(RESEARCH ARTICLE)

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Centro Escolar University-Manila virtual community pharmacy internship: Evaluation on the achievement of learning outcomes and satisfaction of students

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Abstract

Part of the pharmacy education curriculum in the Philippines is the completion of a 300-hour experiential pharmacy practice or internship in the community pharmacy to provide students with expertise and competence in promoting the role of pharmacists in the healthcare setting. To ensure continuity of learning amid the threat of the COVID-19 pandemic, onsite pharmacy internships shifted to a remote setting. This study aims to evaluate the achievement of learning outcomes and satisfaction of Centro Escolar University-Manila students on virtual community pharmacy internship. The study utilizes Cross-Sectional Correlational research methods, a web-based questionnaire was distributed to a sample of 128 through purposive sampling. The results revealed that there was a very high positive correlation between the achieved learning outcomes and student satisfaction on the virtual internship (r=0.820, p<0.001). This means that if learning outcomes increase by an additional unit, the student internship satisfaction level will also increase by 82%. The students showed a positive attitude towards their experience, learning outcomes and satisfaction during the virtual internship program despite the limitations of the pandemic. It is recommended that periodic evaluation of internship programs be conducted to allow educational institutions to improve and adjust the program to meet the standards of pharmacy education and demands of the pharmacy profession.

Keywords: Achievement; Learning Outcomes; Satisfaction; Virtual; Community Pharmacy Internship

1. Introduction

Pharmacy internship programs provide students with the opportunity to grow professionally through interaction with health care experts, present and project processes, improve oral, and written skills (Gaede, 2017). The goal of internship is for the pharmacist-intern to attain and build upon the knowledge, skills, responsibilities, and ability to safely, efficiently, and effectively practice pharmacy in a period of time. However, the normal conduction of internship program has been compromised due to COVID-19 pandemic. In the Philippines - due to the global pandemic brought about by COVID-19, the Pharmacy Practice Experience is conducted virtually to ensure continuity of learning and student academic program while ensuring health and safety among stakeholders. This study could be a basis for unceasingly developing, planning, and executing an extensive and systematized study of the Virtual Pharmacy Practice Experience for future pharmacy students.

2. Material and methods

The researchers used Cross-Sectional Correlational method. Senior Bachelor of Science in Pharmacy students at Centro Escolar University-Manila who completed the virtual community internship program in the academic year 2021-2022 were the respondents of the study. The survey instrument was synthesized from the course plan of Community Pharmacy Practice Experience (CPPE) developed by the School of Pharmacy of CEU. Subsequently, the questions on student satisfaction adopted relevant ideas from the study ofTeng et al. (2021) entitled, "Internships before and during COVID-19: experiences and perceptions of undergraduate interns and supervisors", thestudy of Almetwazi et al. (2020) on "Pharmacy students' satisfaction with Introductory Pharmacy Practice Experiences (IPPE) at community pharmacy", and lastly,the study "Evaluation of community pharmacy internship program in the Philippines" by Carrido et al. (2016). Purposive sampling is the sampling technique used and the total number of respondents is 128. Google forms was used for data collection and the survey link was disseminated through email. The research protocol and informed consent was submitted to Centro Escolar University-Institutional Ethics and Review Board and has been approved prior to the dissemination of survey questionnaires. ANOVA and Pearson's correlation coefficient was used as statistical treatment for data analysis.

3. Results and discussion

3.1. Sociodemographic profile of senior Pharmacy students of Centro Escolar University-Manila who completed the virtual internships in community pharmacy

This section is composed of a table related to the sociodemographic information of the respondents. This includes data on age, sex, gadgets used during the internship, and status of internet connectivity of the respondents.

