ANTI-SEIZURE MEDICATION ADHERENCE AMONG ADOLESCENTS WITH EPILEPSY IN A TERTIARY HOSPITAL IN THE PHILIPPINES

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BACKGROUND

Epilepsy is a very common pediatric neurologic disorder, and the mainstay of treatment is the use of anti-seizure medication (ASM)[1,2]. Several factors may cause inadequate adherence leading to uncontrolled seizures, lower quality of life, and neurodevelopmental consequences[3]. The Morisky, Green, and Levine (MGL) scale is a valid and reliable scale that can be utilized to assess medication adherence[4].

This study aimed to **translate and validate a Filipino version of the MGL Adherence Scale** for epilepsy, **categorize the degree of adherence** of adolescents taking ASMs, and **identify possible factors** that could be associated with medication adherence.

METHODOLOGY

PHASE 1

- Translation and validation of Morisky, Green, and Levine Self-reported Medication-taking Scale to Filipino

PHASE 2

- Prospective cross-sectional study
- Survey among 51 adolescents aged 10-19 years old diagnosed with epilepsy and with intake of ASM for at least 1 month

RESULTS

- PHASE 1 -

The Filipino-translated Morisky, Green, and Levine Self-reported Medication-taking Scale has:
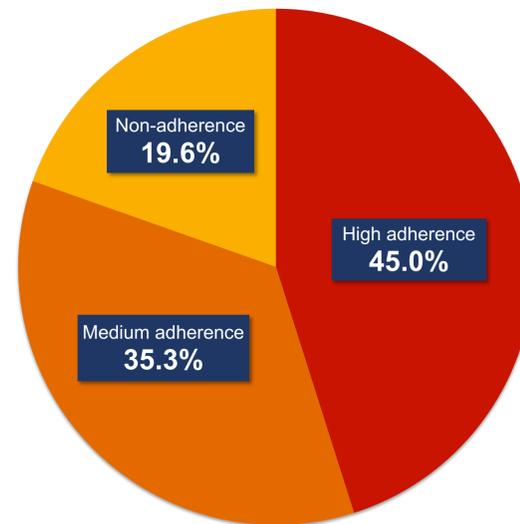
Overall content validity index	Face validity	Test reliability
0.968	100%	0.92

- PHASE 2 -

Figure 1. **Prevalence of Adherence to Anti-seizure Medications (n=51)**

Non-adherence 19.6%
High adherence 45.0%
Medium adherence 35.3%

Table 1. **Factors Associated with Moderate to High Adherence**

	Odds Ratio	95% CI	P-value
Age	0.3	0.06-1.5	0.143
Sex			
Female	0.9	0.1-8.3	0.967
Higher educational Attainment	2.4	0.4-13.1	0.301
Primary caregiver			
Mother	Comparator	N/A	N/A
Father	1.3	0.1-12.7	0.814
Others	0.3	0.05-2.3	0.267
Unemployed primary caregiver	**7.0**	**1.1-43.5**	**0.035**
Epilepsy Type			
Generalized	Comparator	N/A	N/A
Focal	1.6	0.09-27.9	0.757
Duration of epilepsy	0.7	0.2-2.1	0.476
Frequency of seizures	0.9	0.4-1.7	0.688
ASM Regimen			
>=3	**0.3**	**0.09-0.8**	**0.045**
Side effects of ASM are present	0.7	0.03-18.4	0.243
Limitation of activity due to ASM side effect	0.2	0.01-16.1	0.504
Limitation of activity due to epilepsy	0.2	0.01-3.2	0.271
Perceived support from health care provider	N/A*	N/A	N/A
Perceived support from family	N/A*	N/A	N/A
Perceived support from friends	2.2	0.1-43.6	0.618
COVID changes	2.8	0.2-41.7	0.454

Simple logistic regression analysis of Table 1 showed that having an **unemployed primary caregiver** is associated with **7.0 times higher odds of having moderate to high adherence**. Moreover, having **at least 3 anti-seizure medication in the treatment regimen** is associated with **0.3 lower odds of having moderate to high adherence**. The other demographic and clinical characteristics were not significant factors associated with adherence.

CONCLUSIONS and RECOMMENDATION

- **80.4%** adolescents with epilepsy were **adherent to their ASMs**.
- The presence of **caregivers who can closely supervise** was associated with **adherence**.
- Having **at least 3 ASMs** in the treatment regimen was associated with **non-adherence**.
- The **Filipino-translated self-reported adherence scale** may be utilized due to its **high CVI, 100% face validity, and excellent test reliability**.
- Future studies may need to have larger sample size and correlate medication adherence by exploring the patients' knowledge, attitude, perception, and other social factors.

REFERENCES

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