RESISTANCE FACTORS AND SEXUAL BEHAVIOURS AMONG YOUNG PEOPLE IN CAMEROON: THE CASE OF CONDOM USE

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Abstract

The menace of sexually tranmitted diseases has been a cause of global concern over the past few decades. Particularly, the consequential effects of unprotected sex in Africa has been linked to several siseases and deaths. It is agaist this background that this research sought to identify the factors involved in resistance to persuasion to change sexual behaviours and use condoms in the face of STIs and HIV/AIDS in Cameroon. To explore the cognitive, affective and behavioural dimensions of resistance, this study drew on recognised theoretical models, including the Elaboration Likelihood Model and the Persuasion Knowledge Model and the Theory of Planned Behaviour. A quantitative approach was adopted, targeting a sample of students in Cameroon to capture diverse perspectives and explore the impact of cultural and contextual influences. The results show that endogenous and exogenous resistance factors have a negative influence on sexual behaviours. It calls for sustained efforts to contextualise messages, strengthen sex education programmes and incorporate innovative approaches such as digital technologies.

Keywords: Resistance to persuasion, Sexual behaviours change, HIV/AIDS,

1. Introduction

In the 1980s, humanity was faced with a major health crisis: the emergence of HIV/AIDS. This pandemic, first identified at the beginning of the decade, was characterised by its profound link with human reproduction and by the complexity of its transmission routes, particularly through sexual intercourse. Unlike other pandemics, such as the Spanish flu (1918-1920), smallpox or even more recently COVID-19, which were transmitted mainly by direct contact or via the environment, HIV has directly affected a fundamental aspect of human existence: sexuality. In 2000, some 3.4 million HIV/AIDS-related deaths were recorded in Africa (UNAIDS, 2000). Since the start of the pandemic, nearly 40 million people have died of AIDS, and around 38 million are currently living with HIV (UNAIDS, 2020).

Cameroon, like many countries in sub-Saharan Africa, faces major challenges in the prevention and management of sexually transmitted infections (STIs) and the human immunodeficiency virus (HIV). According to UNAIDS (2023), HIV prevalence in Cameroon is estimated at 3.1% among adults aged 15-49, with a particularly high prevalence among women (almost 5%) compared to men (around 1.9%). Sexual transmission, which remains the most common route of infection, has amplified the social and cultural challenges associated with this pandemic. Piot et al (2013) point out that this specificity makes HIV a highly stigmatised disease, as it affects behaviour linked to intimacy, reproduction and often cultural taboos. Parker and Aggleton (2003) explain that the taboos surrounding sexuality, combined with religious and cultural norms, have amplified stigmatisation, hindering access to information and prevention methods such as condoms. These issues are particularly acute in regions where discussion of sexuality remains a taboo subject (UNAIDS, 2015).

Because of its ability to directly affect interpersonal relationships and social structures around sexuality, HIV/AIDS is a unique crisis, combining health, cultural and behavioural issues. Maman et al (2001) note that this pandemic has profoundly influenced sexual and reproductive behaviour, with major repercussions for families and communities, particularly in developing countries. HIV/AIDS represents a unique crisis in the history of pandemics, because it brings to light dimensions that are biological (transmission and medical impact), hedonic (linked to sexuality), cultural (norms, taboos, stigmatisation) and commercial (access to condoms and antiretroviral treatments). Authors such as Piot and Quinn (2013) and Parker and Aggleton (2003) stress the importance of holistic approaches to tackling this crisis, integrating medical, educational and socio-cultural interventions.

Condom use to prevent sexually transmitted infections (STIs) and the human immunodeficiency virus (HIV) is one of the key recommendations of public health organisations worldwide (WHO, 2022). Despite numerous awareness campaigns promoting condom use as an effective prevention method, considerable resistance persists to messages aimed at inducing sexual behaviour change, thus limiting the effectiveness of these interventions (UNAIDS, 2023). This resistance is often influenced by a combination of cultural, social, psychological and economic factors, which shape the perception and acceptance of public health messages. Fisher and Fisher (2021) point out that cultural beliefs about sexuality and gender norms play a crucial role in the adoption or rejection of preventive behaviours, such as condom use. Similarly, Witte (1992) explains that fear-based awareness messages can be ineffective if individuals do not perceive their ability to act in the face of the threat, which often leads to avoidance of the message rather than behavioural change. Furthermore, Blondé and Girandola (2016) identify two main currents in the study of prevention campaigns: one emphasising a positive relationship between exposure to messages and behaviour change, and the other highlighting their ineffectiveness due to psychological and contextual obstacles. In the context of STI and HIV prevention, this duality is particularly prevalent, with research exploring the causes of resistance (Wilhelm et al., 2019), its antecedents (Mourre and Gurviez, 2015) and its effects (Prim-Allaz and Darpy,