Table 1 Demographic Profile of the Respondents

Demographic Variables	Groups	Frequency (n=128)	Percentage (%)
Age	20	1	0.8
	21	40	31.3
	22	78	60.9
	23	8	6.3
	25	1	0.8
Sex	Male	22	17.2
	Female	106	82.8
Internet Connectivity	Slow	2	1.6
	Intermittent	51	39.8
	Moderate	66	51.6
	Fast	9	7
Gadgets Used	Smartphone	101	38.3
	Laptop	118	44.7
	Tablet	24	9.1
	Desktop Computer	21	8

Having a stable internet connection provided a better experience for the students who had undergone online internships, making it easier for them to comply with the needed requirements without hassle. The use of gadgets such as laptops provided students the convenience of undergoing an online internship program in the comfort of their homes. Table 1 shows that most of the participants had a moderate internet connection and used laptops as a gadget, which positively affected their level of satisfaction. This table shows that most of the respondents belong to the age group of

22 (60.9 %), while the group of 20 and 25 (.8 %) had the lowest percentage among the age groups. Females (82.8 %) had a higher percentage than males (17.2 %). Most respondents had moderate internet connectivity (51.6 %), and the least number of respondents had a slow internet connection (1.6 %). The majority of respondents utilized laptops (44.7 percent), whereas only a small percentage used desktop computers (8.0 percent).

3.2. Students' perception of the achievement of learning outcomes on virtual community pharmacy internship

Table 2 According to Practicum Quality

	Indicators	Weighted Mean	Interpretation
1.	The practicum activities on the site are effective in linking learning in the classroom to real situations.	3.02	Agree
2.	Students are encouraged to collaborate.	3.34	Strongly Agree
3.	Students are encouraged to make suggestions for improvements.	3.23	Agree
4.	Work requirements expected of students are appropriate.	3.12	Agree
5.	Students are treated with respect and in a professional manner.	3.79	Strongly Agree
6.	Site provides appropriate resources and reference materials.	3.37	Strongly Agree
	Overall Weighted Mean	3.31	Strongly Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 2 presents that the virtual community pharmacy internship effectively linked learning in the classroom to real situations despite the remote learning due to the pandemic. As said on number six on the table, which is "Site provides appropriate resources and reference materials," most of the students strongly agreed, which implies that the virtual community internship had effectively reached the learning outcomes according to the practicum quality. Generally, this study observed that the respondents strongly agreed on the indicators for practicum quality with an overall weighted mean of 3.31. Specifically, the statement "Students are treated with respect and professionally" received the highest agreement level among the respondents, with a weighted mean of 3.79. Meanwhile, the item "The practicum activities in the site effectively link learning in the classroom to real situations" obtained the lowest rating with a weighted mean of 3.02.

Table 3 According to Manifestation of CEEGA (Centro Escolar Expected Graduate Attributes)

	Indicators	Weighted Mean	Interpretation
7.	Lifelong Learner	3.45	Strongly Agree
8.	Reflective and Creative Thinker	3.42	Strongly Agree
9.	Caring and Trustworthy Citizen	3.56	Strongly Agree
10.	Proficient Communicator	3.47	Strongly Agree
11.	Competent and Productive Professional	3.49	Strongly Agree
	Overall Weighted Mean	3.48	Strongly Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 3 shows that the manifestations of CEEGA were achieved regardless of the new learning modality for community pharmacy internship. Generally, this study observed that the respondents strongly agreed on the indicators for the manifestation of CEEGA with an overall weighted mean of 3.48. Specifically, the statement "Caring and trustworthy citizen" received the highest agreement level among the respondents, with a weighted mean of 3.56. Meanwhile, the item "Reflective and creative thinker" obtained the lowest rating with a weighted mean of 3.42.

Table 4 shows that the trainer/cooperating teacher was able to provide quality education to the students. This will significantly help them apply the gained knowledge and skills in their future careers. Generally, this study observed that the respondents strongly agreed on the indicators for practicum quality with an overall weighted mean of 3.46.

Specifically, the statement "is knowledgeable and skillful in the field" received the highest agreement level among the respondents, with a weighted mean of 3.72. Meanwhile, the item "gives clear feedback about competencies and skills" obtained the lowest rating with a weighted mean of 3.23. All indicators stated above were interpreted as "strongly agreed" by the respondents, which means that the trainer/cooperating teacher was able to impart knowledge, give clear feedback, and create open communication between the interns.

