

Fetal Alcohol Syndrome (FAS)

Judy Liesveld, CNP

Definition

Fetal Alcohol Syndrome (FAS) is a birth defect involving permanent brain damage caused when a pregnant woman drinks alcohol.

Introduction

More than 10% of children has been exposed to high levels of alcohol during their mother's pregnancy. All will suffer some form of effect from mild learning disabilities to major physical, mental, and intellectual impairment.

Alcohol easily passes through the pregnant mother's placenta, resulting in almost equal levels of alcohol to the mother and the developing baby. The developing baby's immature liver takes much longer to metabolize the alcohol, so the baby's developing organs are exposed to the harmful effects of the alcohol for long periods of time. The effects of alcohol can harm the growing fetus during any time during the pregnancy. Damage does vary due to amount ingested, timing during pregnancy, peak blood alcohol levels, genetics, and environmental factors.

About 1/3 to 1/2 of infants born to alcoholic women develop full-blown FAS. The remaining infants have varying degrees of fetal alcohol effects (FAE), also called alcohol-related birth defects (ARBD) and alcohol-related neurodevelopmental disorder (ARND). FAS is the leading cause of preventable mental retardation in the western world.

FAS rates by ethnic groups vary. Native American groups have a very high rate: 29.9/10,000 births. Other rates per 10,000 births are: Asian- 0.3; Hispanic-0.8; whites – 0.9; and blacks – 6.0. The main message though, is that FAS can happen to any fetus when pregnant women drink alcohol.

Diagnosis

Criteria for defining FAS was developed in 1980 and modified in 1989. Abnormalities in the following three categories, plus a maternal history of drinking alcohol must be present:

1. Prenatal and/or infant/child slow growth (weight and/or length below the 10th percentile)
2. Central nervous system involvement: developmental delays, behavior problems, intellectual impairment, neurological problems, and skull or brain malformations.
3. Facial and/or physical characteristics and these may include: short eye openings (palpebral fissures), a thin upper lip, absent or decreased philtrum (groove in upper lip), short nose, flat/long ;midface, visual problems, heart defects, limited movement of fingers, elbows, or wrists, plus many others.

Diagnosis can be difficult. Sometimes mothers do not want to admit that they drank alcohol. Sometimes health providers are not willing to "label" a mother or child. Diagnosis is important, though, to make sure that individuals with FAS receive the health care and services that they need.

Prevention and Treatment

Prevention of FAS is straight-forward: Pregnant women should not drink alcohol during any time of their pregnancy. This has been a difficult campaign as many women have been pregnant for 1-2 months or longer, before they realize they are pregnant.

Strategies and interventions to identify and help women, at high risk for alcohol drinking during pregnancy, are also important for communities to develop.

Annual costs for medical, surgical, behavioral, custodial, and judicial services for FAS individuals are high. The lifetime costs of caring for a typical FAS child may be as high as 1.4 million dollars. Early on, individuals with FAS may require medical intervention for heart defects, hearing or visual defects, or musculoskeletal defects. A multidisciplinary team approach might be necessary, including special education teachers, occupational therapists, physical therapists, behavioral therapists, as well as health care personnel and others.

Because of the judgment, memory, developmental delays, and mental impairment difficulties that FAS individuals have, the following hints/suggestions may be helpful:

- The "soft" neurological signs of "low motivation", or distractibility "not paying attention" have often been mistaken for laziness, low self-esteem, or lack-of-effort. Having a proper diagnosis can increase understanding of individuals with FAS.
- Individuals with FAS may be hypersensitive to noise, light, texture and be over or under-sensitive to pain. Knowledge of this is helpful if people seem overly picky, avoid eye contact, make off-the-wall comments about little things, or constantly ask, "What was that?"?
- Because of memory deficits, individuals with FAS may need more re-teaching and seem to always be "starting from scratch." They tend to try to hide this.
- The individual with FAS may master a task one day and be unable to retrieve the skills a few days later. This can be very distressing for them.
- Schedule changes may disorient individuals with FAS. Changing around furniture, decorations, or seating arrangements may cause distress and increase disorganization and loss of belongingness.
- Individuals with FAS may have trouble changing activities, resist redirection or show irritability, stubbornness, or repetitive speech or behavior as signs of distress.
- Individuals with FAS may have trouble starting a project, task, or job as they have difficulty prioritizing information.
- Individuals with FAS have trouble seeing patterns and understanding cause and effect. The obvious is not necessarily obvious to them.
- Individuals with FAS may require long-term prompts and cues. Directions should be simple, giving instructions one at a time. Visual cues may be helpful.

Emergency Situations/What Can Go Wrong?

There are few emergency situations identified with individuals with FAS, other than possible safety issues that might result due to poor judgment. There are, however, many situations involving "what can go wrong" for individuals with FAS/FAE:

Of FAE individuals, between the ages of 12 and 51:

- 95% will have mental health problems
- 60% will have "disrupted school experiences"
- 60% will experience trouble with the law
- 55% will be confined in prison, drug or alcohol treatment centers or mental institutions
- 54% will exhibit inappropriate sexual behavior

Of FAE individuals between the ages of 21 and 51:

- More than 50% of males and 70% of females will have alcohol and drug problems
- 82% will not be able to live independently

- 70% will have problems with employment

Above information from: <http://depts./washington.edu/fadu/>

Conclusion

The above statistics are sad. What is known is that early diagnosis of FAS can prevent secondary disabilities, such as mental health problems, dropping out of school, trouble with the law, and substance abuse. After diagnosis, parents and others working with individuals with FAS find that their ability to cope with the individual's behavior changes dramatically. They now understand that the problems are due to organic brain damage, rather than the person's choice to be inattentive or uncooperative.

Prevention of FAS, awareness-raising programs and FAS research is of prime importance. A better way to diagnose the full range of FAS and a more effective means to serve individuals with FAS will, hopefully, be developed in the future.

References

FA Slink: Information, Support & Communications Link <http://www.acbr.com/fas/>

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Judy Liesveld, CNP