Introduction

In the realm of health care, health science and health policy there is definite need for a shared reflection in relation to maintaining an ethical standard of health provision and also most importantly in the area of research and development, the subject of bioethics holds an imperative position (Center for Ethics and Humanities in Life Sciences, Michigan State University 2014). Bioethics involves a reflective process where the existing standard of ethical protocol is deliberated upon by the scientific community, along with the health care recipient population, general public, academia, media, political fronts, civil society groups, religious groups and any other concerned forum or individuals. It should be an inclusive process aiming at achieving the highest standard of ethics possible and the dissemination of knowledge to understand and deal with the nature of an ethical concern or issue becomes preliminary to its objective of achieving the highest standard of ethical practice. The availability of such a neutral space where the deliberation on ethical issues concerning health care, medical research and health policy is mostly a challenge as the authority of the scientific world over the general public usually dominates decision-making processes. Despite such power struggles in determining the highest standard of ethical practice, the discourse on bioethics in the present times have gained currency and the involvement of several pressure groups and vigilant civil society organizations have made the engagement more vibrant and organic with people’s voices reaching the policy spaces especially through media and advancements in social networking.

Bioethics is concerned with various biomedical and research decisions varying from the recent developments in genetics, particularly a large array of contemporary debates are around the genome banks, stem cell research, the possibility of human cloning, to time tested issues of pain management, use of placebos in research and most importantly the controversial subject of euthanasia. While bioethics and informed consent have been the cornerstones in the field of immunization, predominantly in vaccine development and also in
all the processes concerning vaccines beginning from clinical trials, policy decisions, costing, availability and the actual process of vaccination which requires informed consent. In the contemporary world where information is rhetorically equaled to power, the economically and socially backward countries of the developing world face the most of bioethical crisis. The vulnerability of the population in these countries that are primarily located in Asia, Africa and South America make the practice of the standard ethical protocol to fall short as informed consent sometimes become redundant in cases of extreme poverty and high incidence of disease morbidity and mortality. Here the thin line between exploitation and extending of aid merges and raises several ethical issues. The indication of exploitation achieves reification differently corresponding to the context at hand and thereby the need to treat the concept of bioethics and informed consent by utmost inclusion of contexts and stakeholders becomes pertinent.

**Historical Origin of Bioethics**

Bioethics as a discipline is a modern development and in the academic field it is believed to have come into existence in the late 1960’s and early 1970’s. The emergence of the field of bioethics is attributed to both development in technology and the advancements in biomedical sciences (Muller 1994). The advancement in biomedical sciences has seen a varied foraging into the realm of life preservation and creation, for instance keeping a patient from dying using life support technology to creating babies using newer technologies such as *in vitro fertilization*. In this spectrum of biomedical and clinical innovations the older discipline of medical ethics falls short in dealing with issues of moral right and wrong questions that accompany technologies such as dialysis machines, artificial ventilators, the possibility of organ transplantation, reproduction technology which now includes newer parent-children relationships where the children borne by a mother need not be genetically related to her, while prenatal testing and safe abortions and newer methods of contraception also imply to determine the number of children and the kind of children one chooses to biologically procreate (Kuhse and Singer 2009). Moreover in such a thriving period of biomedicine, the choices available maybe several, each loaded with ethical questions corresponding to the contexts at hand and thereby it is not only the scientific and medical community that needs to obey the code of medical ethics, but the patients, their care givers and next of kin as well as the community on the whole that includes the social, religious, cultural, economic and political dimensions have a role in determining the ethical aspects of some decisions. The
primary focus remains on the ‘patient’s rights’ and the practice of ethical decision-making process is then heavily value laden owing to the possibilities of biomedical advancements, thereby adding much more than a stipulated code of medical ethics as followed by the medical professionals.