2016). However, work linking resistance to persuasion to prevention messages to condom use remains limited. This is the background to this research, which aims to gain a better understanding of the mechanisms underlying resistance to these messages and to explore approaches that could overcome these obstacles to effectively promote preventive behaviour.

In countries with limited resources, such as Cameroon, research efforts should focus more on prevention, as advances in treatment cannot offset the risks of the disease spreading in contexts that favour its spread. According to the UNAIDS report (2013), several African countries are not on track to meet the target of halving new sexual infections, which highlights the need to step up prevention initiatives. This threat affects all age groups in the population, but young people are particularly at risk. Indeed, the 2005 AIDS Indicators Survey, reveals that the majority of new infections are attributed to resistance to behavioural change among young people. This is all the more important given that young people represent an essential resource for the country's development, particularly within the student population, which is key human capital that needs to be in good health if it is to reach its full potential. Our research therefore focuses on identifying and analysing the factors influencing students' resistance to persuasive messages aimed at promoting condom use. This resistance persists despite their high level of education and the knowledge they have acquired about HIV/AIDS and sexually transmitted infections (STIs) thanks to numerous awareness campaigns.

In this article, we present a review of the literature and the research hypotheses, followed by the conceptual model, the methodology adopted, the results obtained and their discussion. The article concludes with the theoretical, methodological and managerial contributions of this research.

2. Literature Review

Despite numerous awareness campaigns promoting condom use as an effective means of prevention, significant resistance to messages aimed at changing sexual behaviour persists, limiting the impact of these interventions. This resistance can be explained by cultural, social, psychological and sometimes economic factors, which influence the perception and acceptance of messages. According to Witte (1992), fear-based prevention messages can be counter-productive when individuals feel unable to reduce their risk, leading to rejection of the message rather than behaviour change. This analysis is supported by the work of Rimal and Real (2005), who emphasise the importance of perceived self-efficacy and risk in individuals' responses to persuasive messages. Conversely, Gollust and Nagler (2018) suggest that fear-based messages, when accompanied by practical solutions and concrete information, can motivate individuals to adopt preventive behaviours.

Joffe (2008) warns against the risk of stigmatising risky behaviour, which can reinforce resistance to messages and exacerbate inequalities in public health. Condom use is recognised as one of the most effective strategies for preventing the transmission of sexually transmitted infections (STIs), including HIV. The World Health Organisation (WHO, 2022) estimates

that male and female condoms reduce the risk of HIV transmission by 85% to 98% when used correctly and consistently. In addition, UNICEF (2023) stresses that this method of prevention is particularly crucial for young people aged between 15 and 24, who account for a large proportion of new HIV infections in developing countries, particularly in sub-Saharan Africa. However, significant obstacles remain. Albarracín et al (2018) highlight the crucial role of cognitive dissonance and social norms in the failure of prevention campaigns with young people. Mannell and Dadswell (2022) explore the social and cultural resistance specific to the African context, highlighting the importance of a contextualised approach to overcoming barriers to behaviour change. In addition, Lazarus et al (2021) emphasise the impact of structural inequalities and social stigma in perpetuating young people's vulnerability to HIV.

The aim of this analysis is to offer innovative and appropriate solutions, based on approaches that combine education, improved access to means of prevention and community mobilisation strategies, as also recommended in the work of Sheeran and Webb (2016). These initiatives are crucial if we are to have a lasting impact on the sexual behaviour of young people in Cameroon. It is clear that the challenge of prevention no longer lies in the lack of information or knowledge about HIV/AIDS, but rather in the adoption of conscious and informed practices. Despite increased awareness and persuasive messages encouraging behavioural change, risky sexual behaviour persists. These findings underline the need for new research challenges in the field of prevention.

