

Fetal Alcohol Syndrome Disorder and the Talmudic Perspective

By: Allison Warren

Fetal Alcohol Syndrome Disorder (FASD), caused by gestational exposure to alcohol, can lead to a range of disabilities present in the child including, facial abnormalities, developmental, emotional, social, and behavioral challenges. An association between ethanol derivatives and embryotoxicity, teratogenesis, chromosomal anomalies, and mitochondrial damage was proven to exist [1]. When one consumes drugs and alcohol, the absorption of maternal nutrients is interrupted, weakening the quality and quantity of proper nutrient and energy intake of the fetus, causing malnutrition. With the fetus not receiving essential nutrients, fetal abnormalities like intrauterine growth restriction and FASD are possible [2]. When exposed to alcohol, the developing fetal central nervous system may face damage. The amount of alcohol consumption, the timing of the consumption, as well as the mother's health, genetic susceptibility to alcohol, and the rate of ethanol metabolism play key roles in the extent of the damage imposed on the developing fetus. A fetus is particularly at an increased risk when exposed to repeated binge drinking at the beginning of pregnancy [1]. In the United States, FASD is the leading cause of "preventable mental retardation and developmental disability" [1]. Studies have also found that children diagnosed with FASD are at an increased risk of receiving further diagnoses of health conditions than the general population [3]. In Israel alone, it has been reported that more than 17% of Jewish women consumed alcohol during their pregnancies, 21.4% of women thought it was permissible to drink while pregnant if limited to two drinks per

week, and 75% of women stated that they received no education from medical professionals throughout their pregnancy regarding alcohol consumption [4].

The dangers of alcohol consumption during pregnancy are often claimed to be mentioned first in Tanach when the angel approached אשת מנוה to inform her that she will conceive a son, שמשון. The angel instructed her not to drink wine, nor any strong drink, as well as not to eat anything impure, stating "אֵלֶי-תִּשְׁתִּי יַיִן וְשֵׁכָר" (Judges 13:4). Yet this warning against drinking alcohol was because Shimshon was destined to be a nazir, it was not given to advise safe pregnancy protocol [5]. The dangers of consuming alcohol when pregnant were only first noted medically in the 1720s during the "gin epidemic" in Britain. Physicians reported to parliament that alcohol consumption caused "weak, feeble and distempered children". In modern times, a study conducted in 1957 followed 100 children whose parents were known alcoholics and consequently found severe effects in the children studied. Reports suggest that 9.1 out of 1000 live births will be diagnosed as affected by varying degrees of severity of FASD [1].

Contrastingly, when looking at Talmudic sources, many suggest that there is a healing effect to alcohol consumption. The sages recommended alcohol use as a treatment for the ailment of "catarrh", described by Rashi as "רירין הבאין מן החוטם", a nasal mucus, and further described as a "green phlegmy discharge" excreted through the nose and mouth when one has a heavy cold [6]. The gemara in Chullin 105b states the following:

לכרסם דחמרא שיכרא דשיכרא מיא דמיא לית ליה
תקנתא והיינו דאמרי אינשי בתר עניא אזלא עניותא

If one became ill with catarrh, caused by drinking the foam of wine, one can treat it by drinking beer.

Furthermore, some Talmudic sources even suggest that a pregnant woman should consume alcohol throughout her pregnancy. The gemara in Ketubot (60b-61a) recommended pregnant women to drink wine, stating the following:

דְּשִׁתְּנָא שִׁיכְרָא — הוּוּ לֵהּ בְּנֵי אוֹפְמִי. דְּאֶכְלָה בִּישְׁרָא
וְשִׁתְּנָא חֲמֵרָא — הוּוּ לֵהּ בְּנֵי בְּרִי

Drinking intoxicating liquor during pregnancy will make one have black children, eating meat and drinking wine during pregnancy will make one have healthy children.

