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Effects of Alcohol Consumption on Human Health from the Perspective of Holy Quran and Modern Medicine

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ABSTRACT

Context: Holy Quran has brought orders and decrees for the health and prevention of diseases for mankind which obey these rules ensure not only physical health but also mental health. The mighty god in Holy Quran has discouraged humans from drinking wine several times. The purpose of this study is deliberating alcohol effects on human health from the perspective of Holy Quran, and modern medicine.

Evidence and Acquisition: In this paper by using proper keywords, an overview was made on Holy Quran, hadiths and scientific articles, available in Medline(Pubmed) and Embase as well as Persian sites such as SID and Magiran. Then effects of alcohol consumption on human health were analyzed.

Results: Holy Quran in four verses and infallible imams in several hadiths have prohibited alcohol consumption for humans. On the other hand, it leads to many socioeconomic and mental damages and results in detriments on the Central and Peripheral Nervous System. Cardiovascular System, Liver, Bone, Pancreas, Skin and Respiratory System are such organs and tissues in which bear loads of heavy irreversible injuries from alcohol consumption. Harmful effects of alcohol on fetus and causing different malignancy in several tissues are from other fatal effects which eventually lead to death.

Conclusions: Regarding Islam's recommendations alcohol consumption is clearly forbidden. Scientific papers also express the damaging effects of alcohol on individual health which clearly demonstrates the same concept.

► Implication for health policy/practice/research/medical education:

The manuscript enlighten some adverse aspects of alcohol consumptions systematically on body organs from the perspective of holy Quran as well as many new articles published recently, helping for better understanding to avoid it as much as possible.

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1. Context

Drinking and eating hygiene is one of the most important factors involved in wellbeing. Fourteen centuries ago Holy Quran has some commands regarding inhibit-

ing consumption of some foods like pork and alcoholic beverages. Holy Quran has forbidden alcoholic drinks explicitly in four verse and has considered it as a great sin. Likewise our infallible imams have many hygienic commands which can be considered as miracle regard-

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ing their era. The aim of this study is to investigate the effects of alcoholic consumption on human health from the perspective of Holy Quran, hadiths and new scientific findings.

2. Evidence and Acquisition

In this study an overview was made on Holy Quran verses, Hadiths and available articles in scientific web pages like Embase (Pubmed), Medline and Persian databases like SID, Magiran systematically to assess the effects of alcohol consumption on human health.

3. Results

Holy Quran in four verses has warned humankind from alcoholic beverages consumption which indicates its great importance.

Holy Quran states in verse 219 of Al-Baqarah "they ask you about wine and gambling. Say, "In them is great sin and [yet, some] benefit for people. But their sin is greater than their benefit" (1).

In Al-Ma'idah verse 90 is indicated "O you who have believed, indeed, intoxicants, gambling, [sacrificing on] stone alters [to other than Allah], and divining arrows are but defilement from the work of Satan, so avoid it that you may be successful" (2).

Following in verse 91 it is stated that "Satan only wants to cause between you animosity and hatred through intoxicants and gambling and to avert you from the remembrance of Allah and from prayer. So will you not desist?" (2).

Also in a part of verse 43 of An-Nisa' states that "O you who have believed, do not approach prayer while you are intoxicated until you know what you are saying" (3).

In Tafsir Nemooneh it is stated that "khamr" lexical meaning as what "rageb" has said is to cover something, then it is called "khammar" to what is used for covering, otherwise "khamar" is usually indicated for what women cover their heads with (4).

In Mojam Maqaeesal` loqe word root of "khamr" has been mentioned to cover or blending and mating in secret. Because wine covers human wisdom it is called "khamr", it causes drunkenness and it puts a cover on wisdom and does not let human to distinguish good and bad (5).

Also under interpretation of verse 219 of Al-Baqarah in Tafsir Nemooneh is came that; in this verse beneficial and harmful effects have been compared together, forfeiture superiority and its great sin over its benefits are stated. Actually financial benefits which is acquired from selling wine or gamble, or delusional benefits which is acquired from drunkenness leading to ignoring sadness and grief is really little compared to its huge moral, social and hygienic detriments. Islam has used "gradual method", For example wine prohibition has been performed in several stages. First has indicated it as unfavorable drink against "good provision" (6). Then has aware not to pray with

drunkenness (6) after that compared its beneficial and harmful effects together and the disadvantages superiority has been indicated (1) and at last it has been explicitly forbidden (2, 4).

It has been mentioned in Tafsir Almizan that; verse 67 of An-Nahl has sufficed to mentioning wine disadvantages against good provision "And from the fruits of the palm trees and grapevines you take intoxicant and good provision"(6) and In verse 33 of Al-'A`raf indicates that "Say, My Lord has only forbidden immoralities - what is apparent of them and what is concealed - and sin, and oppression without right" (7), and the mentioned verse forbid praying with drunkenness and verse 219 of Al-Baqarah focuses on wine and states that; "they ask you about wine and gambling. Say, In them is great sin and [yet, some] benefit for people. But their sin is greater than their benefit" (1). And in verse 90 of Al-Ma'idah indicates explicitly that "O you who have believed, indeed, intoxicants, gambling, [sacrificing on] stone alters [to other than Allah], and divining arrows are but defilement from the work of Satan, so avoid it that you may be successful" (2).

Otherwise we can consider the order as follow; the first verse about wine is An-Nahl verse, the second Al-'A`raf verse, the third is Al-Baqarah verse, the fourth is An-Nisa' verse and finally is the Al-Ma'idah verse. According to this explicit prohibition from wine consumption becomes different from the previous order, in other words, Al-'A`raf verse is prohibition without interpretation and Al-Baqarah verse is explicit inhibition. But when Muslims were negligence in consuming wine thereafter the explicit inhibition, in An-Nisa' they were inhibited again and in Al-Ma'idah for this reason that they would not imagine that they are allowed to drink in some situations they were prohibited utterly in all occasions (8). The holy prophet indicates that wine is the root of all dirties (9).

