimensions, in terms of *Privacy Violation of the test results*. The items measuring negative aspects were reversed. The synthetic measures of the *Positive Attitude towards HIV test* (Table 2) showed a quite high value ($M = 6.45, SD = 1.37$).

The synthetic measures of independent variables (Table 3) were reconstructed in the following ways:

- *Perception of Severity* is the sum of the scores on single items. For a high score corresponds to a high probability to be at risk of contagion.

- *Perception of Vulnerability* was calculated as the sum of the item “How much you considered yourself at risk of contracting AIDS in the next 5 years?” and “How much you are concerned about contracting AIDS?” ($r = .62, p = .0001$). An high score correspond to a high level of personal vulnerability.

- *Risky Sexual Behaviors* is composed of responses to: “How many sexual partners have had in the last 12 months?”, “Have you have contracted some sexually transmitted diseases during the last year?”, “Have you ever had sexual intercourse under the influence of alcohol or drugs?”,

“Are you going to use a condom in your next sexual encounter with a new partner?”. The raw values of the first item were recoded in order to assign a value of 10 to the participants that had had 10 or more partners in the last year. For the others was assigned a value of 1 in the presence and 0 in the absence of risk behaviors. The score ranged from 0 (no risky sexual behaviors) to 13 (all risky sexual behaviors).

- *Level of Knowledge of HIV/AIDS*. The 11 statements were recoded in this way: 1 = correct answers, - 1 = wrong answers and 0 = “I don’t not know”, and added. The theoretical scale ranges from -11 (all wrong) to 11 (all correct) answers.

- *Contact with PWA* indicator was calculated as the sum of the items “Have you ever known people with HIV or have AIDS?” and “Do you currently frequent people with HIV/AIDS?” ($r = .50; p = .000$). A high score corresponds to a high level of contact. The scale ranges from 0 (no contact) to 4 (high contact).

Data analysis

A Logistic Regression Analysis (blocks method) took into account the 11 predictors on the criterion intention / not intention to take the HIV test, in the next 6 months (aim 1). The first block included *Socio-demographic data*: age, educational level and gender (1 = male). The second added the *Level of knowledge of*

Table 2. Means, with Standard deviation and Cronbach’s alpha of the three Attitudes towards HIV testing dimensions

Variable (range 1 - 8)	n	M	SD	N item	α
Absence of Shame and Embarrassment (Emotional Dimension)	772	6.13	1.78	6	.87
Perceived Social Support (Normative Dimension)	773	6.12	1.68	6	.86
Privacy Guarantee (Cognitive Dimension)	773	7.06	1.52	3	.80
<i>Positive attitude towards the HIV test (total score)</i>	773	6.45	1.37	15	.91

Table 3. Means, with Range, Standard deviation and Cronbach’s alpha or correlation of the Predictor variables

Variable	N	Range	M	SD	N item	α/r
Perception of Severity	774	1 - 57	25.18	8.02	13	.77
Perception of Vulnerability	775	0 - 16	3.67	2.92	2	.62***
Risky Sexual Behaviors	776	0 - 11	2.02	1.64	4	^a
Level of knowledge of HIV/AIDS	775	- 5 - +11	6.33	3.33	11	.54
Contact with PWA	772	0 - 4	.48	.78	2	.50***

^a Pearson correlations between the 4 items included in it are all statistically significant ($p = .000$) and respectively equal to .91, .26, .18 and .45

HIV/AIDS. The third included the *Personal Experiences*: Risky Sexual Behavior, Contact with PWA, and to have had the HIV test in the past (0 = never, 1 = yes, 2 = several times). The fourth included the *Cognitive variables*: Perceptions of Severity and Perception of Vulnerability. In the fifth block was added the *Positive attitude* towards HIV test (total score).

A Logistic Regression Analysis (single block method) was also conducted to analyze the impact of HIV test *Attitudes dimensions* (*Cognitive, Emotional and Normative*), on the criterion Intention / No intention to get tested for HIV, in the next 6 months (aim 2).

Results

Factors that affect willingness to take/not to take the HIV test

Table 4 shows that in the 1st block (*Socio-demographic data*) only the age has a significant and negative weight ($\beta = -.049$) and it settled at a β value = $-.060$ in the fifth. With increasing age, the proportion of those who have expressed intention to undertake the HIV test reduces. Educational qualifications and gender not influence the intention, in any of the blocks.

At the 2nd block, the level of *Knowledge* of HIV/AIDS has a significant and positive impact ($\beta = .085$), that become not significant from the third step: The intention to take the HIV test tends to become more positive the greater is the degree of knowledge on the matter related to HIV/AIDS.

At the 3rd block *Personal experiences* variables were included. Only Risky Sexual Behaviors ($\beta = .219$) and Did the HIV test ($\beta = 1.34$) show highly and positive significant values. The weight of Risky Sexual Behaviors tends to decrease (going from $\beta = .174$ in the fourth step to $\beta = .154$ in the fifth step) with the introduction of the other two blocks. The direction remains unchanged showing that an increase in risky sexual behaviors intensify the intention to get tested for HIV. Smaller changes are recorded with regard to have done previous the tests. Positive responses have a positive impact on the intention to do the test again.