In this context, research into HIV/AIDS and STIs has made it possible to revisit certain traditional psychosociological models of behavioural change, by analysing in greater depth the determinants of exposure to the risk of sexual transmission (Moatti and Serrand, 1989). Social psychology offers two main theoretical frameworks for understanding these behaviours: cognitive theories and contextual theories. The cognitive theories postulate that behaviour is influenced by factors such as beliefs, perceptions, representations and attitudes (Rosenstock, 1990; Festinger, 1957; Bandura, 1986; Ajzen & Fishbein, 1980). For example, resistance to persuasion in prevention messages could stem from a denial of the threat posed by the disease (such as the widespread idea that AIDS is an "Imaginary Syndrome to Discourage Lovers") or from a perception of the ineffectiveness of the behaviour advocated, in particular the use of condoms (Rosenstock, 1990). Ferrer and Klein (2021) explore the impact of cognitive biases, such as unrealistic optimism, which leads some individuals to underestimate their own risk of infection, thereby limiting the effectiveness of prevention messages. Similarly, Lazarus et al (2021) highlight the role of social stigma and structural inequalities in hindering the adoption of preventive behaviour, particularly among marginalised populations.

Furthermore, Mannell and Dadswell (2022) stress the need to integrate specific cultural and social dynamics to make messages more acceptable and relevant. Campbell and Cornish (2018) support the idea by emphasising the importance of community involvement in

prevention campaigns. According to these authors, community interventions that promote dialogue and the co-construction of messages are more likely to overcome resistance, particularly in contexts where gender norms and cultural taboos strongly influence sexual behaviour. In the same vein, Albarracín et al (2018) stress the importance of taking value conflicts into account, particularly in contexts where religious or cultural beliefs oppose preventive practices, such as the use of condoms.

Another interesting perspective is offered by Sheeran and Webb (2016), who show that campaigns combining education, reinforcement of the feeling of personal efficacy and social support are more effective than those based solely on fear appeals. This is because individuals are more inclined to change their behaviour when they perceive that they have the necessary skills to do so and when they receive community support. This observation is supported by the work of Aral and Adimora (2022), who highlight the value of digital technologies, such as social networks and mobile applications, for disseminating personalised and interactive prevention messages, particularly among the younger generations.

The second strand of theory moves away from strictly individual cognitive factors to highlight contextual determinants shaped by the individual's structural, socio-cultural and economic environment. Among these perspectives, structural models suggest that resistance to persuasion can be attributed to the organisational and structural characteristics in which individuals evolve. These models provide a broader understanding of behaviour by taking account of systemic influences.

In addition, studies in the field of social marketing and the sociology of health carried out in sub-Saharan Africa have explored risky sexual behaviour among adolescents and young people. This research has highlighted several approaches based on the institutional, cultural and economic determinants specific to the contexts of African societies. The sociocultural approach demonstrates this through the work of Diop (2000), Foucault (1984, cited by Rwenge, 1999) and Bozon (1994). It identifies ethnic and religious beliefs and norms, as well as place of residence, as factors influencing risk-taking behaviour. The economic approach attributes these behaviours to poverty, a key factor identified by Rwenge (1999). Finally, the institutional approach explored by Mbarga (1991 cited by Rwenge 1999), highlights the impact of laws and programmes aimed at young people on their sexual behaviour. This study examines the concept of psychological reactivity in the context of communication, focusing on its role in resistance to the persuasion of HIV/STI prevention messages. Researchers Brehm and Brehm (1981), pioneers in the study of psychological reactivity, initially theorised that when an individual perceives a threat to their freedom of choice, they tend to resist messages perceived as imposing.

Previous studies, for example, Quick and Stephenson (2007), have taken this perspective further by analysing how messages based on fear or injunctions can unintentionally exacerbate psychological resistance. In their analysis, they show that the use of an

authoritarian or prescriptive tone in prevention campaigns can reinforce defensive attitudes, making the public less receptive to public health messages. In addition, **Dillard and Shen (2005)** explore strategies likely to mitigate this reactance. They point out that the use of empathetic, nonthreatening messages, combined with appeals to autonomy, can reduce levels of reactance and encourage better reception of prevention campaigns. On the other hand, Witte and Allen (2000) criticise the approach. They argue that fear-based messages, although likely to provoke an initial reactance, can be effective if they offer clear and accessible solutions for managing the risks. Their meta-analysis concludes that, despite potential reactance, fear-based campaigns remain one of the most powerful means of motivating preventive behaviour.