Mofazzal asked Imam Sadeq (SA) about the reason of wine prohibition. Imam answered that because the wine causes shuddering in consumer, it takes intelligibility and insight from his or her, destroys dignity, honor and chivalry, and brave out him or her to do sins and killing innocents and committing adultery, nothing adds to the consumer except evil and demons (9).

One asked Imam Ali (A.S) whether wine consumption sin is greater than committing adultery and thievery. He answered yes, because the adulterer may suffice to this sin and does not do other sins, while wine drinker which has committed one sin may do other sins like adultery, thievery, killing humans and leaving praying (10).

The holy prophet has anathematized ten people contributing to wine; 1) tree planting with the aim of wine production 2) its guard 3) grape compressor 4) the cup-bearer 5) drinker 6) carrier 7) deliverer 8) buyer 9) seller 10) money receiver (9).

The holy prophet indicates that; if the wine drinker got sick, do not go for his meeting and if dead do not go for his or her funeral. If testified something do not accept

him or her. If came for matchmaking do not accept. If wanted fiduciary do not consider him or her honest. Do not match make for him or her daughter and do not sit with him or her (9). Imam Sadeq states that god has put a lock for any sin which its key is to drink wine (9).

Imam Sadeq indicates that god has prohibited wine whether little or much likewise the prohibition of carion, blood and pork (9).

The holy prophet told Imam Ali that; everyone who avoids drinking wine even not for god, god donates him or her with the heaven drinks. Imam Ali asked with wonder even not for god, He answered yes I swear to god if someone avoid drinking for his spirit and body wellbeing god admires him or her (1).

Also our infallible imams have some recommendations about treatment with prohibited things especially wine. The holy prophet states that; anyone who solicits treatment from wine, god does not put any healing in it (12). One asked Imam Sadeq (AS) whether he could use date wine as medication. Imam answered that no it is not acceptable for anyone to rely on prohibited for treatment (13). He says in other Hadith that there is no healing in no prohibited, god has not put any healing or treatment to what has been forbidden (14).

3.1. Chemical Characteristics of Alcohol

From the perspective of chemistry any material that contains hydroxyl (OH) is considered as alcohol. Based on the number of OH, alcohols have one or more capacity. Methyl alcohol which is gained from distillation of wood and is used in dying industries is considered as one capacity alcohol with high toxicity. 8 to 10 grams of that causes digestive disorders and leads to blindness and death mostly always. If alcohol used without any prefixes or suffixes means ethanol. Ethanol is the most well-known alcohol and is used in many industries and has several applications in routine human lives (15). Alcohol is the most used chemical material in construction and synthesis, separation and production. It is used as fuel in laboratory and as disinfectant of skin or medical instruments in medicine. It can be used to protect anatomical parts from being infected or putrefying, also in production of cologne and other cosmetics (15).

Alcohol is produced from different ways, like fermentation of cereal and fruits in beer, from the distillation of cereal and fruit like vodka and whisky, from chemical changes in fossil fuels like gas or coal and oil which is named industry alcohol or from the chemical combination of monoxide carbon and hydrogen like methanol. Alcohol in alcoholic beverages is ethanol which is 4 to 6 percents in beer, 7 to 15 percents in wine and 40 to 95 percents in distilled drinks (16). Pure alcohol is a watery liquid without any color burnable with a special odor (15) which does not have any stimulant effects on body organs while its effect is stupefaction it means attenuation in accuracy in doing different works (16).

3.2. Alcohol Metabolism in Body

Unlike other nutrition alcohol enters the brain (its main site of action) promptly after coming to the blood circulation (17). After alcohol consumption up to 80 percents is absorbed from the small intestine and excretes from the kidneys, lungs and sweating. Despite the fact most of it is metabolized with hepatic oxidative enzymes and leads to production of acetaldehyde carbon dioxide and water (18). To any reason alcohol concentration in blood goes beyond 0.05 percent it causes death (19).

3.3. Different Stages of Alcohol Effects

After alcohol entered the blood, based on its quantity exhilaration, excitation, perplexity, bewilderment phases, coma and finally death is occurred. If blood concentration becomes between 0.03 to 0.12 self confidence and talkativeness occurs besides attenuated accuracy, also face flushing and judgment disorders is occurred and individuals state the first sentence comes to his or her mine.

In concentrations between 0.09 and 0.25 severe drowsiness is occurred and body movements become uncoordinated, insight would be complicated and hearing and tasting senses would decrease. In concentrations between 0.18 and 0.30 one is confused and perplexed. He or she may not know where he or she is or what is he or she doing? Feels dizziness and wobbles, too much cruel or tender, is sleepy. Sense the pain later with uncoordinated movements. This stage is called perplexity.

In bewilderment stage, individual does not response to stimulants. Does not able to seat or stand and may be unconscious. Fourth stage is coma in which individual is unconscious. Feels extreme cold and has bradypnea and hypoventilation, bradycardia and death may be occurred in this stage.

Concentrations more than 0.05 percent in blood cause death (15, 20). All of alcoholic drinks have some alcohol and stupefaction effect which is called drunkenness depends on the concentration of alcohol (15).

