International Journal of Research Publication and Reviews

Perception and Attitude on Risk of Fall, Pressure Ulcer and Pain Score Assessment during patient admission among Emergency Department (ED) Staff in Selected Hospitals in the Philippines

Shirley Salvador Libe[1], Diana Vanessa Felias[2], Miqdad Asanjii Jauhari[3], Andy William Mantilla[4], Robert Noel Felias[5], Professor Erwin Faller[6]

[1] St. Bernadette of Lourdes College- Graduate School, slibe@sblc.edu.ph

[2] St. Bernadette of Lourdes College- Graduate School, dfelias@sblc.edu.ph

[3] St. Bernadette of Lourdes College- Graduate School, mjauhari@sblc.edu.ph

[4] St. Bernadette of Lourdes College- Graduate School, amantilla@sblc.edu.ph

[5] St. Bernadette of Lourdes College- Graduate School, rfelias@sblc.edu.ph

[6] Research Adviser: , St. Bernadette of Lourdes College- Graduate School, efaller@sblc.edu.ph

ABSTRACT:

This study was conducted in order to determine the perception and attitude on risk of fall, pressure ulcer and pain score assessment during patient admission among Emergency Department (ED) Staff in selected hospitals in the Philippines. It utilized the descriptive – correlational method of research involving the selected 40 nurses and physicians as respondents of the study.

Based on the analysis of data, majority of the respondents (77.5%) were registered nurses; females (52.5%); most of them (42.5%) belonged to the age range of 26 – 35 years old; and had been working in the emergency department for the period of 5 years and above (42.5%). The level of perception among emergency department staff in selected hospitals in the Philippines with regards to assessment of risk of fall, pressure ulcer, and pain score assessment was rated with mean values of 4.70, 4.658, and 4.717, respectively described as strongly agree. The level of attitude among emergency department staff in selected hospitals in the Philippines with regards to assessment of risk of fall, pressure ulcer, and pain score assessment was rated with mean values of 4. 665, 4.635, and 4.705, respectively described as strongly agree.

In conclusion, majority of the respondents were female registered nurses with age range of 26 – 35 years old and had been working in the emergency department for the period of 5 years and above. The respondents described the level of perception and level of attitude among emergency department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment as strongly agree. However, the study revealed that there is no significant relationship between the demographic profile and the level of perception and level of attitude among emergency department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment during patient admission.

Introduction

Fall incident became one of the major causes of mortality and morbidity in older adults with an estimated 30 to 40% of patients over the age of 65 will fall at least once every year. Falls lead to moderate to severe injuries, fear of falling, loss of independence and death in a third of patients [1]. On the other hand, pressure ulcers ranked third most costly disease after cancers and cardiovascular diseases. The mortality rates from this disease are 2 to 6 times as much as from other diseases, with 60,000 deaths annually due to this complication [2]. Pain is one of the main complaints of patients referred to the hospital and comprises almost 80% of the causes for referral to the emergency department [3]. Efforts in pain management at the emergency department is one of the quality-of-care indicators and can be used as a marker for assessing the quality of care given to patients [4-6].

The perception and attitude of Emergency Department staff toward assessment of risk of fall, pressure ulcer, and pain score are crucial factors that influence the delivery of optimal patient care [7]. International literature provides insights into the potential outcomes of effective assessment practices [8]. The competence of the healthcare workers in rendering quality care services to the patients being attended on their initial visit to the Emergency Department has been of the essence to achieving and ensuring the overall wellness, as well as minimizing long hospital stay and diminishing health care cost [9]. Their knowledge, understanding, and adherence to evidence-based guidelines play a significant role in accurately identifying and managing these risks and exploring their perceptions and attitudes can provide valuable insights into the current practices, identify potential gaps in knowledge, and highlight areas for improvement [10].

Limited research specifically focusing on the effects of fall risk, pressure ulcer, and pain score assessments among healthcare staff in the Philippines were identified |10-12|. This research aims to determine the perception and attitude on risk of fall, pressure ulcer and pain score assessment among Emergency Department (ED) Staff in selected hospitals in the Philippines. By understanding their perceptions, attitudes, and adherence to evidence-based practices, this study aims to contribute to enhancing patient care, reducing adverse events, and improving outcomes for patients admitted to the ED in the Philippines.

