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HEALTH BENEFITS OF DAL'K (MASSAGE) IN UNANI SYSTEM OF MEDICATION AND PERCEPTION OF RURAL ELDERLY PEOPLE TOWARDS DAL'K (MASSAGE) IN KASHMIR

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ABSTRACT

Dal'k (Massage) since time immemorial has been used worldwide for preventive, therapeutic and rehabilitative purposes. It is one of the methods of evacuation of morbid matter from the body to maintain the equilibrium of bodily humors in the Unani medicine system. A number of studies in recent years have been conducted to establish the scientific validity of Dal'k (Massage) as in Unani medicine system Dal'k (Massage) been indicated in different neurological, musculoskeletal and psychosomatic disorders. In current, study a well-developed validated questionnaire was used to assess the attitude of rural elders towards Dal'k (Massage). In the current study, we chose 400 rural people at random for our study on their consent. A well developed designed validated questionnaire was used for the collection of data and data collected was analysed using appropriate statistical tools. The study revealed that majority of the respondents were having massage before sleeping to feel relaxed. The respondents understudy male as well as female reported that for the promotion of general health they prefer massage and for fitness as well as in treating minor health problems they use massage.

KEYWORDS: Dal'k, Massage, Unani Medicine, Therapeutic application, Kashmir, Statistics

INTRODUCTION

Worldwide since time immemorial Dal'k (Massage) was used for preventive, therapeutic and rehabilitative purposes. In India it can be accounted for back to the time of the first indo-aryan settlements and it is believed that preceding era of the Indus valley culture, massage was already in use. Massage was considered an important health beneficial practice which was often linked to social, religious or ritual customs in ancient times. Massage is mentioned and recommend as an indispensible healing factor in classic Ayurveda texts and it is regularly used in for the promotion of general health and fitness as well as in treating minor or serious health problems to this day. W know massage is mainly applied to the entire body or body parts with the help of sufficient amounts of warmed oils or substances specific to the patient's constitution and in some ways it is similar to the western method of massage.

In the literature we found that massage isderived from the Arab word "Mass" (to touch) or from the Greek word "Massein" (to knead). It was also believed that the wordmassage came from Sanskritword "Makesh" (to strike, to press) or the Hebrew word "Mashesh" (to touch, to feel, to grasp). Massage among Greeks and Romans was very popular so the Arabic and Greek origin proposed by Savery in 1785 and Piory in 1819respectively has been considered more authentic. The father of medicine, Hippocrates (460-370BC) who discussed the qualities and contraindications of massagewas the first person who recognized massage as a therapeutic agent. It was found that Galen (129-200AD) who wrote about 16 books related to exercise as well as massage found with own indicationsnine forms of massage [Sinha, 2001]. In the first volume treatise "AlQanoon Fil Tib" Ibne Sina discussed the various types of massage [Ibn Sina, 2010], Ibne Rushd in Kitabul Kulliyat, discussed the classification andimportance of massage [Ibne Rushud, 1980] and Majoosi in Kamilus Sanaa'h, have also mentioned about the preventive and curative aspect of massage [Majoosi, 1889].

Ibne Sina1 and Majoosi reported that Dal'k is of four types i.e. Sulb, Layyin, Kaseer and Moatadil. The description of these in brief is given as under:

- 1. **Dal'k Sulb:**In this type of massage firm pressure is applied while stroking with hands. This makesthe body firm and strong by the virtue of eliminating those rutoobat, which is responsible forthe flaccidity of the muscles.
- 2. **Dal'k Layyin:**This type of massage is done with soft hands, slowly without exerting much pressure with thepurpose of getting the muscles relaxed.
- 3. **Dal'k Kaseer:** This type of massage is done for longer duration to reduce the body fat and making the bodylean and thin. Being longer in duration, this type of massage eliminates rutoobat from thebody in excess amounts leading to weight loss.
- 4. **Dal'k Moatadil:** This type of massage is moderate in duration and in force applied while doing it. By inducing better perfusion of muscles, this type of massage causes a moderate rise in muscle mass.

