

Review Article





Preventive healthcare tapestry: ensuring a resonance

Abstract

The Bible has been with Christians for several years now. It is the source of authority for Christians on matters of morality. However, less attention has been paid to its benefits for Christians and the entire human race on matters of disease and medications. This point of view article points out the useful medical recommendations in the Bible and has also indicated instances where scientific medical research has come into harmony with it. Matters of public health and sanitation, emotional and psychological wellbeing, handling of the dead, quarantining and water purification have been discussed in the biblical perspective. References have also been made to key areas where scientific or modern medical recommendations are intandem with biblical perspectives.

Keywords: bible, healthcare, medicine, laws

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Introduction

Background

The origin of humankind as espoused in the Mosaic text (Genesis, the first book of Moses) records a Supreme Being (Yahweh) who created the heaven and the earth. In the same book (Genesis) we are referred to a God (Yahweh), the head of the divine council, creating man (male and female) in his own likeness. He placed man in a garden watered by four rivers: Euphrates, Gishon, Pishon and Tigris. The same garden had mineral resources like gold, bdellium, onyx, etc. Man was made to take charge of the garden populated by different species of animals and different kinds of trees and shrubs. From the onset man was given a superior and stewardship role to take dominion over the garden. The nature of the garden was depicted by the biblical text to host life such that man was not disturbed with insanitary conditions. Thus, it did not depict filth and squalor. Under such a theocratic regime the divine will of Yahweh prevailed until man sinned and was subjected to death (Gen. 3). "Death" was bound to occur neither because of ill-health which could not be attributed to disease causative agents (bacteria, viruses, parasite, and fungi) nor that which could be attributed to demons; as explicated by several theories based on the cosmology of early cultures.

Significant to the spread of the human race after the disbandment, man (male and female) populated the then known world. In Genesis 11, our attention is drawn to a group of people who spoke one language. Significantly, they had made a choice to build a structure (a tower taller than the ancient Mesopotamian ziggurats) to reach Yahweh's abode in heaven (the skies above the atmosphere.). The biblical narrative suggests that the architectural feet could have been achieved, but for Yahweh (the head of the divine council) changing their language. The term Babel, meaning confusion, has been used to refer to the place (see Gen. 11:1-9). As much as some modern medical researchers have contravened certain positions of biblical health practices, there are a myriad of modern medical research that have corroborated biblical health practices. There are several biblical treatments which took scientific researchers years to understand and accept. Several writers have done some good works in trying to harmonize the Bible's position on medication and that of modern

men. However, has there been a categorical study of what the bible has to offer on medication? This paper expatiates more on the Bible's description of diseases, their prescriptions and treatment and finds their correlation in modern disease treatment. It also does an in-depth study of all that the Bible has to offer on disease and treatment, which has the tendency to contribute immensely to the advancement of disease control. This article sought to re-evaluate and further explicate the Bible on public health and sanitation. The aim was to sketch in thematic blocks pertinent issues on public health and sanitation especially for the present generation.

Methodological issues

The primary document in this essay is the Bible (Oxford Study Bible and new King James Bible). Again, thematic analysis of publications on the Bible and public health has been duly consulted. In all instances the rule of "first mention" has been used for the purpose of emphasis. The rules of hermeneutics have also been applied for the sake of present context. The novelty of this paper is based on its emphasis on the historical and scientific context of the scriptures than exegetical and theological approach advanced by several authors.

The literature

It is essential to averse our minds to biblical laws of health and sanitation. Lyons & Staff¹ have argued that the first five books of Moses is a matter of historical record. In this historical record lie the most advanced, flawless medical prescriptions that had ever been recorded.2 For instance, the laws in the fifth book of Moses (Deuteronomy 23:12-13) enjoined the Israelites to dig and defecate at a place far from their camp, and then cover it. It also included the digging and burning of refuse far from their residents. This is not totally different from the twenty-first century arguments from Stern & McMillen.³ Especially the instructions on the backpacking suggest that one should go at least hundred yards from the water, trails, and camp, somewhere off the bush path and dig a hole that is four inches deep at minimum. When one finishes using the hole for the purpose for which he dug, that is defecating, the hole should be covered.³ Therefore posit that, countries, including developing countries, who observe this rule have invariably eliminated cholera and other diseases.



