Bangladesh Journal of Bioethics

Published by: Bangladesh Bioethics Society
https://bjbio.bioethics.org.bd/index.php/BJBio/about
ISSN: p2226-9231 e2078-1458
BJBio 2020; 14 (3):8-16
Submitted:15.03.2020
Accepted: 12.05.2020
Published:01.07.2020

Original Article

Reflections of the Ethics on Coexisting with Disaster

H.W. Angela Lo [1], Vincent Shieh [2] , Yung-Jong Shiah [3]

: https://doi.org/10.62865/bioethics.v11i2.177

Abstract: With the increasing number of human disasters in recent years, disaster service workers are faced with an ever-growing challenge of criticism concerning their professional competence. The workers also realize the limitation inherent in their practice, as well as bioethics problems regarding autonomy and heteronomy. Therefore, professionals and researchers of human service devote to the issue of post-disaster rehabilitation of the people so as to identify an effective way and practice to aid the post-disaster individual, family and community. This study explores the effectiveness of rehabilitative function of disaster service workers through the action research of Typhoon Morakot and the 2014 Gas Explosion in Kaohsiung City, Taiwan. The case studies serve as a platform for the discussion of principles of bioethics and the analysis of the process of self-discipline of the workers of human services in hope of ultimately establishing bioethical principles for heteronomy during disasters and work indicators for post-disaster community restoration. Discuss Issues are 1. How can self- discipline in bioethics be achieved for the human service workers during times of disaster? 2. In post-disaster reconstruction, how does the human service worker take into account bioethical principles to serve and partake in the restoration of the post- disaster life of community residents? 3.During the process of disaster research, what are the bioethical considerations to be taken into for the test subjects? Conclusion and suggestions are to formulate indicators for a post-disaster “community of health and wellness;” to establish bioethical principles of heteronomy for disaster service workers.

Key words: Disaster, reconstruction, human services, bio-ethics, self- discipline, heteronomy

1. Ed.D., Associate Professor, School of Medicine, Kaohsiung Medical University, Kaohsiung. Taiwan. Email: loha@kmu.edu.tw
3. Ed.D., Professor, Graduate Institution of Gender Education National Kaohsiung Normal University Kaohsiung, Taiwan. Email: vshieh@nknu.edu.tw
3. PhD, Professor, Graduate Institute of Counseling, Psychology and Rehabilitation Counseling, National Kaohsiung Normal University, Kaohsiung, Taiwan. Email: shiah@nknu.edu.tw

Corresponding Author: H.W. Angela Lo, Email: loha@kmu.edu.tw

Definitions:

1. Autonomous Ethics: National Education Institute (2012) the term "autonomy" means self-discipline in Greek1. The concept of autonomous ethics originated in the seventeenth and eighteenth century by British scholars. They hypothesized the existence of a special sense of morality that is independent of one's social experience and material needs. Immanuel Kant very specifically described autonomous ethics as the derivation of principles from intrinsic ethics, which emphasizes the individuality and inherent value of such ethics. Kant believes that only by respecting the categorical imperative of morality can one be truly ethical and free from extrinsic moral motivations, such as selfishness, pursuit of joy, and social status.
From a Marxist standpoint, the dilemma between autonomous ethics and heteronomous ethics is superficial. The origin of ethics is beyond its limits and in this sense, ethics is both heteronomous and autonomous, has its own peculiarity and logical development, all of which cannot be inferred from objective economic factors[1].

2. Heteronomous ethics: "Heteronomous ethics" means the discipline of others. It is achieved by establishing morality on others, such as hedonism, eudemonism, and utilitarianism. The concept of autonomous ethics is opposite of heteronomy. Heteronomous ethics then refer to the derivation of moral principles that are never dependent on the extrinsic factors of free will (such as God's will, social norms, and instinctual feelings)[2].

3. Bioethics: The definition of bioethics concerns with the issues that arise from the interrelationship among fields such as biology, medicine, politics, law and sociology. The degree of ethical judgements that biological issues should be subject to is controversial. Some experts of bioethics limit the ethical judgement to the ethics involved in medicine, technological innovations, and the medical treatment received by the human body, whereas other scholars extend their ethical judgement to the entire biological entity that is capable of experience a gamut of emotions, such as fear and pain[3].

