

## Orthopedics in Folk Medicine (Case Study of Folk Orthopedics in Arak City, Iran)

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**Background:** Medical anthropology is the comprehensive intercultural systematic study of health, diseases, prevention and treatment of diseases with emphasis on knowledge, beliefs and methods of western and non-western medical systems. Also, folk medicine is an oral indigenous knowledge which has no written records, and even in some cases may leave no scientific evidences, but it is still considerable.

**Objectives:** The aim of the current study is the tangible understanding of a part of commonly used folk medicine (folk orthopedics) in Arak city, Iran; and also introducing it as a part of folk knowledge and culture of this region.

**Materials and Methods:** In the current study, the functionalist theory, and field and documentary methods, according to the observations and interviews, were applied.

**Results:** Arak is the most crowded city of Markazi province of Iran. Folk orthopedics has a long history in Arak, and according to the available evidences, since early thirteenth century, a man known as Eskandar had claimed this profession in Arak city. According to the present statistics, daily average of 5 to 6 people refers to the bonesetters, which usually work where they live. It can be said that people who refer to bonesetters are from all segments of the society, even educated people.

**Conclusions:** In addition to the modern medical diagnostic methods, indigenous knowledge of folk medicine, especially folk orthopedics, with a little thought, guidance and planning can be considered as an appropriate therapeutic method in order to raise the level of public health without any side effects.

**Keywords:** Anthropology, Medical; Orthopedics; Medicine, Traditional

### 1. Background

According to the principles of medical anthropology, culture is an important determinant factor for health of any society which affects its material and symbolic angels (1). Traditional medicine has been derived from old traditional scientific teachings and experiences of Greek, Iranian and Indian medical ideologies. Folk medicine has been basically established on a specific system which is associated with socio-cultural, religious-belief and experimental structures of people, from past to present. These two old medical traditions have taken advantage of knowledge and teachings each other; in a way that many folk therapeutic methods have been inspired from traditional medicine and the methods of medical scientists. In folk orthopedics, which has been created along with Iranian traditional medicine, orthopedists use their therapeutic methods to treat closed fractures, dislocations, disc injuries, muscles, tendons, ligaments and spine disclosures (2). Although traditional orthopedics dat-

ing back thousands of years in Iran, this method is still recommended and administrated by modern and traditional therapists and practitioners to treat many muscular- skeleton disorders; in a way that the manipulation method of physicians and physiotherapists is similar to the therapeutic methods of bonesetters (3). Societies have had a particular ideology, in any period of the time which was in relation with the culture of that society. Different ideologies about body, health, and illness have also been derived from this ideology (4).

### 2. Objectives

This study was conducted to evaluate the situation of popular and folk medicines in the framework of medical and ethnic anthropology, along with introducing the folk orthopedics as an approach in traditional medicine and a therapeutic method in folk medicine. The scope of medical ethnology is the knowledge of ideas, beliefs, and the actions of various human societies regarding illness.

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

Since the orthopedics is a subdivision of Iranian folk and traditional medicine, it is in the category of medical anthropology. The current study provides information about the principles of orthopedics in comparison with modern medicine.

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Hence, the current study was conducted to enhance the structure of folk orthopedics in Iranian traditional and folk medicines, and also to introduce Iranian therapeutic-traditional methods and bonesetters of Arak city, including the description of their therapeutic methods.

### 3. Materials and Methods

The present study was conducted according to the functionalist theory with the use of field and documentary methods, according to collaborative observation and the performed interviews. In fact, functionalist theory refers to the experimental study of social realities among the population under study, and understanding these realities means organized and scientific considerable totality. Two basic concepts of functionalism are: needs and cultural responses (5). Regarding the folk medicine, functionalist theory has attracted the attention of researchers more than any other theory. According to the famous anthropologists such as Scottish Victor Turner, English Edward Evans-Pritchard, evaluating the folk concepts about disease, illness, and also therapeutic patterns of ethical researches can be considered as an instrument for better revealing of the cultural concepts. According to Rivers, an anthropologist physician, primary cultures of ethnic medicine should be considered as a social institution and evaluated with the same principles and specific methods of studying the social and cultural events (6). Hence, the following study was performed to notify that despite the importance and vast use of modern medicine, the structure of folk medicine among people is still ruling and has its own usages, with a little thought, guidance and planning to optimum use of Iranian traditional medicine which is the base of other medical methods, it can be considered as an appropriate therapeutic method in order to raise the level of public health without any side effects.

