

VET&PHARM pilot project: A case study focusing on the perceived value of a pilot seminar on interprofessional communication for students in Pharmacy and Veterinary Medicine in the rational delivery of drugs for veterinary use

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Figure 1: Phases of the VET&PHARM device (inspired by Kolb cycle)

Introduction

In recent years, the issue of antibiotic resistance has received considerable attention, leading to notable changes in antibiotic counseling and dispensing practices in human and veterinary medicine. However, the approach taken for other over-the-counter medicines, such as antiparasitic drugs, did not follow a similar transformation. In the recent context of public health issues, the question of interdisciplinarity in healthcare has emerged as a central area of attention. Strengthening community pharmacists' skills in veterinary pharmacotherapy is crucial, particularly in scenarios involving off-label drug use, antiparasitic resistance and environmental impact. The VET&PHARM pilot project aimed to implement and evaluate the perceived value of an interdisciplinary healthcare simulation activity in an educational context. This program involved 2-d year Master Pharmacy students (M2P), 3-rd year Bachelor Veterinary students (B3V) and 3-rd year Master Veterinary students (M3V) in May 2022.

Methods

This **study** assessed the perceived value of an interdisciplinary healthcare simulation program focused on rational pharmacy-based veterinary drug dispensing.

The activity was set up for 40 student volunteers (20 M2P, 4 M3V, 16 B3V), divided into 2 groups with two VET&PHARM activities in May 2022.

At the end of the activity, an **on-line questionnaire** addressing the perceived value of the activity was proposed to both veterinary and pharmacy students.

Figure 2: Post-activity questionnaire results

	Responde	ents' studei	nts	 %	
	M2P	B3V	M3V	agreement	Questions / statements
Q1	✓	✓	✓	100	Students were able to learn through role plays played by their peers.
Q2	✓		✓	100	Students believe they have learned to exchange/collaborate with other
QZ				100	healthcare providers (66.7% of students strongly agree with this
					statement).
Q3	√			100	Students have learned to explain a chronic illness to a patient in simple
					terms (simplification or otherwise). They have also learned to provide
					appropriate advice about a non-prescription medication (60% of students strongly agree with this statement).
			√		
Q4				100	Students have learned to provide appropriate advice about veterinary medication.
Q5	✓	✓	✓	97	Students agree to strongly agree with the fact they have explored
QJ] 37	communication and the patient-provider relationship.
Q6	✓	✓	✓	100	Students have explored interprofessional collaboration from different
					perspectives (as actors and observers).
Q7	√	✓	✓	94	Students have gained self-confidence in performing a similar task.
Q8	√	✓	✓	70	Students found the patient/animal case preparation task easy.
Q9	✓	✓	✓	70	Students found the task of critically analyzing the simulation was easy .
QJ				70	stadents round the task of childany analyzing the simulation was casy.
Q10	√			50	Students found the task of explaining a chronic pathology and providing
					appropriate advice on a non-prescription medication easy.
Q11	√		√	54	Students found it easy to collaborate with a colleague from another
			✓		profession on a veterinary issue.
Q12			v	75	Students found easy to deliver appropriate advice on veterinary medications.
Q13	✓	✓	✓	91	Students found the debriefing in a large group easy .
Q14	√	√	√	100	Students gained insights into patient care at the pharmacy and/or the
Q14				100	interaction between a pharmacist and a veterinarian through role-plays.
Q15	√	√	√	100	Students gained insights into patient care at the pharmacy and/or the
					interaction between a pharmacist and a veterinarian through debriefing
					(discussion of elements that (dis)serve the pursuit of objectives).
Q16	√	✓	✓	88	The task of preparing the patient/animal case led respondents to make
					connections with theoretical concepts taught in the Pharmacy or
					Veterinary Medicine curriculum.
Q17	√		√	88	Students believe that collaborating with a colleague from another
					professional curriculum led them to make connections with theoretical
040			√		concepts taught in the Pharmacy or Veterinary Medicine curriculum.
Q18			·	75	The task of delivering appropriate advice on veterinary medication led respondents to make connections with theoretical concepts taught in the
					Veterinary Medicine course program.
Q19	✓	✓	✓	94	The debriefing in a large group led students to make connections with
QI3				94	theoretical concepts taught in the Pharmacy or Veterinary Medicine course
					program.
Q20	√	√	√	97	Collaborating with colleagues motivated students to engage in the
00:	√	./	√		preparation of the case.
Q21	· ·	,	V	100	Collaborating with colleagues motivated students to engage in the critical
022	✓	✓	√	07	analysis of role-plays.
Q22				97	Collaborating with colleagues motivated students to engage in the debriefing in large group.
Q23	✓	✓	√	100	Case preparation task, collaboration with a colleague, participation in role-
بدی				100	plays, critical analysis of the simulation, and debriefing in a large group
					were adequately explained.
Q24	√	√	√	100	The time given was sufficient.
Q25	✓	✓	✓	97	The level of difficulty of the cases was deemed appropriate.
	√	√	√		· · ·
Q26				100	The preparation of role-plays was a source of motivation.
Q27	✓	./	✓	61	Students would have been additionally motivated by the possibility of