Kyle Butt² draws our attention to some pro-medical knowledge and practices in ancient Egyptian medicine, some of which are recorded in the Papyrus Ebers. The George Ebers Papyrus records some remedies of Egyptian herbal knowledge that are harmful in modern medical treatment. The medical treatment reflected a mixture of sound and sometime those that strayed from the accepted course of standards. For example, in healing splinter wounds, the ancient Egyptian physicians and doctors applied worm blood and donkey dung. As a result of the misapplication, a simple splinter often resulted in death from lockjaw - a sustained spasm of the jaw muscles, characteristic of the early stages of tetanus.3 Kyle Butt,2 comparing these parallel cultures in ancient times, puts the biblical sanitary laws and prescriptions above the ancient Egyptians. However, Butt underscores the fact that the community of the Pentateuch (referring to the Israelites described in the first five books of the Bible believed to have been written by Moses) has some of its medical prescriptions in other parallel civilizations.

In his work, history of medicine, Arturo Castiglioni has argue that, the Bible demonstrates that the ancient Semitic people attributed more importance to animal transmitters of diseases (example: rat and fly) than to human transmitters. Arturo concludes that, the instruction in Leviticus 13 could be regarded as the first model of sanitary legislation explicating Exodus 20:8-10. We are also enjoined by Cecil Roth (1956) to profess the Jewish Sabbath as one of the greatest benefactors of humanity. Baldwin (2008) as well as Nishiyama and Johnson (1997) also believe that the laws of Moses introduced a principle with the proclivity to conserve human strength.

Discussion

Public health and sanitation: from first mention to the last mentioned

As the human groups emerged, we read from the Bible that people started getting sick and dying. As stated earlier, the cause of death was a divine decree from Yahweh occurring through biological circumstances and sometimes as a result of disasters or wrath of Yahweh visited on the people for their wrongdoing. According to Richard Anthony,4 the Bible rates health high on its scale of preference. Our attention is drawn to a New Testament scripture, 3 John 1:2, which places emphasis on prosperity and good health. By inference, material possession is not enough unless an individual has the capacity, in other words, good health, to utilize the possession. To achieve this end, our attention is drawn to diet (food). What we eat has the capacity to build us or destroy us. Significantly, Richard Anthony (2015) also draws our attention to the fact that the diet (food) God gave man from the beginning of creation (not to offend the sensibility of evolutionist) was fruit vegetables, grains, nuts, and seeds (refer to Genesis 1: 29; Genesis 2:16; Genesis 3:18). Specifications have been given concerning the kind of creatures on the land and in water (sea) that should be eaten and should not to be eaten (Deuteronomy 14:6; Leviticus 11:13-19, 21-23, 41-43). The most pressing of all specifications on diet are the instructions that pertain to the rejection of any food that is considered as unclean food (Leviticus 7:19, Haggai 2:12-13).

However, the laws of clean and unclean meats are not the only biblical instructions that concern diet. In Leviticus 3:17, we read "you shall eat neither fat nor blood" (cf. Leviticus 7:23-27). One of the most significant discoveries in the last century was that fatty diets are linked to increased levels of heart diseases, stroke, cancer of the colon and breast, and a host of other pathologies including obesity which causes additional complications.

Our challenge is to recognize major sources of fats in our diet (visible fats on meat, fatty cuts of meat like bacon, generous amounts of heavy dressings, spoonfuls of oil, etc.) and reduce our intake of those that are high in calories and often in saturated fats. Besides, it has also become painfully obvious in recent decades that contaminated blood and blood products can transmit AIDS and hepatitis. Therefore, the simple principle of avoiding fat and blood is a powerful preventive measure of complicated and lethal diseases. Of great consequence in preventive health issues concerning diet is the intake of alcoholic beverages. Warning against the misuse or abuse of alcohol runs throughout the Bible (refer to Gen. 9:20-21; Eph.5:18; 1 Pet. 4:3). In the Mosaic health laws, priests were forbidden to drink on the job (Lev. 10:9).

However, the big question is: Is the usage of alcohol against biblical teachings? It is worth mentioning that Jesus' first miracle was when he turned water into wine at a marriage feast in Canaan (John 2:1-11). There is corpus of evidence from several historical and scientific writings that put Jesus' wine in the category of alcohol. Significantly, there is no existing record that the wine caused any injury or affected the health of the people who drank it. Would he have done this if taking alcohol was considered a sin in his days? An alcoholic beverage, by itself, is not absolutely condemned by the Bible. The condemnation only lies in abusing its usage. God himself is referred to in Deut. 14:26 to have given instructions or approval for its usage. Paul also advised Timothy about the medicinal value of wine for an upset stomach (1 Tim. 5:23). The beneficial effects of moderate amounts of alcohol have been one of the surprises of modern medical studies. People who use alcohol in moderation – a glass of wine a day – have fewer heart attacks than alcohol abusers or total abstainers properly.⁵ Elderly people with digestive problems caused by lack of stomach acid experience improvements when they take moderate levels of alcoholic beverages. This is in harmony with scientific evidence which is applicable in modern times. Alcohol is useful; but we must develop the character to use it properly.5