It is considered that Fritz Jahr in Germany used the expression ‘bioethics’ for the first time in 1927 in an article (originally titled in German), “Bioethics: A Review of the Ethical Relation of Men with the Animals and Plants” (Hossne and Pessini 2011). Jahr drew largely from Kant’s work and proposed the bioethics imperative that emphasized the need to respect all life forms as a principle and as an end in itself and treat them well (Ibid) (Sass, Fritz Jahr’s 1927 – concept of Bioethics 2008). Further Jahr in his work appeals for using anthropocentrically found ethics or “the assumption of moral obligations” towards all life forms or bios (Zagorac 2011). Jahr’s proposal of a new-fangled bioethical imperative used the ‘sanctity of life’ as the foundation and laid emphasis on the need for a moral orientation and action and is seen as derived from Immanuel Kant’s concept of the ‘sanctity of moral law’ which declares that human person is the subject of moral law and moral law holds the value of being the sacrosanct (Sass, The Earth is a Living Being: We have to treat her as such! 2011). Bioethics thereby has its origin in the realm of ethical treatment and relations between human beings and all other life forms or bios and can be seen as a field that is constantly developing and consolidating itself owing to the varied questions rising from biomedical advances and also the everyday life of biomedical encounters (Hossne and Pessini 2011). Fritz Jahr’s contribution to the field of bioethics has contemporary relevance especially with the present urgent preoccupation with building a sustainable future. Nevertheless, there are claims of bioethics as a full-fledged field having come into venture with Van Rensselaer Potter’s works “Bioethics, Science of Survival”, 1970 and “Bioethics: Bridge to the Future”, 1971 (Ibid).

Ethics of Care

The concept of ‘ethics of care’ otherwise also referred to as the moral theory though developed much later in the 1970-80’s with a combination of nursing ethics and feminist theories, inclines on John Gregory’s work on ‘sympathy’ and ‘care’ with an evolved understanding of the notion of care with nuanced perceptions about relationships and patterns of need and support sought and provided in everyday human interactions. The primary concern of care ethics has been preoccupied with the contextualization and advancement of
the well-being of both the caregivers and care-receivers in any given space of human social relations (Sander-Staudt 2011). Care ethics is centred on the stimulus to care for the dependent and weak and the motivation to care for is usually drawn from personal memories of being cared for and also the idealization of the self (Ibid). Care ethics is often seen to have developed from the philosophical work of Milton Mayeroff’s short book titled “On Caring” published in 1972. Mayeroff’s work lays emphasis on the notion that the priority of caring is to help the other grow and in the due process trying to gain self-actualization (Baker-Ohler and Holba 2009). Following Mayeroff’s work, psychologist Carol Gilligan and philosopher Nel Noddings contributed immensely to the development of care ethics as a definite moral theory in the 1980’s. Gilligan added a new perspective of seeing the relationship of caring from the locus of people, who have faced systematic marginalization from positions of power and also contextualizing the fact that those seeking health care or services are usually in a fragile and dependent position (Sander-Staudt 2011). Though care ethics was predominantly envisaged to deal with self-contained and intimate spheres of life, it is interesting to note that it has been assimilated into varied fields such as political theory, social movements and public support activities of care giving (for example- caring for animals and environment), international relations and bioethics (Ibid). Care ethics is largely critiqued for promoting a slave morality and perhaps academics have viewed it as being entrenched in essentialism, parochialism and ambiguity (Ibid) (Davion 1993) (Hassan 2008). Care has a special space in the historical understanding of a virtuous human person, as it is usually seen as an ethical responsibility, a commitment, or as an attribute of righteousness and many feminists view it as a reflection of the masculine perspective and thereby re-positioning women into care giving roles from a justice framework while the autonomy of women may stand compromised (Keller 1997) (Hassan 2008). Feminists render a new conceptualization of care ethic by drawing focus to relationships in the contemporary world (society/community) as being associated with culture, gender, power and politics and therefore the experiences of the people who face social exclusion and marginalization need to be reflected upon to gain insight and awareness about contextualizing the rendering of care that can lead to mutual growth of both the caregiver and the recipient (Sander-Staudt 2011).