At the 4th block have been included the *Cognitive variables* that affect the perception of risk. Only the Perception of Vulnerability shows a significant and positive impact on the intention ($\beta = .154$); it increase by placing the positive attitude towards the test in the fifth step ($\beta = .175$). The higher is the Perception of Vulnerability, the greater is the probability with which participants declare their intention to take the test.

Table 4. Beta values (β) and significance level of Logistic Regression Analysis predicting intention to get tested for HIV (n= 755)

Block	1	2	3	4	5
1. Socio-demographic characteristics					
Age	-.049***	-.053***	-.070***	-.064***	-.060***
Educational level (1 = High vs. Medium)	.099	.323	.240	.188	.310
Educational level (1 = Low vs. Medium)	-.185	-.093	.033	.007	.025
Gender (1 = Female)	.256	.278	.207	.161	.169
2. Level of Knowledge of HIV / AIDS					
		.085**	.054	.050	.044
3. Personal Experiences					
Risky Sexual Behaviors			.219***	.174**	.154*
Contact with PWA			.096	.054	.050
Did the HIV test (in the past)			1.34***	1.35***	1.22***
4. Cognitive Variables					
Perception of Severity				-.018	-.005
Perception of Vulnerability				.154**	.175***
5. Positive attitude towards the HIV test					
					.383***

Label: * = $p < .05$; ** = $p < .01$; *** = $p < .001$

At the 5th block the *Attitude* towards the HIV test was finally included. It shows the greatest predictive power ($\beta = .383$), confirming that the positive attitude towards HIV test is the strongest predictor of the intention to take HIV test. The more positive is the attitude towards the tests, the greater is the willigness to take the test.

The introduction of the attitude toward HIV test in the Analysis does not reduce the impact of Age, Risky Sexual Behaviors, Perception of Vulnerability and Did the HIV test, that still remain significantly predictors of the criterion.

The summary of the model at 5th block includes a -2 log likelihood value equal to 630.695. The Cox and Snell R-square (76) is .291 and the Nagelkerke R-square (77) is .401, showing appropriate values.

Looking at the values of Hosmer-Lemeshow Goodness of Fit Test (78) and the Coefficients of the Omnibus Model (Table 5), we note that the 5 blocks solution is the best when explaining the intention to take the HIV test.

The Classification Table (Table 6) shows that an highest percentage (77.7%) of cases correctly classified is found in the last two blocks. Going from the first to

Table 5. Summary of Logistic regression Analysis predicting intention to get tested for HIV

Block	Hosmer-Lemeshow Test			Omnibus Test		
	Chi-square	df	Sig.	Chi-square	df	Sig.
1. Socio-demographic characteristics	8.004	8	.433	39.656	4	.000
2. Level of Knowledge of HIV/AIDS	4.672	8	.792	49.788	5	.001
3. Personal Experiences	4.750	8	.784	193.298	8	.000
4. Cognitive Variables	6.455	8	.596	211.579	10	.000
5. Positive attitude towards the HIV test	4.495	8	.810	228.618	11	.000

Table 6. Classification table of Logistic Regression Analysis predicting Intention to take the HIV test

Block	Observed	Expected Intention to take the HIV test		Adjusted %
		No	Yes	
1. Socio-demographic characteristics	<i>Intention to take the HIV test</i>			
	No	394	38	91.2
	Yes	201	31	13.4
	Global %			64.0
2. Level of Knowledge of HIV / AIDS	<i>Intention to take the HIV test</i>			
	No	395	37	91.4
	Yes	183	49	21.1
	Global %			66.9
3. Personal Experiences	<i>Intention to take the HIV test</i>			
	No	387	45	89.6
	Yes	109	123	53.0
	Global %			76.8
4. Perception of Risk: Cognitive Variables	<i>Intention to take the HIV test</i>			
	No	386	46	89.4
	Yes	102	130	56.0
	Global %			77.7
5. Positive attitude towards the HIV test	<i>Intention to take the HIV test</i>			
	No	381	51	88.2
	Yes	97	135	58.2
	Global %			77.7

the fifth block decreases the capacity of the model to predict the intention of *not take* the test, while increases the power to predict the intention *to take* the test. At the 5th block there is an optimal balance: the variables included in the regression predict the 88.2% of participants who said they *did not intend to take* the test (381 of 432) and 58.2% of those who expressed their *intention to take it* (135 of 232). Basically the personal data and the level of knowledge seem to predict better the intention to *not take the HIV test* while personal experiences, cognitive variables and positive attitude predict better the intention *to take the HIV test*.

Components of Attitude toward HIV that better predict the willingness to take the HIV test

Table 7 shows that the β values for the normative (*Perceived Social Support*, $\beta = .246$) and emotional components (*Absence of Shame*, $\beta = .287$) were highly significant, while the cognitive-rational component (*Privacy Guarantee*, $\beta = -.017$) was not. The model summary included a value of -2 log likelihood equal to 838.312. The R-square, Cox and Snell Test (.103), and the 'Nagelkerke R-square Test (.142) showed appropriate values. The Omnibus Test of Model Coefficients was highly significant [$\chi^2 = 77,405$ (3), $p = .0001$] and also the Hosmer-Lemeshow statistic indicated a goodness of fit [$\chi^2 = 7,223$ (8), $p = .513$].