In view of this, the Bible recommends a balanced life – moderation - in all things (compare Philippians 4:5). It condemns gluttony and over-eating (Proverbs 23:20-21). Proper diet is also recommended for the prevention of diseases (refer to Leviticus 11 for important dietary laws which God gave to the Israelites (http://www.hope-of-israel.org/ bihealth.htm). The Bible further recommends regular and moderate physical exercise throughout our lives. Correctly translated, 1 Timothy 4:8 shows that physical exercise profits "for a little while". The Bible also warns against nervous stress, anxieties and worries which can trigger heart attacks (Ancient Bible Health Secrets Revealed Today, http://www.hope-of-israel.org/bihealth.htm). Concerning health and sanitation, our attention is drawn to leprosy. It should be noted that several skin diseases were classified in a general sense as leprosy. But leprosy may be identified as a contagious disease of skin, and in severe cases, disfigurement and deformities. Harold Spinka⁶ argues that, biblical leprosy described a number of conditions. Except that modern leprosy (also referred to Hansen's disease), biblical leprosy included various skin conditions, syphilis, and small pox and not merely as the leprosy we know today. Spinka⁶ further argues that, a review of Leviticus shows that the priests were in charge of infectious diseases, and that the moral and religious welfare of the nation and the differential diagnosis between infectious and non-infectious diseases relating to or affecting the skin is quite modern.

Speaking of the biblical laws regarding leprosy, Dankenbring⁷ states: "the laws of health laid down in Leviticus are the basis of modern sanitary science" (cited in Atkinson – Magic, Myth and

Medicine). Moses ordered that cases of leprosy should be isolated; that the dwellings from which infected Jews had gone to should be inspected again before being occupied; and that persons recovering from contagious diseases were not to be allowed to go abroad until examined. The modern quarantine harks back these sanitary regulations of the Old Testament (Ancient Bible Health Secrets Revealed Today, http://www.hope-of-israel.org/bihealth.htm).The foregoing arguments imply that, several of the health practices of the mosaic code show remarkable foresight, especially since it focused more on preventive healthcare. Thus, tattoos and cuttings on the flesh were also forbidden (Leviticus 19:28), for reasons that include risk of contracting disease. Modern physicians warn that tattoos and bodypiercing carry a risk of contracting infectious diseases like hepatitis B, hepatitis C, syphilis and HIV/AIDS.⁵ According to David D. Wise (2008), the mosaic commands concerning prophylaxis, suppression of epidemics, suppression of venereal diseases, care of the skin, bathing, food, housing, clothing, regulation of labor, sexual life, personal and interpersonal discipline are logical in modern sense. He continues that several instructions or laws such as Sabbath rest, circumcision laws concerning food (blood and pork), menstruating and lying in women, and those suffering from gonorrhea, isolation of lepers and hygiene of the camp were also rational.

These observances are important in reducing ailments and maintaining good health in modern days. In Britain, it is estimated that five thousand deaths occur yearly in hospitals that are attributed to poor hygiene. In places where authorities are not available, the washing of hands with running water and soap has helped to minimize the contracting of diseases and the need to use lucrative measures has therefore been rendered useless. Is it not true that preventing is better than curing? Is it not disturbing, that often, too many people go to the hospital to be cured but often end up contracting diseases because some of these basic principles of hygiene are not adhered to?

Concerning the spread of diseases through human excrement, a classic example is seen in Deuteronomy 23:12-14 which states: "Designate a place outside the camp where you can go to relieve yourself; dig a whole and cover your excrement. For the Lord your God moves about your camp to protect you and deliver your enemies to you. Your camp must be holy so that he will not see anything in your midst that is indecent and turn away from you". From the Bible verse above, we learn that human wastes were to be buried away from human dwelling. Today we call this sanitary waste disposal, and its benefits are widely understood but not always practiced especially in poverty-stricken areas. History is filled with epidemics of typhus, cholera and dysentery. These diseases are linked to the careless dumping of human waste into streets and rivers, or feeding human waste to animals that are eaten, as it was during the days of the black plague and other diseases of the middle ages. Burying human waste breaks the life cycle of many parasitic organisms that spread disease. This simple practice is much more effective, and less expensive, than treating the resulting diseases after it breaks out. God put this principle in the Bible thousands of years before mankind's science understood its benefit.5