Methods

Study Design. This study was a non-experimental, quantitative correlational research design and descriptive in nature. The study determined the perception and attitude on risk of fall, pressure ulcer and pain score assessment among Emergency Department (ED) staff in selected hospitals in the Philippines.

Setting of the Study. The study was conducted in selected hospitals in the Philippines where the respondents are located.

Study Population. The study will focus on ED staff including physicians, nurses, and other healthcare providers working in emergency departments across various healthcare settings in the Philippines.

Inclusion criteria: a. ED staff (physicians, nurses, and nursing aides) working directly with patients in the emergency department. b. ED staff with a minimum of six months of experience in the emergency department. c. ED staff willing to participate in the study voluntarily and provide informed consent.

Exclusion criteria: a. ED staff who do not work directly with patients in the emergency department. b. ED staff who have less than six months of experience in the emergency department. c. ED staff who express unwillingness to participate in the study or do not provide informed consent.

Instruments. The research instrument used is a validated researcher-made survey questionnaire.

Data Collection Procedure. A formal Letter of Request for Approval addressed to the Hospital Director or Chief of Hospital was initially submitted, upon approval an Informed Consent was given to the respondents prior to the distribution of the survey questionnaires. The data gathered were electronically tabulated and kept confidential through a password generated program.

Data Analysis. It utilized the descriptive – correlational method of research involving the selected 40 nurses and physicians as respondents of the study. Frequency counts, weighted mean, standard deviation, and multiple linear regression analysis were used in the statistical treatment of data.

Limitation

1.The findings of the study may have limited generalizability due to convenience sampling method and the specific context of ED staff in the Philippines.

2. The study relies on self-reported data, which may be subject to bias or social desirability effects.

3. The study focuses on perception and attitude but may not capture the actual behavior and practices of ED staff.

4. The study is limited to ED staff in the Philippines and may not reflect the perception and attitude of healthcare providers in other regions or settings

5. The study will specifically target a particular group of professionals in the ED, which includes: a. Clinical Staff: ED Consultant, Attending Physicians, ED Officers, ED Residents, ED Medical Interns and Clerks. b. Nursing Staff: ED Unit Manager, ED Nurse Manager, ED Charge Nurse, ED Senior Nurse or Charge Nurse, ED Nursing Staff

Results

Problem no. 1: What is the demographic Profile of Emergency Department Staff in terms of age, gender, profession, and years of employment?

Table 1: Frequency and Percentage Distribution of Respondents according to Demographic Profile

Profile	Frequency	Percentage
Profession		
Physician	9	22.5
Nurses	31	77.5
Total	40	100.0
Age Level		
18 - 25 years old	8	20.0
26 - 35 years old	17	42.5
36 - 45 years old	13	32.5
46 – 55 years old	2	5.0
Total	40	100.0
Gender		
Male	19	47.5
Female	21	52.5
Total	40	100.0
Years of Experience in Emergency Department		
1 year and below		
2 – 3 years	7	17.5
4 – 5 years	9	22.5
5 years and above	7	17.5
	17	42.5
Total	40	100.0

Table 1 presents the frequency and percentage distribution of respondents according to their profile in terms of profession, age level, gender, and number of years of experience in Emergency Department. As depicted in the table, in terms of profession, majority of the respondents numbering 31 or 77.5% in the distribution were nurses, and 9 or 22.5% of the respondents were physicians. The finding of the study shows that majority of the respondents were registered nurses.

In terms of age level, the same table revealed that most of the respondents with frequency 17 or 42.5% in the distribution belonged to the age range of 26 – 35 years old, followed by 13 or 32.5% of the respondents belonged to the age range of 36 – 45 years old. And third in the distribution, with frequency 8 or 20.0% of the respondents belonged to the age range of 18 – 25 years old. On the other hand, the least in the distribution, with frequency 2 or 5.0% of the respondents belonged to the age range 46 -55 years old. The finding of this study shows that majority of the respondents were at the age range of 26 – 45 years old.

Likewise, in terms of gender, majority of the respondents with frequency 21 or 52.5% in the distribution were females, and 19 or 47.5% of the respondents were males.

