



Opinion

Volume 1 Issue 1 - March 2017  
DOI: 10.19080/GJIDD.2017.01.555551

Glob J Intellect Dev Disabil

Copyright © All rights are reserved by Carl C Bell

## Opinion- Is Fetal Alcohol Exposure (FAE) Important?



Jessie Aujla<sup>1</sup> and Carl C Bell<sup>2\*</sup>

<sup>1</sup>St. James Medical School, USA

<sup>2</sup>Department of Psychiatry, University of Illinois, USA

**Submission:** March 13, 2017; **Published:** March 24, 2017

**\*Corresponding author:** Carl C Bell, Clinical Professor of Psychiatry Emeritus, Department of Psychiatry, School of Medicine, University of Illinois at Chicago, Jackson Park Hospital-Family Medicine Center, 1625 E. 75 Street, Chicago, IL, USA, Tel: 773-947-7319; Fax: 773-947-7721; Email: [bell-carl@att.net](mailto:bell-carl@att.net)

### Abstract

This opinion answers the question “Is exposure to fetal alcohol important?” Especially, when considering the etiology of Intellectual and Developmental Disabilities. Based on clinical experience and scientific literature the answer is a resounding “Yes”. A recent Institute of Medicine Division of Behavioral and Social Sciences and Education report on Mental Disorders and Disabilities among Low-Income Children focused on the prevalence of Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorders and Conduct Disorder, Autism Spectrum Disorder, Intellectual Disabilities, Learning Disabilities, and Mood Disorders. Unfortunately, fetal alcohol exposure (FAE) did not have enough hard evidence to be included. There was very little mention of this common etiologic factor in the Neuro developmental Disorders of Childhood. The authors think this oversight was unfortunate but symptomatic of the lack of understanding of how common FAE is in low-income children. This consideration of FAE is critically important because emerging scientific evidence suggests that many of the common neuro developmental disorders are directly related to FAE or a deficiency in choline and importantly this lack of choline in the developing fetus can be potentially corrected using public health methods. Of course, the problem is if scientists and clinicians do not recognize the prevalence of Intellectual and Developmental Disabilities that are caused by FAE, the planet will never make headway on this potentially large and correctable problem.

**Keywords:** Fetal alcohol exposure; Intellectual and developmental disabilities; Prevention

**Abbreviations:** DSM-5: Diagnostic and Statistical Manual-5th Edition; FAE: Fetal Alcohol Exposure; ND-PAE: Neuro Behavioral Disorder Associated with Prenatal Alcohol Exposure

### Introduction

The authors have been working in a low-income African-American hospital and clinic on Chicago's South Side for a little longer than a year doing inpatient medical/surgical consultation liaison work in the AM at Jackson Park Hospital and outpatient work at Jackson Park Hospital's Family Medicine Center in the PM. In 2014, the second author published an exploratory study that highlighted the prevalence of Neuro behavioral Disorders associated with Prenatal Alcohol Exposure (ND-PAE) in two clinical settings, and inpatient psychiatric unit and an outpatient family medicine center, both serving low-income African-American communities. ND-PAE being a diagnosis for a neuro developmental disorder stemming from fetal alcohol exposure that was proposed in the 2013 American Psychiatric Association's DSM- 5 [1]. In the psychiatric inpatient unit at St. Bernard Hospital, located in one of the greatest low-income Chicago African-American communities (Englewood) the prevalence of patients with ND-PAE was 32%. In the outpatient family medicine center the prevalence of ND-PAE in a random sample of 20% of 500 consecutively seen outpatients was 29% [2].

### Synopsis of formal research in an low-income people of color in some parts of the world

Several studies have found high rates of fetal alcohol exposure in low-income People of Color in some parts of the world. Bell & Chimata [3] found rates of 338/1,000 on Chicago's South Side, May et al. [4] found rates of FASD affect 182-259 per 1000 in four rural communities in South Africa, and Fitzpatrick et al. [5] found rates of 120/1,000 in an Australian rural community. In fact, intellectual disability, speech and language difficulties, hyperactivity, high excitability, high distractibility with poor attention span, and poor frustration tolerance, all of which may lead to poor impulse/affect control and can ultimately result in explosive or even violent behavior.