The question of vegetarians comes to the fore in looking at the biblical public health. The levitical laws points out that some meat are not wholesome (unclean) for human consumption. Scientifically, one of the examples is pig, and it has been described in modern sense as scavenger, eating anything it finds. This makes them breeding grounds for potentially dangerous infections. Again, the unclean meats are not ruminants, so the unclean foods they eat stay in their flesh. Pigs eat

excrement. This intake merges with their flesh then enters people who eat them. Can pig, which has not eaten any contaminated food, therefore be eaten? The other argument surrounding pork is that it is loaded with saturated fats, the highest fats in meat, and filled with cholesterol. Pork contributes to numerous digestive and stomach problems. It contains trichina larvae and its trichinosis, capable of killing people, could be a major problem. In Genesis 7:2, God ordered Noah's family to eat clean animals, and this might be the reason why God commanded Noah to gather the clean animals by seven and the unclean ones by two. Richard Anthony4 has argued that recent scientific studies have confirmed the fact that most heart attacks result from high cholesterol level in the blood and it is capable of transferring diseases. According to him, in the middle ages, Jews were accused of sorcery because they escaped many of the sickness that afflicted others. It is now known that this was because they observed the laws of cleanliness. He, thus, commented that science is fast catching up with the Bible's health specifications as stated in Leviticus 17:15; Leviticus 22:8; Deuteronomy 14:21; Ezekiel 4:14; Genesis 9:4; Leviticus 3:17; Leviticus 7:23-27; Leviticus 17:10-14, and Deuteronomy 12:16.

Emotional and psychological well-being

Modern scientific evidence points to the fact that emotional or psychological challenges are dangerous to the health and well-being of an individual. The bible encourages that one maintains a cheerful or a happy composition (Proverbs 17:22; Proverbs 23:27). To a large extent, a work and experience regime with sleep and rest are to be observed in all things (Exodus 20:9-10; Ecclesiastes 2:22, Ecclesiastes 23; Ecclesiastes 5:12; Psalm 127:21; Corinthians 9:25; Philippians 4:5)

Handling the dead

In recent past the discovery of the Ebola virus spread through some countries in Africa. The biblical laws of sanitation were clearly ahead of their time. There was really no way to fully understand the reasons for these laws until the invention of microscope, the discovery of bacteria and the pioneering work of pathologists in recent centuries. Yet, these ancient biblical laws have proven scientifically valid today. People who touched a dead or diseased animal, person's garments and/or secretions were to bathe and wash their cloths and avoid contacts with others. Contaminated garments were to be washed or burned - important sanitation principles that are still followed today.5 The spread of some diseases was due to contact with the body of an infected person as is the case with Ebola. Most importantly, the way dead bodies are handled, especially those who died as a result of contagious or communicable diseases, are known empirically to be a threat to the health of individuals and the community. The Bible therefore gives instructions as to how dead bodies should be handled in Deuteronomy 23:12-13.

Quarantine

There are instructions recorded in the third and fourth books of Moses respectively (Leviticus 13; Leviticus 14; Leviticus 22, Numbers 19:20) that teaches about quarantining. Infected persons were commanded to isolate themselves from settlement areas until they were healed or cured. Significantly, priest who acted as inspectors/physicians were required to wash thoroughly after they had attended to or visited an infected person. Grant Jeffery⁸ has argued that until this century all previous traditions, except Israelites who followed

quarantine rules, kept infected patients in their homes even after death. This exposed family members and other relatives who made contact with leprous people vulnerable, and leprosy swept through Europe in the thirteenth and fourteenth centuries. For example, England, Sweden, Iceland and Norway showed alarming increases in leprosy cases in the sixteenth and seventeenth centuries. According to Jim Springer (2015), when the authorities began to institute quarantine rules, by segregating leprosy cases, the disease was brought under control. Also, the Black Death was brought under control as a result of quarantine (Jim Springer, 2015). Again, Springer posits that God's instructions of leprosy and other infections were three thousand five hundred years ahead of science. In fact, it was until 1873 that leprosy was finally shown to be infectious and not hereditary. Significantly, the argument concerning the biblical perspective on disease control gives praise to biblical quarantine prescriptions. Tuberculosis is a well-known disease because of death and suffering it has brought to humanity. It is as a matter of fact that simple methods or practices such as quarantine have brought this disease under control. It also included maintenance of general and personal hygiene.

