Misoprostol and mifepristone are now increasingly used for induced abortion and post-abortion care in Nigeria. As abortion is highly prevalent among in-school youths, we investigated the knowledge and practice of medication abortion by students at the University of Benin, Edo State, Nigeria. A sample of 395 female undergraduates were chosen through systematic random sampling from their halls of residence and requested to complete a self-administered questionnaire on their reproductive health experiences and knowledge and use of medication abortion. The results: median age of the respondents was 20 years (range: 16-29 yrs.); 73.0% were unmarried; while 91.4% were Christians. Over 92% were sexually active, with 164 (45.5%) reporting previous use of contraceptives. Condom was the most reported contraceptive method (40.5%), followed by contraceptive pills (25.4%), and withdrawal method (16.2%). Approximately 31.0% knew a drug that can be used to remove an unwanted pregnancy. However, among nearly nine medications mentioned, only misoprostol mentioned by 16.2% of the youth, have known efficacy as an abortifacient. None of the respondents mentioned mifepristone. Similarly, although 306 youth (77.5%) reported that they had previously used a drug to remove an unwanted pregnancy, only 21 (5.3%) correctly mentioned misoprostol as the drug used, with none mentioning mifepristone. We conclude that there is poor knowledge and low use of medication abortion by the female youth attending tertiary institutions in Nigeria. We believe that a comprehensive reproductive health program that increases knowledge of medication abortion is required to increase young women’s access to evidence-based post-abortion care.