These symptoms caused by FAE can look like the six most common disorders the Institute of Medicine Division of Behavioral and Social Sciences and Education report on Mental Disorders [6] and Disabilities Among Low-Income Children studied (Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorders and Conduct Disorder, Autism Spectrum

Disorder, Intellectual Disabilities, Learning Disabilities, and Mood Disorders). Chasnoff et al. [7] has demonstrated that children 547 youth (50.6% African American) referred for severe behavioral disorders, 28.5% of these youth had FASD, 86.5% of the youth had never been diagnosed or were misdiagnosed, and 26.4% of these youth were misdiagnosed as having ADHD. In a meta-analysis, Popova et al. [8] and her colleagues have also highlighted the co-morbidity of fetal alcohol spectrum disorders [9] in various study populations.

## Conclusion

For the above reasons, it is the author's opinion that consideration of fetal alcohol exposure is an essential deliberation that must be explored in the field of intellectual disability and developmental disorders. The reason has to do with the potential of prevention. Prenatal alcohol exposure limits the amount of choline that is available to the fetus and choline has been found to be essential in fetal neurodevelopment. Considering the ease of including enough choline in prenatal vitamins or to give pregnant women [10] supplements with the average daily requirement of choline (450mg/day) recommended by reputable nutrition committees, the authors judgment is that understanding the commonality of exposure to prenatal alcohol is tantamount to adding iodine to table salt or screening for phenylketonuria.

It should be clearly stated that the diagnosis of FASD is based on 3 criteria:

- 1) Facial features.
- 2) Behavioral symptoms.
- 3) Confirmation that the patient's mother was consuming alcohol when pregnant – commonly social drinking before they realize they are pregnant, so education about not drinking when pregnant is less effective.

Sometimes the answer we are looking for is right before our eyes-increase choline in prenatal vitamins. Every day we drive through the inner streets of the south side of Chicago; and it is clear the only thriving business is liquor stores.

## Conflict of Interest

Neither author has any conflict of interest to declare other than being interested in Public Health.

## References

1. American Psychiatric Association (APA) (2013) The Diagnostic and Statistical Manual - 5<sup>th</sup> Edition (DSM-5). American Psychiatric Press, Washington, USA, pp. 798-801.
2. Bell CC (2014) Taking Issue - Fetal Alcohol Exposure in the African-American Community. *Psych Ser* 65(5): 569-569.
3. Bell CC, Chimata R (2015) Prevalence of neurodevelopmental disorders in low-income African-Americans at a Clinic on Chicago's Southside. *Psych Ser* 66(5): 539-542.
4. May PA, de Vries MM, Marais AS, Kalerg WO, Adnams CM, et al. (2016) The continuum of fetal alcohol spectrum disorders in four rural communities in South Africa: Prevalence and characteristics. *Drug Alcohol Depend* 159: 207-218.
5. Fitzpatrick JP, Latimer J, Carter M, Oscar J, Ferreira ML, et al. (2015) Prevalence of fetal alcohol syndrome in a population-based sample of children living in remote Australia: the Lillilwan Project. *J Paediatr Child Health* 51(4): 450-457.
6. Boat T, Wu J, Committee to Evaluate the Supplemental Security Income Disability Program for Children with Mental Disorders, Board on the Health of Select Populations, Institute of Medicine, et al. (2015) Mental Disorders and Disabilities Among Low-Income Children. The National Academies Press, Washington, USA.
7. Chasnoff IJ, Wells AM, King L (2015) Misdiagnosis and missed diagnosis in foster and adopted children with prenatal alcohol exposure. *Pediatrics* 135(2): 264-270.
8. Popova S, Lange S, Shield K, Mihic A, Chudley AE, et al. (2016) Comorbidity of fetal alcohol spectrum disorder: A systemic review and meta-analysis. *Lancet* 387(10022): 978-987.
9. Bell CC (2016) Fetal Alcohol Spectrum Disorders in African American Communities: Continuing the Quest for Prevention. National Academy of Science, Washington, USA.
10. Bell CC, Aujla J (2016) Prenatal Vitamins Deficient in Recommended Choline Intake for Pregnant Women. *J Fam Med Dis Prev* 2(6): 2-48.
11. Zeisel SH (2006) Choline: critical role during fetal development and dietary requirements in adults. *Annu Rev Nutr* 26: 229-250.



This work is licensed under Creative Commons Attribution 4.0 License  
DOI: [10.19080/GJIDD.2017.01.555551](https://doi.org/10.19080/GJIDD.2017.01.555551)

### Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats (Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>