Then, in terms number of years of experience in Emergency Department, the same shows that most of the respondents with frequency 17 or 42.5% in the distribution had been working in the emergency Department for the period of 5 years and above, followed by 9 or 22.5% of the respondents had been serving the Emergency Department for the period of 2 – 3 years, and the least in the distribution were equally distributed to to the period of 1 year and below and 4 – 5 years with frequency 7 or 17.5% each. The finding of this study shows that majority of the respondents had been working in the emergency department for the period of 4 years and above.

Problem no. 2: What is the level of perception among Emergency Department staff in selected hospitals in the Philippines with regards to assessment of Risk of Fall, Pressure Ulcer, and Pain Score assessment?

Table 2: Level of Perception among Emergency Department Staff in Selected Hospitals in the Philippines as regards to Assessment of Risk of Fall, Pressure Ulcer and Pain Score Assessment

Statements	Weighted Mean	SD	Verbal Description
Risk of Fall Assessment			
1. I am confident in my ability to assess fall risk accurately.	4.725	0.07299	Strongly Agree
2. I am aware of the protocols and guidelines for assessing fall risk during patient admission.	4.700	0.5639	Strongly Agree
3. I believe that falls are significant risk for patients during admission.	4.675	0.7299	Strongly Agree
Average Weighted Mean	4.70	0.4705	**Strongly Agree**
Pressure Ulcer Assessment			
1. I am confident in my ability to assess pressure ulcers accurately.	4.725	0.5541	Strongly Agree
2. I believe pressure ulcers pose a significant risk to patients during admission.	4.625	0.7403	Strongly Agree
3. I am aware of the protocols and guidelines for assessing pressure ulcers during patient admission.	4.625	0.7048	Strongly Agree
Average Weighted Mean	4.658	0.5968	**Strongly Agree**
Pain Score Assessment			
1. I believe that the assessment of pain scores poses a significant risk to patients during admission.	4.775	0.4797	Strongly Agree
2. I am confident in my ability to assess pain score accurately.	4.700	0.5164	Strongly Agree
3. I am aware of the protocols and guidelines for assessing pain score during patient admission.	4.675	0.5723	Strongly Agree
Average Weighted Mean	4.717	0.4808	**Strongly Agree**

4.50 – 5.00 = Strongly Agree, 2.50 – 3.49 = Moderately Agree, 3.50 – 4.49 = Agree, 1.50 – 2.49 = Disagree, 1.00 – 1.49 = Strongly Disagree

Table 2 shows the weighted mean values and standard deviations of responses on the statements indicating the level of perception among the respondents on risk of fall, pressure ulcer, and pain score assessment. As presented in the table, in terms of risk of faff, this variable got the computed average weighted mean value of 4.7 generally described as strongly agree. This confirmed that the respondents are knowledgeable and competent in handling the risk of fall for patients during admission. This finding was evidently supported by the three (3) – sub variables under this category that got the computed weighted mean values ranging from 4.675 to 4.725, which all described as strongly agree, which entail that the respondents believed that they are confident in their ability to assess fall of accurately; in the same manner, they are aware of the protocols and guidelines for assessing fall risk during patient admission; and they believed that falls are significant risk for patients during admission.

Similarly, in terms of pressure ulcer assessment, the same table shows that this variable got the computed average weighted mean value of 4.658, generally described as strongly agree. It implies that the respondents are also knowledgeable and competent in assessing pressure ulcers during patient admission. In support to this finding, the three (3) variables under this category were all rated with mean values ranging from 4.625 to 4.725, and all described as strongly agree. In particular, the respondents strongly agreed that; they are confident in their ability to assess pressure ulcers accurately; likewise, they believed that pressure ulcers pose a significant risk to patients during admission; and in addition, they are also aware of the protocols and guidelines for assessing pressure ulcers during patient admission.

Finally, in terms of Pain Score Assessment, the same table revealed that the variable got the computed weighted mean value of 4.717, generally confirmed as strongly agree. The respondents believed that they are also knowledgeable and competent in performing pain score assessment. In support to this finding, all the three (3) variables under this category got the computed weighted mean values ranging from 4.675 to 4.775, which all described as strongly agree. Specifically, the respondents, strongly believed that the assessment of pain scores poses a significant risk to patients during admission; however, they are confident in their ability to assess pain score accurately; because, they are aware of the protocols and guidelines for assessing pain score during patient admission.