Table 4 According to Supervision of the Practicum Trainer/Cooperating Teacher

	Indicators	Weighted Mean	Interpretation
12.	Creates a climate conducive to open communication	3.31	Strongly Agree
13.	Is knowledgeable and skilful in the field	3.72	Strongly Agree
14.	Gives clear feedback about competencies and skills	3.23	Strongly Agree
15.	Expects Adherence to high ethical standards	3.62	Strongly Agree
16.	Models enthusiasm and dedication to the profession	3.63	Strongly Agree
17.	Communicate with the School about any issues/concerns on trainees' performance	3.50	Strongly Agree
18.	Process the Practicum Evaluation Report (PER) on time	3.37	Strongly Agree
19.	Demonstrate fairness in evaluating and grading the interns/trainees.	3.29	Strongly Agree
	Overall Weighted Mean	3.46	Strongly Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 5 According to Pharmacy Management

	Indicators	Weighted Mean	Interpretation
1.	Identify the different aspects of managing for a more efficient and sustainable operation	3.38	Strongly Agree
2.	Effectively deliver quality pharmacy service.	3.42	Strongly Agree
3.	Efficiently manage the pharmacy operation.	3.46	Strongly Agree
4	Understand the community pharmacists' work as the most accessible health professional for clients who need medicines and health services.	3.67	Strongly Agree
5.	Understand the pharmacist's role in promoting primary healthcare in the community.	3.73	Strongly Agree
6.	Apply the concepts of pharmacy in front-end operations.	3.49	Strongly Agree
7.	Apply the concepts of pharmacy in customer service.	3.58	Strongly Agree
8.	Demonstrate competence in creating standard operating procedures for a community pharmacy.	3.55	Strongly Agree
9.	Demonstrate competence in developing a risk management plan for a community pharmacy.	3.51	Strongly Agree
	Overall Weighted Mean	3.53	Strongly Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 5 presents that student effectively understand the community pharmacists' work and the role and deliver quality pharmacy services effectively. The new learning modality for the virtual community pharmacy internship forced students to adjust and adapt to the new learning system. However, the results in the table showed that the students had identified the roles, skills, and important qualities of pharmacists in the community setting. Generally, this study observed that the respondents strongly agreed on the indicators for practicum quality with an overall weighted mean

of 3.53. Specifically, the statement "understand the pharmacist's role in promoting primary healthcare in the community" received the highest agreement level among the respondents with a weighted mean of 3.73. Meanwhile, the item "identify the different aspects of managing for more efficient and sustainable operation" obtained the lowest rating with a weighted mean of 3.38.

3.3. Students' perception on the achievement of satisfaction on virtual community pharmacy internship

Table 6 According to Overall Internship Satisfaction

	Indicators	Weighted Mean	Interpretation
1.	I would rate my internship experience as excellent	2.96	Agree
2.	I really did something worthwhile in my internship	3.09	Agree
3.	The scientific level of my internship is in high standards	2.98	Agree
4	I was satisfied with the work assignments I had during my internship	2.93	Agree
5.	I was satisfied with my interactions with my preceptors	3.10	Agree
6.	My internship experience gave me a realistic preview of my field	2.89	Agree
7.	This experience helped me clarify my career goals	3.18	Agree
8.	My experience as an intern met my expectations	2.64	Agree
9.	The experience enhanced my knowledge and skills, and created opportunity for potential employment	3.01	Agree
10.	The internship was enjoyable	2.85	Agree
	Overall Weighted Mean	2.96	Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 6 shows that the virtual community pharmacy internship was beneficial to students to gain knowledge regarding what they want to achieve in their careers as pharmacists. But since there was no in-person training experience because of the pandemic, their expectations were not met. Students enjoyed their virtual community pharmacy internship, but part of them still expected to experience the internship face-to-face. However, 2.89 of the weighted mean agreed that their internship experience still gave them a realistic preview of their field despite limitations in a virtual setting. Generally, this study found that the respondents agreed on the indicators for overall internship satisfaction with an overall weighted mean of 2.96. Specifically, the statement "This experience helped me clarify my career goals" received the highest agreement level among the respondents, with a weighted mean of 3.18. However, the item "My experience as an intern met my expectations" got the lowest rating among them, with a weighted mean of 2.64.