In order to study in greater depth the determinants of resistance to persuasion in the face of messages promoting condom use, a theoretical approach to planned behaviour and reactance is favoured. The latter combines both endogenous (internal to the individual) and exogenous (external to the context) factors of resistance to persuasion. The research hypothesis maintains that these resistance factors, whether endogenous or exogenous, exert a negative influence on sexual behaviour change; hence the formulation of the following two hypotheses:

>   *Hypothesis 1:*
>   *Endogenous resistance factors have a negative influence on sexual behaviour.*
>   *Hypothesis 2:*
>   *Exogenous resistance factors have a negative influence on sexual behaviour.*

The analysis, based on a systems approach, aims to provide a holistic understanding of the resistance observed, while identifying the levers for intervention to promote lasting behavioural change in the systematic use of condoms.

3. Method and Materials

3.1 Data Collection
A structured questionnaire is used to collect data on sexual behaviour related to condom use, and the internal (endogenous) and external (exogenous) factors of resistance to persuasion. The choice of students as the target population is based on a paradox: although they have the intellectual capacity to understand the risks associated with HIV/AIDS and sexually transmitted infections (STIs), risky sexual behaviour persists within this population.

The inclusion criteria for this survey are strict: only sexually active students are included. Special emphasis was placed on guaranteeing the anonymity of respondents, due to the particularly intimate nature of some of the questions in the questionnaire, which made it possible to minimise any bias linked to the confidentiality of the information. By applying the convenience sampling technique, 700 students are selected at the end of the survey process.

3.2 Measuring Variables.
The variables in the model of sexual behaviour being tested are all assessed on five-position Likert modalities. The indicators used to measure factors of resistance to persuasion, as independent variables, are inspired by the work of Nkouma (2020). These factors were selected for their decisive role in psychological and social resistance to prevention messages, and for their ability to influence sexual behaviour.

Sexual behaviour linked to condom use is the dependent variable. It is measured by indicators such as reactance and the boomerang effect, which explain refusal or opposition to the persuasive message. The boomerang effect is manifested in particular by a reaction contrary to the one expected, such as rejection or abstention in the face of systematic condom use. The choice of sexual behaviour as a dependent variable is based on its central role in the study of human behaviour. Ajzen (2001) considers it to be a key factor in understanding human actions, because of its close link with attitudes, intentions and social norms. Lamboni, Adankanhounde and Dia (2020) also confirm this importance, emphasising its decisive impact on behavioural decisions, particularly in terms of public health.

From a theoretical point of view, sexual behaviour is often cited as a fundamental concept in marketing and social science literature (Allport, 1935). It is a key area of study for analysing people's responses to persuasive and preventive messages, particularly in the context of the fight against sexually transmitted infections (STIs) and HIV.

For this research, we are using the measurement scale developed by Filser (1994), which enables us to understand behaviour in its entirety. This integrative approach is essential for taking into account all the dimensions of sexual behaviour, whether cognitive, affective or conative. By adopting this perspective, we aim to provide a comprehensive analysis of the factors influencing adherence or resistance to prevention messages relating to condom use.

3.3 Data Analyses
We adopted two types of analysis. The first is factorial in nature and combines principal component factor analysis (PCA) and confirmatory factor analysis (CFA), each carried out on a different part of the sample (Roussel et al., 2002). PCA is designed to study the dimensional structure of the variables of interest described above. According to Gavard-Perret et al (2008), it is carried out in strict compliance with the conditions of application (KMO index, Bartlett sphericity test) and final retention of the number of components (Kaiser rule, total variance explained, factorial weights, quality of representation, reliability index). The AFC is used validate the factor structures retained at the end of the PCA.

The second analysis tests the research hypotheses using causality analysis for explanatory or predictive purposes via structural equation modelling (SEM). The Maximum Likelihood algorithm in Amos 24 is the chosen method for estimating parameters, given the metric nature of the data and the primarily confirmatory and predictive nature of the study (Roussel

et al., 2002). The classic indices are used to assess the goodness of fit of sexual behaviour model (Roussel al., 2002): absolute indices (Chi-square χ2, GFI, AGFI, RMR, SRMR, RMSEA), incremental indices (TLI, IFI, CFI) and parsimony indices (normed Chi-square χ2, CAIC). Additional indices are also used to assess the quality of the model, in particular the coefficient of determination R^2 and Student's *t-statistic*.