4.The Definition of a Humanized Disaster Service: The United States Department of Health and Human Services (HHS) determines that the concept of disaster human services lie in providing humanistic service through coordinating and guiding public policy and its services, as well as taking preventive measures in preparation for disasters and sudden public health events [4].

Background: Disasters are capable of inflicting destruction on a massive scale, causing much damage and casualty, occupying much of the local resources, and often times requiring additional aid and manpower in reconstruction. Such process can lead to challenges faced by disaster service workers on a bioethical level. The bioethical principles and beliefs of disaster service workers revolve around promoting the wellbeing of mankind and the health of communities and the environment, making right decisions in human aid and minimizing potential hazards. Nevertheless, in times of disasters, many ethical dilemmas may arise and thus, more effort is needed to achieve an optimal balance between individual and collective rights.

There are different types of workers (professional and non-professional, GO and NGO) that devote to different stages of disaster service (such as emergency rescue, post-disaster settlement, post-disaster reconstruction). The interaction between workers and disaster victims can be complex and diversified. Decisions are frequently made based on the limited resources that are available and potential problems may often develop.

This article serves to explore the bioethical principles behind the effectiveness of disaster service workers in restoring community function based on the action study of the Typhoon Morakot disaster andthe 2014 gas explosion in Kaohsiung, Taiwan in hope of inspecting some of the bioethical quandaries inherent in post- disaster community reconstruction.

When it comes to disaster service workers and disaster victims, in addition to the objective and subjective discrepancies in their bioethical values, differences also exist in the time, location, and degree of the disaster itself. Therefore, there must not be a

universally standardized answer for bioethical questions. Pertaining to disaster laws and regulations that govern professional disaster service organizations, the most important steps are to put forth a guideline and restorative plan for medical personnel and disaster service workers, to establish a committee dedicated to community reconstruction, and to train local service workers (through bioethical empowerment). Heteronomous autonomy in disaster prevention law should be outlined by the government, especially in crisis management of disaster prevention and preparation, to minimize the damage of disaster on society.

Research questions and discussion: How can disaster service workers achieve autonomous bioethics in face of disaster? Action with autonomous bioethics has always been a focus in the training of disaster service workers. Therefore, as Mark S. Putnam (2006) had mentioned, if the worker can have a firm grasp of the abstract concept of work life of autonomous ethics, the resultant disaster restoration work that follows can become more ethical [5].

As outlined by Mark S. Putnam (2oo6), the authors of this article shall explore the ten principles of autonomous ethics through a case study in hope of shedding light on how a service worker can act in line with autonomous ethics in times of disaster[5]:

1. Respect for human life: One's attitude and action in autonomous bioethics shall determine one's work effectiveness. Autonomy can make one fulfill one's wishes and make the right choice. Autonomous ethics can only be realized through a sincere desire to help others with a victim-centered mindset.

2. Learning bioethics: Educating oneself in the principles of bioethics to prevent Making ignorant mistakes. Learning the highest moral standards of bioethics may be more important than learning the law and regulations, policies, and standard operating procedures. However not knowing what the rules are will never allow one to make the right bioethical decisions.

3. Sharing of responsibilities: Service workers of post-disaster reconstruction must be willing to shoulder responsibilities and accept setbacks without casting blame on others. The covering up of mistakes can only worsen and even result in a personal ethical crisis.

4.Taking action: Autonomous ethics is a part of the self-discipline required of post- disaster service workers. Self-discipline is never an observer's activity. It requires taking action, overcoming personal obstacles, learning from mistakes and successes, and doing the right things.

5) Eradicating destructive habits: There are countless suboptimal individual habits. As service workers, everyone has their own habits and ways of doing things. No matter what one's style or habit is, a majorprinciple is to eradicate all harmful habits from the workplace.

6. Setting and completing goals: A primary goal is to engage victims of the disaster-stricken community in collective learning and nothing else if more satisfying and all-beneficial. The service worker must act according to the expectations of the community residents and be courageous enough to stand firm on moral grounds.