Problem no. 3: What is the level of attitude among Emergency Department staff in selected hospitals in the Philippines with regards to assessment of Risk of Fall, Pressure Ulcer, and Pain Score assessment?

Table 3: Level of Attitude among Emergency Department Staff in Selected Hospitals in the Philippines as regards to Assessment of Risk of Fall, Pressure Ulcer and Pain Score Assessment

Statements	Weighted Mean	SD	Verbal Description
Risk of Fall Assessment			
1. It is necessary that assessment for fall risk should be prioritized in the ER.	4.775	0.4229	Strongly Agree
2. I think that assessing fall risk can help improve patient outcomes.	4.775	0.4229	Strongly Agree
3. I believe that falls are significant risk for patients during admission.	4.675	0.5723	Strongly Agree
4. I see that my work place encourages accurate and on-time assessments of fall risks.	4.60	0.5454	Strongly Agree
5. I feel motivated to consistently assess fall risk during patient admission.	4.50	0.6405	Strongly Agree
Average Weighted Mean	4.665	0.4377	Strongly Agree
Pressure Ulcer Assessment			
1. Assessing pressure ulcers during patient admission is an important component of providing quality care.	4.75	0.5430	Strongly Agree
2. I think that assessing pressure ulcers can help improve patient outcomes.	4.70	0.6076	Strongly Agree
3. I feel motivated to consistently assess pressure ulcers during patient admission.	4.60	0.7442	Strongly Agree
4. I see that my work place encourages accurate and on-time assessments of pressure ulcers.	4.60	0.6325	Strongly Agree
5. It is necessary that assessment for pressure ulcers should be prioritized in the ER.	4.525	0.6789	Strongly Agree
Average Weighted Mean	4.635	0.5395	Strongly Agree
Pain Score Assessment			
see that my work place encourages accurate and on-time assessments of pain score.	4.825	0.3848	Strongly Agree
I think that assessing pain score can help improve patient outcomes.	4.775	0.4797	Strongly Agree
I feel motivated to consistently assess pain score during patient admission.	4.718	0.6468	Strongly Agree
4. Assessing pain score during patient admission is an important component of providing quality care.	4.825	0.8378	Strongly Agree
5. It is necessary that assessment for pain score should be prioritized in the ER.	5.55	0.8101	Strongly Agree
Average Weighted Mean	4.705	0.4619	Strongly Agree

4.50 – 5.00 = Strongly Agree, 2.50 – 3.49 = Moderately Agree, 1.00 – 1.49 = Strongly Disagree
|3.50 – 4.49 = Agree   1.50 – 2.49 = Disagree

Table 3 presents the weighted mean values and standard deviations of assessment rating of statements indicating the level of attitude among emergency department staff in selected hospitals in the Philippines, in terms of risk of fall, pressure ulcer, and pain score assessment. As presented in the table in terms of risk of fall assessment.

Problem no. 4: Is there a significant relationship between the demographic profile and the level of perception and attitude among Emergency Department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment during patient admission?

Table 4: Regression Analysis on Significant Relationship between the Demographic Profile and the Perception among Emergency Department Staff on Risk of Fall Assessment

Predictor Variables	Regression Coefficient	Standard Error	Student's T-value	P-value
1. Profession	-0.28193	0.19585	-1.44(ns)	0.1589
2. Gender	0.11252	0.15614	0.72(ns)	0.4759
3. Age Level	-0.14402	0.10772	-1.34(ns)	0.1899
4. Years of Experience	0.05726	0.044798	1.28(ns)	0.2096
r = 0.313	F - Obs = 0.95(ns)			
R^2 = 0.0981	P - value = 0.4462			

ns = Not significant

Table 5: Regression Analysis on Significant Relationship between the Demographic Profile and the Perception among Emergency Department Staff on Pressure Ulcer Assessment