3.4. Socioeconomic Damages

Statistic in the Great Britain comparing alcoholic insanity with other kinds of insanities shows that 2249 alcoholic patients with insanity were detected against only 53 with other reasons than alcohol. In US 85 percent of psychological patients in bedlam were alcoholic patients. If statistic gathers about the number of drunken who committed a crime or destroyed houses and lives, it would be actually high. In France 440 people die because of alcohol daily (4). From the perspective of statistic which the philosopher Huger distributed in twentieth annual of Science journal, 60 percents of intentional murdering, 75 percent of maims, 30 percent of immoral crimes (like committing adultery with incest), 20 percent of thievery were related to alcohol and alcoholic drinks and in other

statistic from the same professor 40 percent of convict children had some history of alcohol consumption (4).

In an article entitled "is alcohol more dangerous than heroin?" it came that; today alcohol is considered as emergency, because its detrimental effects are very wide. These effects consist of rape, injuries following falling, mental disorders and lack of true upbringing of the children. Wide effects of these encompass all the societies. Today alcoholic drinks need to be less available and advertised (20). Room indicated that solving the problem of alcoholic drinks should be the priority in all part of the world (21).

3.5. Mental Damages in Alcohol Consumption

Alcohol alone disturbs inhibitory mechanisms and activator of behavior control (22, 23).

Memory dysfunction: it is seen in individuals who consume high amounts continuously or high amounts in one time.

Depression: depression can cause alcohol consumption and reversely.

Anxiety: it is common in giving up period of alcohol. Some of the patients with anxiety consume alcohol again, alcohol consumption and anxiety has a two way relationship.

Suicide: behaviors for suicide intention or decision to hurt themselves is more frequent in alcohol consumer compared to others. 6 to 8 percents of high amounts consumers suicide at last.

Personality disorders: personality changes in the form of egotism, not paying attention to others, no to obey behavioral and moral rules, dishonesty and lack of accountability and to be jealous which is a rare complication but serious following consumption of high amounts of alcohol are seen. Suspicion to wife is a lot seen among them (16).

3.6. Effects on Central and Peripheral Nervous Systems

Researches believe that individuals who consume alcohol become shy and talkative, it is not due to stimulatory effects of alcohol on brain, whereas it is owing to loss of control of high centers on moderations (16).

The most important effect of alcohol is the weakness of central nervous system. Following its effects on nervous system it causes reactions in vessels which drain blood to the surface of the body and cause skin flushing, at first causes warmth in the body but after a short while body loses its warmth two times more. Drunken first becomes hyperactive and its body temperature goes up as mentioned above and tachypnea occurs. Then speech centers become affected and with the weakness of controlling mechanisms talkativeness occurs. Then hearing center is affected and individual hear some sounds. After that visual center is affected and individual sees fictitious images. Finally equilibrium center is affected, physical activities balance disrupts. Therefore with drinking alcohol conti-

nence is destroyed mostly which is the root of timidity and modesty, and leads to abnormal tasks (16).

Alcohol peripheral neuropathy (ALN) is a complication in alcoholics which causes sensory, motor and autonomic disorders. Alcohol per se is a significant predisposing factor of developing this kind of neuropathy (24). Alcohol induced seizure is seen in individuals who consume high amounts of alcohol which is present with several attacks without any previous history of seizure (25).

Several articles indicate the association between alcohol consumption and increased risk of brain attacks (26-29). Alcohol has antiplatelet effects which cause subarachnoid hemorrhage which can cause hemorrhagic brain attack (30).

3.7. Cardiovascular Effects

Alcohol cause many changes in cardiovascular system. Long term consumption of high amounts of alcohol contributes to dilative cardiomyopathy and fibrosis and ventricular hypertrophy (31, 32). Many researches have confirmed the most harmful effect of alcohol on cardiovascular system as increasing the risk of atrial fibrillation (33, 34). In a study Danish researchers followed 47949 in 6 years founded that alcohol consumption causes increased risk of atrial fibrillation in men. Atrial fibrillation is a dysrhythmia in heartbeat, which may cause death because of the lack of control on atrium beat (16). In amounts higher than 30 grams per day is associated with increased risk of ischemic and hemorrhagic heart attack (35). Obvious relationship has been approved between long term alcohol consumption and functional and structural heart muscle dysfunction (36). Ectopic hyperactivity of ventricles is detected after alcohol consumption (37). Also high amount of alcohol consumption leads to increased risk of heart failure (38-40). From 80 cross sectional investigations seeking the relationship of alcohol consumption and hypertension, approximately all of them indicated that increased consumption of alcohol leads to higher blood pressure and increased risk of hypertension (41-46). Moreover higher consumption causes interactions with antihypertensive drugs (41, 42).

3.8. Sexual Dysfunctions

Erectile dysfunctions or delayed ejaculation are other consequences of alcohol consumption. Alcohol effects on vascular and nervous systems cause complications in relationships with sexual partner in high amount alcohol consumer (16). Alcohol induced sexual dysfunction causes changes in sexual hormones balance like testosterone, estrogen and prolactin in both genders and also decreases number of viable sperm production. Delayed ejaculation, decreased libido, sexual cycle disorders and delayed orgasm in women is the effects of these hormonal changes (45). Alcohol consumption and opioids decrease sexual tendency (47).

