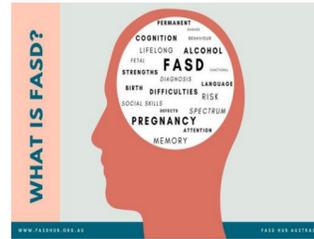


## Introduction & Purpose

- Drinking during pregnancy is ranging from 10% to 15% in America (higher than worldwide percentage) which causes a lifelong neurodevelopmental disorder called Fetal Alcohol Syndrome Disorder (FASD) (Symons et al., 2018).



Alcohol use during pregnancy (%)	FAS (per 10 000)
AFR 10.0% (8.5–11.8)	14.8 (8.9–21.5)
AMR 11.2% (9.4–12.6)	16.6 (11.0–24.0)
EMR 0.2% (0.1–0.9)	0.2 (0.2–0.9)
EUR 25.2% (21.6–29.6)	37.4 (24.7–54.2)
SEAR 1.8% (0.9–5.1)	2.7 (1.3–8.1)
WPR 8.6% (4.5–11.6)	12.7 (7.7–19.4)
Worldwide 9.8% (8.9–11.1)	14.6 (9.4–23.3)

Data are prevalence estimates (95% CI). AFR=African region. AMR=Region of the Americas. EMR=Eastern-Mediterranean region. EUR=European region. FAS=Fetal alcohol syndrome. SEAR=South-East Asia region. WPR=Western Pacific region.

**Table: Global prevalence of alcohol use (any amount) during pregnancy and fetal alcohol syndrome (FAS) in the general population in 2012, by WHO region (Lange et al., 2017).**

- Health and psychological consequences of FASD are significant that impact across the family with FASD and the community. The US National Institute on Alcohol Abuse and Alcoholism determined the need for clinical resources and baseline for prevention (May et al., 2018).
- Many previous research about FASD were conducted and the adverse effects were revealed but there were fewer nursing implementations about caring for patients with FASD.
- The purpose of this research is to identify the ramifications of FASD and possible nursing interventions to provide care and support for FASD's patients and families.
- Advance care planning should be pursued due to the risks of FASD between nurses. However, there is an apparent gap in knowledges, practices, and attitudes relating to FASD which requires a need for training (Howlett et al., 2019).

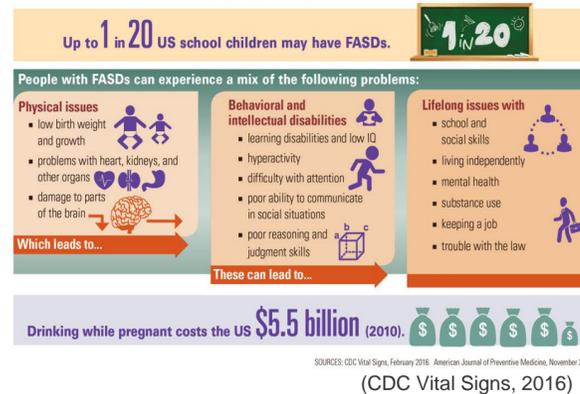
## Background

- FASD has societal effects that display themselves as learning disabilities, physical deformities, and behavioral issues
- FASD effects those whose mothers exposed them to alcohol prenatally or while breastfeeding.
- Globally, out of every 1000 people, 8 have FASD (Lange et al, 2017).
- The average life expectancy for a person with FASD is 34 years (Thanh et al., 2016).
- In North America and New Zealand, aboriginal and indigenous populations are greatly affected and no interventions to date have lowered FASD incidents in these communities (Symons et al., 2018).
- Worldwide, Europe has the highest rate of FASD births with 19.8 people per 1000 (Lange et al., 2017).