### 4. Results

Arak is the most crowded city of Markazi province of Iran. Folk orthopedics has a long history in this city. According to available evidences, since the early thirteenth century, a man known as Eskandar had claimed this profession in Arak city. These bonesetters have no academic education and are trained at household level, orally. Their knowledge is just based on their therapeutic experiences. According to the present statistics, daily averages of 5 to 6 people refer to these bonesetters who usually work where they live. The people who refer to them are from all classes of the society, even educated people; they usually refer for closed breaks and chronic and established dislocations. According to the performed interviews with these bonesetters, folk orthopedics has two stages as diagnosis and treatment. In diagnosis stage, the orthopedist, after taking the patient's history, evaluates the symptoms such as swelling, bruising, redness, and deformities after

fracture. In the next stage, diagnosis is done by touching the damaged area; and finally, the bonesetter starts treatment according to the evaluations and personal experiments. Bonesetters believe that they can treat a wide range of diseases. Chronic pains caused by displacement of spine and other bones, tendon dislocation, acute pains caused by dislocation of bones, minor and oblique fractures are among the cases they treated. In fact, bonesetters believe that bone erosion is the main cause of joint pains, and they try to relieve it. To complete the stages of treatment bonesetters use natural compounds such as licorice extract, egg, myrtle, raw peas, and turmeric. After replacing, to overcome an injury the fractured place is immobilized with the help of instruments such as fracture splinter, sterile bandages, elastic bandage, or adhesive plaster. After several days, the injured area is examined, dressing is changed, and the patient is recommended to dress the injured area with natural compounds to relieve the contusion and gradual improvement.

### 5. Discussion

Indigenous knowledge is a part of the national capital of any ethnic group, and the result of centuries of trial and error in the natural and social environment which is usually transferred orally. One of these pieces of indigenous knowledge is medical and traditional knowledge which is not just limit to the early societies and its different features are observed in developed communities. It is clear that intensity or weakness of folk medicine and its contents are directly related to the traditional degree of the society (7). Despite the importance and widespread use of modern medical sciences in Arak, still the basis of folk medicine among the masses is ruling, and has its specific functions. These functions may result from economic, geographic and cultural factors (8). According to the cultural diversity of Arak city which results from industrialization and high degree of immigration, it seems that folk medicine, with the folk orthopedics approach, still benefits from integrated and unique principals.

Bonesetters of Arak city, like modern physicians, by studying the medical file and medical images of the patient evaluate fractures or dislocations of bones or joints; then start remedial treatment, and consider treatment procedure. From the viewpoint of these therapists, fractures and joint dislocations are not the only problem of people who refer to them. Sometimes disorders such as loss of blood flow in joints cause pain and inflammation. Hence, folk orthopedists after recognizing the cause of pain and illness start remedial treatment, with the help of their specific technics. It seems that bonesetters and modern medicine principles use similar methods to assess the patient's status. Folk orthopedic methods are mostly based on examinations and therapeutic methods; while in modern and traditional medicines, treatment is based on evidences (9). It seems that most of the side ef-

fects of folk orthopedic therapeutic methods are caused by incorrect diagnosis of complication. Non-invasive nature of many folk orthopedic methods guarantee the survival of this branch of medicine in a way that many patients prefer folk orthopedics to the costly and invasive treatments. Many mental theories of bonesetters are similar to the therapeutic methods of specialists, such as physical medicine specialists, who believe in non-surgical treatments; both groups believe that restoring the normal function of bone, by the help of manual therapies, is an effective method to relive muscular-skeleton pains (10).

Therefore, with a little thought, guidance, and planning to optimum use of Iranian indigenous knowledge of folk medicine, especially orthopedics, it can be considered as an appropriate therapeutic method in order to raise the level of public health without any side effects.

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### Authors' Contribution

The preliminary plan, interviews, observations, and summary of the findings were performed by Farahani KA; and interviews, observations, discussion and conclusion were accomplished by Shahrjerdi S.

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