

# Biology critical thinking sample

Profession, Student



A number of recent events have brought to light the need to reinforce ethical conduct in scientific research. However, historically there have been a number of known cases that have, to varying degrees, demonstrated heinous acts of ethical misconduct regarding human research abuses.

### **The event and its impact on reform in clinical research practices**

The willowbrook state school was an institution which was designed for the key reason of treating young children who has problems with intellectual disabilities. It was mostly vital in the treatment of children with a disability in the New York City. In the duration of 1930 to 1987, most children suffered from mentally handicapped related sickness (Murphy, 2004). This was a brilliant idea since the children would be taken scrupulous care by the school.

However, the school was only designed to carry a maximum of 4, 000 children, but by 1965, the school had a total population of 6, 000 (McGraw & Shearn, 2009). This was a risk since all overpopulation contributed majorly to the disorder of mentally handicapped children.

Children with severe and minute hepatitis sickness were combined. This made it to be exceedingly difficult for the children to get healed since remarkably little attention and medication care was proposed for the children. The state in which the children lived was even worse as compared to the animals stored in zoos. For this reason, children developed hepatitis A, which was difficult to be cured by the clinical research department (McGraw & Shearn, 2009).

## **A brief statement on your personal response to the event**

My personal response to this case is that scientific research has been profoundly influenced by ethical conduct especially in the current generation. In the day to day research, scientists have to keep in mind ethical conduct especially to the diverse research concerning the emerging diseases (Murphy, 2004). For instance, the tools used for experimental purpose should be clean and hygienic.

## **Why you think ethical considerations are important**

The ethical considerations are vital in the sense that they promote the existence of the sick penitents also the medication discovered. It also reduces the risk exposed to the patients. Ethical considerations are also very vital since they improve the quantity of the vaccines discovered. Through the improvement of the vaccines, the immune system of the people is boosted hence promoting long life (McGraw & Shearn, 2009).

## **References**

- Murphy, T. (2004). Case studies in biomedical research ethics, New York: PublisherMIT Press
- McGraw, M., Shearn, S. (2009). Principles of Good Clinical Practice, Pharmaceutical Press

## **Week 7**

Every year a small number of children die from diseases or conditions that develop as a result of vaccines received to protect them. It seems to be an inherent hazard associated with mass preventative inoculation. Is it worth the risk? Can you debate both sides of the issue? Have you had or would you

have your own children vaccinated? Why or why not?

The question is well developing: Can you debate both sides of the issue?

Have you had or would you have your own children vaccinated? Why or why not?

A vaccine is usually a researched medication method that is used to prevent human beings from acquiring the subject disease. Vaccines are also vital for human survival since they reduce the contraction of diseases (Neustaedter, 2002). For instance, vaccines have reduced the number of children suffering from polio since Polio was discovered (Offit, 2003). For this reason, I would have my child vaccinated since this will reduce the risk of the child from contracting the actual diseases. Vaccines help curb the spread of diseases from one place to person to another. This ensures that the child stays safe from the infection of the disease.

Vaccines are also vital in some people since they boost the immunity of patients thus making them prone to diseases. There are numerous patients that actually have a very difficult time handling the sickness and spend more capital on treatment (Offit, 2003). This can be reduced by the patients being administered vaccines that will actually protect the bodies from pathogens and bacteria that cause infections (Neustaedter, 2002).

However, the reaction of the vaccine is also very dangerous to some people. This might be very harmful to the patient since it might either lead to the death of the patient (Neustaedter, 2002). People react differently with diverse vaccines because of the body contents. In some instances, the vaccines are usually not efficient since some scientists usually base on

assumptions. This has been a particularly common aspect of misinterpretation especially in research and studies that are not well established. However, the research and medication centre has reduced the number of vaccines to reduce the number of deaths occurring from assumption (Offit, 2003).

## References

Offit, P. (2003). *Vaccines: What You Should Know*, New York: Wiley and Sons

Neustaedter, R. (2002). *The Vaccine Guide: Risks and Benefits for Children and Adults*, London: North Atlantic Books, 2002

## Week 8

Since the 1970s, women getting pregnant after 35 have increased considerably. What are some issues and risks associated with childbearing later in life? What advances in medical technology have made it easier for these women to get pregnant and have safer pregnancies at an older age? What are your personal thoughts on having children later in life and why?

Late pregnancy is one of the internationally aspect that is affecting the older women in the society today. This is commonly experienced by the women over the age of 35 years. This is for the key reason that the modern technology has made it easy for the baby to be scrutinized at every stage of development. There are various risk aspects that usually make it exceedingly difficult for women over 35 years to experience complications during birth (Jarvis, et al 2005). Some of the vital reasons encompass of; the risk of delivering a baby with defects also increases with age. This is usually

triggered with the abnormality which is caused with the unequal number of chromosomes also referred to as non-disjunction.

The rate of miscarriage also automatically increases with the age of the mother. Since there is like hood of problems affecting the number of chromosomes, the fetuses might be forced to be removed since its development might be affected. Other complications such as the increase in the blood pressure also might affect the nature in which the child will be born. The walls of the womb that are used to support the development of the unborn child might be destroyed (Jarvis, et al 2005). This makes it to be immensely impossible for the child to develop in the womb hence miscarriage.

However, there are improvements in technology and health facilities to reduce late pregnancy. One significant improvement is the introduction of external fertilization using both the wife and the husband's eggs and sperms respectively. Improvised Ultrasound techniques and blood tests have been used to detect problems and cure them in advance. In most cases, it is dangerous for late pregnancies because of risk exposed to the mother (Rodgers & Matsumura, 2005). To avoid the risks exposed to late pregnancies, women should give birth at an early age and concentrate on a carrier in later life. This will reduce the risks associated with late pregnancies.

## **References**

Jarvis, S., Stone, J., Eddleman, K., & Duenwald, M. (2005). *Pregnancy for Dummies*, New

York: John Wiley & Sons

Rodgers, J., Matsumura, M. (2005). The Disabled Woman's Guide to  
Pregnancy and Birth,

Edition2, New York: Demos Medical Publishing,