Introduction Human papillomavirus (HPV) infection is the most prevalent sexually transmitted virus in the world. One of the barriers to the implementation of prevention programs against the disease is the limited knowledge possessed by most populations regarding the virus and its possible consequences.

Methods A total of 473 students aged 18 to 78 years (mean 28.2±9.35) from two public universities from Rio de Janeiro State attending different undergraduate courses from health and non-health area, answered a questionnaire about transmission, clinical features and the possible consequences of persistent HPV infection. The questionnaire was self-applied under the supervision of the authors.

Results Although most of the students independent of the study area had already heard of HPV (99.3% from health and 92.2% non-health courses), a significant portion did not associate virus infection with the appearance of warts in the genital tract (40.3% from health and 62.7% from non-health courses). Among female students enrolled in non-health courses, 61.1% did not recognise cervical cancer as a possible consequence of HPV infection. Considering the knowledge of risk situations as a basic form of prevention of HPV infection, only 33.2% of the students from non-health courses identified 3 or 4 of the four HPV infection risk situations presented in the questionnaire. Even the use of condoms, a basic STD prevention attitude, was not recognised by 13% of the students interviewed regardless of the attending course. At the end of the interview all participants received an informative folder on the barriers to the implementation of prevention programs within different populations.

Conclusion Results highlight the need for educational campaigns regarding HPV infection, its potential as a cervical cancer agent and the forms of prevention available among university students.