Water of purification

Thousands of years before bloodletting was practiced, the book of Moses records in Leviticus 17:11 that: "... the life of the flesh is in the blood". Today with knowledge or understanding of modern day science, we are able to ascertain that blood is very essential to mankind. There are blood banks at the hospitals to store blood for future, so that those who need them could receive infusion to prevent them from dying. Kyle Butt2 argues that an eye witness account of the death of George Washington (the first president of United States) relates that he came down with a chill; and in an effort to cure him, those who attended to him resorted to bleeding. "A vein was opened, but no relief afforded". What took thousands of years for people to appreciate, the Bible recorded in three thousand five hundred years that the life is in the blood. Butt² cites the physicians, McMillen & Stern³ as they discussed the hygienic rules established by God for the children of Israel. Their argument was that the rules established by God for the children of Israel are still applicable today. Reference is made to the mid nineteenth century when "germs" was virtually a foreign concept. As a result of that patients including women who went to established institutions to give birth were contaminated and died eventually. The mortality rate of persons who died at the "so called" hospitals was higher than those who went to midwives.

The case was serious at Dr. Ignaz Semmelweis 'hospital. Many pregnant women entered his hospital but 18% of them never checked out. The mid-nineteenth century Europe contemplated that diseases were caused by "atmospheric conditions" or "cosmic telluric influences".2 When Semmelweis observed the rate of mortality, he advised doctors to wash their hands thoroughly in a chlorine solution after examination. This reduced death rate from 18% to 1%. The contemporary medical records and publications are replete information concerning the effort of Ignaz Semmelweis to get his contemporaries in the medical community to comply. His inability to convince the medical community eventually caused him to commit suicide; yet we know from the biblical texts that the ancient Israelites washed in "running water" when dealing with those suffering from infections, discharges or coming into contact with items that people had come into contact with. For instance, Leviticus 15:13 records: "and when he who has a discharge is cleansed of his discharge, then he shall count for himself seven days for his cleansing, wash his cloth and bathe his body in running water; then he shall be clean" (also seen

in Numbers 19:14-19).

Butt² then draws our attention to the fact that almost three thousand three hundred years before Semmlweis' discovery, Moses had written "he who touches the dead body of anyone shall be unclean seven days (cf. Numbers 19:13;). He shall purify himself with water on the third day and on the seventh day, and then he will be clean. But if he does not purify himself on the third day and on the seventh day, he will not be clean". Butt² concludes that "germs were no new discovery in 1847. The biblical text recorded measures to check their spread as far back as approximately 1500 B.C." Again, Butt2 stated that the novelty of the Bible is further enhanced by its prescription of "water of purification" for washing any person who had touched a dead body. He stresses that the recipe for the water purification is nothing less than a procedure to produce antibacterial soap. Amazingly, Moses instructed the Israelites to prepare a mixture that would have included lye mixed in a diluted solution. In more diluted concentrations, it can be used as an excellent exfoliant and cleaning agent.² Hyssop was also added to the water of purification. Butt2 has argued that Hyssop contains the antiseptic thymol, the same ingredient that we find in some brand of mouthwash.³ The hyssop leafs contain antiseptic, antiviral oil and mold that produces penicillin. Ellen MaCrady9 has argued that the very first mention of mold and mold clear up is found in the Bible, that is, Leviticus 14:39. Again, the content of water purification also included cedar wood. Cedar wood has been used for cabinet because of its ability to repel insects and prevent decay.² Besides, it has been argued that, in an oil form when applied to humans, it is an antiseptic, astringent, expectorant (removes mucus from respiratory system), anti-fungal, sedative and insecticide (Spa Essential Oils, 2005).

Conclusion

Looking over the field of medicine and medication, the Bible has a lot to offer in terms of natural prescriptions for healing and cure. Interestingly, the Bible, written thousands of years before the emergence of modern hospital prescriptions and medication, is not only concerned about cure, it is also concerned about preventive measures. Thus, the Bible appears to be emphatic on the fact that diseases are usually caused without human wrongful attitude. This position has been reinforced by several scientific corroborations to those ancient prescriptions. This is why there is evidence that the Israelites, the nation who received such medical prescriptions and observed them had less to do with terminal illness. Jeffery⁸ concludes that "it fascinating to note that a total of two hundred and thirteenth out of the six hundred and thirteenth biblical commandments found in the Torah were detailed medical regulations. What else can be said? The Bible is a valuable resource for public health practices which are useful in contemporary times. A thorough study of all that the Bible has to offer about medication will do a great good to our generation and the generation beyond. $^{10-14}$

Suggestions for further studies

We recommend to fellow academicians, medical researchers, students and all who want to explore the field of healthcare to consider tapping into the ancient repository of medical knowledge, the Bible, giving much focus to the following:

- a. The more effective and efficient way of applying biblical healthcare prescriptions in modern healthcare systems.
- b. Whether the biblical healthcare prescriptions are applicable to all parts of the universe, giving attention to the availability of

the herbs, products and other sources of medication mentioned in the Bible.

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Conflicts of interest

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