7. Clear explanation of service work: Post-disaster human service worker must achieve communication and mutual understanding with residents of the local community on community restoration. Dependability is a valuable trait at the workplace as it reflects one's moral honesty.

8. Ignoring peer pressure: Peer pressure among disaster victims and service workers is often neglected by the service workers themselves. No matter how seemingly independent or irrelevant, every task in community reconstruction always concerns with individual participation and collective learning to a certain extent. Challenges and variability are present, even in the most seemingly fair activities such as resource allocation. One must adhere to one's bioethical principles.

9. Engage in activities that reinforce self-discipline: Service workers must understand that other than relieving stress, one must also pick up activities that one enjoy, whether it be sports or playing a musical instrument. A spiritually-healthy service worker can more

effectively help and contribute to post-disaster reconstruction. In other words, self-discipline can instill energy and eventually empower the local residents.

10.Persistent passion: Service workers must realize that bioethical principles are not shallow. All the work must be centered on the victims and humanitarianism must always be present. After all, the most fundamental principles of bioethics shall never change and therefore, post-disaster community restoration can be expected[5].

In the process of post-disaster reconstruction, how should a "human service worker" consider the principle of bioethics to serve the disastrous community and help inhabitants to join the recuperation of healthy life? In the process of post-disaster reconstruction how should a human service worker consider the principle of bioethics as a primary service for "*Disastrous Victims*" in each individual case? Intuitive to say, how shall the human services worker in post- disaster reconstruction exercise the principle of bioethics to serve the disastrous community and assist inhabitants in joining the rehabilitation of healthy life, and how to consider and verify the bioethical value and unequivocal principle, as well as its applicable manners[6]? The conception of bioethical principle is that the human services worker in the process of post-disaster reconstruction shall center on the "damaged community and inhabitant" to proceed with humanistic care, thus, most inhabitants in disastrous district convince and appreciate the human services workers' contribution towards the post-disaster reconstruction. The said workers shall enact and participate the rehabilitating project of healthy life, the purpose of which is to differentiate from other opponents' groups and the substitutions for inhabitants in the post-disaster reconstruction district; the idea to provide the maximum benefit seems rational and self-evident if inhabitants may join in the recuperation of healthy life [7].

Furthermore, the recuperating project of healthy life is enacted prior to the promulgationof post-disaster reconstruction. It is an opportunity for inhabitants in disastrous district able to join the rehabilitation of healthy life that makes him or her comprehend the importance to participate in such an activity and consent to perform the said project. In addition, the human services worker shall have inhabitants in disastrous district understand and value the living reconstruction welfare, and shall fairly and justly distribute the service resources in accordance with the personal requirement and healthy life.

The principle of respect for autonomy: The notion of moral policy decision is presuming that all rational acts are deriving from volunteering decision. The policy adopted by human services worker must be respect for autonomy of the inhabitants in disastrous district, which means, the inhabitants shall have the option whether to participate in the recovering action or not. The social workers cannot violate inhabitants' principle of autonomy and create any impact on their free and volunteer behaviors. The said principle is also inclusive of the "*Informed Consent*" in the process of post-disaster reconstruction to interflow with human services worker /inhabitants in disastrous district, basic upon the practice of healthy community and hygienic health [8].

Case 1: *During the Typhoon Morako, Village Shiaolin was perished with a death toll of 498 persons and more than one- hundred survivors. Thereupon, many NGO Organizations, professionals and volunteers crowded into this area; as one of the professionals told villagers that "he wants to help them to do the psychological therapy", everybody was running away and no one would accept the offer. Why?*

Discussion and Analyses: Villagers' cognition is, "This is an act of God /my house is gone/my relatives are dead…" I am a normal person, and surely will cry, or feel miserable and sad. I am in my right mind -- "not mad", and my psychology is out of question; why should I be treated by psychological therapy? It's peculiar…

The social worker X said, they must have psychological problem… trauma~ must have PDST's issues! They just don't understand~ they must accept the psychological treatment! I help them to do the psychological therapy with good intentions, but they bite the hand that feeds them----.