Ibne Rushd classified Dal'k into six basic types. His classification is based on Kaifiyat and Kammiyat. On the basis of Kaifiyat; he classified massage into Dal'k Sulb, Dal'k Layyin and Dal'k Moatadil. On the basis of Kammiyat, he classified massage into Dal'k Kaseer, Dal'k Qaleeland Dal'k Moatadil.

The various combinations of these varieties provide nine types of massage named as,

Dal'k Sulb Kaseer, Dal'k Layyin Kaseer, Dal'k Moatadil Kaseer, Dal'k Sulb Qaleel, Dal'k Layyin Qaleel, Dal'k Moatadil Qaleel, Dal'k Sulb Moatadil, Dal'k Layyin Moatadil and Dal'k Moatadil Moatadil. Further, in the literature we come across some other types of massage [e.g., Ibn Sina, 2010; Kabeeruddin, 1935; Ibne Rushd, 1889].

Dal'k Khashin: This massage is done with a rough piece of cloth which draws the blood rapidly to the surface. Itshould not be done for longer duration otherwise leads to excessive elimination of rutoobat from the body and result in dehydration.

Dal'k Amlas:It is carried out with soft piece of cloth which increased blood flow in the treated area. The objective of this type of massage is always to make the body firm and soft, if it is loose or flabby and hardrespectively.

Dal'k Istedad:This special type of massage is done before exercise in order to prepare the body for undergoing different movements during exercise. It is done greatly in beginning and then vigorously towards the end, so as to make waste products easily expellable while during exercise.

Dal'k Isterdad: This type of massage is done towards the end of exercise and is also known as Dal'k Musakkin. Its'purpose is to liquefy and eliminate the waste products, which if retained after exercise in thetissues produce fatigue. This type of massage should be carried out gently and in moderation, preferably with oil. It should never be vigorous, rough or hard at the end as it would then hardenthe body. When massage is over, treated part should be kept in a tense and taut condition so as tohelp the elimination of waste products. At this time the masseur should keep rubbing the bodywith a towel, while the subject should hold his breath as long as possible, during this procedure, the abdominal muscles should be kept relaxed, while those of the chest stretched. Towards theend of procedure, abdominal muscles are tightened to stimulate the viscera.

We found that in 16th century Fabricus-Ab-Aquapendente, tutor of William Harvey, wrote a book on massage in which he warmly recommended the use of massage as a rational therapy for joint affection. It was he who used the term "Kneading" for the first time in world. One of the founders of royal society Francis Glisson (1597-1677AD) mentioned the use of massages and exercises in the treatment of rickets. The French colonists in India first used the term massage during 1761-1763 and included it for the first time in 1812 in a French-German dictionary. In the English literature the word massage according to Oxford dictionary entered in literature in 1879.Per Henrik Ling(1776- 1839AD) in the 19th century contributed a lot in this field and classified the techniques of conventional massage and incorporated the French words such as percussion, tapotement, effleurage etc. in his Swedish system of massage. Further, Rosenthal gave scientific ground to massage and manipulation and is accredited for reintroduction of massage into mainline medical practice. [Sinha, 2001] In the literature [e.g., Kabeeruddin, 1935; Majoosi, 1889; Anonymous, 1993], we come across also modernclassification of massage given as under:

Table1:Modern Classification of Dalk(Massage)

A.OntheBasis of Characterof Technique			
Types	SubTypes	Images	
STROKINGMANI PULATION(Linear movement ofrelaxedhand)	Superficial stroking (without any pressure) Deepstroking(with moderatepressure)	S-Interest I	
PRESSUREMANI PULATION(thehan dofthetherapistandsk inofthepatientmoves togetherasoneandfai rlydeeplocalisedpres sureisappliedtothebo dy)	Kneading (palmarkneading, Digitalkneading,I roning)		
	Petrissage(Pickingu p,Wringing&skinrol ling)		
	Friction(Circular& Transversefriction)	ALL ELL	

