

Reproductive Health

Introduction

There is a growing concern involving the increased risks in reproductive health brought about by many environmental factors. Medical and health issues are constantly in controversies because of several studies linking poor reproductive health and diseases associated with the reproductive system with environmental factors as the root cause of the problems. This issue is currently in heated-discussions due also to environmental concerns such as pollution and the continuous degradation of the nature bringing about many hazardous effects both to humans and the environment. In fact, certain groups have been concerned in raising awareness of the possible ill-effects of the continuous destruction of the environment all over the world. Within the field of medical and health science, the destructive effects have not yet gained so much attraction and popularity in the international level.

However, it has been studied thru medical researches and empirical studies that exposure to the chemicals and radicals in the environment can have ill-effects. Harrison, Holmes, and Humfrey (1997) has in fact observed that the free radicals and chemicals present in the environment, whether natural and synthetic have caused adverse changes in the reproductive health. In fact policy concerns have been shifted and should have been focused on more extensive research and programs that will seek to explore extensively the nature and extent of the effects on reproductive health in both human and wildlife and to make an assessment of the relevant risks of this chemical exposure to humans and wildlife for future developments in this field (ibid). Although, there has been consensus that the risks to the reproductive health may vary in different regions and different places, depending upon various factors that are attendant in the environment.

At the onset, it must be emphasized that there is a need to place priority in putting up efforts to identify substances that may have the possible damaging effects and the possible management of the risks and threats posed by these substances and chemicals within the safety or tolerable level, taking into consideration the health and safety of those exposed to it.

The Link between Environment and Reproductive Health

In order to explore the topic, let us first discuss the concept of reproductive health. The United Nations Population Information Network (no date) defines reproductive health as a “state of complete physical, mental and social well-being, and not merely the absence of reproductive disease or infirmity. Reproductive health deals with the reproductive processes, functions and system at all stages of life.” As such, reproductive health is a “crucial part of general health and a central feature of human development” (ibid). Further, reproductive health is a “reflection of health during childhood, and crucial during adolescence and adulthood, sets the stage for health beyond the reproductive years for both women and men, and affects the health of the next generation. The health of the newborn is largely a function of the mother's health and nutrition status and of her access to health care” (ibid).

Environmental factors and reproductive health certainly interacts and the significance of environmental impact on reproductive system is not to be taken lightly. Reproductive process is susceptible to changes and adjustments at any stage of the reproductive process and the effects also vary (Nicolopoulou Stamati P., Hens L. and Howard C.V., 2007). The core focus of the study of the link is to find the effects of the exposure of the individual to the chemicals or contaminants found in the environment in relation to the developmental stage of reproduction, including the period before conception, at conception, fertility, pregnancy, child and adolescent development, and adult health as well (Woodruff T., 2003).

In order to establish the interrelation between environment and reproductive health, however, it is important to study and evaluate the exposure of these chemicals and other environmental problems to reproductive health in order to establish the link. In doing so, these paper will present certain researches within the field that poses importance in the study of the link and impact of environmental factors to reproductive health.

Environmental Factors on Male Reproductive Health

The male population certainly has issues and concerns relative to their reproductive health although “their general health is affected by reproductive health to a lesser extent than is the case for women” (United Nations Population Information Network (no date)). This does not mean however, that the male population should be less concerned with regard to this issue. Indeed, “men have particular roles and responsibilities in terms of women's reproductive health because of their decision-making powers in reproductive health matters” (ibid).

One of the perceived ill-effects on the reproductive health of the exposure to the chemical agents obtaining in the environment is on fertility of the male population. Oliva, Spira and Multigner (2000) have focused on the theoretical aspect suggesting that chemical and physical agents in the environment caused by human activities may directly affect the male fertility in humans. The research conducted by the researchers investigated on the relationships between exposure to environmental agents and seminal characteristics, and the concentrations of reproductive hormones in the serum of men seeking infertility treatment. Respondents came from Argentina specifically from the farming regions of the country. The result shows that certain exposure to chemicals like pesticides is meaningfully associated with sperm threshold values well below the limit for male fertility in contrast with those who are not exposed to the same chemical agents. Generally, the effects of the exposure are more noticeable and greater. The study has come into a reasonable conclusion that environmental factors are contributory to the condition of fertility in men and that this may have negative effects if it interacts with pre-existing genetic or medical risk factors (ibid).

In regard to some other forms of illnesses, another study has explored the link of the reproductive problems to incidence of cancers. Moreover, reproductive defects are likewise associated with high exposure to environmental factors. Toppari, et.al. (1996) has premised its study on the previous findings that reproductive health affecting men from Belgium, Denmark, France and Great Britain has greatly deteriorated in terms of semen quality. Moreover, there are researches which suggest that adverse changes brought about by this exposure to environmental factors is interrelated and originated from its conception or early childhood. According to the study, exposure of the male fetus to supra-normal levels of estrogens, such as diethylstilbestrol can result in some form of reproductive defects (ibid). As such, the negative developments in male reproductive health is largely associated or dependent upon with the exposure to environmental chemicals during fetal and childhood development (ibid).

