

## Knowledge and consumption of emergency contraception pills in a tertiary education student population

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## Abstract

**Introduction** According to the World Health Organization (WHO), every year there are 200 million pregnancies, of which 75 million are unintended. Emergency contraception pills (ECPs) are one of the available methods to prevent an unintended pregnancy, after unprotected sexual intercourse or contraceptive failure. The aim of this study was to quantify the consumption, characterize the level of knowledge, and understand the factors that induce the use of ECPs in tertiary students.

**Methods** An observational, cross-sectional, and retrospective survey was conducted at two tertiary education institutions (Coimbra Health School and Coimbra Education School) between January and April 2015. A written survey was applied to a convenience sample of female and male students at these schools. The survey questions comprised three areas: sociode-mographic indicators; knowledge of ECPs; and previous consumption of ECPs (females only). Descriptive statistics and chi-square of independence test were used.

**Results** Most of the students had heard about ECPs and used them mainly for "forgetfulness or contraceptive failure" (63.8%) or "sex without using a contraceptive" (22.4%). Students' main information sources were school, friends, and the internet. There was a higher level of knowledge in female students, students from the Coimbra Health School (vs students from the Coimbra Education School), and students who had received healthcare professional counseling (p < 0.01). Regarding consumption, the majority (74.1%) were first-time users of ECPs and almost all ECPs were obtained in the pharmacy (91.4%). **Conclusions** In Portugal, ECPs are available over the counter, which facilitates their obtainment. There was some knowledge among students, however lack of information about this subject should be taken into account in further studies. Communication with the students to improve their risk perception and knowledge is key to improving the safer use of ECPs.

## Introduction

Sexuality is an area of great importance in human development, and youth are a priority group for intervention within the framework of sexual behavior, due to duration of the relationships, early sexual debut, occasional partners, and inconsistent use of birth control methods [1]. The risk of unintended pregnancy appears to be associated with this sexual behavior [2]. According to the World Health Organization (WHO), every year there are 200 million pregnancies,

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<sup>3</sup> Department of Pharmacology, School of Pharmacy, University of Seville, Seville, Spain and 75 million are unintended [3]. In Portugal, there is a lack of statistical data about this subject, but according to a European study, the prevalence of unplanned pregnancies was up to 44% in Southern Europe [4]. The majority of unintended pregnancies occurred in adolescents, women aged > 34 years, and women who were single, had more than one pregnancy, and had a low educational level [5]. There are also some data indicating that Portugal has a high proportion of teenage mothers (3.55% of all pregnancies in 2015) [6].

The emergency contraception pill (ECP), also called the 'morning-after pill', is one of the methods available to prevent an unintended pregnancy after unprotected sexual intercourse or contraceptive failure [7–12]. The first commercialized ECP was known as the '*Yuzpe* Method'; each dose contained ethinylestradiol 100 µg and levonorgestrel 500 µg, which was given in two doses, with the second dose given 12 h after the first dose [13, 14]. This method is associated with a high prevalence of adverse effects [14–16], so

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