Nursing ethics and Care ethics

Nursing ethics and care ethics have been deliberated as having similar groundings, with the breaking away from the dominant patriarchal notion that nurses are subservient to doctors
while men dominated the profession of medicine in the earlier times. Until the 1960’s the nurse’s primary responsibility was to the doctor and with the influence of feminist thinking concepts of ‘self-consciousness’ and ‘self-assertiveness’ was adopted and in the International Council of Nurses’ Code for Nurses in 1974, a change in the perception that the “primary responsibility” of a nurse is no longer to the doctors but to the patient. It is pertinent to note that nursing ethics also contribute to medical ethics, though it came into existence much later with the opening of the first nursing school by Florence Nightingale in the early nineteenth century England. Florence Nightingale was directed by her deep religious conviction for the service of humanity and contributed immensely in the professionalization of nursing which till then had only the status of a domestic service (Selanders and Crane 2012). Nightingale guided her nursing students through her letters that later were used to develop the guiding ethics of the medical profession. In 1901, Isobel Hampton Robb developed the first formal nursing ethics, titled “Nursing Ethics for Hospitals and Private Use” which set the precedence for a body of knowledge, which has seen, significant fruition corresponding to the progress in the status of women and societal evolution (Kuhse and Singer 2009).

Medical Ethics
Medical ethics in the twentieth century has seen several important pathways for its deliberations, evolution and scope for becoming inclusive of several ethical predicaments that the practice of biomedicine endures on a day-to-day basis. The Nazi experiments on human subjects at the concentration camps are of immense significance to the development of medical ethics in the twentieth century. The verdict delivered in the Nuremberg Doctors’ Trial on August 20, 1947, is cardinal to the history of medical ethics. In the Nuremberg Doctors’ Trial, the United States of America prosecuted the Nazi German government officials and doctors, namely Karl Brandt and others who were termed as war criminals for committing mass murder of patients in asylums, prisoners in concentration camps who were mostly Jews, Gypsies, Poles, Russians, homosexuals and others and also for conducting inhuman human experimentation (Kuroyanagi 2013). The verdict is famous for having laid down the Nuremberg Code, which consists of ten points that was to guide any further “Permissible Medical Experiments” (The Nuremberg Code 1949). The first point of the Nuremberg Code focusses on the absolute need for informed consent that must be voluntary from the human subject before beginning with any experimentation involving the human
subject. The nature of informed consent is also dealt with by the code by clearly indicating that the human subject should be aware of the processes involved in the experimentation thereby rendering voluntary informed consent on the basis of enlightened knowledge about being a participant in the research-experiment. This understanding of informed consent has also set the standard for the doctor-patient relationship where the right to self determination lies very much in the locus of the patient’s choice (Kuroyanagi 2013). Following the Nuremberg Verdict, another historic development in the field of conducting and practicing biomedicine and related research activities occurred with the setting up of the World Medical Association (WMA) on September 17, 1947, when physicians representing 27 countries came together and held the first General Assembly of WMA at Paris (World Medical Association 2005). The mission of the WMA was “to serve humanity by endeavouring to achieve the highest international standards in medical education, medical science, medical art and medical ethics, and healthcare for all the people in the world” and the coming together of physicians from different countries was to encourage cooperation and achieve consensus on highest standards for medical ethics and envisage an enhanced quality of life to people across the world without any discrimination (Ibid). From its inception, the WMA has played a significant role in rendering its service in meeting the growing demands of the field of medical ethics due to rapid development in research and newer inventions. The WMA is recorded to have made nearly one hundred and eighty statements and declarations relevant to the field of medical ethics in a span of more than six decades (Kuroyanagi 2013). The most significant declarations have been the Declaration of Geneva, which was adopted in 1948 and last amended in 2006, the International Code of Medical Ethics, which was adopted in 1949 and last amended in 2006, the Declaration of Helsinki, which was adopted in 1964 and last amended in 2013, the Declaration of Sydney on the Determination of Death and the Recovery of Organs, which was adopted in 1968 and last amended in 2006, the Declaration of Lisbon on the Rights of the Patient, which was adopted in 1981 and last amended in 2005, the Declaration of Lisbon on the Rights of the Patient, adopted in 1983 and amended in 2006, the Declaration on Euthanasia, which was adopted in 1987 and reaffirmed in 2005, the Declaration on Human Organ Transplantation, which was adopted in 1987 and replaced with the current Statement on Human Organ Donation and Transplantation adopted in 2000 (Ibid) (World Medical Association 2005).
The *Declaration of Geneva* is cardinal to the understanding of the duties of a physician and holds the oath of the physician which is primary to medical education. While the *International Code of Medical Ethics* mirrors the Nuremberg Code and establishes the ‘patient’s rights’ in the doctor-patient relationship. Each of the declaration has its own history of deliberation and the amendments reflect the awareness and insight gained into social inclusion and respect for human rights and thereby chronicles the trajectory of medical ethics complementing the context and scientific advancements.