4. Results

4.1 Results Related to Factor Analyses

At the end of the PCA, we note that, unlike the variables Condom use and Exogenous resistance factors, the endogenous resistance factors turned out to be multidimensional (table 1). On observation, the factorisation process produced satisfactory results in line with the critical values proposed by Gavard-Perret et al (2008). They are greater than 0.6 (for the KMO index), 50% (for the total variance explained) and 0.6 (for Cronbach's Alpha), with the exception of the endogenous resistance component *Trust in sexual partner,* whose reliability value is rather within the limit authorised for measures of an exploratory nature.

Table 1: Summary of PCA results

PCA dimensions		PCA quality criteria		
		KMO	Variance explained (%)	Reliability (α)
Endogenous resistance factors	Discomfort and lack of sexual pleasure	0,68	61,88	0,78
	Personal and social stigmatisation			0,62
	Negative beliefs about the effectiveness of condoms			0,68
	Confidence in sexual partner			0,52
Exogenous resistance factors	Religious and cultural values	0,66	73,34	0,81
Sexual behaviour	Use of condoms	0,63	56,67	0,62

Source: Authors' Design

The AFC also produces acceptable results. Although certain indices remain below the critical thresholds for the endogenous resistance model (GFI, AGFI and TLI), we can conclude that the current level of adjustment is acceptable. Furthermore, given the weakness of the structural coefficient, we also conclude that the latent variables studied are largely independent of one another, although some of these coefficients are statistically significant at 5%. In such cases, the switch to 2nd order is not justified. This reflects the independence

of the instruments used to measure these different realities, which the construct validity tests will help to reinforce.
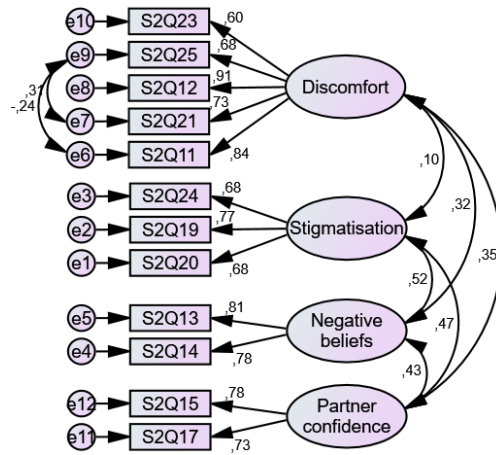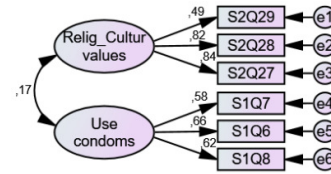
Figure 1: Endogenous factors   Figure 2: Exogenous factors and sexual behaviour

Source: Amos 24

Table 2: Adjustment indices - resistance factors and sexual behaviour - 1st order

Figures	Adjustment indices									
	Absolute					Incremental			Sparing	
	SRMR	Chi-2	GFI	AGFI	RMSEA	IFI	TLI	CFI	Chi2/dll	CAIC**
	≤0,08	low	>0,9	>0,9	<0,10	>0,9	>0,9	>0,9	<3	MT<MS
Figure 1	0,07	99,22*	0,89	0,82	0,09	0,92	0,82	0,92	2,16	286,98 <457,10
Figure 2	0,04	14,98*	0,97	0,96	0,05	0,99	0,97	0,99	1,87	104,21 <144,14

Source: Author   *P-value<0.01; **MT=Model Tested; MS=Model Saturated

Generally speaking, the validity indices reveal the quality of the measurement models (table 3). With regard to validity, the criterion of weak convergence, via the significance of the factorial contributions (loadings) is retained (Fornell and Larker, 1981). All loadings are statistically significant at % and 5% (Bootstrap with bias corrected percentile method). We therefore ascertained that the quality of the measurement models is satisfactory.

