Prenatal Alcohol Use, Knowledge, and Outcomes in Leyte, The Philippines

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Introduction

- **Fetal alcohol spectrum disorder (FASD)** encompasses varied emotional, behavioral, cognitive, and congenital abnormalities in individuals whose mothers consumed alcohol during pregnancy.[1]
- In resource-limited settings, women may be at high risk of having babies with FASD.[2]
- This is a major unaddressed public health concern in Leyte, The Philippines, where **tuba, a locally made palm wine**,[3] is heavily consumed.
- Earlier studies noted high rates (75% of subjects) of prenatal tuba consumption in addition to other forms of alcohol.[2,4]

Objective: To compare the results from a previous assessment of the knowledge, attitudes, practices, and beliefs (KAPB) of pregnant and postpartum women regarding prenatal alcohol consumption in Leyte, The Philippines to their phoshatidylethanol (PEth) results in dried and cord blood.

Methods

Data Collection — Administer KAPB survey to postpartum women in a birth cohort in Leyte.

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Collect PEth — Collect PEth data from dried and cord blood.

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Statistical Analysis — Chi-square and Fisher's exact tests used to analyze relationships between survey and PEth results.

Results

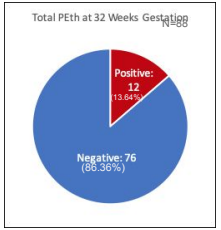

Figure 1: Total PEth at 32 Weeks Gestation. Phosphatidylethanol (PEth) is a direct alcohol biomarker found in the blood of someone that has consumed alcohol within the past about four weeks.

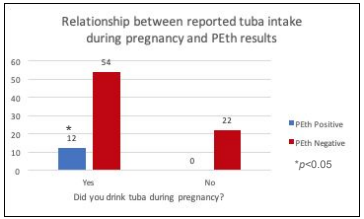

Figure 3: Relationship between reported tuba intake during pregnancy and PEth results. Participants who endorsed drinking tuba while pregnant were more likely to have positive PEth at 32 weeks gestation than participants who denied drinking tuba during pregnancy (18% versus 0%).

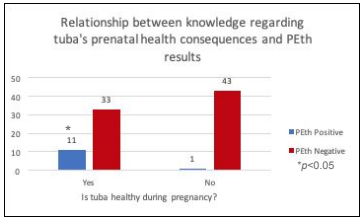

Figure 2: Relationship between knowledge regarding tuba's prenatal health consequences and PEth results. Mothers who said tuba is healthy during pregnancy were more likely to have a positive PEth result at 32 weeks gestation (25.00% vs. 2.27%).

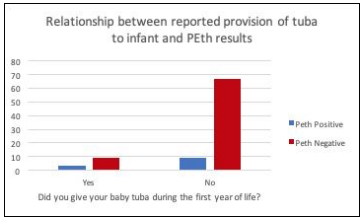

Figure 4: Relationship between reported provision of tuba to infant and PEth results. Mothers who reported giving tuba to their baby during the first year of life were more likely to have positive PEth at 32 weeks gestation, although not significant (25.0%% vs. 11.84%).

Conclusions

- Overall, misinformation about tuba appears to play a role in informing decisions of pregnant women in Leyte to drink tuba.
- There is a discrepancy in prenatal alcohol knowledge and use.
- Educating women of reproductive age in Leyte regarding prenatal tuba use would likely lead to a reduction in tuba use and FASD risk among their children.

Future Directions

- Follow up with the mothers of the study to provide them with comprehensive information about tuba use during pregnancy.
- Observe child development of survey participants' children and compare to prenatal PEth data.
- Work with local health department to create health education materials on tuba use for women of child-bearing age in Leyte.

References

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