These sources seem to suggest that the sages believed one should consume alcohol “as part of a healthy lifestyle” [5]. Yet modern research has found conflicting pieces of evidence regarding the effects of regular alcohol consumption on one's health. A meta-analysis study found evidence of seven beneficial associations between alcohol consumption and one's health, demonstrating that alcohol helps improve renal cell carcinoma risk, dementia risk, colorectal cancer mortality, all-cause mortality in patients with hypertension for low and moderate alcohol consumption, and cardiovascular disease risks. Harmful associations include cutaneous basal cell carcinoma risk, cutaneous squamous cell carcinoma risk, and hemorrhagic stroke risk for high alcohol consumption [7]. Yet a

different study found that the cardioprotective effects of low doses of alcohol may be rejected by large epidemiological evidence supporting otherwise. The study sought to reaffirm the relationship between alcohol use and “cardiac arrhythmias, dilated cardiomyopathy, arterial hypertension, atherosclerotic vascular disease, and type 2 diabetes mellitus” [8]. The study noted the proven beneficial association between cardiovascular health and minimal red wine consumption, yet also urged that due to conflicting literature regarding the benefits of low doses of alcohol, one should be cautious with alcohol, especially those at high risk of cardiovascular disease [8]. The Center for Disease Control (CDC) warned about the harmful associations between alcohol consumption and health risks, advising one not to drink at all or to drink in moderation, with men drinking two drinks or less in a day and women drinking only one drink or less in a day. The CDC also addressed the conflicting research on alcohol and cardiovascular health, stating that although “some studies have found improved health outcomes among moderate drinkers, it's impossible to conclude whether these improved outcomes are due to moderate alcohol consumption or other differences in behaviors or genetics between people who drink moderately and people who don't” [9].

Although Talmudic sources suggest that consuming alcohol as a regular part of one's diet, even while pregnant, remains a healthy decision, modern-day research has suggested otherwise. One should always remain mindful of their alcohol intake and

drink in moderation, and while pregnant, one should avoid alcohol in its entirety.

Acknowledgments

I would like to thank my parents for their constant support and encouragement to explore my intellectual curiosities. I would like to thank Dr. Haar and Mrs. Akerman for teaching me that science and Torah do not contradict, rather science can be a means to connect greater to G-d. Lastly, I would like to thank Dr. Babich for aiding me in my research on this topic, encouraging me to write an article, and for the numerous incredible learning opportunities he provides me with.

References

- [1] Senecky, Y. et al. (2009). Fetal Alcohol Spectrum Disorder in Israel. *Israel Medical Association Journal*. 11:619-621.
- [2] Sebastiani, G. et al. (2018). The Effects of Alcohol and Drugs of Abuse on Maternal Nutritional Profile during Pregnancy. *Nutrients*. 10:1008.
- [3] Hen-Herbst, L. et al. (2022). Nutritionists' Practices and Knowledge about the Risks of Alcohol Consumption during Pregnancy: An Israeli Survey. *Nutrients*. 14:1885.
- [4] Senecky, Y. et al. (2011). Alcohol Consumption During Pregnancy Among Women in Israel. *Journal of Population Therapeutics and Clinical Pharmacology*. 18:e261-72.
- [5] Abel, E. (1997). Was The Fetal Alcohol Syndrome Recognized In The Ancient Near East?. *Alcohol and Alcoholism*. 32:3-7
- [6] Brown, J. Chullin 105b ~ The Healing Effects of Alcohol. <https://www.talmudology.com/jeremybrownmdgmailcom/2019/3/11/chullin-105b-the-healing-effects-of-alcohol>. (retrieved February 12, 2024).
- [7] Zhong, L. et al. (2022). Alcohol and Health Outcomes: An Umbrella Review of Meta-Analyses Based on Prospective Cohort Studies. *Frontiers in Public Health*, 10:859947.
- [8] Stătescu C. et al. (2021) Consensus and Controversy in the Debate over the Biphasic Impact of Alcohol Consumption on the Cardiovascular System. *Nutrients*. 13:1076.
- [9] Center for Disease Control. <https://www.cdc.gov/alcohol/fact-sheets/moderate-drinking.htm>. (retrieved February 12, 2024).