



Ministério da Saúde - FIOCRUZ  
Escola Nacional de Saúde Pública

Programa de Pós-Graduação  
em Saúde Pública e Meio Ambiente

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**Factors related to non-adherence to  
follow-up of women with High Squamous  
Intraepithelial Lesion (HSIL)**

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# Principal study

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- Analysis of access, adhesion and resolubility as factors of delayed diagnosis in cervical cancer control in the Baixada Fluminense Region, Rio de Janeiro State, Brazil.

Funded: CNPq

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# Introduction

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- Cervical Cancer is highly preventable by Pap test screening, but it continues to occur;
  
- Non-adherence to screening procedures is an obstacle to a successful Cervical cancer program in developing countries;
  - Failure of screening
  - Failure in follow-up of abnormal results;
  - Incomplete follow-up (Leyden et al, 2005; Suba, 2006).
  
- From the literature: non-adherence proportion varies from 23% to 64%

(Hartz & Fenaughty, 2001).

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# Objective:

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- ❑ To evaluate factors associated with non-adherence to the prescribed follow-up in women with HSIL, attending a secondary public health care facility in a low income area of Rio de Janeiro state, Brazil.
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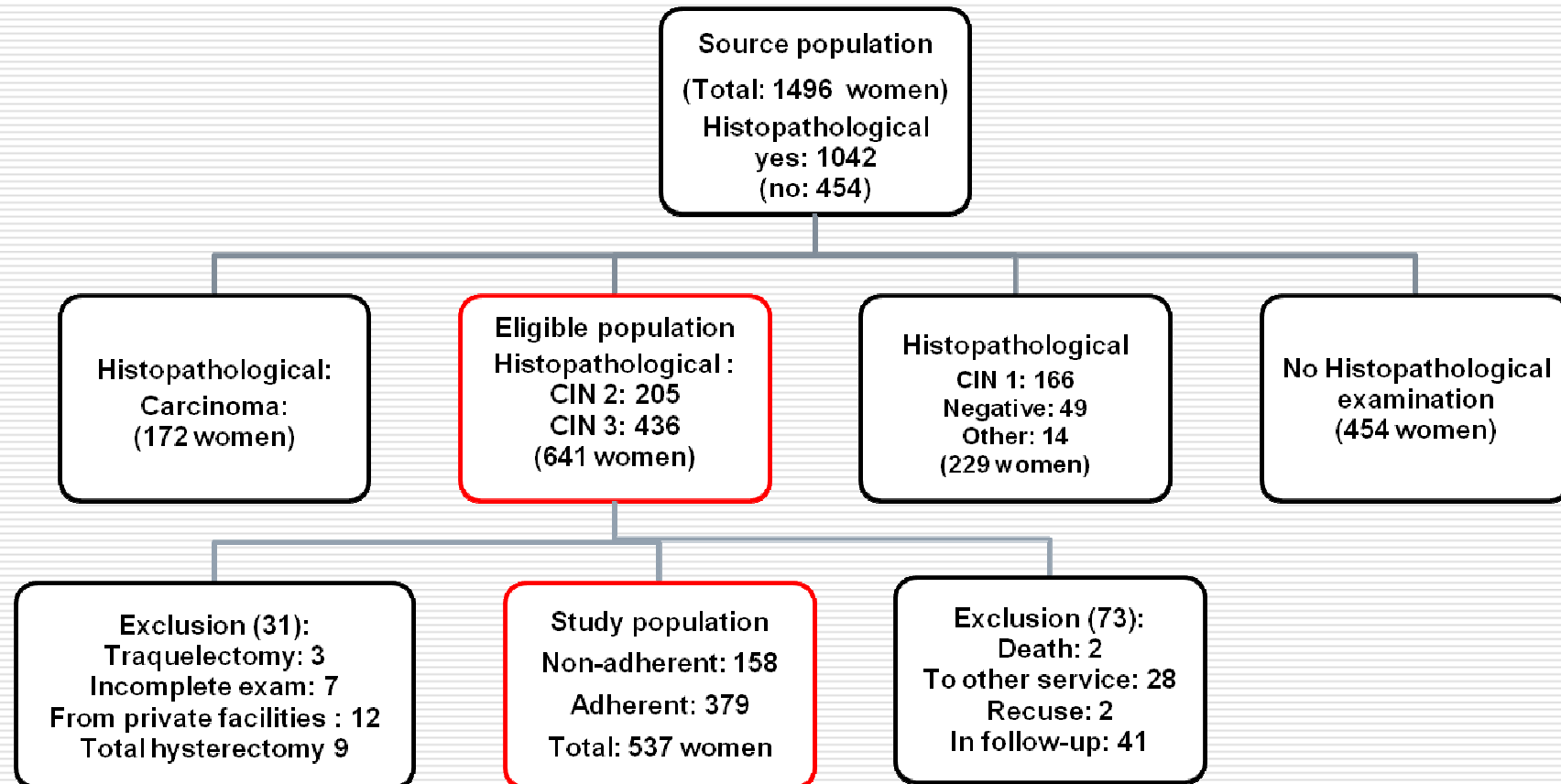
# Methods:

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- ❑ Study design: retrospective cohort
  - ❑ Population and settings: women from the colposcopy clinic, Nova Iguaçu General Hospital, enrolled between January 2002 and December 2005
  - ❑ Collected secondary data from 24-months review.
  - ❑ Review closed: December 2007
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# Study Population:

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# Methods:

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- Dependent variable:

- Last follow-up visit (absent:yes/no)

- Non-adherent group vs Adherent group**

- Independents variables:

- Sociodemographic
  - Life style
  - Sexual/reproductive
  - Healthcare characteristics
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# Statistical analysis:

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- Student's t tests
    - Variables: age, coitharche and No. partners
    - P value < 0,05
  - Univariate analysis
    - Categorical variables
      - Crude odds ratio
      - Chi-square test/p value
      - p value < 0,20
  - Multivariate logistic regression
    - 95% CI and p value
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# Results:

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## Numerical variable by adherence

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Variable	<b>Adherent</b>				p value
	<b><u>NO (29.4%)</u></b>		<b><u>YES (70.6%)</u></b>		
	Means	SD	Means	SD	
Age	32,55	10,08	34,68	11,21	0,039
Coitharche	16,38	2,92	16,89	2,79	0,057
Partners	4,79	9,13	4,65	9,43	0,875

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## Results: Association of sociodemographics variables and non-adherence (No. 537 women)

Variables	Non-adherent		Adherent		OR	p value
	N	%	N	%		
<b>Sociodemographic</b>						
Marital Status						
married y/n	86/72	54.4	233/146	61.5	0.75	0.13
Education						
None/< 8 years y/n	90/68	57	218/161	57.5	0.98	0.905
Occupation						
housewife y/n	113/45	71.5	230/149	60.7	1.63	0.017
Household income						
≤ 2 minimum salary y/n	99/59	62.7	241/138	63.6	0.96	0.839

# Results: Association of reproductive variables and non-adherence (No. 537 women)

Variables	Non-adherent		Adherent		OR	p value
	N	%	N	%		
<b>Reproductive</b>						
To be pregnant y/n	7/151	4.4	7/372	1.8	2.46	0.087
No. Pregnancies						
Reference: never pregnant	17	10.8	37	9.8	1	
1 or 2 pregnancies	42	26.6	134	35.4	0.96	0.911
3 or > pregnancies	99	62.7	208	54.9	0.66	0.052
No. Live births						
Reference: none	21	13.3	48	12.7	1	
1 or 2 live births	61	38.6	164	43.3	0.96	0.894
3 or > live births	76	48.1	167	44.1	0.82	0.323

## Results: Association of life style, health service/treatment variables and non-adherence (No. 537 women)

Variables	Non-adherent		Adherent		OR	p value
	N	%	N	%		
<b>Life style</b>						
Current smoker						
y/n	64/94	40.5	112/267	29.6	1.62	0.014
<b>Health service/treatment</b>						
Video colposcope use						
y/n	126/32	79.7	268/111	70.7	1.63	0.031
County of residence						
Different of health service						
y/n	87/71	55.1	175/204	46.2	1.43	0.061
Histopathological grade						
CIN 2/CIN 3	49/109	31	127/252	33.5	0.89	0.575

# Results: Multivariate logistic regression

## Predictor model of non-adherence

Variables	OR	95% CI	Beta	SE	p value
<b>Smoker (y/n)</b>	1.75	1.18-2.61	0.54	0.208	0.009
<b>Non occupation (y/n)</b>	1.6	1.06-2,40	0.443	0.213	0.038
<b>Videocolposcope (y/n)</b>	1.64	1.04-2,59	0.587	0.238	0.014
<b>Age</b>	0.98	0.96– 0.99	-0.032	0.011	0.005
<b>Pregnancies (1)</b>	0.69	0.336-1.433	-0.366	0.37	0.323
<b>Pregnancies (2)</b>	0.49	0.308-0.796	-0.703	0.242	0,004

OR adjusted for: to be pregnancy and county of residence

# Discussion:

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- Smoker, not having a job outside the house and having the examination carried out with a video colposcope increase the risk of non-adherence.
    - Age and history of three or more gestations reduce the risk of incomplete follow-up.
  
  - The use of video colposcope improves the teaching of colposcopy , but the presence of students at bedside may reduce the privacy and the adherence to follow-up.
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# Discussion:

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## Limitations:

- ❑ Retrospective secondary data
- ❑ Lack of data about causes of noncompliance to follow-up appointments
- ❑ No uniform criteria for non-adherence definition in the literature

## Strengths:

- ❑ Homogenous study population
  - ❑ Health care characteristics included
  - ❑ Long term follow-up with several appointments and just one outcome: discharge
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# Conclusions:

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- The study disclosed a vulnerability profile pointing to individual and organizational-level determinants. Strategies to attain better follow-up must be aimed to modifiable life style factors as smoking and structural characteristics of health care services in the studied area.
  - The findings indicate the need for additional studies
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MÉTODOS PARA UM MUNDO EM TRANSFORMAÇÃO

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# Thanks

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