At the second level, the latent variables relating to resistance factors converge satisfactorily, with AVE values above 0.5. The shortcoming observed at this level concerns the variable dedicated to sexual behaviour. Its AVE index is below 0.5, but remains tolerable given the significance of the previous level. We therefore conclude that this scale meets the minimum conditions for convergent validity

Table 3: Strong and weak convergent validity - Bootstrap/ Bias Corrected Percentile Method (Two Tailed Significance)

| Variables observed	Latent variables	Loadings	Standard Error	T Student ≥1.96	P-value <0.05[1]	AVE>0.5
			Endogenous resistance factors			
S2Q20	Stigma	,682	/	/	,004	,506
S2Q19		,772	,163	6,306	,005	
S2Q24		,678	,167	6,027	,032	
S2Q14	Beliefs negative	,777	/	/	,023	,631
S2Q13		,812	,175	5,761	,014	
S2Q11	Discomfort	,842	/	/	,021	,578
S2Q21		,732	,090	9,247	,020	
S2Q12		,908	,091	11,782	,012	
S2Q25		,680	,097	7,566	,005	
S2Q23		,598	,094	7,163	,025	
S2Q17	Trust partner	,730	/	/	,012	,573
S2Q15		,783	,213	4,951	,023	
			Exogenous resistance factors			
S2Q29	Religious and cultural values	,494	/	/	/	,54
S2Q28		,822	,208	8,364	,018	
S2Q27		,841	,233	8,264	,012	
			Sexual behaviour			
S1Q7	Use of condoms	,577	/	/	/	,39
S1Q6		,662	,155	6,507	,011	
S1Q8		,622	,136	6,603	,009	

Source : Authors

4.2 Results Related To The Evaluation Of Factors Explaining Sexual Behaviour

The relationship between resistance factors and sexual behaviour was specified and estimated using the model shown below (Figure 3). On observation, the model measuring the latent variable *Partner Confidence* shows a significant anomaly linked to extremely low loading (0.16).

The fit indices of this model are of poor quality overall (table 4, figure 3) compared with the various critical values. The previous anomaly is one of the main causes of poor fit. By deleting this indicator as recommended, we are also forced to delete the latent variable to which it belongs due to the small number of items remaining.

Figure 3: Evaluation of the relationship between resistance factors and sexual behaviour
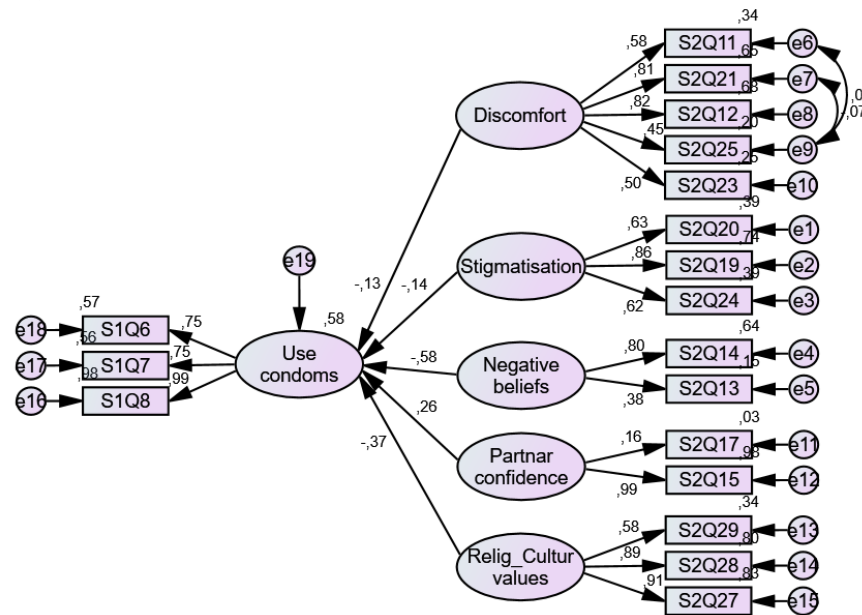
Source: Amos 24 graphics editor

The deletion of the latent variable *Partner Confidence* is not surprising. It was already internally inconsistent in the exploratory factor analysis. The model obtained after deletion is specified and estimated in Figure 4, with considerably improved fit indices (Table 4, Figure 4) and therefore acceptable, although slight weaknesses remain on some absolute indices.