PERCUSSION (treatedpartis strucksoftblowswitht hehand)	Clapping (Administered with cupped palm)	
	Hacking (Administered with the Ulnar borderofthe5 th 4 th an d3 rd digitsinmanner ofstraightorcurled)	
	Tapping (Adminis teredwiththepulpoft hefingers)	
	Beating(Administe redwiththeanteriora spectoftheclinchedf its)	
	Pounding (Administered with the medial aspect of the clinched fits)	
Vibratory Manipulation	Vibration (Small range oscillatory movement of hand in upward and downward direction with constant touch)	
	Shaking(Small rangeoscillatory movementof hand insideways direction withconstanttouch)	W. Con

Breast massage is performed by placing four fingers of one hand on the top of the breast and four fingers of the other hand on the bottom. In circular pattern breast massage is performed and it may feel best if hands are warm. Massage is also performed to the sides of breasts in a circular pattern. Breast massage could have several health benefits, such as stimulating blood flow and helping with breastfeeding.



B.On the Basis of Depth of Tissue Approached

Light Massage (Forces are very light) e.g., Stroking, Tapping

e.g.,

Deep Massage (Forces are moderate to deep) e.g., Friction, Kneading



C.On the Basis of Region Massaged

GeneralMassage: Massageoverentirebodyoroveralarg ebodysegment(Back,lowerlimb). Usuallydoneindebilit ated person(Athelete)



LocalMassage: Massageinaparticulararea of the bodyse gment (e.g. Tenosynovitis, sprain



D.OntheBasis ofAdministration of Technique

ManualMassage:Performedwiththehelpofthetherapi st'sbodypart/hand. For example,classicalmassage,triggerpointmassageandac upressuremassageetc.

MechanicalMassage:performed with the help of mechanical devices. e.g. vibrator, compression devices, pneumatic massage etc. ⁷



GENERAL GUIDELINES FOR MASSAGE THERAPY

Setting: For massage therapy select a comfortable place with enough light and ventilation in view of season. The temperature of the room kept for massage purpose should be comfortable to the naked body and if possible, sunlight should seep into the room as sometimes for patients it is advisable to sunbathe.

Massage table: Generally wooden table with appropriate dimensions such as 6-7x 2 feet is preferably usedsupporting the whole body of the patient/client. Further, a thick rubber sheet should be changed for every patient to prevent the infection.

Timing: The timing of massage has been mentioned by Ibne Rushd in Kitabul Kulliyat which is same as timing for exercise. According to Ibne Rushd, the timing will be in Mausame Rabee' (spring season): noon, in Mausame Saif (summer season): morning, in Mausame Khareef (autumn season): noon and in Mausame Shita (winter season): after noon. Infact, most suitable time for massage is early in the morning between 5 and 9 a.m. and in the evening between 4:30 and 6 p.m. as per experts.

Direction: The patient/client must lie down on the massage table in a supine position and massage should start from the soles of the feet and move towards the heart.

This position enables the veins of the patient to function better, while massage of the head, neck and face is performed in a sitting position. Further, massage the legs, arms, chest, abdomen, back and hips in that order.

Duration:Infact, duration of massage is not exactly mentioned in any Unani classical writings in terms of minute or hours. However, it can be said on the basis of experience that the duration of massage will vary with the treatment and in general it lasts for 30-45 minutes. The duration of massage is linked with age of patient/client such as newborn babies should be massaged for 15 minutes daily; Children Upto the age of 4 years should be massaged for 20 minutes. Massage In youth and adults should be done

for 30 minutes and in old people massage should be done for 40 minutes.

In general oil is used in Unani system of medicine for massage as it offers many benefits. It prevents dryness, increase suppleness and durability of the skin. The main purpose of this study was to understand the concept as well as role of *Dalk* therapy and their importance in '*Ilaj-bit-tadbir*. Hence, this survey was conducted in Kashmir to explore the mechanism, effects and perception of rural people towards massage.

METHODOLOGY

A cross-sectional survey was carried out among elderly people aged above 60 years, residingin rural areas of Kashmir valley during 2023. Atotalof400participants selected at random from rural areas of Kashmir valley on their

consent wereinvolved in the present survey. A well developed validated questionnaire was used for the collection of data. The sample size for present study was computed using (Cochran, 1977)

$$n = \frac{Z_{\alpha}^2 P(1-P)}{d^2}.$$

Here, we chose p=0.5, Z_{α} =1.96 and d=0.05. That gives the approximate sample size $n\sim384$ and we decided to take n=400. The data collected from our survey was tabulated, analyzed and interpreted statistically using appropriate statistical toolslike descriptive statistics as well as inferential statistics. The statistical software SPSS (version 20) was used for analysis of data.

