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Therapeutic uses of Flowers - Leads from Traditional System of Medicine

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Abstract

Flowers are playing an important role in our day to day life directly or indirectly. Flowers are the sexual reproductive parts of the plants. They have been an integral part of human beings since ancient times for various purposes like ornamental, decorations, medicine (fresh, distillates, decoction and powdered form), nutrients/foods (fresh garnishes, dried, in cocktails, canned sugar), during religious rites, to pray gods, culinary preparations, essential oils, and in beauty care products etc. As there are several flower drugs (Dawa) in Unani system of medicine which are useful for treating different types of disease conditions/ailments, a review has been made focusing on the therapeutic uses, brief description, major chemical constituents and dosages of some important flowers used in Unani System of Medicine as single drugs and in compound formulations contributing to the popularization of various important medicinal uses of these flowers.

Keywords: Flowers, Unani, Herbal, Humours, Therapeutic.

1. Introduction

The traditional primary health care system in India is embodied in a 'people's health culture'. This culture is based on very effective and sound, region-specific health practices involving 8,000 species of plants across the country where flowers play a prominent role among them. For several centuries medical practitioners have long been acknowledged the therapeutic properties of certain flowers. Flowers are matchless ornaments to the nature Queen. They are not only a source of beauty and delicacy but also fountain heads of health and joy. The kingdom of flowers is very vast as we can categorize them in general into four main classes depending upon the purpose for which they are grown, i.e. ornamental, commercial, medicinal and vegetable or edible flowers. Flower therapy uses essential oils, flower waters, flower juice, flower petals (fresh and dried), and aroma to heal mind and body. Because of medicinal properties of flowers, modern medicines use flower extracts. The significance of flowers are evaluated from the aspect of potential health benefits concerning mainly the influence of color, odour and flavour components in relation to antioxidant activity, scavenging activity of reactive oxygen radicals and against cancer [1].

Historically apart from medicinal usage, flowers also used for edible purposes too, for example in ancient Rome, various species of Roses were used in cooking of different kinds of puree and omelets; in medieval France *Calendula offficinalis* in preparation of salads; saffron (*Crocus sativus*) as flavoring agent; *Viola odorata* for coloring of sugar, syrups and various potions; *Borago officinalis* and Roses as aromatic enhancers of pastry and dandelion (*Taraxacum officinale*) flowers for preparation of drinks and salads in Europe [1].

In present day concrete jungle life most of the people are suffering with so many lifestyle diseases. There is need of fast and correct method of diagnosis, prevention of diseases before affecting; less expensive treatment with least or no side effects, permanent solution, avoiding unnecessary surgeries is the need of the hour to the present day society. In Unani System of Medicine, flowers have an important space and significance, they are used to maintain health, treat diseases, to enhance beauty from long times, manufacture a wide range of cosmetic products which are considered indispensable in day to day life and also creates a fresh, elegant and warm atmosphere that helps in relaxing one's mind at any time of the day. Though many flowers available in our surroundings are having medicinal uses and are widely used in Unani system, there is a scarce data about the flowers medicinal uses with dosages in English language at one place in the available literature and for that reason this paper tries to present

the therapeutic uses of flowers used in Unani system summarizing the biologically active compounds occurring in them for their potential use in human life [2].

2. Unani System of Medicine

The Unani system of medicine founded by Hippocrates in 460-377 BC is based on the concept of balancing of four body humours. Any changes in these humours like quantity, quality, viscosity, colour and smell leads to diseases except in internal injury cases, whereas restoration of the balance leads to health. The system involves 4 natures-cold, hot, wet and dry and 4 humours-blood or sanguineous humour (hot & wet), phlegm (cold & wet), yellow bile or choler (hot & dry) and black bile or melancholer (cold & dry) [3]. The Unani system of medicine emphasizes on diagnosing a disease through Nabz (pulse), Baul (wine), Baraz (stool), etc. Besides, it gives due importance to the surroundings and the ecological conditions on the state of health of humans. The six essential prerequisites (called Asbab-e-Sitta Zarooriya) for the prevention of diseases in the Unani system are air, food and drinks, bodily movement and response, psychic movement and response, sleep and wakefulness, and excretion and retention [4]. The Unani system strives to find out the best possible ways by which a person can lead a healthy life with least sickness. In this diseases, it can be treated by Pharmacotherapy (Ilai-bid-dawa) in which drugs of animal, mineral or plant origin are used in crude form, either as a single drug or in compound form [5].