3.9. Effects on Liver

Alcoholic liver disease is still a reason of death. VACS reported a 4 year mortality of these patients over than 60 percent (48). Human liver is able to oxidize 8 grams of alcohol per hour, but higher amounts appear in blood. Concentrations below 0.05 percent does not cause any symptom in human, but higher than this amount leads to some symptoms like a decrease in physical activities balance and visual disorders. Lethal dose is different among individuals (18). However alcohol comprises high energy, but it must be first changed into lipids to be applicable and then changed into energy in a long pathway. So it is believed that alcohol affect liver health and it is also called death calorie. Hepatic disease is the most frequent medical side effects of alcohol misuse. It is estimated that about 15 to 30 percents goes toward complicated hepatic diseases finally. The disease starts serenely. Alcoholic fatty liver may progress to alcoholic hepatitis and consequently cirrhosis and hepatic failure. In the United States, long term alcohol consumption is the main reason of hepatic cirrhosis and the need for liver transplant. Long term alcohol consumption has been the main reason of chronic pancreatitis in the west (19). There is a relationship with vitamin C and B depletion with alcohol consumption. Alcohol is a diuretic which can cause to loose water (16). Long term alcohol consumption leads to increased risk of hepatocellular adenoma with stimulation of cells called H-RAS-MUTANT (49).

Alcohol metabolites are able to enter processes which lead to hepatic autoimmune diseases similar to ALD (50). Alcohol consumption may also lead to disease progression and acceleration in patients with hepatitis C (51).

3.10. Effects on Bone

Alcohol consumption decreases not only the density and strength of bone, but also bone repair after fractures. Researches designated that alcohol consumption damages bone cells called osteoclasts, and with division of these damaged cells to osteoblasts, which are considered as the main bone cells, bone strength decreases (16). In a study performed in Copenhagen, consumption of high amounts of alcohol was found to be a main risk factor for pelvic fracture (52).

3.11. Effects on Pancreas

Chronic pancreatitis is a progressive inflammatory disease which involves pancreatic ducts. This disease results from a combination of environmental factors like alcohol and smoking (53). Alcohol induced injury can be also acute. The most common causes of acute pancreatitis are cholelithiasis and alcohol consumption, which alcohol is the main reason of chronic pancreatitis as well (54, 55). Alcohol injury on pancreas is based on fibrosis necrosis theory initiate with an acute process. Following there would be repetitive attacks leading to atrophic changes of acinar cells and fibrosis. At last leads to complications

in exocrine and endocrine activities of pancreas (55). Ethanol metabolism in acinar cells and other pancreatic cells and production of toxic metabolites play pivotal roles in acute and chronic injury of pancreas. Pancreas metabolizes ethanol in oxidative pathway using ADH enzyme and cytochrome P4502E1 and in non oxidative pathway using FAEE enzyme. It has been shown that PSC cells contain ADH enzyme too which leads to injury initiation (56). Nowadays it has been publicized apparently that activation of PSC cells has a key role in production of cancerous stroma. Production of cancerous stroma has a close relationship with cancerous cells and provides a good environment for the local growth and metastasis. PSC cells activates under the effects of ethanol and acetaldehyde (alcohol toxic product) (54, 57). Acinar cells are able to metabolize alcohol. Direct alcohol toxicity and its metabolites on these cells leads to autodigestive processes of the pancreas tissue due to stimulant factors (54, 58).

3.12. Fetal Alcoholic Syndrome

Adverse effects of alcohol on intrauterine growth comprises a wide spectrum of anomalies, behavioral and neurocognitive disorders, which the most complete word to indicate it seems to be FASD (fetal alcohol spectrum disorders). After developing diagnostic tools to diagnose more applicable and precise it broke down into several fields like PFAS, AFS and ARND (59, 60). In a study performed on children affected with FASD, approximately all of them showed a significant clinical delay in fine and gross motor skills (61). In another study all children with FASD diagnosis had ADHD (a kind of hyperactivity disorder) (62). In a large study conducted in the United States on 1400 patients with FASD, 28% had encephalopathy and 52% neurobehavioral disorders (63). Frequent complications in patients with FASD comprises 11% preterm labor, 70% intrauterine growth retardness, 45% microcephaly, 55% digits disorders (congenital digits flexion; camptodactyly), 51% visual disorders (disorder in focusing; refractive error), 43% dental complications (Dental Crowding), 38% nails hypoplasia, 38% strabismus, 22% urogenital anomalies and 18% congenital cardiac defects (63, 64). Eye complications is considered as one of the most frequent and important disorders in fetal alcoholic syndrome which has been reported in about 90% of children with fetal alcohol syndrome, including microphthalmia, loss of neurons in the retina, optic nerve hypoplasia, and dysmyelination (65). Complications which are known as fetal alcoholic syndrome include; intrauterine growth retardness, microcephaly, incomplete development of maxillofacial and joint abnormalities. In more severe forms congenital heart defects and mental retardness is occurred (19).

3.13. Skin Complications

Psoriasis is a dermatologic disorder which causes swelling and exfoliation. In this disturbing disease, skin cells

grow from the depth of skin thereafter separate promptly from the skin. Based on researches performed, an obvious relationship has been proven between environmental factors and psoriasis. From these factors smoking and alcohol have significant roles (66, 67). In an investigation performed, 15% of patients with psoriasis reported consumption of high amounts of alcohol (68). Moreover, involved skin surface in affected patients was related to the amount of alcohol consumption significantly (69). Serum enzyme analyses shows that gamma glutamyl-transferase enzyme activity is associated with alcohol consumption. This enzyme activity is 1.5 more in patients with psoriasis compared to healthy individuals (70).

3.14. Alcohol and Cancer

Alcohol consumption increases the risk of cancer in mouth, pharynx, larynx, esophagus and liver (19, 71). Based on investigations performed, moderate alcohol consumption increases the risk of endometrial cancer in young women (72, 73). In other studies conducted on the effect of CYP2E1 and ALDH2 genes pleomorphism, breast cancer progression risk was 1.4 higher in alcoholic women compared to others (74, 75).

3.15. Respiratory Disorders

It was found in a study performed in Denmark that hospitalization risk because of pneumonia rises in men with high alcohol consumption (76).