RESEARCH HYPOTHESIS

Hypothesis 1: There is no significant difference in the opinion of male and female respondents towards the opinion that massage is linked with social bond.

Inorder to test these research hypothesis, weuseChi-squaretest (withusual notations) given as

$$X^{2} = \sum_{i=1}^{2} \frac{(o_{i} - e_{i})^{2}}{e_{i}}$$

where $X^2 \sim \chi_1^2$, o_i and e_i are observed and expected frequencies. We reject H₀ if p-value is less than specified level of significance.

RESULTS AND DISCUSSION

The data presented in Table 2, revealed that majority of the respondents (81.0 %) were in the age group of 25-34 years, married (87.25 %) and literate (88.75 %).

Table 2: Sociodemographic details of the respondents under study

Variable	Category	Frequency	Percentage
			(%)
Age in years	Upto 65	314	78.50
	66-70	67	16.75
	>70	19	4.75
Life partner alive/living together	Yes	347	86.75
	No	53	13.25
Educational Status	Illiterate	217	54.25
	Literate	183	45.75
Gender	Male	235	58.75
	Female	165	41.25

The data presented in Table 3, revealed that in response to statement 1, i.e., Massage increase relaxation, majority of respondents (88.25%) agree. In response to statement 2, i.e., Massage helps to relieve stress by lowering the heart rate, majority of respondents (84.50%) agree.

In response to statement 3, i.e., Massage reduces anxiety and depression, majority of respondents (89.50%) agree. In response to statement 4, i.e., Massage Strengthen the Body's Immune System, majority of respondents (72.0%) agree. In response to statement 5, i.e., Massage improves sleep, majority of respondents (90.75%) agree. In

response to statement 6, i.e., Receiving a massage is beneficial to increasing the feeling of content and well-being majority of respondents (88.25%) agree, majority of respondents (85.0%) agree.

Table 3: Perception of rural people of Kashmir towards massage therapy

S,No	Statement	Agree	Disagree(Not Sure
		(%)	%)	(%)
1.	Massage increase relaxation	353	19	28
		(88.25)	(4.75)	(7.0)
2.	Massage helps to relieve stress by	338	23	39
	lowering the heart rate	(84.5)	(5.75)	(9.75)
3.	Massage reduces anxiety and	358	17 (25
	depression	(89.5)	4.25)	(6.25)
4.	Massage Strengthen the Body's	288	34	78
	Immune System	(72.0)	(8.5)	(19.5)
5.	Massage improves sleep	363	14	23
		(90.75)	(3.5)	(5.75)
6.	Receiving a massage is beneficial to	340	29	31
	increasing the feeling of content and	(85.0)	(7.25)	(7.75)
	well-being.			

The results shown in Table 4, revealed that there was a significant association in the opinion of male and female respondents related to statement Massage is linked with social bond (chisquare=14.463, P<0.01). It is a general observation that new generation lack this quality as they focus more on self.

Table 4: Social aspect is related with massage therapy

Statement	Gender	Response		Chisquare	P-	
		Yes (%)	No Idea	No Idea		value
			(%)	(%)		
Massage is	Male	194	174(43.5)	32(8.0)	14.678	< 0.01
linked with		(48.5)				
social bond	Female	212	130(32.5)	58(14.5)		
		(53.0)				

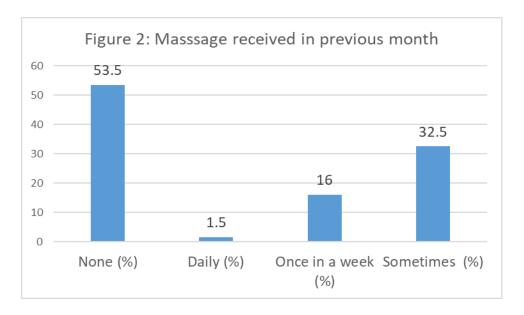
During massage we generally talk on topics like the weather, sports, or hobbies. A lot of knowledge and experience is transferred from one generation to other. It is suggested one should avoid talking sensitive as well as personal matters that disturb an elder.



