Developing a Premise and a Research Question; Lead Exposure in Children

PUBH 8246-2

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**Problem Statement**

Unborn babies and younger children are at a higher risk of getting serious health complications due to lead exposure.

**Research Questions**

What are the sources and root of exposure to lead?

What is the health effects resulting from lead poisoning?

**Lead Exposure in Children**

Young kids are at risk of lead poisoning because they frequently place things in their mouths. It is better for adults to know if their children are at risk of being exposed to lead or not. Older homes, toys and other products have been found to contain a significant amount of lead (Mackay, et al., 2013). Lead is a naturally occurring metal that is found in construction materials and batteries. When a child is exposed to lead for a long-term, they are prone to develop serious health complications (Jakubowski, 2011). Lead is poisonous to everyone but the people who are at a greater risk are unborn babies and younger kids. Younger babies become affected health wise because their smaller growing bodies take in and retain lead easily (Shonkoff, et al., 2012).

Around 300,000 children aged 1 to 5 years in the United States are found to have an unsafe amount of lead in their blood each year. Higher levels of lead in the blood lead to acquiring several symptoms such as anemia, headache, stomach ache and behavioral change. The brain too can seriously be damaged. The good thing is that children can be protected against lead exposure. The parents are made to know about potential lead sources in and outside their house and they are advised to frequently undergo blood tests for lead. Blood test for lead is important because most people rarely show any symptom when examined physically.

**Problem Statement**

Unborn babies and younger children are at a greater risk of being exposed to lead poisoning than other people. The younger children have a habit of picking and licking toys, batteries, and surfaces. These objects have a significant amount of lead that will make them have serious health effects that will affect them for life. Lead affects almost every part of the body. It particularly has debilitating effects on the central nervous system of unborn babies and young children. The risks of children getting exposed to lead are not based on theoretical calculations. They are all derived from existent studies that focused on children.

Lead poisoning is one of the recognized childhood diseases which are derived from a toxic environment. Children today are at a greater risk of getting exposed to lead from several sources. Lead poisoning has become a burden in the world for too long. The pattern and sources of lead exposure vary from country to country or place to place within a nation. A country may also vary in the degree in which they recognize the problem of lead exposure and the prevention programs that they have put in place. Certain exposure sources make many people recognize lead poisoning. However, a few populations living in desolated areas are not aware of lead poisoning and its serious effects on children health. When a few nations, rural homes, and people are taught about the dangers of lead exposure, they will reduce putting the children and unborn babies at risk of developing health complications.

**Research Questions**

What are the sources and root of exposure to lead?

The importances of environmental lead sources are contaminants from mining, manufacturing, smelting, and recycling activities. Other sources are using lead paint continuously, gasoline containing lead and leaded jet fuel (Mackay, et al., 2013). A greater percentage of the world lead consumption is directed towards the manufacture of lead-acid batteries for powering vehicles. Lead is also used in making many other products such as jewelry, pigments, toys, solder, some cosmetics, and stained glass. Drinking water from pipes that are joined by lead soldier also has lead levels.

Lead gets its way inside the human body through inhalation and ingestion. Lead exposure sources can be either environmental or occupational. Children will inhale lead particles that are generated from combusted materials containing lead. For example, during stripping paint, smelting, and using leaded gasoline jet fuel. Ingestion of lead occurs when a child takes in water from a dripping pipe that is made of lead. Some homes have water directed to them through lead pipes, the water is contaminated with lead and it will not be safe for children consumption. The use of some traditional medicines containing lead also leads to lead poisoning.

What is the health effects resulting from lead poisoning?

Lead has serious consequences on children’s health. A higher level of lead exposure leads to an attack on the central nervous system and the brain; the result can be convulsions, coma, and sometimes death. Most of the children survive but they acquire behavioral and mental disorders. Low levels of exposure cause no serious symptoms and the children can be seen to be normal. Lead causes debilitating effects on the body systems (Shonkoff, et al., 2012). Particularly, the brain becomes affected leading to reduced intelligence, reduced attention, and an increase in antisocial behavior (Jakubowski, 2011). Lead exposure causes hypertension, renal impairment, and hypertension. The neurological and behavioral disorders are known to be irreversible.

Making parents aware of the health defects that will be caused by exposure to lead will make them be precautious and keep them away from materials containing lead.

References

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