Environmental Factors on Female Reproductive Health

Reproductive health is an issue that it is universally known, however, it is of special importance to the women population especially during the reproductive years. The female population suffers the greatest negative consequences of problems and disorders associated to reproductive health. Women are constantly “at risk of complications from pregnancy and childbirth; they also face risks in preventing unwanted pregnancy, suffer the complications of unsafe abortion, bear most of the burden of contraception, and are more exposed to contracting, and suffering the complications of reproductive tract infections, particularly sexually transmitted diseases (STDs)” (United Nations Population Information Network (no date)).

The female reproductive system, its structure and functions as well as risks and diseases associated with it has been widely studied thru empirical research and evidence-based investigation. However, studies pertaining to exposure to certain environmental factors linking to some form of reproductive health disorders are limited. This is despite the recent trends that propose that exposure to environmental contaminants and free radicals in the environment such as chemicals and any other solvents possibly contribute to female reproductive disorders. Indeed, this is a new trend that must be carefully studied and should be subject of more through scientific inquiry.

However, for purpose of this paper, the writer has explored the related literature on the subject focusing on the link between the female reproductive to environmental factors. Starting from the moment of conception, there are strong indications that there are several changes present in the developing fetus and exposures to environmental chemicals during this early stage of conception may have permanent damage to a fetus and a lifelong impacts on female reproductive health (Calabrese, 1986). The implication of which is that environmental factors affect the reproductive health and traces its origin from the time of fertilization and until the fetus develops and even continue after the child is born and possibly during his childhood (ibid). Hence, with these terminal effects of environmental factors to female

reproductive system, there is a necessity for further studies and investigation to be conducted to clearly establish and evaluate the link between these two elements and thereafter for the developments of ways to eradicate the ill-effects, if any, brought about by this link.

Another study was conducted to examine the role of environmental factors in the development of cervical cancer. Wynder, Cornfield, Schroff and Doraiswami (1954) has provided a review of the incidence of cervical cancer in various population including the Jews, Fijis, Moslems, Negroes, as well as other categories of individuals. Indeed, it can be attested that environmental factors may pose threats to the reproductive health including increased women's risk of experiencing premature delivery, fetal loss or pre-natal mortality (Michal F. et al., 1993). In this regard, it can be seen that environmental factors do interact with the female reproductive health and this interaction and exposure further leads to certain disorders and risks associated therewith.

Moreover, the World Health Organization also released information informing the public that mother's "exposure to pesticides, medications, alcohol, tobacco, and other psychoactive substances, certain chemicals, high doses of vitamin A during the early pregnancy, and high doses of radiation increase the risk of having a fetus or infant affected by congenital anomalies." Additionally, "working or living near or in waste sites, smelters, or mines may also be a risk factor."

Conclusion

It has been identified that exposure of human bodies to the chemicals and free radicals in the environment is linked with the developments of certain reproductive health disorders and diseases. This is more likely to be observed as affecting not only humans but also to other forms of living creatures including the wildlife. With the growing concern of environmental degradation brought about by technological advancements and developments, continuous efforts in the form of empirical and evidence-based researches must be conducted so that this persistent problem may be addressed. Moreover, as suggested earlier in the paper, there is a necessity for further conduct of inquiries and investigation especially dealing with the establishment of the link and interaction of environmental factors with that of the reproductive health, as it poses a great risk to both men and women, more importantly with the latter especially during pregnancy and childbirth.

Establishing the link between these elements may further prove to aid in other developmental undertakings within the health-care setting, with more focus on reproductive system. Although, generally, this condition of exposure to environmental factors is not the only risk or threat to developing disorders and diseases related to reproduction, it is indeed necessary. The main problem to be faced is that proving that environmental chemicals and other factors do or do not cause health problems in human is a big challenge for us. There are many aspects to be clearly studied and set out. Sharpe and Stewart (2004) is correct in his observation that reducing the exposures of environmental factors to which will also result in reducing the risks of development of disorders and diseases relating to reproductive health, both affecting male and female, requires action by industry and government.

On a final note, it is best to emphasize that "because reproductive health is such an important component of general health it is a prerequisite for social, economic and human development" (United Nations Population Information Network, [no date]). Further, the "highest attainable level of health is not only a fundamental human right for all, it is also a social and economic imperative because human energy and creativity are the driving forces of development" (ibid). With this in mind, it bears upon us to move forward in doing our part of the protecting and improving the reproductive health.

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