3.16. Death

Finally long term consumption of high amounts of alcohol is associated with death. Death is occurred due to hepatic diseases, cancer, accidents and suicide (19, 77).

4. Discussion

Some people may ask that some amounts of alcohol is required for body, so why it is prohibited? In answer it should be noted that body needs are provided from food consumption naturally. In other words, internal organs like a regular laboratory afford body needs (like iron and zinc) by digestion and analyses of materials presence in foods. Is there any wise individual eating iron or drinking limewater just because these are needed for the body? Likewise alcohol need is afforded naturally in the body, and it is not reasonably to drink wine for this reason, likewise drinking limewater has harmful effects; drinking alcohol is harmful and even lethal. Nowadays it is shown that consumption of little amounts of alcohol damages the ability to distinguish and judgment and deprives individuals to have wisdom temporally (19). Also higher amounts causes different damages from depression to mental disorders and anxiety and personality disorders and even suicide, consequently can cause even death and exclusion from the gift of life (16). One asked Imam Baqer

about the reason of wine prohibition and he answered; "Topper is like a pagan, wine causes shivering for his or her body and destroys his or her masculinity and fairness and generosity. Wine obligate drinker to obtrude be kin and relatives and killing and adultery, and even does not safe him or her from committing adultery with incest. He or she does this after drunkenness unconsciously, in summery wine is obligator to any evil and antihuman tasks" (78). As it was mentioned in central nervous system findings, because of consumption of high amounts of alcohol, body equilibrium center becomes affected, and physical movements balance disrupt. Although it has been proven that alcohol is able to devastate individual continence and control on his or her behaviors leading to doing abnormal tasks, which its result can also be adultery, murder and killing (16, 78).

As it was seen in Quran verses and infallibles hadiths, one of the most important reasons of alcohol and wine prohibition is the damages to society which is mentioned as evil and antihuman tasks. The other is damages to individuals' body and spirits. Social sciences experts believe that some wrong and advertised believes like; alcohol removes tensions and free the people of anxiety or increase social abilities and pleasure experiments, has led to an increase in wine consumption, whereas this statements are not scientific (16, 19, 71). Alcohol consumption is contributed to high risk and aggressive behaviors; alcohol release in body damages the information processing in brain. Therefore drunkenness individuals are less able to imagine their bad works feedback (16). Regarding clinical psychologists, researches shows that antisocial personality impairment is common especially among men with alcohol induced disorders. It is possible that these disorders come before alcohol induced disorders progression. Alcohol has a role in near 50% of accidents leading to death and 25% of lethal fallings, all of these indicate that alcohol consumption has a highly detrimental effects on thinking and psychological health of human (16). Investigations show positive relationship between alcohol consumption and violence. For example wood in 1980 found that 29% of alcoholic individuals had shown illegal behaviors after alcohol consumption. Also other studies results show that 29% of prisoners have indicated that alcohol was the reason of their behavioral disorders and cause of being in jail. In 1994 Vernon connoted that more than a half of crimes in United States are due to alcohol consumption. Although alcohol consumption causes aggressive behaviors inside and outside of the home. Because of this reason there is a direct association between alcohol consumption and violence against women detected in societies consuming alcohol. Statistics in Australia states that 48% of attacks with knife and gun are due to alcohol consumption. Therefore alcohol consumption has a direct relationship with increased crimes in societies. Therefore it can be concluded that alcohol prohibition could have an important role in society health. Not

to consume alcohol decreases a significant portion of crime rate in society. Other important factor is alcohol role on individuals' physical and mental health. Based on the investigation of Britain Mental Health Institute on alcohol consumption in UK, due to a two time increase in alcoholic people in recent 50 years, people only try to remove their spiritual and mental discomfort, while they are worsening their awkwardness unintentionally. This study showed that 5 million people consume alcoholic wine daily to lessen their anxiety and discomfort, and giving up alcoholic drinks is difficult for them. Based on statistics and recent findings, not only depression leads to alcohol consumption but also alcohol consumption and lack of alcoholics' ability to stop drinking causes anxiety and depression. Based on this study 70% of men who did suicide have consumed alcohol before. 88% of people have told that completely stopping drinking is difficult for them. Using alcohol is not effective to manage anxiety and concern, because alcohol attenuate transitive nerves which brain do need them to dispose of apprehensive thinks anxiety. Because of this many feel discomfort after drunkenness. Moreover than mental complications, long term alcohol consumption leads to unpleasant physical complications such as cirrhosis and hepatic failure, gastric diseases, sexual impairments and increased risk of head and neck cancer and malnutrition. In 1996 alcoholism was believed to be a disease in the American Medical Association, and alcohol as an effective psychological and central nervous system weakening agent which in high amounts leads to bradypnea and also death (16, 19). In the US nearly 30% of patients who admitted to hospitals have concordant alcoholic complications (19).

Not only alcohol consumption leads to many individual and social complications, but also causes some difficulties for alcoholics in giving up duration. After intoxication, social-mental treatment with intense care hospitalization or outpatient rehabilitation programs is a main treatment for alcohol dependence, but these programs successes are limited, as though recurrence is seen in 50% of patients during the first year.

Fourteen centuries ago when many scientific issues had not been cleared for humankind like nowadays, Holy Quran has prohibited alcohol consumption in Al-Baqarah and Al-Ma'idah explicitly. Infallible imams in several hadiths have always prohibited alcoholic drinks and have considered it as a big sin. Medical advances also approved that individual and social health depends on not to consume alcoholic wines and its consumption causes many physical and mental diseases which affect individual and social health.

Islam resuscitative commands in medical issues, like alcoholic drinks prohibition could have an important and significant role in individual and social human health. It is hoped to have a healthy society and vigorous generation under the lights of Islam resuscitative commands and obeying them and enjoy all god's blessings.