Table 7 According to Module Delivery

	Indicators	Weighted Mean	Interpretation
1.	Goals and objectives are outlined and/or explained at the beginning of the internship	3.44	Strongly Agree
2.	Activities were well organized and structured	3.28	Strongly Agree
3.	The quality of the information offered in the module helped me in preparing for my responsibilities as an intern	3.28	Strongly Agree
4	Daily activities contributed to my knowledge and skills	3.18	Agree
5.	The time allotted for each activity to be accomplished was sufficient	3.13	Agree
6.	The virtual learning environment was beneficial in accomplishing and performing tasks in the coursework	3.13	Agree
7.	The virtual delivery did not hinder my learning	2.98	Agree
	Overall Weighted Mean	3.20	Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 8 According to Preceptor

	Indicators	Weighted Mean	Interpretation
1.	Exhibited a high level of knowledge and expertise	3.69	Strongly Agree
2.	Was dependable and available to assist when needed	3.38	Strongly Agree
3.	Provided constructive feedback on my work activities	3.05	Agree
4	Encouraged the interns to actively participate in virtual discussions	3.51	Strongly Agree
5.	Spent an adequate amount of time on interns	3.44	Strongly Agree
6.	Served as a role model for interns practicing in the community pharmacy setting	3.58	Strongly Agree
	Overall Weighted Mean	3.44	Strongly Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 9 According to Knowledge and Skills

	Indicators	Weighted Mean	Interpretation
1.	Acquired sufficient knowledge on drug classification, dosage forms, therapeutic uses, frequency, and modes of administration	3.38	Strongly Agree
2.	Became familiar with the drug's brand and generic names, and manufacturer or distributor	3.18	Agree
3.	Carried out all activities in accordance with the laws governing the practice of pharmacy	3.50	Strongly Agree
4	Gained knowledge on drug procurement and drug inventory management	3.50	Strongly Agree
5.	Enumerated the legal requirements for establishing a community pharmacy	3.56	Strongly Agree
6.	Demonstrated comprehension and understanding of the pharmacy laws	3.52	Strongly Agree
7.	Learned more about the business principles of operating a pharmacy	3.48	Strongly Agree
8.	Learned the important components and strategies of effective patient counseling.	3.54	Strongly Agree
9.	Improved my verbal communication when dealing with peers, health care providers and staff	3.31	Strongly Agree
10.	Improved my written communication skills when dealing with peers, health care providers, and staff	3.28	Strongly Agree
11.	Counselled patients based on their needs	3.38	Strongly Agree
12.	Identified prescription errors correctly and quickly	3.52	Strongly Agree
13.	Applied functional knowledge while solving problems and making appropriate decision matters pertaining to community pharmacy practice	3.39	Strongly Agree
14.	Performed extemporaneous compounding of products and Intravenous admixtures using good aseptic techniques	3.16	Agree
	Overall Weighted Mean	3.41	Strongly Agree

Scale: Strongly Agree - 3.26 to 4.00, Agree – 2.51 to 3.25, Disagree –1.76 to 2.50, Strongly Disagree – 1.00-1.75

Table 7 implies that preceptors were able to discuss each activity's goals and objectives in detail in every module. It helped the students gain prior knowledge and enough time to prepare themselves for specific training. Also, stating the

goals and objectives would determine if students have achieved what they were supposed to learn in a module. In addition to that, "activities were well organized and structured" and "the quality of information offered in the module helped me in preparing for my responsibilities as an intern" were also strongly agreed by the students. It shows that modules contained easily understandable activities and information that helped students realize their responsibilities as interns. On the other hand, the lowest weighted mean showed minor instances wherein the virtual delivery was insufficient for students to learn from their internship. But still, most of the respondents agreed that they learned from the virtual community pharmacy internship. Generally, this study found that the respondents agreed on the indicators for overall internship satisfaction with an overall weighted mean of 3.20. Specifically, the statement "goals and objectives are outlined and/or explained at the beginning of the internship" received the highest agreement level among the respondents with a weighted mean of 3.44. However, the item "the virtual delivery did not hinder my learning" got the lowest rating among them with a weighted mean of 2.98.