1. Exploration phase Exploration of the case: Human profile Chronic human pathology Request for simplification about chronic human pathology Request about advice on OTC human medication Request about advice on veterinary medicine for a pet 2. Reflexion phase 2 groups of students: M2P for human request (considering the human pathology; providing advice on dosages and warnings for the requested medication) B3V and M3V for the request regarding veterinary medicine. It involved handling the veterinary request, where different alternatives were possible, and questioning about the animal. Formulation of the objectives pursued by the pharmacist and the veterinarian. 3. Active experimentation phase: complete SIMULATION sequence Simulation phase in 3 different parts Other students observed the role-playing to prepare for the large group debriefing of this simulated situation. Request concerning a chronic human disease (focusing on the need for clarification about condition) Request for an over-the-counter human medication (which could be infulenced in terms of advice given by the presence of the chronic illness) (3) Request for a veterinary medication (which the pharmacist could not acces directly) and telemedicine sequence with the veterinarian **Explanation of the content of the pharmacist-veterinarian discussion to the pet owner (creating a** shared decision between the two healthcare providers and the pet owner) Conceptualization phase: DEBRIEFING Identification of the benchmarks for practice Ordered sequence of the debriefing framework: (1) Feedback from the professional actors (pharmacists and then veterinarians) (2) Factual observations of actions by the observers (words, attitudes) and their feelings during the interaction (3) Construction of shared hypotheses to understand the supposed effects of interactions on the patient/pet owner (4) Feedback on the reals effects of interactions on the patient/pet owner (feelings, understanding, perception, intention regarding treatment and motivation) <u>Legend:</u> **M2P** student = pharmacist B3V student = patient (part 1 & part 2) and pet owner (part 3)

Pharmacy and veterinary students participated in role playing games involving the rational delivery of veterinary medications to a simulated patient/pet owner at the counter of an educational pharmacy. During these scenarios, a pharmacist and a pet owner engaged in an interaction leading to a sequence of interprofessional collaboration.

M3V student = veterinarian

Results

The response rate for the survey was 82,5%, with 33 participants out of 40. The analysis of the post-intervention questionnaires highlighted the educational interest of this pilot seminar in terms of exchanges and collaboration, as well as the increase in self-confidence in the exercise of service and counseling in veterinary medicines.

Conclusion

Beyond the **development of communication and collaboration skills**, the learning reported by students has exceeded expectations in the **One Health vision** by expanding awareness of the consequences on planetary health of their choices in dispensing veterinary medications in pharmacies. This initiative addresses the urgent need to improve rational dispensing practices for veterinary medicines, thereby contributing to the overall goal of **improving health care delivery in veterinary pharmacy**.