Predictor Variables	Regression Coefficient	Standard Error	Student's T-value	P-value
1. Profession	-0.33656	0.25193	-1.34(ns)	0.1902
2. Gender	0.20468	0.20084	1.02(ns)	0.3151
3. Age Level	-0.10107	0.13856	-0.73(ns)	0.4706
4. Years of Experience	0.046003	0.05763	0.80(ns)	0.4301
r = 0.27			F – Obs = 0.69(ns)	
R^2 = 0.0728			P – value = 0.6061	

ns = Not significant

Table 8: Regression Analysis on Significant Relationship between the Demographic Profile and the Attitude among Emergency Department Staff on Pressure Ulcer Assessment

Predictor Variables	Regression Coefficient	Standard Error	Student's T-value	P-value
1. Profession	-0.23571	0.23198	-1.02(ns)	0.3166
2. Gender	-0.01955	0.18493	-0.11(ns)	0.9164
3. Age Level	-0.06449	0.12759	-0.51(ns)	0.6164
4. Years of Experience	0.023169	0.05306	0.44(ns)	0.6651
r = 0.1944			F – Obs = 0.34(ns)	
R^2 = 0.0378			P – value = 0.8467	

ns = Not significant

Table 9: Regression Analysis on Significant Relationship between the Demographic Profile and the Attitude among Emergency Department Staff on Pain Score Assessment

Predictor Variables	Regression Coefficient	Standard Error	Student's T-value	P-value
1. Profession	-0.23062	0.19832	-1.16(ns)	0.2528
2. Gender	-0.06964	0.15810	0.44(ns)	0.6610
3. Age Level	-0.03706	0.10908	-0.34(ns)	0.7361
4. Years of Experience	0.00879	0.04536	-0.19(ns)	0.8475
r = 0.201			F – Obs = 0.37(ns)	
R^2 = 0.0404			P – value = 0.8296	

ns = Not significant

Table 6: Regression Analysis on Significant Relationship between the Demographic Profile and the Perception among Emergency Department Staff on Pain Score Assessment

Predictor Variables	Regression Coefficient	Standard Error	Student's T-value	P-value
1. Profession	-0.10861	0.20568	-0.53(ns)	0.6008
2. Gender	0.08010	0.16397	0.49(ns)	0.6282
3. Age Level	-0.03950	0.11313	-0.35(ns)	0.7291
4. Years of Experience	0.04826	0.04705	1.03(ns)	0.3120
r = 0.218			F – Obs = 0.44(ns)	
R^2 = 0.0476			P – value = 0.7808	

ns = Not significant

Table 7: Regression Analysis on Significant Relationship between the Demographic Profile and the Attitude among Emergency Department Staff on Risk of Fall Assessment

Predictor Variables	Regression Coefficient	Standard Error	Student's T-value	P-value
1. Profession	-0.27822	0.18266	-1.52(ns)	0.1367
2. Gender	-0.09141	0.14562	-0.63(ns)	0.5342
3. Age Level	-0.10409	0.10046	-1.04(ns)	0.3073
4. Years of Experience	0.00627	0.04178	0.15(ns)	0.8816
r = 0.306			F – Obs = 0.90(ns)	
R^2 = 0.0936			P – value = 0.4725	

ns = Not significant

Tables 4-9 Regression analysis shows no significant relationship between the demographic profile, level of perception and level of attitude among Emergency Department Staff on Risk of Fall, Pressure Ulcer and Pain Score Assessments.

Findings

Based on the analysis of data, this study revealed the following findings:

- Majority of the respondents (77.5%) were registered nurses; females (52.5%); most of them (42.5%) belonged to the age range of 26 – 35 years old; and had been working in the emergency department for the period of 5 years and above (42.5%).

- The level of perception among emergency department staff in selected hospitals in the Philippines with regards to assessment of risk of fall, pressure ulcer, and pain score assessment was rated with mean values of 4.70, 4.658, and 4.717, respectively described as strongly agree.

- The level of attitude among emergency department staff in selected hospitals in the Philippines with regards to assessment of risk of fall, pressure ulcer, and pain score assessment was rated with mean values of 4. 665, 4.635, and 4.705, respectively described as strongly agree.

- There is no significant relationship between the demographic profile and the level of perception and level of attitude among emergency department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment during patient admission.

Conclusion.