## Significance

- It is crucial that nurses know about the signs and symptoms of Fetal Alcohol Syndrome so they can accurately identify, and screen patients suspected of having FASD.
- It is important that nurses provide appropriate education to expecting mothers and families about the risks of consuming alcohol while pregnant or breastfeeding
- Research suggests that mothers from lower socioeconomic status are more inclined to drink while pregnant, therefore increasing the importance for nurses to be culturally competent

### Alcohol use during pregnancy can lead to lifelong effects.



## Literature Review Methods

- Literature was chosen based on its implications to the nursing practice.
- While all information about FASD is beneficial, this research in particular focuses on generalized nursing interventions to better handle cases of FASD.
- In total, twenty peer-reviewed articles were used for research purposes regarding FASD.
- The twenty articles were then condensed into relevant articles pertaining to risks, consequences, and nursing implications regarding FASD.
- All studies to be included were within the past 5 years and the correlation key about FASD and effects, nursing interventions with FASD, previous research about FASD, alcohol exposure in pregnancy.
- Articles were excluded based if they were found to have irrelevant information from the core foundation listed above.
- FASD effects and interventions were mostly done in the form of tests verbal learning (Gross, L. A., et al., (2017), semi structure interviews (McDougall et al., 2020, questionnaires and surveys (Amos-Kroohs et al., 2016, Del Bigio, M. (2017), Howlett et al., (2019), etc. and the followed-up programs on children and caregivers called Families on Track (FOT) intervention in 6 months period (Petrenko et al., 2019).

## Findings

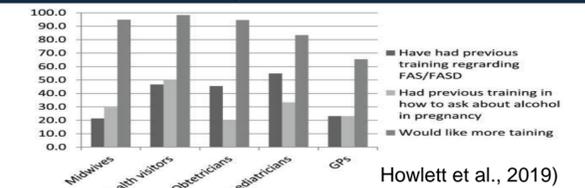
- Diagnosis was also researched, and the effectiveness ranged from 4.74% to 59.58% across 5 different evaluation methods (Coles et al, 2016).
- Mothers who consumed alcohol while breastfeeding are 6.4 more likely to have a child with FASD than mothers who did not drink during breastfeeding (May et al., 2016).
- Participants' dysmorphology checklists scores were 15 on average, whereas a 10 or higher indicates alcohol related physical features (Kable & Coles, 2018).
- Comorbidity of attention deficit hyperactivity disorder was found in 1523 of 3178 children with FASD. (Coles, 2016).
- Alcohol use during pregnancy is at 9.8%, and FASD prevalence is at 14.6% (Popova et al, 2016).
- 1/67 women who drank during pregnancy would deliver a baby with FASD (Popova et al, 2016).

## Conclusion

- No amount of alcohol intake was safe to drink during pregnancy (Symons et al., 2018).
- Lifelong physical, behavioral, and cognitive impairments along with emotional and financial burden to family and community from FASD (Symons et al., 2018).
- Difficulties experienced by caregivers and their children in terms of functioning at home, school, society, etc. compared to their peers which promote routine screening points as close to birth as possible (McDougall et al., 2020).
- Interventions are varied which consist of educational programs, family planning and contraceptives, and even a community wide alcohol ban. Educate women of childbearing age about the potential detrimental effects of alcohol consumption on the developing fetus and develop a universal screening protocol that should be implemented (Lange et al., 2017).
- The research increases the need in educations on preventions and pregnancy care among nurses. Although there is no treatment for FASD, there are ways to give diagnosed individuals a more comfortable way to manage symptoms and help them live the most normal life that their conditions will allow.
- The challenge is to improve clinical skills, and appropriate therapeutic communication to determine the effects of alcohols on pregnant women (Lange et al., 2017).



## Nursing Interventions



- An appropriate intervention is educating expecting mothers to prevent or reduce FASD effects. With all findings included, the key takeaway is that the most vital role a nurse can play is being a patient educator.
- It is important for nurses to develop a comprehensive assessment of prenatal exposures for neurodevelopmental disorders including FASD. (McDougall et al., 2020). Nurses can aid with maternal guidance in preventing alcohol exposure. (Gross et al., 2018).
- Understanding cultural differences is crucial to delivering a high-level of care. (Thanh, & Jonsson, 2016)
- It is important for the nurse to be culturally aware and culturally sensitive when educating the patients. Nurses can strive to provide help and guidance for FASD clients outside of the developmental stages of life.
- As a nurse, it is important to educate new mothers to continue to abstain from consuming alcohol until she is done breastfeeding. (May et al., 2016)

## References

Google Scholar, PubMed, and JSTOR were utilized to identify useful, peer-reviewed articles that were written within the last 5 years.



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