Table 8 indicates that preceptors in the virtual community pharmacy internship were pharmacists' experts in their work fields. Having preceptors with a high level of knowledge and expertise discusses basic foundations and skills in the real-life work setting. Students were satisfied with their virtual community pharmacy internship because their preceptors passed their expectations. However, since these preceptors were not trained to teach students, they still lacked constructive feedback on the students' work activities. But overall, preceptors were able to be role models to the interns in the community pharmacy setting. Generally, this study found that the respondents agreed on the indicators for overall internship satisfaction with an overall weighted mean of 3.44. Specifically, the statement "exhibited a high level of knowledge and expertise" received the highest agreement level among the respondents, with a weighted mean of 3.69. However, the item "provided constructive feedback on my work activities" got the lowest rating among them, with a weighted mean of 3.05.

Table 9 presents that most of the indicators were interpreted as "strongly agreed" by the respondents. This shows that students were satisfied with the knowledge and skills gained from their virtual community pharmacy internship. Among all the indicators, the respondents learned so much regarding the legal requirements for establishing a community pharmacy. The remaining two indicators with an "agreed" interpretation did not show a lack of satisfaction but needed minor improvement. Generally, this study found that the respondents agreed on the indicators for overall internship satisfaction with an overall weighted mean of 3.41. Specifically, the statement "enumerated the legal requirements for establishing a community pharmacy" received the highest agreement level among the respondents with a weighted mean of 3.56. However, the item "performed extemporaneous compounding of products and Intravenous admixtures using good aseptic techniques" got the lowest rating among them with a weighted mean of 3.16.

3.4. Correlation between Respondents' Sociodemographic Profile and the Students' Perception on the Achievement of Learning Outcomes and Satisfaction on Virtual Community Pharmacy Internship

Table 10 exhibits the correlation between respondents' socio-demographic profile and the students' perception on the achievement of learning outcomes and satisfaction on virtual community pharmacy internship using Eta correlation. This study found out that there were no significant relationships between age and practicum quality ($\eta=0.223$, $p>0.05$), manifestation of CEEGA ($\eta=0.171$, $p>0.05$), supervision of the practicum trainer/cooperating teacher ($\eta=0.143$, $p>0.05$), and pharmacy management ($\eta=0.026$, $p>0.05$), This indicates that there were no associations between age and the aspects of learning outcomes.

In addition, there were also no significant relationships between sex and practicum quality ($\eta=0.154$, $p>0.05$), manifestation of CEEGA ($\eta=0.172$, $p>0.05$), supervision of the practicum trainer/cooperating teacher ($\eta=0.116$, $p>0.05$), and pharmacy management ($\eta=0179$, $p>0.05$). This means that this study was not able to establish statistical evidence to support that there were correlations among the said variables.

Lastly, no significant relationships were established between internet connectivity and practicum quality ($\eta=0.129$, $p>0.05$), manifestation of CEEGA ($\eta=0.109$, $p>0.05$), supervision of the practicum trainer/cooperating teacher ($\eta=0.074$, $p>0.05$), and pharmacy management ($\eta=0.119$, $p>0.05$). This suggests that there were no statistical association among the variables in study.