The Arabs were instrumental in introducing Unani medicine in India around 1350 AD. The first known Hakim (Physician) was Zia Mohd Masood Rasheed Zangi. Some of the renowned physicians who were instrumental in development of the system are- Akbar Mohd Akbar Arzani (around 1721 AD)- the author of the books- Qarabadin Qadri and Tibbe Akbar; Hakim M. Shareef Khan (1725-1807)- a renowned physician wellknown for his book Ilaj ul Amraz. Hakim Ajmal Khan (1864-1927) a great name among the 20th Century Unani physicians in India. He was a multifaceted personality besides being a physician he was a scientist, politician and a freedom fighter. He was instrumental in the establishment of Unani and Ayurvedic College at Karol Bagh, Delhi. He was a keen researcher and has supervised many studies on Rauwolfia serpentina- the source plant for many well-known alkaloids like reserpine, Ajamaloon etc. Another great contributor is Hakim kabeeruddin (1894-1976); he has translated 88 Unani books of Arabic and Persian languages into Urdu. The first institution of Unani medicine was established in 1872 as Oriental College at Lahore in the undivided India. Thereafter many institutions came into existence [2, 4, 6].

Though the system was originated in Greece and developed in Arab countries like Egypt, Syria, Iraq, Persia etc., now it is wide spread in all over the globe and became as a part of Indian Traditional systems of Medicine. At present Unani system of medicine, with its own recognized practitioners, hospitals, educational and research institutions, forms as an integral part of the national health care system. Today India is growing as a world leader in Unani medicine. The government is also constantly increasing its support to develop, to validate its classical claims and to popularize the Unani system of medicine in India to provide best reliable natural, safety and efficacious health care to its public. The World Health Organization (WHO) has recognized the Unani System of Medicine as an alternative system to cater the health care needs of human population [2].

At present there are more than 30 colleges offering degree course in Unani medicine and the approximate number of physician turn out is around 20,000. There are around 177 hospitals. A National Institute of Unani Medicine has been established at Bangalore in Karnataka state in 1983 in collaboration with the Govt. of Karnataka- for catering to both academic and R & D requirements. Central Council for Research in Unani Medicine (CCRUM) is the premier agency involved in R & D activities [6]

3. Methodology: Many flowers have been used in Unani system of medicine in different formulations such as Gurhal [Hibiscus rosa-sinensis L.] for Heart Palpitation (Ikhtelaj-e-Qalb); Sounf [Foeniculum vulgare Mill] and Babool [Acacia arabica Willd.] for Jaundice (Yarqan); Khatmi [Althaea officinalis L.] for Inflammation of the Uterus (Warm-e-Reham); Gulnar [Punica granatum L.] for respiratory, gastrointestinal and urogenital disorders; Shagofa Izkher [Cymbopogon jwarancusa (Jones) Schult.]; Gule Beid Sada [Salix alba L.]; Gule Sevti [Rosa alba L.]; Ustokhuddus [Lavandula stoechas L.]; Shatara [Fumaria officinalis L.]. We have taken important flowers which are mentioned as single drugs in different volumes of Unani Pharmacopoeia of India. Brief description of the flower along with their major chemical components, dosages, therapeutic uses and names in different languages has been tabulated.