Majority of the respondents were registered nurses; females; most of them belonged to the age range of 26 – 35 years old; and had been working in the emergency department for the period of 5 years and above. The respondents described the level of perception among emergency department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment as strongly agree. The respondents described the level of attitude among emergency department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment as strongly agree. Lastly, there is no significant relationship between the demographic profile and the level of perception and level of attitude among emergency department staff in selected hospitals in the Philippines on risk of fall, pressure ulcer, and pain score assessment during patient admission.

Recommendations

Based on the findings and conclusions, this study recommends:

1. Conduct additional surveys and interviews to a larger scale of population for better representation to yield higher response rates than the current study.

2. Conduct a comparison of perception and attitude on a global scale to facilitate international discussions and address potential concerns for a better patient care.

References:

1. Ambrose, A. F., Paul, G., & Hausdorff, J. M. (2013). Risk factors for falls among older adults: a review of the literature. *Maturitas*, *75*(1), 51-61. DOI: 10.1016/j.maturitas.2013.02.009

2. Schindler, C. A., Mikhailov, T. A., Kuhn, E. M., Christopher, J., Conway, P., Ridling, D., & Simpson, V. S. (2011). Protecting fragile skin: nursing interventions to decrease development of pressure ulcers in pediatric intensive care. *American journal of critical care*, *20*(1), 26-35. DOI: 10.4037/ajcc2011754

3. Cordell, W. H., Keene, K. K., Giles, B. K., Jones, J. B., Jones, J. H., & Brizendine, E. J. (2002). The high prevalence of pain in emergency medical care. *The American journal of emergency medicine*, *20*(3), 165-169.

4. Schull, M. J., Morrison, L. J., Vermeulen, M., & Redelmeier, D. A. (2003). Emergency department overcrowding and ambulance transport delays for patients with chest pain. *Cmaj*, *168*(3), 277-283.

5. Gordon, D. B., Dahl, J. L., Miaskowski, C., McCarberg, B., Todd, K. H., Paice, J. A., ... & Carr, D. B. (2005). American pain society recommendations for improving the quality of acute and cancer pain management: American Pain Society Quality of Care Task Force. *Archives of internal medicine*, *165*(14), 1574-1580.

6. Hwang, U., Richardson, L. D., Sonuyi, T. O., & Morrison, R. S. (2006). The effect of emergency department crowding on the management of pain in older adults with hip fracture. *Journal of the American Geriatrics Society*, *54*(2), 270-275.

7. Han, Y., Kim, H., and Hong, H. (2020) The Effect of Knowledge and Attitude on Fall Prevention Activities among Nursing Staff in Long-Term Care Hospitals. *Open Journal of Nursing*, 10, 676-692. DOI: 10.4236/ojn.2020.107048

8. Dykes, P.C., Burns, Z., Adelman, J., Benneyan, J., Bogaisky, E.C., Ergai, A., Lindros, M.E., Lipsitz, S., Scanlan, M., Shaykevich, S., & Bates, D.W. Evaluation of a Patient-Centered Fall-Prevention Tool Kit to Reduce Falls and Injuries: A Non-randomized Controlled Trial. DOI: 10.1001/jamanetworkopen.2020.25889

9. Greiner AC., Knebel E. (2003). Institute of Medicine (US) Committee on the Health Professions Education Summit; Health Professions Education: A Bridge to Quality. Washington (DC): National Academies Press (US); 2003. Chapter 3, The Core Competencies Needed for Health Care Professionals. https://www.ncbi.nlm.nih.gov/books/NBK221519/

10. Galanti G. A. (2000). Filipino attitudes toward pain medication. A lesson in cross-cultural care. *The Western journal of medicine*, *173*(4), 278–279. https://doi.org/10.1136/ewjm.173.4.278

11. .Chen, TY., Cruz, G., Nguyen, V., Saito, Y. (2021). Falls among older adults in the Philippines and Vietnam: Results from nationally representative samples. Innovation in Aging. 5. 1042-1042. 10.1093/geroni/igab046.3691

12. Barit, J.-V. J. G., Abalos-Babaran, S., Obbus, S. F. V., & Dofitas, B. L. (2021). The Clinical Profile, Wound Dressings, and Clinical Outcomes of In-patients with Pressure Ulcers at a Tertiary Hospital in the Philippines: A Seven-year Retrospective Study. *Acta Medica Philippina*, *55*(5). https://doi.org/10.47895/amp.v55i5.2767