The data shown in Figure 1, revealed that majority (73.5%) of the respondents where of the opinion that earlier people used to massage more as compared to present. The main reason researchers believe was the non availability of professional doctors and non availability of modern day technology. The population of the study area is increasing every year, unfortunately there is a lack of attention given to elders which resulted in decrease of massage therapy. We have now old home system so in future further decrease in massage therapy is expected.



The data shown in Figure 2, revealed that majority (53.5%) of the respondents reported that during last month they never received any massage, 32.5% reported that they received sometimes massage, 16% respondents reported that they received massage once in a week and 1.5% respondents reported that they receive massage daily. The group discussion with elders revealed that their parents and grand parents were fond of massage. They preferred massage to cure minor physical problems.



BENEFITS OF DALK THERAPY:

Dalk therapy as reported in literature [Ibn Sina, 2010; Jurjani, 2010; Khan, 2013] has few unique properties which distinguish it from other regimenalmo dualities like;

- (a) Dalk therapy can remove extremely viscid and sticky material (Ghaliỳ&LaisdarMaddah) from a specific organ that is normally impossible to remove with standard Harkator Riyadat.
- (b) The removal of excess Burdut (Burudat Munjamida) and Riya H from the organs is greatly aided by Dalk treatment.
- (c) Dalk treatment is particularly useful for transferring sick material (Imala-i-Mawad) from one organ to another.
- (d) Because it can dilate an organ's vasculature and stimulate and extend the physiological temperature, which are the two main ways to ensure that an organ is properly nourished, it can increase the size of an undernourished organism.

We occasionally apply lubricant when giving massages. During a massage, lubricating contact medium is primarily used to smooth and soften the patient's skin and lessen friction between the therapist's hand and the patient's skin. As lubricants, we can use oil, which yields Rutubat in the body cream and powders (French chalk and talcum powder).

PRACTICAL APPLICATIONS OF DALKIN UNANI MEDICINE:

On the basis of literature available [Ibn Sina, 2010; Khan, 2011; Amanullah, 2011; Baghdadi, 2007; Majusi, 2010; Samarqandi, 2010; Razi,1991 & 2004] and discussion with experts, we present here in Table 5 some practical applications of Dalk as