Based on this study results it is suggested that:

Based on Quran explicit prohibition and wide alcohol harmful effects, efficient trainings be conducted on not to consume it and clearing the physical and mental complications on society.

Based on mental aspects of alcohol consumption and addiction to it after consumption in exposure populations, especially youths, efficient training becomes presented to prevent alcohol addiction.

Due to high recurrence rate after giving up, intermittent training courses become accessible for people trying to give up it.

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References

1. Verse 219, Al-Baqara. *Quran-e-Karim translated by Qarib*. Available from: <http://www.parsquran.com/data/show.php?sura=2&ayat=%DB%B2%DB%B1%DB%B9&user=far&lang=eng&tran=1>.
2. Verse 90-91, Al-Maeda. *Quran-e-Karim translated by Qarib*. Available from: <http://www.parsquran.com/data/show.php?sura=5&ayat=%DB%B9%DB%B0&user=far&lang=eng&tran=1>.
3. Verse 43, An-Nisa. *Quran-e-Karim translated by Qarib*. Available from: <http://www.parsquran.com/data/show.php?sura=4&ayat=%DB%B4%DB%B3&user=far&lang=eng&tran=1>.
4. Makarem-Shirazi N. *Tafsir Nemooneh*. Tehran: Dar al-Kotoob Al-islami Pub; 1996.
5. Ahmad-ben-fares A. *mojame maqees al`loqe*. Dar al-jeyl Pub; 1999.
6. Verse 67, An-Nahl. *Quran-e-Karim translated by Qarib*. Available from: <http://www.parsquran.com/data/show.php?sura=16&ayat=%DB%B6%DB%B7&user=far&lang=eng&tran=1>.
7. Verse 33, Al-Araf. *Quran-e-Karim translated by Qarib*. Available from: <http://www.parsquran.com/data/show.php?sura=7&ayat=%DB%B3%DB%B3&user=far&lang=eng&tran=1>.
8. Tabatabayi M. Almizan T, editor. Qom: Jame-e Modarresin-e Huzeh Elmeyeh Pub; 1388.
9. Sheikh-Ameli M. *Vasael Al-Shiah*. Qom: Al Albait; 1988; p. 253, 244, 429, 248, 251, 259.
10. Alkoleyni. *Foru`e Kafi*. Qom: Ahl-Beyt Pub.
11. Amini-Najafi A. *Al-Ghadir*. p. 257.
12. Al-Siuti J. *Jame` Al-saghir*. Beirut: Dar Alfekr Pub 1401 H; p. 58
13. Al-majlesi M. *Behar Al-Anvar*. Beirut: Mo`asesat Al-Vafa Pub; p. 87; 1403 H.
14. Al-Koleyni M. *Al-Kafi*. Beirut: Dar Sab va Dar Al-toarof Pub; p. 413; 1401H.
15. Sheykh A. *Organic Chemistry*. Tehran: Tehran university Pub; p. 114, 237, 131.
16. Ghosian-moghadam M. Alcoholic wines drinking Prohibition in Quran, and its effects on individual and society health. First National Quran and Medicine congress; Shahed University. 2006. p. 82-100.
17. Khorsandi-Ashtiani M. *Spiritual, physical and social effects of alco-*