Table 4: Adjustment indices Resistance factors - Sexual behaviour

Figures	Adjustment indices									
	Absolute					Incremental			Sparing	
	SRMR	Chi-2	GFI	AGFI	RMSEA	IFI	TLI	CFI	Chi2/dll	CAIC**
	≤0,08	low	>0,9	>0,9	<0,10	>0,9	>0,9	>0,9	<3	MT<MS
Figure 3	0,08	239,13*	0,86	0,74	0,09	0,88	0,79	0,86	1,87	443,89 <814,17
Figure 4	0,07	178,61*	0,88	0,86	0,08	0,93	0,90	0,93	1,82	359,54 <647,52

Source: Author   *P-value<0.01; **MT=Model Tested; MS=Model Saturated

103

Figure 4: Reassessment of the relationship between resistance factors and sexual behaviour
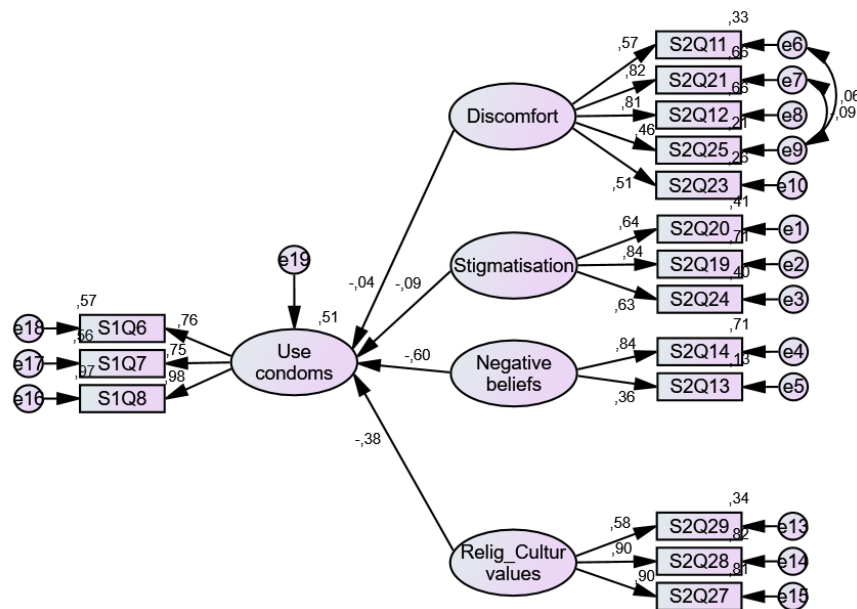
Source: Amos 24

4.3 Assessing The Quality Of Structural Relationships - Resistance Factors And Sexual Behaviour

The dependency relationship between resistance factors (endogenous and exogenous) and sexual behaviour is assessed here (table 5). The results indicate that this relationship is statistically significant at the 5% level for both endogenous and exogenous factors

Table 5: Predictive quality - Resistance factors and sexual behaviour

Independent variables		Dependent variable		Path coefficients	R^2	C.R>1.96.	P<0,05
Resistance factors	Dimensions	Sexual behaviour	Dimension				
Endogenous	Discomfort	Condom use		,04 (-)	,51**	-,321	.75 ns
	Stigma			,09 (-)		-,623	.53 ns
	Negative beliefs			,60 (-)		-1,97	,04*
Exogenous	Religious and cultural values			,38 (-)		-2,44	,02*

Source: Author   (-)   Negative;   **Moderate   quality;

*P<0.05

Among the endogenous resistance factors, the variables "*discomfort and lack of sexual pleasure*" and "*personal and social stigma*" had no statistically significant effect on *condom use.* Only the dimension '*negative beliefs about the effectiveness of condoms*' had a significant influence on condom use. The value and sign of the structural regression coefficient

104

associated with this relationship reveal that negative beliefs have a fairly significant and negative influence (-0.60) on condom use. The exogenous resistance factors are religious and cultural values, which have a statistically significant influence on condom use. The value and sign of the structural regression coefficient associated with this second relationship reveal a relatively weak and negative influence (-0.38) on condom use. The coefficient of determination R is considered moderate in the sense of Chin (1988). The proportion of the variance in condom use explained by the endogenous and exogenous resistance factors is estimated at 51%.

On the basis of these results, it can be argued that endogenous and exogenous resistance factors have a negative influence on sexual behaviour. Consequently, hypotheses H1 and H2 are validated.

4.4 Assessment Of Collinearity - Resistance Factors

Co-linearity was assessed using the Tolerance and VIF indicators[2] (table 6). The values are satisfactory and do not indicate any collinearity problems. Tolerance values are moving away from 0 and towards 1, while VIF values remain well below 10, in reference to the critical thresholds proposed by Gavard-Perret et al (2008). As a result, the correlation between the independent variables is low, which eliminates any risk of redundancy between them or multicollinearity.