Table5:Different diseases and their therapeutic agent

DISEASES	ROGHANIYAT (THERAPEUTIC OILS)		
Wajaʻuz Zahr (Backache)	Roghan-i-Qust, Roghan-i-Sudab, Roghan-i- Farfiyun, Roghan-i-Sosan,Roghan-i- Balsan,Roghan-i-Babuna,Roghan-i- Shibit,Roghan-i-NarjilKuhna,Roghan-i- JozKuhna,Roghan-i-Qurtum,Roghan-i- Arand,Roghan-i-HabbulGar		
Waja'ul-MafaSil Barid (ChronicArthritisduetocold temperament)	Roghan-i-Sosan, Roghan-i-Qust, Roghan-i-Nardin, Roghan-i-Narjil,Roghan-i-Nargis, Roghan-i-Chameli Safed, Roghan-i-Arand, Roghan-i-Sumbul,Roghan-i-Hanzal,Roghan-i-Jundbedastar,Roghan-i-Khardal,Roghan-i-JozRumi		
Waja 'ul- MafaSilYabis(Arthritis duetodrytemperament)	Roghan-i-Badam,Roghan-i-Kadu,Roghan-i-Gul, Roghan-e-Aakh		
Waja'ul-MafaSilBalghami (ChronicArthritisduetophleg m)	Roghan-i-Dhatura,Roghan-i-Hina,Roghan-i- Auraq(Roghan-i-HaftBarg),Roghan-i- BedAnjir,Roghan-i-Nardin,Roghan-i- Qust,Roghan-i-BadamTalkh, Roghan-i-Hurmal, Roghan-i-Naranj, Roghan-i-Babuna,Roghan-i- Shibit,Roghan-i-Sumbul		
Wajaʻul- MafaSilSaudawi(ChronicArth ritisduetoblackbile)	Roghan-i-Sosan,Roghan-i-Qust,Roghan-i- BedAnjir,Roghan-i-Qurtum,Roghan-i-Babuna		
Wajaʻul- MafaSilReehi(Arthritis duetoaccumulationofRiyah)	Roghan-i-Biskhapra,Roghan-i-Gul,Roghan-i- Kunjad,Roghan-i-Babuna,Roghan-i-Zanjabil, Roghan-i-Shibit, Roghan-e-Bayed-Anjeer		
Tahajjurul- Mafasil(Ankylosingarthritis)	Roghan-i-Biskhapra, Roghan-i- Babuna, Roghan-i-Chobchini,Roghan- i-Sosan		
Wajaʻul- WarikBaridwaMurak kabCoccydyia)	Roghan-i-Shibit, Roghan-i-Farfiyun, Roghan-i- Handaquqi, Roghan-i-Arand,Roghan-i- Qust,Roghan-i-Aaqarqarha,Roghan-i- Hina,Roghan-i-Jundbedastar		
'Irqunnasa(sciatica)	Roghan-i-Qust, Roghan-i-Farfiyun, Roghan-i-Aaqarqarha, Roghan-i-Hina, Roghan-i-Jundbedastar, Roghan-i-Kalonji, Roghan-i-Khardal,Roghan-i-Sosan,Roghan-i-Shibit,Roghan-i-Gul,Roghan-i-Kunjad,Roghan-i-Sumbul,Roghan-i-Chameli,Roghan-i-RaiBel,Roghan-i-Zaitun,Roghan-i-Hanzal		

NiqrisBarid(ChronicGoutdue tocoldtemperament)	Roghan-i-Sosan,Roghan-i-Sumbul,Roghan-i-Ghar,RoghanSudab,Roghan-i-Hanzal
Istirkhawafalij(Hemiplegia)	Roghan-i-Dacrhini,Roghan-i-Hina
Tashannuj(Convulsion)	Roghan-i-Hina,Roghan-i-Zuft
Kuzzaz(Tetanus)	Roghan-i-Banafsha,Roghan-i-Tukhm-i-kadu
Laqwa(Facialparalysis)	Roghan-i-Farfiyun,Roghan-i-Rahat,Roghan-i- Joz,Roghan-i-Balsan
Ra 'sha(Tremors)	Roghan-i-Darchini,Roghan-i-Qust

CONCLUSION

On the basis of our study, a good number of rural people prefer massage for the promotion of general health. In the opinion of male and female respondents Massage therapy is linked with social bond (P<0.01). For fitness and in treating minor health problems massage therapy was used but due to increase in population, unfortunately there is a lack of attention given to elders which resulted in decrease of massage therapy. We have now old home system in many parts of the world so in future further decrease in massage therapy is expected. The social aspect is one of the main benefit of massage. Massage for elders reduces pain and swelling, lower blood pressure as well as decreases anxiety. The personal touch can create a positive impact on both mental and physical health of elders. We know global population aged 60 years old or above is growing at a rate of about 3% per year, which is faster than all younger age groups. In Europe,25% of the population is already aged above 60 years old, and in Latin America they account for 12% of the population. The world's demographics shift has led to a need for action across multiple sectors to enable older people to age well and remain a resource to their families, communities, and economies. Generally, muscle mass and strength increase steadily from birth and reach their peak at around 30 to 35 years of age. The muscle power and performance after that decline slowly and linearly at first, and then decline faster after age 65 for women and 70 years for men. We must take care of our elders as they support and elders and elders must keep in mind that some physical activity is better than none at all. It may be concluded that massage, as indicated by Unani physicians can be used forprophylactic, therapeutic and restorative purposes. In recent years, various studies have also claimed the efficacy of massage in various disorders. But, most of the research studies are ofsmall scale in nature. So, more and better trial data are needed to define the clinical effectivenessof this popular ancient therapy more precisely.

LIMITATIONS

In the present study the sample size was 400 so researchers suggest that by increasing sample size in future study, we can get more valid information.

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