The percentage of classification (66.1%) showed a good ability of the model to predict better the intention to *not get tested* for HIV: of the 471 participants who had indicated their intention to *not take the test*, the model confirmed 402 and misclassified 69. The percentage of correct classification is 85.4% (402/471). Of the 243 individuals who intend to take/re-take the test, the model confirmed only 70 and misclassified 173, with a percentage equal to 28.8% (70/243).

Discussion and Conclusions

According to the latest estimates (5), in 2008 were 33.4 million people living with HIV/AIDS and 2.7 million people have been infected with HIV. The introduction since 1997 of HAART has significantly reduced the number of people dying of AIDS and had significantly improved their quality of life (79).

In view of these encouraging data, fostered also by the recent evidence for the treatment of HIV infection (80), remains still not explained the delay with which, even today, people discover their HIV status. An early access to HIV test is important not only with respect to the spread of the virus, but also to a early access to treatment. The research have proposed to identify the factors which contribute to guide Italian adults towards this important preventive behaviors: the willingness to taking the HIV test. The results seem to confirm a limited attitude of Italian adults to undertake HIV test (2). Just over one third of the participants said that they intend to take the test over the next six months. Slightly higher (about 4 out of 10) was the percentage of respondents who said they have already done the test.

Taking into consideration the limits associated with the HBM and PMT, it was evaluated if this behavior could be supported not only by the perception of risk and a rational calculation of costs and benefits, but also by others psycho-social factors, as the Attitudes towards the test. The data showed that the low willingness of Italian participants to take the test is associated with a relative low perception of probability to be at risk of contagion in everyday situations and from a relatively low personal concern of contracting the virus. In this sense, they confirm what is predicted by expectancy-values models: if the persons do not consider themselves to be at risk, they do not even feel motivated to adopt some risk reduction strategies (81,

Table 7. Summary of Logistic Regression Analysis predicting: Intention to get tested for HIV ($N = 714$)

Variable (range 1 - 8)	β	S.E.	Df.	Sig.	Exp (β)
Absence of Shame and Embarrassment (Emotional dimension)	.287	.073	1	.000	1.333
Perceived Social Support (Normative dimension)	.246	.080	1	.002	1.280
Privacy Guarantee (Cognitive dimension)	-.017	.080	1	.829	.983
Constant	-3.922	.555	1	.000	.020

82). As other studies have shown (7, 8, 10) those at greater risk for HIV are more likely to be tested, even if a substantial proportion of adults who perceived themselves to be at high/medium risk of HIV infection had not been tested (7).

Even so, among the variables considered, those related to the perception of risk is not the most important predictors. That is true for the perception of probability to be at risk of contagion that have no impact on the intention to take the HIV test, while the personal concern of contracting the virus, that is an emotional aspects, have. In line with the a research on 307 Italian adults (43), is likely to assume that too high levels of perceived threat on physical safety could hinder, rather than promote, the activation of functional strategies to safeguard personal health (11).

In accordance with Breakwell (83), data confirmed that personal experiences play an significant role in the adoption of preventive behaviors, especially if linked to acting out specific behaviors (84-87). The awareness of have put in place risky sexual behaviors and have already had experience of the HIV test, had a positive impact on the intention to implement the preventive behavior in the future. Not the same for the contact with people with HIV/AIDS and for the knowledge that people have shown, maybe because these experiences are more distant and less personally involving.

The results showed a significant effect of age and, first of all, of the Attitude towards the test. Confirming the TPB, data showed that a positive attitude towards the test is able to foster the intention *to take* the HIV test and to reduce the intention to *not take* it.

Not all components of the Attitude, however, seemed to be equal. Contrary to what is found in other studies (31), the results showed that only the emotional (absence of shame or embarrassment) and the normative components (to can count on the support of friends and family) had a significant impact on predicting the intention, while the cognitive-rational one (judgments about the privacy guaranteed) had not.

In short, the results show that the determinants that may affect the preventive behavior are not those resulting from the rational analysis based on expectancy value models. In the case of willingness to take the HIV test, other factors have been identified: some are related to the emotions and experiences and some are

connected with the respect of social norms. It would be the perception of social disapproval by "significant others" and the social emotions of shame and embarrassment that could discourage people from taking the test. Although the research does not allow us to demonstrate, it is possible that the fear of being part of highly stigmatized group because of HIV/AIDS (86) acts as a powerful deterrent to this preventive behavior, as some others study have proved (10, 11, 88).

In this sense, the results suggest some implications for the prevention campaigns explaining the reasons why there are not always comparability results among effectiveness of mass communication programs (89). The campaigns based on the dissemination of scientific information should be accompanied by programs based on communication strategies aimed at changing the negative social norms and values.

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