- hol. Mashad: Mashad Medical university.
18. Cooper P. *Poisoning by Drugs and Chemicals*. Translated by farokhseyr and khuyi. Tehran: Ketabhaye Jibi Pub; p. 162.
 19. Katzung B. *Basic and Clinical Pharmacology*. 9th ed ed. Translated by Malek Atayi. Tehran: Nasle Farda; c2004; p. 473.
 20. Lee GA, Forsythe M. Is alcohol more dangerous than heroin? The physical, social and financial costs of alcohol. *Int Emerg Nurs*.2011;**19**(3):141-5.
 21. Room R, Graham K, Rehm J, Jernigan D, Monteiro M. Drinking and its burden in a global perspective: policy considerations and options. *Eur Addict Res*.2003;**9**(4):165-75.
 22. Marczynski CA, Fillmore MT, Bardgett ME, Howard MA. Effects of energy drinks mixed with alcohol on behavioral control: risks for college students consuming trendy cocktails. *Alcohol Clin Exp Res*.2011;**35**(7):1282-92.
 23. Barrett N, Paschos D. Alcohol-related problems in adolescents and adults with intellectual disabilities. *Curr Opin Psychiatry*.2006;**19**(5):481-5.
 24. Mellion M, Gilchrist JM, de la Monte S. Alcohol-related peripheral neuropathy: nutritional, toxic, or both? *Muscle Nerve*.2011;**43**(3):309-16.
 25. Gheorghiev C, De Montleau F, Defuentes G. [Alcohol and epilepsy: a case report between alcohol withdrawal seizures and neuroborreliosis]. *Encephale*.2011;**37**(3):231-7.
 26. AL Klatsky, MA Armstrong, GD Friedman, Sidney S. Alcohol and risk of hemorrhagic stroke. *Neuroepidemiology*.2002;**21**:115-22.
 27. Iso H, Baba S, Mannami T, Sasaki S, Okada K, Konishi M, et al. Alcohol consumption and risk of stroke among middle-aged men: the JPHC Study Cohort I. *Stroke*.2004;**35**(5):1124-9.
 28. Mukamal KJ, Ascherio A, Mittleman MA, Conigrave KM, Camargo CA, Jr., Kawachi I, et al. Alcohol and risk for ischemic stroke in men: the role of drinking patterns and usual beverage. *Ann Intern Med*.2005;**142**(1):11-9.
 29. Klatsky AL. Alcohol and stroke: an epidemiological labyrinth. *Stroke*.2005;**36**(9):1835-6.
 30. Stampfer MJ, Colditz GA, Willett WC, Speizer FE, Hennekens CH. A prospective study of moderate alcohol consumption and the risk of coronary disease and stroke in women. *N Engl J Med*.1988;**319**(5):267-73.
 31. Fernandez-Sola J, Nicolas JM, Oriola J, Sacanella E, Estruch R, Rubin E, et al. Angiotensin-converting enzyme gene polymorphism is associated with vulnerability to alcoholic cardiomyopathy. *Ann Intern Med*.2002;**137**(5 Part 1):321-6.
 32. Nicolas JM, Fernandez-Sola J, Estruch R, Pare JC, Sacanella E, Urbano-Marquez A, et al. The effect of controlled drinking in alcoholic cardiomyopathy. *Ann Intern Med*.2002;**136**(3):192-200.
 33. Frost L, Vestergaard P. Alcohol and risk of atrial fibrillation or flutter: a cohort study. *Archives of internal medicine*.2004;**164**(18):1993.
 34. Mukamal KJ, Tolstrup JS, Friberg J, Jensen G, Gronbaek M. Alcohol consumption and risk of atrial fibrillation in men and women: the Copenhagen City Heart Study. *Circulation*.2005;**112**(12):1736-42.
 35. Sasaki S. Alcohol and its relation to all-cause and cardiovascular mortality. *Acta cardiologica*.2000;**55**(3):151-6.
 36. Urbano-Marquez A, Estruch R, Navarro-Lopez F, Grau JM, Mont L, Rubin E. The effects of alcoholism on skeletal and cardiac muscle. *New England Journal of Medicine*.1989;**320**(7):409-15.
 37. Siscovick DS, Weiss NS, Fox N. Moderate alcohol consumption and primary cardiac arrest. *Am J Epidemiol*.1986;**123**(3):499-503.
 38. Cooper HA, Exner DV, Domanski MJ. Light-to-moderate alcohol consumption and prognosis in patients with left ventricular systolic dysfunction. *J Am Coll Cardiol*.2000;**35**(7):1753-9.
 39. Walsh CR, Larson MG, Evans JC, Djousse L, Ellison RC, Vasan RS, et al. Alcohol consumption and risk for congestive heart failure in the Framingham Heart Study. *Ann Intern Med*.2002;**136**(3):181-91.
 40. Aguilar D, Skali H, Moye LA, Lewis EF, Gaziano JM, Rutherford JD, et al. Alcohol consumption and prognosis in patients with left ventricular systolic dysfunction after a myocardial infarction. *J Am Coll Cardiol*.2004;**43**(11):2015-21.
 41. Iber F. Health issues related to alcohol consumption. *Nutrition in Clinical Care*.2001;**3**(2):111-2.
 42. Klatsky AL. Alcohol and hypertension. *clinica chimica Acta*.1996;**246**(1):91-105.
 43. Klatsky AL, Koplik S, Gunderson E, Kipp H, Friedman GD. Sequelae of systemic hypertension in alcohol abstainers, light drinkers, and heavy drinkers. *Am J Cardiol*.2006;**98**(8):1063-8.
 44. Fuchs FD, Chambless LE, Whelton PK, Nieto FJ, Heiss G. Alcohol consumption and the incidence of hypertension: The Atherosclerosis Risk in Communities Study. *Hypertension*.2001;**37**(5):1242-50.
 45. Ghosian-Moghadam M, Ahmadi M. Sexual Disorders due to alcoholic wines consumption. 4th congress on family and sexual health Shahed University;Tehran. November 2009.
 46. Zilkens RR, Burke V, Hodgson JM, Barden A, Beilin LJ, Puddey IB. Red wine and beer elevate blood pressure in normotensive men. *Hypertension*.2005;**45**(5):874-9.
 47. Ghosian-Moghadam M, Ayres Z. Libido and therapeutic ways to increase and decrease it, in traditional medicine. 4th congress on family and sexual health Shahed University;Tehran. November 2009.
 48. Beier JL, McClain CJ. Mechanisms and cell signaling in alcoholic liver disease. *Biological chemistry*.2010;**391**(11):1249-64.
 49. Jeannot E, Pogribny IP, Beland FA, Rusyn I. Chronic administration of ethanol leads to an increased incidence of hepatocellular adenoma by promoting H-ras-mutated cells. *Cancer Lett*.2011;**301**(2):161-7.
 50. Thiele GM, Duryee MJ, Willis MS, Tuma DJ, Radio SJ, Hunter CD, et al. Autoimmune hepatitis induced by syngeneic liver cytosolic proteins biotransformed by alcohol metabolites. *Alcohol Clin Exp Res*.2010;**34**(12):2126-36.
 51. Mas VR, Fassnacht R, Archer KJ, Maluf D. Molecular mechanisms involved in the interaction effects of alcohol and hepatitis C virus in liver cirrhosis. *Mol Med*.2010;**16**(7-8):287-97.
 52. Hoidrup S, Gronbaek M, Gottschau A, Lauritzen JB, Schroll M. Alcohol intake, beverage preference, and risk of hip fracture in men and women. Copenhagen Centre for Prospective Population Studies. *Am J Epidemiol*.1999;**149**(11):993-1001.
 53. Braganza J, Lee S, McCloy R, McMahon M. Chronic pancreatitis. *Lancet*.2011;**377**(9772):1184-97.
 54. Apte M, Pirola R, Wilson J. New insights into alcoholic pancreatitis and pancreatic cancer. *J Gastroenterol Hepatol*.2009;**24 Suppl 3**:S51-6.
 55. Apte M, Wilson J. Alcohol-induced pancreatic injury. *Baillière's best practice & research Clinical gastroenterology*.2003;**17**(4):593-612.
 56. Wilson J, Apte M. Role of alcohol metabolism in alcoholic pancreatitis. *Pancreas*.2003;**27**(4):311-5.
 57. Vonlaufen A, Wilson JS, Pirola RC, Apte MV. Role of alcohol metabolism in chronic pancreatitis. *Alcohol Research and Health*.2007;**30**(1):48.
 58. Apte MV, Pirola RC, Wilson JS. Mechanisms of alcoholic pancreatitis. *J Gastroenterol Hepatol*.2010;**25**(12):1816-26.
 59. May PA, Gossage JP, Marais AS, Hendricks LS, Snell CL, Tabachnick BG, et al. Maternal risk factors for fetal alcohol syndrome and partial fetal alcohol syndrome in South Africa: a third study. *Alcohol Clin Exp Res*.2008;**32**(5):738-53.
 60. Autti-Ramo I, Fagerlund A, Ervalahti N, Loimu L, Korkman M, Hoyme HE. Fetal alcohol spectrum disorders in Finland: clinical delineation of 77 older children and adolescents. *Am J Med Genet A*.2006;**140**(2):137-43.
 61. Kalberg WO, Provost B, Tollison SJ, Tabachnick BG, Robinson LK, Eugene Hoyme H, et al. Comparison of motor delays in young children with fetal alcohol syndrome to those with prenatal alcohol exposure and with no prenatal alcohol exposure. *Alcohol Clin Exp Res*.2006;**30**(12):2037-45.
 62. Elgen I, Bruaroy S, Laegreid LM. Complexity of foetal alcohol or drug neuroimpairments. *Acta Paediatr*.2007;**96**(12):1730-3.
 63. Astley SJ. Profile of the first 1,400 patients receiving diagnostic evaluations for fetal alcohol spectrum disorder at the Washington State Fetal Alcohol Syndrome Diagnostic & Prevention Network. *Can J Clin Pharmacol*.2010;**17**(1):e1364-2.
 64. Elgen I, Bruaroy S, Laegreid LM. Lack of recognition and complexity of foetal alcohol neuroimpairments. *Acta Paediatr*.2007;**96**(2):237-41.
 65. Dursun I, Jakubowska-Dogru E, van der List D, Liets LC, Coombs JL, Berman RF. Effects of early postnatal exposure to ethanol on retinal ganglion cell morphology and numbers of neu-