Following the setting up of the WMA, the Council for International Organizations for Medical Sciences (CIOMS) was set up as an international non-governmental and non-profit organization in 1949, jointly by the World Health Organization (WHO) and United Nations Educational, Scientific and Cultural Organization (UNESCO) (CIOMS 2013). The CIOMS plays a significant role in bringing together the scientific community especially from the field of biomedical sciences from across the world to deliberate on topics such as bioethics; health policy, ethics and human values; and drug development and use (Ibid). The CIOMS has contributed predominantly in the arena of bioethics in collaboration with WHO and published the *International Ethical Guidelines for Biomedical Research Involving Human Subjects* in 1993. This document has been used widely by the scientific community, particularly in the resource poor countries and it has been revised and published in 2002 along with translation made into seven other languages (CIOMS 2013).

**Bioethics in the contemporary Context- Discussion**

Apart from these international associations and organizations, the field of bioethics has gained a definitive momentum in recent times with an increased awareness about the vast disparity in access to healthcare between the developed countries and the developing resource-poor countries which are mostly located in Africa, Asia and South America. Bioethics has emerged as an analytical and commentative discipline and this perhaps can be discerned with the shift from a philosophical framework to catering to the obligations of addressing pressing demands to address practical issues such as abortion, euthanasia, the ethics of nuclear weapons and war, the ethics of capital punishment, animal and environmental rights and protection and the allocation of scarce medical resources which may determine the right to life of children and people from poor and vulnerable contexts (Kuhse and Singer 2009). In this milieu bioethics has traversed to a realm of global contexts and the need to address ethical questions affecting the most vulnerable and needy comes to the forefront along with
ethical questions in international relations, terrorism and the crisis due to ethnic strife and civil war within countries and continents, demanding international intervention. In such situations of several ethical dilemmas the contemporary discourse on bioethics reaches reification and further opens up for insightful transcendence.

In the contemporary times of threats in the form of bioterrorism, Potter’s work may serve as an anti-terrorist strategy as it is contingent on integrating global values and ethics from across communities bridging the world of science and humanities through the concept of bioethics which is relayed through clinical tradition along with legal and philosophical facets (Whitehouse, The Rebirth of Bioethics: Extending the Original Formulations of Van Rensselaer Potter 2003). Bioterrorism need not be a threat only from enemies of state rather it can also stem from the misuse of empirical scientific knowledge both intentionally and otherwise and perhaps have greater potential to create terror and destruction midst innocent individuals and communities who may be at stake. If bioethics is given a serious consideration especially by imbibing into organizational ethics, such possibilities of morally misguided bioterrorism could be avoided, while the need to shift from principle of autonomy to garnering strong relationships with community, building a sense of common–shared moral awareness about public and environmental health could be the future pathways of global bioethics. In this predicament of moral dilemma to deal with serious issues such as bioterrorism, the concept of who is a terrorist surfaces as the labelling of a person or an organization as one, is a political act and it can assume various labels depending on the political discourse and popular politics (Ibid) (Whitehouse, Letter to the Editor: The New Age of anti terrorism 2001). With very heightened level of moral dilemmas faced by the contemporary global politics the concept of global bioethics perhaps can bring an important course of rescue by attempting to bring together common values and ethics from across different countries and religions making a space for deliberation and sustaining peace as a possibility for humankind (V. R. Potter 1994).

