



INTRODUCTION

The knowledge of drug levels in biological fluids such as serum and urine can help optimise pharmacotherapy and provide the basis for studies on bioavailability, pharmacokinetics and genetics, organ function, the influences of co– medication and patient compliance.¹

Students at the Department of Pharmacy at the University of Malta follow a study unit entitled 'Pharmaceutical Analysis.' The study unit consists of 2 ECTS and is delivered via 14 hours of lectures.

AIMS

- To develop the study unit offered for third year pharmacy students on pharmaceutical analysis.
- To focus unit on extraction and analysis of drugs from biological fluids.
- To seek student feedback about the new course.

METHOD

The new study unit contains topics dealing with bulk separation techniques namely centrifugation and crystallisation and instrumental separation techniques including chromatography. Special focus is given to sample preparation, extraction and analysis of drugs from biological fluids and matrices. Students following the newly developed study unit for the first time were asked to rate the course content and delivery of lectures via an independent review.

Students were asked a total of 29 questions. These questions were divided into 6 sections: (i) General questions on the study unit (ii) Study– unit description and actual delivery (iii) Lecturing methodology (iv) Lecturer (v) Method of assessment (vi) Administration and resources. For each question, students were asked to choose between 'Strongly agree', 'Agree', 'Not sure', 'Disagree' and 'Strongly disagree.'

RESULTS

Out of a total of 43 students, 37 gave feedback about the study unit. Thirty– five students agreed that the study– unit was of help in strengthening the knowledge and skills relevant to the area of study. Thirty five students also agreed that the outline of the study unit was followed and expected learning outcomes presented in the study unit description were achieved. Thirty students thought that there was a link between this study unit and the remaining units of the pharmacy course. All students found the study unit to be well organised. Twenty six students found the lectures to be intellectually challenging and 33 students agreed that lectures were understandable and stimulating. One student suggested the inclusion of practical sessions linked to the lectures given. If given a choice, 28 students would recommend this study unit to other students.

STATEMENT	NUMBER OF STUDENTS			
	STONGLY AGREE	AGREE	NOT SURE	DISAGREE
The study- unit description was clear	14	21	2	0
The quantity of material presented was adequate	17	7	1	2
Lectures encouraged student participation	14	18	3	2
Lecturer was available to help with any difficulties	27	9	1	0
Administrative staff were helpful with any difficulties	13	15	8	1

Table 1: Student Evaluation (N= 43)

CONCLUSION

The new course focused more on the analysis of drugs in biological fluids highlighting the application of pharmaceutical analysis principles to pharmaceutical aspects. The developed course was positively evaluated by the students and suggestions to include practical sessions will be considered.

Reference(s)

1. Moffat AC, Osselton MD, Widdop B, Watts J. Clarke's analysis of drugs and poisons 4th edition. London: Pharmaceutical Press; 2011