Table 6: Colinearity tests

	Colinearity statistics	
	Tolerance (~1)	VIF<10
Religious and cultural values	,916	1,092
Discomfort	,825	1,212
Negative beliefs	,877	1,141
Stigma	,860	1,162

Source : Authors' Design

5. Discussions

The results of this study indicates that endogenous resistance factors, such as negative beliefs about condom efficacy, discomfort and loss of sexual pleasure, and stigma, have a statistically significant effect on condom use. These results are in line with several previous studies which have also highlighted the importance of these variables in the adoption of preventive behaviour in the face of STIs and HIV/AIDS. Sheldon and Gunz (2009) showed that concerns about sexual pleasure and discomfort were major deterrents to condom use among young adults. Similarly, Jemmott et al (2010) revealed that psychological and social factors, such as stigma and shame, had a negative influence on the intention to use a condom, despite knowledge of the risks. These elements corroborate the results of our study, where stigma and discomfort also emerged as significant barriers to condom use.

In addition, Lichtenstein and Kalesan (2009) explored the social stigma associated with condom use, particularly among young adults, highlighting that notions of masculinity and femininity could modulate this preventive practice. Their study is consistent with our findings that the social image of the condom plays a key role in its perceived obsolescence, making its adoption more complex. Rimal and Real's (2003) model of persuasive communication, based on social norm and self-perception, also found similar results to our study, indicating that the perceived social acceptability of condom use strongly influenced its adoption. This social norm, at the heart of the dynamic of resistance to persuasion, is a crucial factor in changing prevention behaviour. Our results therefore confirm the hypothesis that endogenous resistance factors have a negative influence on change in sexual behaviour towards condom use. This study highlights the complexity of the factors influencing condom use and underlines the importance of addressing psychological, social and normative barriers in devising more effective prevention messages.

With regards to the impact of exogenous resistance factors, in particular religious and cultural values, we note that although the influence is statistically significant, its effect is relatively weak and negative, suggesting that these external values may limit condom adoption. This goes back to the idea that social and cultural norms, which are often strongly entrenched, exert pressure on individual behaviour, even when there is knowledge of the risks associated with STIs and HIV/AIDS. The hypothesis promotes a link between culture, religious beliefs and sexual health, highlighting how these external influences can counteract prevention messages. A number of authors have examined the impact of religious and cultural beliefs on sexual health prevention behaviours, and their findings are similar to our own. Kauffman et al (2007) showed that conservative religious beliefs can limit condom use, because of their influence on the perception of sexuality, which is often seen through a restrictive moral prism. Their study showed that in contexts where religious values are strongly entrenched, condom use is perceived as incompatible with certain cultural beliefs.

Parker et al (2000) also explored the impact of culture and social norms on the adoption of STI prevention practices in sub-Saharan Africa, and observed that traditional social norms influence the reluctance to use condoms, particularly because of the influence of religious values on the conception of sexuality and disease prevention. Their work highlights how these cultural values can interfere with public health messages, even when scientific information is available.

In addition, Ngugi et al (2010) have shown that in some conservative societies, cultural attitudes towards condoms, which are perceived as distrustful or immoral, limit their acceptance. These beliefs are particularly strong in communities where the importance of purity and abstinence before marriage is a pillar of culture and religion. Thus, our results are consistent with previous work, which has also found that religious and cultural values can act as barriers to condom use. However, as our results suggest, this influence is often small

but significant, which may indicate that other factors, such as self-perception and group social norms, also play a major role in the decision to adopt preventive behaviours.

6. Conclusion

The majority of students recognised condoms as an essential element in the fight against HIV/AIDS and sexually transmitted infections (STIs). Despite their awareness of the risks associated with unsafe sex, these young people do not systematically use condoms during intercourse. This attitude is influenced by a number of factors, including the social environment in which they live, and the occasional and often unplanned nature of their sexual relationships, which often occur in a context of widespread poverty. It is important to note that this study, although partial, makes a valuable contribution to understanding the sexual behaviour of university students. However, further research is needed to explore in greater depth the factors that have not been sufficiently addressed. To better protect students against the risks of unprotected sex, it would be appropriate to strengthen sex education, starting at home, continuing in the community and at university level, and even beyond. In addition, studies into cultural, religious and personal influences, as well as the lack of parental authority over sex education, would be crucial to developing strategies aimed at getting parents and other stakeholders more involved in this educational process. Finally, it would also be beneficial to develop young people's skills in making informed and responsible decisions about their health, particularly with regard to safer sex practices.

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