We may clearly see the difference of cultural

significance between race and religion. The human services worker shall always respect inhabitants' autonomy; the respecting behavior is not a simple attitude, he forget the rule of professional ethics.

"To respect every one and each autonomy" and "Center on individual case". Regretfully, in this case, the professional is simply "centering on his own expertise"

2.The Principle of Non-maleficence: The principle of practicing charity demands human services worker, through act or omission, not to cause any damage intentionally or to hurt the inhabitants in disastrous district. According to the language of common ground, we assumed, an offence is to impose a negligence or unreasonable risk onto others. Jesus and Michael argued, the offer of an appropriate virtue and humanistic care can avoid or reduce the damage risk, and the standard support is not only for our prevalent moral belief, but also for the social law (please refer to Law and Medicine Ethics)[9]. To clarify this principle needs to provide the professional capability, obviously, it may appear with the hypocrite who takes advantage of the prestige of good deeds to publish others' privacy onto its articles, however, the principle of practicing charity expounds that social worker shall provide benefits and protect the inhabitant in disastrous district from injury.

Case 2: *After Village Shiaolin was perished, some school teachers were deployed to accompany survivors. Two months later, these teachers held a seminar to make public of survivor's oral history and life story; is this behavior not respectful enough to the deceased and the survivor? Is it violating the studying morality? Why?*

Discussion and Analyses: In the duration of disaster, many social workers (GO & NGO; school, hospital, and enterprise) made use of the name of "Accompanists" to collect the variously oral histories and interviewing paper data. The survivor who accepted the interview knows that this is a research, and that his words of "*personal privacy, sadness, and misery*" are being published at the seminar --- this is what we called "In violation of researching morality". In another words, the researcher shall prudentially consider the equity issue of the vulnerable interviewees (survivors who had experienced the disaster); there four moral principles in terms of consideration: respect for autonomy (informed consent/confidentiality), in favor of interviewee, and no harm to interviewees.
It is applicable to the principle of dual effects: 1). Nature of the good deeds shall not be itself error; 2). It shall be a good, or at least a favorable behavior in terms of ethical morality; even it is foreseeable as a good result, it shall still be not to cause any evil influence. In the aforesaid case, there is a professional difference between hypocrites and professionals who keep survivors company in the process of therapy. We conclude, it is a harmful action if a professional not specialized in psychology is doing the psychological job. It will surely cause the secondary harm onto the survivor and the inferior influence which is not the good deeds but the evil job made by human services worker.

3.The Principle of Beneficences: Common significance of the favorable principle is that human services workers have the responsibility to provide benefits for inhabitants in disastrous district, and shall adopt the active measures to prevent and eliminate jeopardies on them [10]. The duties of post-disaster reconstruction and recuperating job is regarded as reasonable and self-evident to serve as an appropriate target for post-disaster reconstruction. The favorable principle is that the human services worker facing the inhabitant in disastrous district can enter and join the reconstruction, healthy life service, and medical services provided by authorized organization. Good deed in favor of affected inhabitants is a constant obligation, thus, human services worker shall always do the right thing rather than jeopardize another individual while human servicesworkers' good deed is a kind of limited obligation, which is to work for inhabitants in disastrous district.

Case 3: *Upon occurrence of the gas explosion many NGO organizations, experts, and volunteers, or even artists (home or abroad) were deployed in this area, the purpose of which is to help victims to join in the artistic treatment. Nevertheless, inhabitants in disastrous district joined the project with low willingness, hence, the artists or student volunteers can only paint the*

graffiti by themselves. Will these images appearing on public space have the curative effect onto inhabitants?

Discussion and Analyses: The original intention is very good, but inhabitants' willingness to join the project is pretty low; isn't it specified the inhabitants' requirement variety? In the project of rehabilitating work, what human services worker have done is no other than the unilaterally wishful thinking; if the inhabitants don't like those images, will the picture cause visual interference or show no deference? Besides, the wrong service strategy and timing may also affect the inhabitants' daily living. Are these artists really doing good deeds? If only the victims fail to participate in the graffiti, it represents, as a matter of fact, they cannot perceive the benefit or curative effect Another evident example consists in hygienic health. The benefaction principle is preferential to take care of the patients living in disaster area and respect their autonomy. The case is coming from the disaster medicine; as the inhabitants are seriously affected by gas explosion and becoming disabled or ill, our government is based on the humanism to provide medical care actively and reasonably, and enacts the Rehabilitation Act to rescue wounded personnel and provide benignant interference in favor of victims.