- rons in the dorsolateral geniculate in mice. *Alcohol Clin Exp Res*.2011;**35**(11):2063-74.
66. Zhang X, Wang H, Te-Shao H, Yang S, Wang F. Frequent use of tobacco and alcohol in Chinese psoriasis patients. *Int J Dermatol*.2002;**41**(10):659-62.
 67. Naldi L, Parazzini F, Brevi A, Peserico A, Fornasa CV, Grosso G, et al. Family history, smoking habits, alcohol consumption and risk of psoriasis. *British Journal of Dermatology*.2006;**127**(3):212-7.
 68. Gerdes S, Zahl VA, Weichenthal M, Mrowietz U. Smoking and alcohol intake in severely affected patients with psoriasis in Germany. *Dermatology*.2010;**220**(1):38-43.
 69. Poikolainen K, Reunala T, Karvonen J. Smoking, alcohol and life events related to psoriasis among women. *Br J Dermatol*.1994;**130**(4):473-7.
 70. Poikolainen K, Reunala T, Karvonen J, Lauharanta J, Karkkainen P. Alcohol intake: a risk factor for psoriasis in young and middle aged men? *BMJ*.1990;**300**(6727):780-3.
 71. Siegmund SV, Singer MV. [Effects of alcohol on the upper gastrointestinal tract and the pancreas—an up-to-date overview]. *Z Gastroenterol*.2005;**43**(8):723-36.
 72. Parazzini F, La Vecchia C, D'Avanzo B, Moroni S, Chatenoud L, Ricci E. Alcohol and endometrial cancer risk: findings from an Italian case-control study. *Nutr Cancer*.1995;**23**(1):55-62.
 73. Swanson CA, Wilbanks GD, Twigg LB, Mortel R, Berman ML, Barrett RJ, et al. Moderate alcohol consumption and the risk of endometrial cancer. *Epidemiology*.1993;**4**(6):530-6.
 74. Choi JY, Abel J, Neuhaus T, Ko Y, Harth V, Hamajima N, et al. Role of alcohol and genetic polymorphisms of CYP2E1 and ALDH2 in breast cancer development. *Pharmacogenetics*.2003;**13**(2):67-72.
 75. Kawamoto T, Koga M, Murata K, Matsuda S, Kodama Y. Effects of ALDH2, CYP1A1, and CYP2E1 genetic polymorphisms and smoking and drinking habits on toluene metabolism in humans. *Toxicol Appl Pharmacol*.1995;**133**(2):295-304.
 76. Kornum JB, Due KM, Norgaard M, Tjonneland A, Overvad K, Sorensen HT, et al. Alcohol drinking and risk of subsequent hospitalisation with pneumonia. *Eur Respir J*.2012;**39**(1):149-55.
 77. Mertens JR, Moos RH, Brennan PL. Alcohol consumption, life context, and coping predict mortality among late-middle-aged drinkers and former drinkers. *Alcohol Clin Exp Res*.1996;**20**(2):313-9.
 78. Al-majlesi M. *Behar Al-Anvar. Beyrut: Mo`asesat Al-Vafa Pub; p. 164-1403 H.*