| Table 1: Details of some in | nportant flowers used in | Unani system of medicine. |
|-----------------------------|--------------------------|---------------------------|
|-----------------------------|--------------------------|---------------------------|

| S. No. | Botanical Name & Family | Regional Names | Flower Description and Chemical Constituents | Important Formulations | Unani Uses |
|-----------|---|--|--|---|---|
| 1. | Azadirachta indica A. Juss Syn. Melia azadirachta L. Family: Meliaceae | Urdu: Neem Sanskrit: Nimba Kannada: Baevina mara Hindi: Neem English: Margosa tree, Neem tree, Indian Lilac. | Flowers are white, in axillary panicles ^[7] . Flowers contain nimba-flavone, trichilenone acetate, 3'-prenyl naringenin and <i>O</i> -methylazadironolide ^[8] . | Habbe Musaffie Khoon, Habbe Bawaseer, Maoon Musakkin Darde Raham | Fine powder made up with euual parts of neem fresh flowers and Shora Qalmi (Potassium nitrate) as surma at bedtime cures improves eye sight (Zo'f-E-Basar) [10]. Therapeutic Uses: Amraze Jild (skin diseases), Fasade Dam (Purification of blood). Dose: 6-10 g [9]. |
| 2. | Borago officinalis L. Family: Boraginaceae | Urdu : Gul-e- Gaozaban Sanskrit : Tala Kannada : Doddapatre Hindi : Gaozaban | Flower blue-purplish; corolla segments ovate, acute, spreading stamens exerted [9]. Flowers include mucilage, tannin, saponins, Thesinine, essential oil, alkaloid (pyrrolizidine), vitamin C, | Khamira Gaozuban, Khamira Abresham, Dawaul Misk ^[12] . | Sual-e-Yabis (Dry cough), Zeequn Nafas (Asthma), Warm-e Lissa (Gingivitis), Qula (Stomatitis) and Khafqan (Palpitation). Dose: 5-7 g [12]. |

| | | Persian : Gul-e- | calcium and potassium [11]. | | |
|----|---|--|--|---|--|
| | | Gaozaban Bengali : Gao zaban English : Starflower borage | | | |
| 3. | Butea monosperma (Lam) Taubert Syn. B. frondosa Roxb. Family: Fabaceae | Urdu : Gul Palas Sanskrit : Palaash Kannada: Mutthuga Telugu : Moduga chettu Hindi: Dhak, Palash, Tesoo. English: Flame of the forest, Bastard teak. | Flowers are large with rigid racemes, 15 cm long, 3 flowers together form the tumid nodes of the dark olive-green velvety rachis. They contain butrin, butin, butein, isobutrin, triterpene, coreopsin, sulphurein, chalcones, flavonoids and steroids [13]. | | Fomentation of breast with Tesu flower decoction (25 gm. in 500 ml of water) cures the swelling of breast (Warm-E-Sadi) due to injury or congestion of milk [10]. Pouring of lukewarm decoction made up of 6 g. each of Tesu flowers (<i>Butea monosperma</i> (Lamk.) Taub.), Babuna flowers (<i>Matricaria chamomila</i> L.) and Masoor (<i>Lens culinaris</i> Medic.) in 500 ml of water through a kette on testicles and applying the residue as paste on testicles will relives the inflammation of the testes (Warm-E-Khusia) [10]. Warm Khussiya (Orchitis/Inflammation of the testicles), Wajaul Mafasil (Arthraliga). |