4. Principle of fairness and justice: In the process of post-disaster reconstruction, human services workers' bioethics principle is commonly defined as a professional morality to help others. The principle of fairness and justice is exactly as what Aristotle said, "Each service we attentively provided is what the victim (who lives in disaster district) deserved"[11]. It means, the fair distribution of social resources is demanding us to provide the deserved equity for victims, the issue of which is seemingly to hinge on the fair distribution of some resources and services, not but that the supply is unable to meet.

Case 4: *Upon occurrence of air blast, lots of the NGO organization, professional, volunteer, human services worker, and the church group crowded into the disaster district to help victims. As to the church elders' healthy living care, non- parishioners were indifferent to join the church activities, thus, the church groups opened the volunteer quota for residents who are not living in disaster district. Is it fair to the inhabitants who living in disastrous district when the said residents are using the resources that belong to the disastrous district?*

Discussion and Analyses: For Taiwan contains the diverse, complicated, and rich society implications, social workers must learn of the disparity amid the factors of culture, race, hierarchy, gender, and age. Only the diverse culture thinking can help human services worker to achieve the service job basic upon the fair and just society value in the process of collecting research information while the experience and wisdom accumulated in these disastrous events can be used as references of the disaster prevention, alleviation, and preparedness.

The bidding-type research and the human service work have caused unwholesome influences onto the straitened victims; for the temptation of money and materials compels victims having no choice, which is not only causing harms to the studying participants, but also twisting the human service expertise and the studying significance and value. The human services worker with administrative resources and academic halo sometimes may form a habit to use strong-hand tactics in persuasion, therefore, the harmful servicing habit must be eliminated, otherwise, it could seriously affect the rehabilitation of disastrous district and violate the morality of human service job.

In the duration of disastrous research, is the bioethics principle being considered while victims participate into the studying process? The participant or statutory agent in disastrous researches is entitled to learn of the possible risk and potential consequence. Exercising the right of informed consent, the researchers shall expound the studying purpose onto the message provider, participant, and statutory agent, and submit the application to the Committee, so as to accept the assessment and investigation. The testees joining in the disastrous research are the vulnerable group according to the bioethics principle, hence, a lot of particularities shall be strictly in accordance with the statute of researching morality to make a judgment on the integral value assessed by human behavior[12]. In addition to

the consideration of bioethics principle, the testee joining in the studying process is inclusive of the morality and statute acceptable to the testee (either human or human body). There are four principles involved in human testee's bioethics research, respective as the respect for autonomy, good deeds, no harm, and the principle of fairness and justice.

1.Respect for autonomy. Respect for autonomy at least includes two bioethics convictions; 1). Disastrous research--- the testee has the right of informed consent, and 2). The disabled person (loss of autonomy) shall be well protected. The principle of respects for individuals can be divided into two requirements respectively as 1). Acknowledge the autonomy; 2). Protect the disabled personnel. The information provider and the studying participant are entitled to keep the confidentiality. The legal research shall adopt appropriate measures to protect participants and relevant information; even the absolute confidentiality is unable to be achieved, the research shall keep the participant informed of the protective restriction, and try to his best endeavor to protect the achievement. The information provider and the research shall be advised --- even we have done our best to protect the confidentiality, it still has many possibilities to be revealed.

Beneficence deeds: Use the highest morality level to treat the human researching testee. In addition to doing things in favor of the research testee, we shall respect their decision, protect their equity to avoid any harm, and safeguard their wellbeing; this is the principle of good deeds, including the benevolent behaviors that transcend the extent of obligation. No harm: Not to harm the testee represents the responsibility and obligation. There are two basic principles being used to supplement the description of good deeds:
1). No harm; 2). Try every possible to increase the benefit and reduce the potential jeopardy.