Table 10 Eta Correlation: Significant Relationship between Demographic Profile and Learning Outcomes

Aspects of Learning Outcomes	Demographic Variable	Eta Correlation (ŋ)	Significance Level (p-value)	Decision	Relationship
Practicum Quality	Age	0.223	0.187	Accept Ho	Not Significant
Manifestation of CEEGA		0.171	0.529	Accept Ho	Not Significant
Supervision of the Practicum Trainer/Cooperating Teacher		0.143	0.531	Accept Ho	Not Significant
Pharmacy Management		0.026	0.253	Accept Ho	Not Significant
Practicum Quality	Sex	0.154	0.429	Accept Ho	Not Significant
Manifestation of CEEGA		0.172	0.266	Accept Ho	Not Significant
Supervision of the Practicum Trainer/Cooperating Teacher		0.116	0.757	Accept Ho	Not Significant
Pharmacy Management		0.179	0.448	Accept Ho	Not Significant
Practicum Quality	Internet Connectivity	0.129	0.113	Accept Ho	Not Significant
Manifestation of CEEGA		0.109	0.378	Accept Ho	Not Significant
Supervision of the Practicum Trainer/Cooperating Teacher		0.074	0.535	Accept Ho	Not Significant
Pharmacy Management		0.119	0.235	Accept Ho	Not Significant

Note: Correlation is computed at 5% level of significance. If p-value is less than 0.05, there is a significant relationship, thus reject Ho. If otherwise, there is no significant relationship, therefore accept Ho

Table 11 exhibits the correlation between respondents' sociodemographic profile and the students' perception on the achievement of student satisfaction on virtual community pharmacy internship using Eta correlation which shows that the sociodemographic profile of respondents had no significant relationship in achieving the satisfaction of students. This is because CHED released guidelines in the new experiential pharmacy practice to encourage flexibility to meet the program outcomes and satisfaction of students. The School of Pharmacy in CEU-Manila also ensured that the students are satisfied in experiencing virtual community pharmacy internship.

This study found that knowledge and skills (ŋ=0.268, p>0.05) had a significant relationship with age. However, there were no significant relationships between age and overall internship satisfaction (ŋ=0.223, p>0.05), module delivery (ŋ=0.171, p>0.05), and preceptor (ŋ=0.185, p>0.05), for the knowledge and skills (ŋ=0.268, p>0.05) it had a significant relationship with age. This indicates that there were no associations between age and the aspects of student satisfaction except in the knowledge and skills.

In addition, there were also no significant relationships between sex and overall internship satisfaction (ŋ=0.077, p>0.05), module delivery (ŋ=0.061, p>0.05), preceptor (ŋ=0.060, p>0.05), and knowledge and skills (ŋ=0.146, p>0.05). This means that this study was not able to establish statistical evidence to support that there were correlations among the said variables.

Lastly, knowledge and skills (ŋ=0.233, p>0.05) had a significant relationship with internet connectivity. However, no significant relationships were established between internet connectivity and overall internship satisfaction (ŋ=0.140, p>0.05), module delivery (ŋ=0.109, p>0.05), and preceptor (ŋ=0.104, p>0.05). This suggests that there was no statistical association among the variables in study except for knowledge and skills.

Table 11 Eta Correlation: Significant Relationship between Demographic Profile and Satisfaction

Aspects of Satisfaction	Demographic Variable	Eta Correlation (ƞ)	Significance Level (p-value)	Decision	Relationship
Overall Internship Satisfaction	Age	0.223	0.362	Accept Ho	Not Significant
Module Delivery		0.182	0.451	Accept Ho	Not Significant
Preceptor		0.185	0.368	Accept Ho	Not Significant
Knowledge and Skills		0.268	0.046	Reject Ho	Significant
Overall Internship Satisfaction	Sex	0.077	0.722	Accept Ho	Not Significant
Module Delivery		0.061	0.645	Accept Ho	Not Significant
Preceptor		0.060	0.721	Accept Ho	Not Significant
Knowledge and Skills		0.146	0.500	Accept Ho	Not Significant
Overall Internship Satisfaction	Internet Connectivity	0.140	0.152	Accept Ho	Not Significant
Module Delivery		0.126	0.149	Accept Ho	Not Significant
Preceptor		0.104	0.087	Accept Ho	Not Significant
Knowledge and Skills		0.233	0.044	Reject Ho	Significant

Note: Correlation is computed at 5% level of significance. If p-value is less than 0.05, there is a significant relationship, thus reject Ho. If otherwise, there is no significant relationship, therefore accept Ho