| 4. | Calotropis procera (Aiton) R.Br. Syn. C. hamiltoni Wall. Family: Asclepiadaceae | Urdu : Gul-e Madar Sanskrit : Arka Kannada: Bili ekkada gida Hindi : Madar, safedak English : Swallow wort | Flowers pentamerous, lateral, umbellate cymes, sepals ovate, acute, glabrous, corollais whitish outside & violet on innerside [14]. Flowers mainly contain Quercetin-3-rutinoside and Calotropenyl acetate [15]. | Habb-e-Papita Wilayati ^[16] . | Taking of Pills (250 mg) made up of 12 g. of Madar flowers and 3 g. of Namak Lahori (Rock salt) by adding little water as lozenge 3-4 times a day will relieves Asthma (Zeeq-Un-Nafas) [10]. Zeeq-un-Nafas (Asthma), Zof-e-Meda (Weakness of the Stomach). Dose: 125-375 mg [16]. |
| 5. | Carthamus tinctorius L. Family: Asteraceae | Urdu : Karha, Kusum Sanskrit : Pita, Rakta, Vasraranjana, Lohita Kannada : Kusube Hindi : Barre, Kasumba English : Safflower | Flower heads are solitary, terminal and pedunculate; corolla yellow turning orangered [14]. Flowers contain carthamin, safflower yellow and its essential oil contains caryophyllene, p-allyltoluene, 1-acetoxytetralin and heneicosane | Ranghan-e-Qurtum, Majoon-e-Qurtum ^[18] . | Waram-e-Reham (Metritis), Waram-e-Ahsha (Visceritis), Warame-Kabid (Hepatitis). Dose: 3-5 g [18]. |
| 6. | Citrus reticulata Blanco Family: Rutaceae | Urdu : Narangi Sanskrit : Airavata Kannada: Naagapuri kitthale English : Mandarin, Jangerine | The plant produces white coloured bisexual flowers. Flower contains desmosterol, ergosterol glucosides, resins, β-sitosterol, tannins and essential oils [19]. | Arq-e-Sangtara ^[18] . | Zof-e-Meda (Weakness of the Stomach), Zof-e- Qalb (Weakness of the Heart), Atash Mufrit (Polydipsia), Lissa-e-Damia (Gingivitis/Bleeding gums), Bahaq (Pityriasis) [18]. |
| 7. | Crocus sativus L. Family: Iridaceae | Urdu: Zafran Sanskrit: Kunkuma Kannada: Kaesari Hindi: Keshar Chinese: Zang Hong Hua Spanish: Azafran Greek: Krokos English: Saffron | The corm produces a long, narrow tubular liliac violet-purple mauve coloured flower borne singly or in 2/3's with six segments of petals extending out at the top. Flowers contain safranal, saffron, picrocrocin, crocin-digentiobioside of crocetin, carotenes (α & β), lycopene, zeaxanthin, proteins, starch and crude fibre [20]. | Dawa-ul-Kurkum, Dawa-ul-Misk Motadil Sada ^[12] . | Amraz-e-Qalb (Cardiac Diseases), Nazla (Catarrh), Zukam (Coryza), Zof-e-Basarat (Asthenopia). Dose: 25-50 mg [12]. |
| 8. | Gentiana olivieri Griseb. | Urdu : Ghafis Persian : Ghafat | Dark blue-purple flowers that are complete, bisexual, actino-morphic, pedicellate, pedicel | Majoon Dabeedul-ward, Sharbat-e-Deenar [18]. | Humma (Pyrexia), Warm-e-Kabid (Hepatitis), Istisqa (Dropsy), Waram-e-Tehal (Spleenitis). |