Fairness and justice: "Who shall assume the liability and enjoy the benefit brought by researching findings?" The justice principle is to explore the fair distribution and the issue whether it shall be deserved or not. There is no reason to refuse a deserved beneficiary while excessive duty assignment will cause harms. Another manner to perform the justice principle is equality (that shall be fairly treated). In another words, who is the equal party, who is not, and how to verify the fair distribution?

Conclusion and Suggestions: In response to the abovementioned issues, the author suggests to enact an explicit statute of the "*Disaster Prevention and Protection Act*" in respect of the post-disaster reconstruction. The statutory research on disaster prevention and protection is very important policy foundation, and the government must effectively record all experiences and lessons, and shall enact a set of the "System of disaster prevention and protection" and the policy in relation to post-disaster recuperation, inclusive of the assessing index and enforcement rule in regard to the community recovery or the healthy and blissful community. The policy and the enforcement rules shall also be established to aim at the spirit to face disaster, the PDST, medicine, individual psychology therapy, and the community-mental hygiene Law and order in the disaster period is very important, which is the lowest (standard) demand. Without sources of law to serve as a foundation, the moral autonomy or heteronomy shall still be limited, even with the higher moral criteria to demand social workers to observe the rules. In conclusion, the author would like to present the human services workers' "Bioethics heteronomy norm" to our government for references to conclude the content of "*Disaster Prevention and Protection Act*" and to those social workers for references to practice the works of post-disaster reconstruction. Human services worker s' moral heteronomy is primarily to establish an exterior norm.

Bioethics shall be a branch of moral tradition outside the Law; it concerns with the application of human bioethics value and theory. As to the moral heteronomy, it is aiming at the good or evil of human morality to serve as an index norm. The code of conduct in the volition exercise will become a popular and feasible law, then, the heteronomy must not be affected by any personal benefit. The bioethics heteronomy norm is proposed with following opinions for human services workers and researchers:

1) Human services workers and researchers' human subject experiment shall not use other researches or implements, but can adopt only under the deliberate and essential circumstance. 2) Human services worker and researchers shall be designed for serving people, helping human health and life, benefiting learning, or using knowledge of other life experiences and issues in researches, then, allowing the expected result able to prove the principle of reciprocity in the researching experiment. 3) Human services worker s and researchers shall avoid any unnecessarily physical and psychological pain and damage. 4) Human services workers and researchers themselves can act as the teste; no researching experiment is allowed if there is a reason beforehand to believe it could cause the damage. 5) Human services workers and researchers' risk shall not surpass the importance of human consideration in respect of the issue that can be resolved by service. 6) Human services workers and researchers shall have the proper facilities to protect victims or testees, or even to safeguard the rarely mental and physical injuria. 7).Only the qualified person who has accepted the scientific training in terms of the humanity, psychology, and social medicine can conduct, as the human services worker, the researching experiment in the disastrous district. Principal investigator or the researcher shall have the high-level humanistic communicating skill and the caring bosom in each phase of the researching experiment. 8) If the victim or testee in the duration of studying period feels his/her mental and physical status impossible to hold on, then, the victim or testee can freely make a decision to terminate the participation in this research.

9) In the process of researching experiment, personnel in charge of the said experiment, or the human services worker can immediately stop the experiment under his/her sincere and prudential judgment if he/she assumed, according to the reasonable factors, that continuance of the researching experiment could cause victims or testees' injury, disablement, or death.

References:

1.National Education Institute (2012) http://terms.naer.edu.tw/detail/1305179/?index=38 (Accessed on July 2019)
Mobile phone interactive encyclopedia http://www.baike.com/wiki/%E8%87%AA%E5%BE%8B%E4%B8%8E%E4%BB%96%E5%BE%8B (Accessed on OCT 2019).
2.Bioethics, Wikipedia, the free encyclopedia https://zh.wikipedia.org/zhtw/%E7%94%9F%E7%89%A9%E5%80%AB%E7%90%86%E5%AD%B8 (Accessed on July 2019).
3.Disaster Human Services.HHS Disaster Human Services Concept of Operations *for Official Use Only* March 27, 2014 "http://www.phe.gov/Preparedness/planning/abc/Pages/at-risk.aspx). (Accessed on OCT 2019).
4.Mark S. Putnam Ethics through Self-Discipline: 10 Tips for Success; Global Ethics University (2006). http://www.globalethicsuniversity.com/articles/ethicsthroughdisc10tips.htm (Accessed on OCT2019).
6.Beauchamp T, ５. Childress J. Principles of Biomedical Ethics, 7th Edition. New York: Oxford University Press, 2013.
6.McCormick, TR. Ethical issues inherent to Jehovah's Witnesses. *Perioperative Nursing Clinics* 2008; 3(3)*:* 253-259.
7.McCullough, L.B. "Ethically justified limits on the obligations of physicians and health care organizations in response to epidemics and bioterrorism", in Balint, J., Philpott, S., (2006),
8.Jesus, M.D. and Michael, G.E. "Ethical considerations of research in disaster-stricken populations", Prehospital and Disaster Medicine, 2009; 24(2):109-14.
9.Jensen A, Siegler M, Winslade W. *Ethics, 7th Edition*. New York:McGraw- Hill Medical, 2010.
10.Trotter G. The ethics of coercion in mass casualty medicine. Baltimore: Johns Hopkins University Press; 2007.
11.Conan, N. "How the ethics of triage play out in Haiti", Talk of the Nation,
12.NPR, Washington, DC, February 10 (2010).

Literature discussed:
12.Bostick, N.A., Subbarao, I., Burkle, F.M. Jr, Hsu, E., Armstrong, J.H. and James, J.J. (2008), "Disaster triage systems for large-scale catastrophic events", Disaster Medicine and Public Health Preparedness, Vol. 2 No. 1, pp. S35-S39.
13. Brosnan, D.P., Kahn, C.A., Brooke, E.L. and Cone, D.C. (2010), "Triage", Koening And Schultz's Disaster Medicine Comprehensive Principles and Practices, Cambridge University Press, NY, pp. 174-83.
14.Community Recovery and Emergency Planning For further advice contact: Lifeline 13 11 14
15.Canberra Connect 13 22 81 Community Recovery and Emergency Planning http://www.communityservices.act.gov.au/data/assets/pdf_file/0003/4926/human_face_disaster.pdf (Accessed on Sept 2019).
15.Hogan, D.E. and Lairet, J.R. (2007), "Triage", in Hogan, D.E. and Burstein J.L. (Eds), Disaster Medicine, Wolters Kluwer/Lippincott Williams & Wilkins, Philadelphia, PA, pp. 12-28.
16.International Federation of Red Cross and Red Crescent Societies (2010), "Annex VI: the code of conduct for the International Red Cross and Red Crescent Movement and NGOs in disaster.
17. Gert B, Culver CM, Clouser KD, (1997) Bioethics: A Return to Fundamentals. New York: Oxford University Press, 1997.
18 National Organization on Disability. (2008) Prepare yourself; disaster readiness tips for people with disabilities. Washington, DC: National Organization on Disability. 2008

19. Laughlin D, and Hick J. (2008). Ethical Issues in Resource Triage. Respiratory Care. 53(2):190-200.
20. Rawls J. (1999) *A Theory of Justice.* Cambridge, A: Harvard University Press, 1999.
21.Geale SK, The ethics of disaster management, Disaster Prevention and Management, 2012,"Vol. 21 Is: 4 pp. 445 – 462 Permanent link to this document:
http://dx.doi.org/10.1108/09653561211256152
http://www.fiamc.org/bioethics/ethics-of-disaster-medicine/
22.Thomas R. McCormick, Doming., Senior Lecturer Emeritus, Dept. Bioethics and Humanities, School of Medicine, Universityof Washington https://depts.washington.edu/bioethx/tools/princpl. html (Accessed on OCT 2019).

Author Contributions: The 1st author H.W. Angela Lo conceived the idea, did the literature review and wrote the manuscript. The 2nd author and Vincent Shieh guideded the conception of the idea, the manuscript writing, and checked the manuscript and 3rd authors Yung-Jong Shiah involved in manuscript writing, and checked the manuscript meticulously.

Conflict of Interest: The authors declare that there is no conflict of interest in this study.

Funding: Non