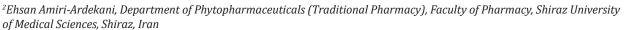


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# Persian Medicine Surgical Knowledge can Impress Modern Surgery Improvements

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#### **ABSTRACT**

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#### Introduction

Millions of people undergo surgery worldwide each year [1,2]. Surgery is an occupation defined by its influence on remedy by means of bodily invasion. Although harshness and risks of opening a living person's body have long been obvious, the benefits slowly and gradually worked out [3]. Patient satisfaction as an indicator of health care quality may provide information about a hospital's ability to provide good service as a part of the patient experience [4]. We could help practitioners to better encompass patient perspectives in service delivery and improve patient satisfaction through assessing patient experience [5]. The Bravewell describes integrative medicine like employing a personalized strategy as "an approach to care that puts the patient at the center and addresses the full range of physical, emotional, mental, social, spiritual, and environmental influences that affect a person's health." [6] Thus, Complementary and alternative medicine (CAM) can play an important role in patients' satisfaction [7]. Choosing a treatment method could be affected by cultural and social differences. These kinds of medicine are used for different aims such as therapy, disease prevention and preservation of well-being [8]. This issue has been considered for thousands of years due to historical evidence from Shiraz Azodi Hospital [9].

Lack of enough previous research studies on this topic highly motivates us for more research. The ability of healing many different medical conditions made surgery as a vital field within the history of medical science. It has been an important portion of medicine from antiquity to the modern era. Therefore, the ancient Persian civilization has a great contribution in the development of medical practice in the history of surgery [10]. Our inherited knowledge will be an incentive for us to continue to strive to improve the patient's quality of life [11]. Nowadays, traditional ways of curing sicknesses originating in ancient societies are called complementary medicine. Many of the traditional medical systems are based on essential principles and centuries of practices by healers [12]. CAM is a general term containing various therapeutic methods, which are not considered as a part of conventional medicine. Popular and widely known examples are acupuncture as a part of traditional Chinese medicine (TCM), naturopathy and homeopathy, phytotherapy and anthroposophical medicine [13]. The development rate of CAM is growing these days. In 2012, approximately one-third of the US population used CAM [14], but its usage in the hospital setting is little known. Furthermore, its risks or benefits in practice is ignored [15]. Yearly visits to alternative practitioners have been assessed at 629 million, which is higher than the number of primary care visits. Most of this high usage rate belongs to college-educated individuals and those with annual income more than \$35,000 [7].

# **Current Findings**

According to an article which is published in CDC, Complementary and alternative medicine (CAM) covers a diverse range of ancient to new-age approaches that assert to prevent or cure illness. Literally CAM methods are not part of conventional medicine, because there is inadequate proof that they are harmless and effective. Practitioners use Complementary interventions combined with conventional treatments; however alternative interventions are used as a replacement for conventional medicine" [16]. Although there are remarkable articles on noninvasive CAM, a few research about interventional treatments is accessible. Some researchers believe that Traditional Chinese Medicine (TCM) is a consummate medical system that has developed over millennia to embrace practices and procedures like nutrition, acupuncture, herbal medicine, manual therapies, and mind-body therapies such as qi gong [17]. But it was noted in another article, that according to Confucian teaching medicine in ancient China has been traditionally noninvasive. The human body was considered sacred, and therefore it cannot be dissected. In the Chinese medical canon, the Nei Ching, surgery was chosen under two conditions: once as a last way when all other methods fail, and another time concerning the healing of sores.

The best treatment is to weigh and to contemplate careful removal, besides cutting and scooping out exposed and spoiled particles. The Japanese made no developments in surgery until about the 14th century [18]. But in ancient India and Persia, surgeons were extremely respected, and their operating ability with nose plastic and cataract couching is known. Surgery was categorized in medieval Europe as a handicraft profession and belonged to the barbers guild with the soap cup as symbol, much inferior to the academic trained medical doctors [19]. Persian medicine inspects disease and health through a much wider lens and presents various strategies for the treatment of diseases such as preventive health, food therapy, herbal medicine, hands-on physical manipulations, etc [20]. Persians have an advanced system of medicine founded on a humoral paradigm that existed before Islam. In the early Islamic era (9-12th century AD), Persian medicine boomed and became the main model of medicine in the world [21]. Numerous Iranian medical books such as the Canon of Avicenna (Al-Qanun fit-teb or Canon of Medicine, 1025 AD), were textbooks in medical schools until the 16th century in Europe and were applied in the 19th century in the Middle East [22]. Persian scientists contributed to the improvements of modern medical knowledge particularly anatomy. For example, in the Persian book "Tashrih-e badan-ensan" (human body anatomy), also known as Tashrih-e Mansuri, many

tips about muscles and their functions were told [23].

Manipulation and physical therapies (a'amal-e-yadavee) is a significant part of Persian medicine which believed can remove waste materials from body. Himayat is an intervention to remove the excess blood, which was prescribed by a traditional Persian medicine physician and executed by a person (Hijama) experienced in a'amal-e-yadavee [24]. Doctors during the 3rd-9th centuries of Hurghada, besides prescribing medications for the treatment of uterine diseases and another disease, used surgical techniques such as cutting, fissuring, veining, cupping, and burning to cure diseases. They tried to minimize the consequence for the patient [25]. Surgeons like Jan Yzerman in the early 14th and Thomas Fijens in the late 16th century makes it obvious that previous physicians and surgeons had an enduring effect on the surgical practitioners in the world [26]. The official history of surgery shows the beginning of anesthesia back to the 18th century [27]. Ancient Persians had applied various anesthetic agents, from which Wine (Alcohol) alone or together with Hashish and other herbal medications [28]. Maybe for the first-time anesthesia was used in surgical procedures in ancient Iran. The general anesthesia had at least been defined in ancient Persian texts. The proof of this fact is the text of Shahnameh. [29]. In Persian medicine and anesthetic drugs, there are combinations used after surgery or trauma like sesame oil to decrease pain and bruising and prevent skin discoloration [30] and Portulaca oleracea, to improve post-operational-induced Peritoneal adhesion [31].

## **Future Perspective**

Knowledge of medicinal plants usage is the consequence of many years of struggling against diseases due to which man learned to track drugs in seeds, fruit bodies, barks and other parts of the plants [32,33]. Creating novel drugs for old diseases is becoming more and more significant. Pursuiting new methods to document medicinal plants and herbs will decrease the price and the time required to process the medicine [34]. Nevertheless, we probably missed some useful information about drugs or surgery methods from ancient medicine. Thus, we can resurrect them from ancient book resources to improve our knowledge for help humankind more than now. More data are needed to assess the potential benefits of other modalities of CAM. Indeed, the Education of healthcare providers should be encouraged [35]. According to present challenges and the tendency of society to take traditional medicine facilities and the prosperous history of Persian medicine in Iran, providing fair access to traditional medical services should be more concerned [36]. Also, we think researchers should be supported to have continued research on surgical tips and methods in ancient texts to improve current methods in surgery and wellbeing.

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