| | Syn. G. dahurica Fisch. Family: Gentianaceae | Hindi : Ghafis Greek : Eupatorion English : Persian Gentian | cylindrical and corolla funnel shaped. They contain Isoorientin, triterpenoids like oleanolic acid and ursolic acid | | Dose: 3-5 g ^[18] . |
|-----|---|--|---|--|---|
| 9. | Hyssopus offficinalis L. Family: Lamiaceae | Urdu : Zuha khushk Sanskrit : Zupha Persian : Ushnan-e- Dawood Hindi : Zupha English : Hyssop, Holy herb | Plant produces bunches of pink, blue or more rarely white fragrant flowers that are hermaphrodite. Flowers contain pinocamphone, Iso pinocamphone, n-decane, pinocarvone, 1, 8-cineole, piperitone, β-bourbonene, α-bisabolol, myrtenol, terpinen-4-ol, δ-3-carene, α and β pinene [22]. | Majoon-e-Nankhwah, Habb-e-Ghariqoon ^[16] . | Zof-e-Ishteha (Anorexia), Nafkh-e-Shikam (Flatulence in the stomach), Sual (Cough), Nazla (Catarrh), Zeequn nafas (Asthma), Khushoonat-e-Halq (Sore-throat). Dose: 5-10gm [16]. |
| 10. | <i>Matricaria</i> chamomilla L. Family: Asteraceae | Urdu : Gul-e- Bahuna Sanskrit : Kannada : Hindi : Baboona English : German chemomile | Flowers are borne in paniculate flower heads (capitula). They contain apigenin, axillarin, patuletin, apigenin-7-O-β-D- (6"-O-acetyl) glucoside, spinacetin, and umbelliferone [23]. | Majoon-e-Fotnaji, Majoon-e-Steer Alvi Khani, Zimad-e- Mohallil, Zimad-e- Sumbul-ut-Teeb, Zimad- e-Waram-e-Unsayain- Muzmin, Raughan-e- Babuna Sada, Raughan- e-Babuna Qawi Qarooti Bazr-e-Katan [16]. | Suda (Head ache), Suzak (Gonorrhoea), Ramad (Conjunctivitis), Waj-us-Sadr (Chest pain), Hasat-e-Kuliya Wa Masana (Renal/Vesicular Calculus), Zof-e-Aam (Weakness of the Intestines), Ikhtinaq-ur- Rahem (Hysteria), Su-e-Hazm (Dyspepsia), Humma-e-Naubati (Seasonal fevers). Dose: 5g [16]. Application of lukewarm paste made up of equal parts of Amaltas pulp (Cassia fistula L.), Khatmi flowers (Althaea offficinalis L.) and Resaut (Bark extract of Barberis asiatica Roxb.) by adding little water on pubic region will relieves inflammation of the Uterus (Warm-E-Reham). Prepare a decoction by adding 12g each of Babuna flowers and Dried Mako in 1L of water and use as douche in the vaginal canal and in locally to cure the inflammation of the Uterus (Warm-E-Reham) [10]. |
| 11. | Mesua ferrea L. Family: Clusiaceae | Urdu : Narmushk, Nagkesar Sanskrit : Naagakesara Kannada : Naagasampige Hindi : Nagakesara, Pila Nagkesara English : Cobras saffron | The flowers are fragrant, cream coloured, ebracteate, pedicellate, pedicel short, axillary or terminal, solitary or in pairs (cluster), large, bisexual and sub-sessile. Flowers contain glycosides, coumarins, flavanoids, xanthones, resins, triglycerides and essential oils like α-copaene, germacrene D | Mufarreh Yaqooti, Halwa-e-Supari pak, Habb-e-Jarayan, Arq Ma-ul-Laham ^[25] . | Amraz-e-Qalb wa Dimagh (Diseases of Heart and brain), Malikhooliya (Malancholia), Junoon (Schezopherenia), Bawaseer (Piles/Hemorrhoids), Zof-e-Bah (Sexual Debility). Dose: 5-7 g [25]. |
| 12. | Mimusops elengi L. Family: Sapotaceae | Urdu : Molsari Sanskrit : Anangaka, Bakula, Chirapushpa Kannada : Pagade mara Bengali : Bakul Hindi : Bolsari, Maulsari German : Affengesict English : Bakul tree, Bullet wood | Flowers white, fragrant, 2.5cm wide, solitary or in clusters of 2-6 ^[14] . Flowers contain D-mannitol, β-sitosterol, quercitol, dihydroquercetin, α-spinasterol, ursolic acid, lupeol, fatty oils comprising capric, lauric, myristic, palmitic, stearic, arachidic, oleic and linoleic acid ^[26] . | Mughalliz-e-Mani, Muallid-e-Mani ^[18] . | Surat-e-Inzal (Pre-nature ejaculation), Zof-e-Bah (Sexual Debility), Kasrat-e-Ehtalam (Excessive noetutnal emission). Dose: 5g [18]. |
| 13. | Nymphaea nouchali Burm.f. | Urdu : Neelofar Sanskrit : Utpala Kannada : | Flowers solitary, 7-15 cm across with deep red to purplish-white colour ^[7] . Flowers contain gallic acid, gallic acid methyl ester, | Sharabat Nilofar, Muffareh Azam, Qurs Kafoori, Mussafi Khoon | Zof-e-Qalb (Weakness of the Heart), Khafqan (Palpitation), Warm-e-Halaq (Pharyngitis), Khunaq (Whooping cough), Bars |