Global bioethics moreover is very relevant to the politics of aid and distribution of resources in this world torn by vast resource disparities. If one were to look at the burden of infectious diseases in the resource poor nations and the lack of access to health care coupled with the shortage in drugs to contain diseases, the moral questions on the quality of life arises countering the decisions on aid monies and sanctions by the wealthy developed nations. The primary concern in such a predicament of crisis in global morality as to who gets to live a
better quality life and have access to health care depends on contexts such as citizenship while there has been a predominant increase in refugees across the world, residence in developed or resource poor developing nations, race, ethnicity, gender and other such social, economic and political factors. The field of health care and scientific biomedical research is largely influenced by profit motivated private sector investments. There has been a serious discussion on the role of multi-billion dollar pharmaceutical companies who advocate for drugs through commercial advertisement campaigns, which may have shown a questionable level of efficacy in comparison to the placebos, while the need for such drugs may as well be questionable (Selgelid 2002). The profit motivated pharmaceutical companies make use of a liberal market and policy space that jeopardises ethics and divulges into a phenomenon of monopoly of the market over basic essential such as health care, access to drugs and the availability and supply of life saving drugs especially in the economically poor countries. In the year 2000, the Global Forum for Health Research made a remarkable contribution in understanding the politics of resource allocation for health research funding. “The 10/90 Report on Health Research 2000” brought to light the pertinent case of global disparity in health care resource allocation by putting forth an analysis of resource allocation, which accounts that less than 10% of research funds in the field of health are spent on 90% of the global burden of diseases (Global Forum for Health Research 2000). This report also contributed in reviewing the need for using appropriate low cost technology in resource poor settings to combat with infectious diseases along with the need for investing in research for creating such innovative low cost technology (Ibid) (Lee and Mills 2000). Research funding for development of newer drugs and technology in health care for the developing countries are predominantly sourced from North American and European Governments along with the non-profit, non-government foundations such as Bill and Melinda Gates Foundation, the Wellcome Trust, etc along with international agencies such as World Health Organization commissioned tropical diseases research programme (Lee and Mills 2000). The question of research autonomy for the investigators should be given attention as in most cases donor funded research projects need not have the recipient needs as the primary interest (Shiffman 2006). At the beginning of this millennium, there were several red flags raised by public health professionals and health activists about clinical research practice and collaborations between the North and South nations with an understanding that the North nations had a better bargain in such collaborations as they brought the economic resources while the sites
for conducting such research were located in the South nations. The case of the Merck pharmaceutical’s HIV drug trial in Guatemala city in 1997 raised serious ethical issues around who gets to be enrolled in the study and have access to expensive life saving drugs which, the patient-participants of the drug trial found to be effective and the central question of whether by participating in the drug trial the patients were diminished due to their disadvantaged economic positions thereby invariably depending on the drug trial as a lifeline (Edejer 1999).

**Conclusion**

It has been widely written and acknowledged that researchers from the North nations usually make use of the South nations as reserves of data mining, often referred to as “parachute” scientists or research consultants whose presence is temporary and focused on collecting data and samples leading to a phenomenon of “scientific colonialism”, while the research collaboration between these nations witnesses a dominant-subservient thread and the need for building local research capacities usually get abated (Ibid) (Trostle 1992). In such a milieu of an uneven research collaboration between the developed countries and the poor developing countries, the significance of health as a public good is deliberated upon through subaltern discourses on achieving health equity. The voices from Asia, Africa and South America becomes crucial to such a discourse on health equity and biomedical research practices and the role of bioethics adds perspective to the modus operandi of research practices as part of the North-South collaboration.
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