3.5. Correlation between respondents' achieved learning outcomes and student satisfaction on virtual community pharmacy internship

Table 12 Pearson Correlation: Significant Relationship between learning outcomes and student satisfaction on virtual community pharmacy internship

Variables		Pearson Correlation (r)	Significance Level (p-value)	Decision	Relationship
Respondents' Achieved Learning Outcomes	Student Satisfaction on Virtual Community Pharmacy Internship	0.820	0.000	Reject Ho	Significant

Note: Correlation is computed at 5% level of significance. If p-value is less than 0.05, there is a significant relationship, thus reject Ho. If otherwise, there is no significant relationship, therefore accept Ho

Table 12 shows that students achieved the learning outcomes and are satisfied in the virtual community pharmacy internship. This generation had been adaptive to technology and despite the pandemic, the 4th-year BS Pharmacy students were able to learn and experience internship in the new normal effectively. They adapt to the change effectively because prior to going to internship, the students already practiced online learning. They were already prepared and adapted to the new setup, making the online community pharmacy internship beneficial to them in terms of achieving their learning outcomes and overall satisfaction with the community pharmacy internship.

The correlation between respondents' achieved learning outcomes and student satisfaction on virtual community pharmacy internship used Pearson Correlation. The results revealed that there was indeed a very high positive correlation between these variables (r=0.820, p<0.001). This means that if learning outcomes increase by an additional unit, the student internship satisfaction level will also increase by 82%.

According to CMO No. 4 s.2020, HEIs are required to do development webinars for the faculty and capacity-building activities that pertain to the best practice on flexible learning, this will ensure that the members of the faculty are prepared satisfactorily and are fully equipped with flexible teaching-learning implementation. This action is a strategy to achieve the minimum learning outcomes required for the students in the pharmacy program. In addition, to ensure

that the interns have fulfilled the requirements for the learning outcomes, the interns shall be supervised by the preceptors while undergoing alternative learning activities such as webinars, virtual simulations, virtual tour of internship sites, simulations based on cases, and other virtual activities that will be of help in achieving the competencies of the interns in the virtual pharmacy practice experience.

Table 13 Pearson Correlation Table

r	Verbal Interpretation
± 1.00	Perfect Correlation
± .81 – 99	Very High Correlation
± .61 – 80	Substantial Correlation
± .41 – 60	Moderate Correlation
± .21 - .40	Low Correlation
± .01 - .20	Negligible Correlation
± .0	No Correlation

4. Conclusion

Centro Escolar University virtual community pharmacy internship's learning outcomes and student satisfaction were achieved. Students were able to gain knowledge and skills from their preceptors, modules, and activities. The preceptors were able to provide quality education and exceptional module delivery. The modules offered contain quality information that helped interns determine their responsibilities as future pharmacists. The activities provided were structured and organized for the students to learn and enjoy the internship simultaneously.

Based on the study's findings, there was no significant relationship between the respondents' sociodemographic profiles and the extent of effectiveness in achieving learning outcomes and satisfaction with the Virtual Community Pharmacy Internship. Sex, age, internet connection, and gadgets used did not affect the learning outcomes and satisfaction in the virtual community pharmacy. However, there was a significant relationship between students' perception of the extent of effectiveness in achieving the learning outcomes and satisfaction in the Virtual Community Pharmacy Internship. The positive relationship between variables indicates that the learning outcomes and student satisfaction has been achieved in virtual community pharmacy internship.

Overall, the virtual community pharmacy internship was effective and can be used as an alternative learning mode for 4th-year BS Pharmacy interns.

Compliance with ethical standards

Acknowledgments

The authors acknowledged the School of Pharmacy, Centro Escolar University-Manila, Metro Manila, Philippines for the support.

Disclosure of conflict of interest

The authors confirms that there is no conflict of interest.

Statement of ethical approval

The authors confirmed that the study protocol and informed consent underwent and approved by the Institutional Ethics Review Board.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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