| | Syn. <i>N. stellata</i> Willd. Family: Nymphaeaceae | Neela thavare Hindi : Neel Kamal, Kumudinee English : Blue lotus of India, Water Lily | nymphayol, astragalin, corilagin, isokaempferide, kaempferol, quercetin and 3-o-methyl quercetin-3'-o-beta dextroxylo pyranoside [27]. | | (Leucoderma, Vitiligo), Bahaq (Pityriasis), Namash (Herpes zooster) [25]. |
|-----|--|--|--|---|--|
| 14. | Rosa centifolia L. Family: Rosaceae | Urdu : Gulab Sanskrit : Satapatrikaa Kannada : Gulabhi hoovu Hindi : Gulab English : Cabbage rose, Pink rose | Flowers are varying in colour, usually pink, fragrant, with many petals. They are fleshy hip enclosing small and pendulous seeds. They are round shape, globular with their overlapping petals. Flowers contain phenyl ethanol, geranyl acetate, geraniol, linalool, benzyl alcohol, benz-aldehyde, nerol, citronellyl acetate, tannins, oloigomeric proantrocyanides, saccharine, pectin, riboflavin, sugars and purgative glycosides (multiflorin A & B) [28]. | Arq-e-Gulab, Majoon Dabeed-ul-ward, Gulqand ^[25] . | Qabz (Constipation), Aashob-e-Chasm (Conjuctivitis), Warm-e-Jigar (Hepatitis), Zof-e-Qalb (Weakness of the heart), Khafaqan (Palpitation). Dose: 3-5 g [25]. |
| 15. | Rosa damascena Mill. Family: Rosaceae | Urdu : Gulab Sanskrit : Atimajula, Shatadala, Maha kumari Kannada : Panneer gulabi Hindi : Gulaab English : Damask Rose, Otto Rose | Flowers 6-12, in a corymbs, whitish to red, very fragrant ^[7] . Flowers contain terpenes, glycosides, flavonoids, tanning matter, anthocyanins, fatty oil, phenyl ethylalcohol, organic acids and essential oils comprising β-citronellol, nonadecane, geraniol, kaempferol and heneicosane ^[29] . | Khameera Abresham, Arshad wala, Majoon Dabeed-ul-Ward, Majoon Muqawwi-e- rahem, Majoonmusaffi- e-Dam, Majoon-e- Usbha, Zuroor-e-Qula, Sufoof-e-Mushil, Sufoof Mulaiyin, Sufoof Chobehini, Araq gulab, Raughan-e-Gul, Jawarish Tamar Hindi, Jawarishzarishk, Itrifal Ustukhuddus, Itrifal Shahtara [18]. | Zof-e-Aza-e-Raeesa (Weakness of the principal organs like Heart, Brain and Liver), Zofe-e-Badan (General weakness/Debility), Nafs- ud-Dam (Haemoptysis), Khafqan (Palpitation), Ashob Chashm (Conjuctivitis), Waj-ul-uzn (ear ache), Qulah (Stomatitis). Dose: 5-7 g [18]. |
| 16. | Salix caprea L. Family: Salicaceae | Urdu: Bedmushk Sanskrit: Vetasa Hindi: Bedmushk English: Sallow, Goat willow, Musk willow. | Flowers are dioecious with male and female catkins. The male catkins are showy and the flowers are white, silky or silvery in colour. Flowers contain diosmetin, isohemnetin, glycosides, astragalin, quercimeritin, quercitin-3, 7-di-O-glucoside, and 1, 4-dimethoxybenzene [30]. | Araq-e-Bed Mushk [16]. | Zof-e-Qalb (Weakness of the Heart), Khafqan (Palpitation), Zof- e-Meda (Weakness of the Stomach), Zof-e-Kabid (Hepatitis). Dose: 5 g [16]. |
| 17. | Sphaeranthus indicus L. Family: Asteraceae | Urdu : Mundi, Kamdaryus Sanskrit : Mundika Bengali : Chagulnadi Hindi : Mundi English : East India Globe Thistle | Flowers borne in terminal, solitary, globose, clusters of heads. Heads of flowers are purple, bracts short slender and acuminate. In each head, outer flowers are females, few or many, fertile, the central flowers bisexual, fertile or sterile, naked. They contain sesquiterpene glycoside – sphaeranthanolide, eudesmenolides such as frullanolide, 11-α-13-dihydro: 3, α-7-alpha-dihydroxy: frullanolide & sphaeranthus peptide alkaloids [31]. | Araq-e-Mundi, Araq-e- Musaffi-e-Khoon Qawi, Sabadaritoos, Majoon-e- Mundi ^[16] . | Jarab-o-Hikka (Scabis, pruritus/prurigo), Quba (Ring worm), Zof-e-Basarat (Asthenopia), Zof-e-Aza-e-Raeesa (Weakness of the principal organs like Heart, Brain and Liver). Dose: 15-20 g [16]. |
| 18. | Syzygium aromaticum (L.) Merr. & Perry Syn. Eugenia aromatica Kuntze, E. caryophyllata | Urdu : Quranful Sanskrit : Lavangha, Devapushpa, Kannada : Lavanga Hindi : Lavang English : Clove | Flowers are pale-purple, 0.6cm across, in terminal cymes; flower-buds when dried in the sun, furnish clove of commerce [14]. The volatile oil consists of acetophenone, benzyl salicylate, α-cadinol, γ-decalactone, fenchone, hexanal, methyl palmitate, γ-muurolene, | Habb-e-Ambar, Habb-e- Ambar Momyaee, Habb- e-tursh Mushtahi, Qurs- e-Tutiya-e-Kabir, Kohal- e- Roshnai, Itrifal Ghudadi, Jawarish-e-Jalinoos, Jawarish-e-Narmushk, Jawarish Zarooni sada, | Bakhrul Fam (Halitosis), Waj-ul- Asnam (Tooth ache), Zof-e-Meda (Weakness of the stomach), Zof-e- Kabid (Hepatitis), Sue-Hazm (Dyspepsia), Nafkh-e-Shikam/ Qulanj (Flatulence/ colicky pain). Dose: 0.5 to 1g [32]. |

