

Review of literature critical essay

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BUSTER**

Grand Canyon University Epidemiology and Communicable Diseases MRS.-IV
Sandra White July 3, 2014 Epidemiology Hepatitis B We have come far in healthcare and everyday we get closer to solutions and can succeed in the understanding of disease processes unknown and foreign to us. We have been challenged many times by the illnesses that have taken so many lives but never in vain as when this unfortunate event has happened we have been able to get closer to a solution.

The many diseases that have been a main factor in causing death are many however; we have come far in the vaccination process and treatments. In this paper we will focus on Hepatitis B. The virus that has been around for many years and was unknown to mankind until it became a global issues, causing scientists from all over the world to assess, evaluate and then research for a vaccination against this virus, in the 1965 by DRP Plumber however, it was licensed in the unites states in 1981 to be used as it showed a 90 or greater % chance of treatment (" Hepatitis B foundation," 2014).

Writing about hepatitis B and talking about, people will understand that it is a virus which they should get vaccinated for or have their children vaccinated however, what truly is Hepatitis B and what does it do? Continuing on this important subject this writer will start off by explaining where this virus was discovered and where it could have manifested. We will also discuss the symptoms, treatment and environmental factors contributing to the disease. Including the nurses' role in the system. What can a healthcare worker contribute and teach the community?

Hepatitis B (HUB) affects the liver of the infected person. It in turn causes scarring of the liver, liver diseases, death and liver cancer (CDC, 2014). The way a person can get infected in the first place varies. Many times one could get infected by blood ; open sores, sharing needles, unprotected intercourse and any other way of transferring blood from an exposed person to an unexposed person. The infection is not such as HIV, meaning you get infected once and then you raise immunity towards it and will not be exposed or get infected again.

This also varies as some, will not get rid of the infection. If this occurs, where someone has been infected for more than six months they will be considered a carrier and can easily without any sign and symptoms of infection, infect others. The symptoms vary from person to person however the main symptoms and side effects include and are not limited to, fever, jaundice, abdominal pain, unexplained fatigue and unusual light colored stools, causing extreme gastrointestinal dysfunctions and pain (" Hepatitis B foundation," 2014).

A damaged liver caused by the HUB can be detrimental. The liver is an organ we can not survive without, it is as it would be an engine, cleaning the system; clearing the load of waste products, drugs, making clotting factors to stop excessive bleeding after cuts and injuries. It also produces immune factors and will remove bacteria from the blood. Furthermore, it also releases bile to help digest food and absorb many nutrients needed (" Hepatitis B foundation," 2014). HUB can cause liver cancer and if not treated immediately, it can be detrimental to the affected person.

It is important to have a liver biopsy in this case and move forward with appropriate treatment such as any surgical removal of tumor or targeted liver chemotherapy. Treating and preventing this disease is mainly and most focused on certain age groups. It in this case has a demographic interest approach. Per the Hepatitis B Foundation, they report that the " risk of developing a chronic hepatitis infection is directly related to the age at which one becomes infected with the virus (" Hepatitis B foundation," 2014).

Per the Centers for disease control and prevention they report that the highest rated infected populations are infants with infected mothers, health care workers, intercourse between men, population who share needles between hem when using illicit drugs and any contact between infected and uninfected person. They continue to report that there is no acute treatment for an acute infection and that treatment is supportive, as many may also not have clear symptoms at first. Furthermore, per the world health organization, they report " more than 780 000 people die every year" form HUB in the world (WHO, 2014).

The geographical distribution is such that the highest rate presents in the sub Sahara Africa and East Asia. We must understand that these are poor unprivileged areas in the world and cost likely and many times do not have enough access to education, vaccines or treatment. The world organization of health reports that most of these people in these areas are infected as children and 5-10 % of adults become chronically infected with HUB however, in general it is reported by WHO as well that 15-25% of adults who become chronically infected during childhood die from hepatitis B- related liver cancer or cirrhosis. WHO, 2014). Again, the vaccine has been available <https://assignbuster.com/review-of-literature-critical-essay/>

for everyone since 1982 shortly after it was discovered in 1965. It has shown and proven to decrease the infection by 95% (CDC, 2014). However, funding and availability of transport and financial support is lacking to spread the vaccination to these regions and could, unfortunately take many more lives before a solution can be reached and adding that " HUB and HCl infections account for the majority of cirrhosis and primary liver cancer throughout most of the world" (Peer, J. F. , Armstrong, G. L, 2006).

Further discussing the HUB this writer will contrast it towards the epidemiology triangle, which was founded and created by researchers to better understand and solve health problems including viruses and infections. By researching around the epidemiology triangle for Hepatitis B we can understand that there is an agent, which in this case would be the HUB (virus), which, then will infect the host (a human). Vertex number three is the environmental factor researches pertain to as " where", the condition of the host, the outside factors causing the agent to reside on host and infect it.

For hepatitis B we have confirmed that all the factors exist. The agent (HUB) will enter the host whom would be the human blood cells, in other words, HUB infection is caused by the virus which will penetrate in to the cell and release its genome into it. As we will not go into the details of the viral life cycle but including that per the Journal by Lu X and Block Timothy, in their research, " Study of early steps of hepatitis B life cycle" they report that the virus will infect its host by three stages called; attachment, fusion and entry.

The research is still ongoing on the specifics of the complete cycle of the HUB (Lu & Block, 2004). The environmental factor includes dried blood on surfaces, which is infected, and if another person will have contact with it. Another environmental situation can be the needles found on streets used by drug users whom can have been infected as well. When healthcare workers work with blood pathogens and areas where they could easily be exposed it is important for them to be vaccinated before hand as this environmental factor could have a deadly turn out.

So what is the role of the community nurse in this case and in regards to hepatitis B? As nurses are to advocate for their community it is also a responsibility for some to step up in their role and collect data and analyze the case findings within the community. In this regard it is important and in many cases also a requirement for a nurse to obtain a baccalaureate degree in nursing and to then establish partnership and collaboration with public health professionals.

It is important for the public health nurse to involve the community and their awareness on public safety, vaccination and prevention of diseases. Some ways a public health nurse can participate is to help clinics control communicable diseases, educate and participate in environmental sanitation, health education including schools as well. To control and manage results, increase or decrease of disease within the community, a nurse could for example collect data by questionnaires.

Another way would be to collaborate with laboratories by collecting data and assessing the results. Furthermore, nurses should follow up with every

patient who might have been infected or could be at risk for infection by doing home calls or call patients back to assess results and contribute further in education. There are many national agencies one can choose to seek further information from or refer a client too; one of them is the center for disease control and prevention. Another major agency is the world health organization, which also covers on an international level.

Another online site that can be viewed is Hepatitis B foundation with tremendous amount of information and the latest updates on research. For the serving and veterans the VA has many resources as well that can be visited. As the information has become vast and with new technology discovered, we are get a little closer to a wider solution and treatment including prevention. There are still many vast majorities of regions that are in need of proper education and preventive care such as vaccines however, with the appropriate funding and health care providers this goal can also be reached.