| | Thunb | | palustrol, propyl benzoate, β- | Jawarishe- | |
|-----|------------------|----------------|--------------------------------------|--------------------------|---------------------------|
| | Family: | | selinene and α -thujene [15]. | Bisbasa, Majoon-e- | |
| | - | | sentiene and α-mujene (**). | Kundur, Jawarish-e-Oad | |
| | Myrtaceae | | | , | |
| | | | | Tursh, Jawarish-e-Utraj, | |
| | | | | Khamira-e-Abresham | |
| | | | | Arshadwala, | |
| | | | | Mojoon-e-Dabeedul | |
| | | | | Ward, Majoon-e- | |
| | | | | Fanjosh, Majoon-e- | |
| | | | | Khadar, Majoon-e-lana, | |
| | | | | Majoon-e-Muluki, | |
| | | | | Majoon-e-Seer Alwi | |
| | | | | Khani, Majoon-e- | |
| | | | | Suparipak, Raughan-e- | |
| | | | | Qaranful, Raughan-e- | |
| | | | | Surkh, Araq-e-Ambar, | |
| | | | | Araq-e-Chobchini, | |
| | | | | Sunoon-e-Mujalli, | |
| | | | | Majoon-e-Jalali, | |
| | | | | Majoon-e-Kalkalanaj, | |
| | | | | Habb-e-Munaish [32]. | |
| | | | | Habb-e-Sil, Itrifal-e- | |
| | | | F1 115 | Zamani, Khamira-e- | |
| | | Urdu: Gul-e- | Flowers 1-1.5 cm across, violet | Banafsha, Majoon-e- | |
| | | Banafsha | or white, tinged with purple; | Antaki, Mufarreh- | |
| | | Sanskrit: | sepals ovate, obtuse; petals | Motadil, Mufarreh | |
| | | Banafsaa | obovate, orbicular [7]. Flowers | yaqooti Barid, Qairooti | |
| | Viola odorata L. | Kannada: | contain 3, 4-dimethylheptane, | Bazr-e-Katan, Qarooti | Qabz (Constipation), Sual |
| 19. | | Violet hoo | anthocyanins, flavonoids, | Mohallil, Zimad-e- | (Cough), Nazla (Catarrh). |
| 17. | Family: | Hindi: | saponins, glycosides, methyl | Waram-e-Unsayain, | Dose: 10-25g [16]. |
| | Violaceae | Banafshah | salicylate, mucilage, vitamins A | Muzmin, Raughan-e- | D030. 10 23g |
| | | English: Sweet | & C and alkaloids. The flower | Banafsha, Sharbat-e- | |
| | | violet, Wild | essential oil contains high | Banafsha, Sharbat-e- | |
| | | violet, who | percentage of monoterpenes and | Ejaz, Habb-e-Ghariqoon, | |
| | | VIOIEL. | sesquiterpenes [33]. | Dayaqooza [16]. | |
| | | | | Dayaqooza | |
| 1 | I | | | <u> </u> | |



1. Azadirachta indica A. Juss



 $2.\,\textit{Borago officinalis}\;L$



3. Butea monosperma (Lam) Taubert



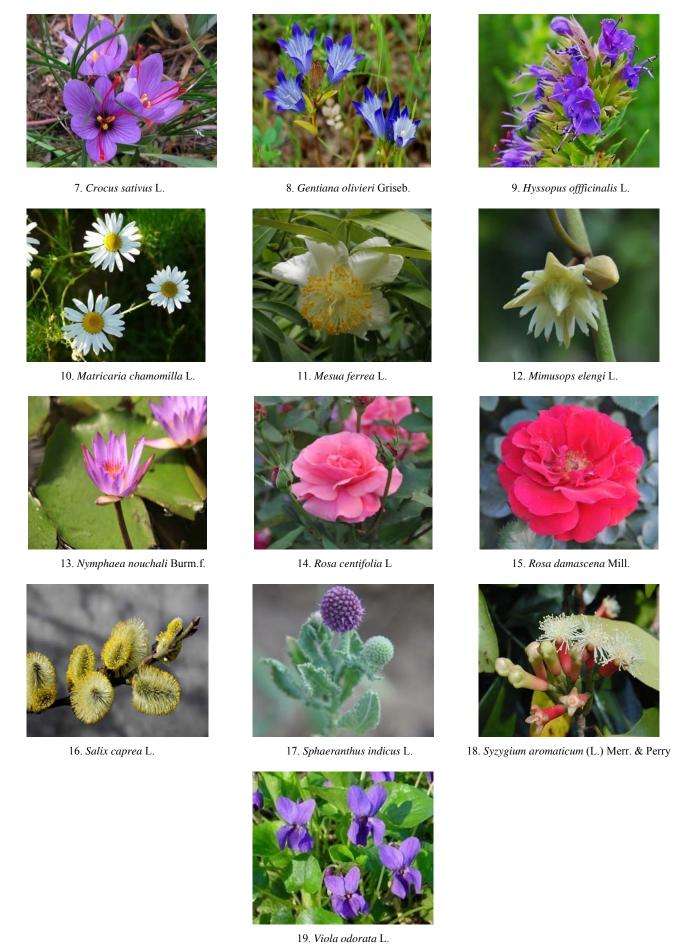
4. Calotropis procera (Aiton) R.Br.



5. Carthamus tinctorius L.



6. Citrus reticulata Blanco



 $\textbf{Fig 1:} \ \textbf{Photographs of flowers mentioned in Unani System of Medicine}$

4. Conclusion

From the time immemorial, flowers have been used as a restorative agent for variety of ailments. They are the natural drugs used to regain the alterations made in normal physiological system by foreign organisms or by any malfunctioning of the body. It is very essential to have a proper documentation of medicinal plants and their potential for the improvement of health and hygiene through an ecofriendly system. The available literature regarding the chemical constituents and pharmacological properties of these flowers are very impressive. This review enriches our knowledge regarding the phyto-chemical composition as well as the therapeutic value and pharmacological aspects of the flowers used in Unani System of Medicine. Hence, importance to the potentiality of ethno-medicinal studies may be given in future aspects as these can provide a very effective strategy for the discovery of useful medicinally active identity.

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