# Herbs and Essential oils the differences in action and the errors in aromatherapy.

The following three old newsgroup emails have been put into this article because aromatherapists to this day (2014) are still not being educated on these vital issues. Indeed leading course providers and oil suppliers continue to promote essential oils based on facts gleaned from herbal medicine.

## 1) Date Aug. 1998

To: aromatherapy@idma.com

### Herbs v oils

Some thoughts for Lowana and others,

Where the actions of a herb do correlate with the actions of the same plants oil, this is frequently following the observed effects from ORAL administration of the oil and or herb. This is where aromatherapy authors and teachers make big mistakes in assuming similar effects from external application.

The AROMA has rarely got much to do with the major components in most oils, indeed the characteristic fragrance of essential oils is often due to compounds occurring at only a few parts per million and occasionally only a few parts per billion. Therefore, if one presumes that many of the effects of aromatherapy are due to the SMELL of the essential oils and their effects on the brain, then this has little to do with the major constituents.

In addition to this, we have the classic scientific error of attributing effects and side effects, to only one or two chemicals out of perhaps hundreds in a given oil or herb. This concept is fraught with error, not least of which is because new novel compounds with unknown actions are still being found in our most commonly analysed plants.

One of your examples - aniseed is a good one to look at. Aromatherapists say applying this oil to the breasts promotes lactation. **I say nonsense!!** 

The traditional method reputed to promote lactation was/is the consumption of the whole seed. Seeds contain vitamins, minerals, protein, carbohydrate, etc., all necessary to produce milk. The whole seed may contain other unknown compounds that affect the hormonal system. However if trans anethol is a hormone precursor in vivo, is still very much open to debate within the scientific community. I believe it is not, all tests conducted so far are inconclusive.

Don't get me wrong, of course some of the actions of certain herbs do correlate with their content of essential oil, but the whole thing is extremely complex and always depends on the mode of use of the particular extract. Since I am convinced that aromatherapy does not work via skin absorption of the essential oils, then the observed emotional effects are much more likely to be due to trace compounds.

That is why so much aromatherapy teaching on chemistry is wrong. Again I have to return to the French system promoted by Franchomme, and Penoel. It is the methods advocated by these two that permeates most aromatherapy teaching now, and are the methods taught by most so called 'leading' educators.

In the case of German chamomile, yes the azulene's and farnesene are acknowledged anti inflammatory. However, there are very likely other compounds that contribute to that effect, or contribute to a wider spectrum of activity than simply anti inflammatory.

Just look at eucalyptus, everyone says "oh yes it's the 1.8-cineole that is antibacterial". Yet, I have papers where the extracted cineol does nothing, and a few researchers believe the antibacterial action of this oil has nothing to do with the cineol **but is other "unknown compounds".** 

Most people are familiar with synergistic activity, that is the way most botanical extracts work, i.e. hundreds of chemicals working together to create an extremely wide spectrum of therapeutic (or poisonous) actions. After all that's what the living plant does, it has to perform a mulitiplicity of tasks to survive, requiring many different chemicals for many different purposes.

So much for the attribution of aromatherapy therapeutic activity based on major compounds, it really is (as Rob Pappas said to me some time ago) "childishly simplistic chemistry". It is promoted by people who really do not have an adequate knowledge of the subjects that they teach.

Hope this gives you all food for thought.

Martin.

### 2) Herbal use versus essential oils

A few weeks ago someone questioned my statements that; "therapeutic actions from a herbal preparation are frequently unjustified when the same plants oil is used".

This is a highly complex issue and not something the vast majority of aromatherapy writers have investigated properly. As most of you know by now, I am adamant that many of the properties that the authors and teachers give oils are not correct. This is because in the majority of cases they give exactly the same therapeutic uses for the externally applied oil as the herbal preparation given internally. See other articles on this site for more.

I will just give a couple of examples of traditional versus modern use.

JASMIN. The flowers have an ancient herbal use tradition as well as for their beautiful perfume. Jasmin is one of those plants that has had huge of amounts of research devoted to all aspects of its horticulture, production and chemistry.

The chemistry varies dramatically between the growing flowers, the picked flowers and the absolute. For example, it has been found that flowers picked at night contain over 4 times more indole than in daytime picked flowers. Other chemicals only appear in the living or picked flowers and are absent from the absolute or oil.

In herbal medicine in the past, and still in some societies, a vital part of the training is to be educated as to when a herb is best picked to give the desired therapeutic or poisonous result. This is why a good deal of astrology was woven into herbal practice more in the past than now. Herbalists then were more aware of the importance of time, the moon and stars cycles and weather for when herbs should be gathered. Theophrastus recorded some of this ancient knowledge in his books. The Ancients knew that effects observed in practical use varied, although they did not know the chemistry.

So getting back to Jasmin. If the Indian herbalists picked the flowers at dawn, at night, or in the day, then the conditions treated may well differ. When these therapeutic treatments were recorded and then translated into English it is quiet obvious that important information such as gathering time was often omitted. We commonly find the same missing information in Chinese medicine and Native American medicine.

So not only do we get the difference between the traditional use as herbal infusions, etc. compared to the use of the essential oil/absolute externally, but we also get these huge differences in chemistry depending on when the plant is picked.

It is from herbal books that most aromatherapy authors get much of their information. A few (a very few) included information from the old pharmacopoeias for the use of essential oils, but these uses were generally for the internal consumption of the oils.

In some cases the general actions of herbs versus oils do correlate for a limited number of conditions. For example a drop of peppermint oil will calm a minor stomach upset as also will a cup of peppermint tea. However, the many other actions of the peppermint tea such as an astringent action on the gut lining which helps calm diarrhoea can not be expected from the essential oil. Therefore, when I see it suggested that rubbing a bit of peppermint oil on the skin in massage will cure diarrhoea, it tends to make me feel sick!!

Martin Watt

3) Date Aug. 1998

### Reply to Lowana re herbs/oils

Yes, I do make generalisations because it would be impossible to go through every incorrect statement made in every aromatherapy book. The number of claims made of therapeutic properties for essential oils, which are wholly based on the traditional use of the herb, is vast.

Lowana, you are certainly not someone I wish to have a go at, but I do find it amazing that a University educated scientific worker like yourself, seems to accept the statements made by these people who barely have the first clue about the subjects they write and teach on.

Now as to specifics you mentioned. I am not giving references as they are to be found in any serious study of the history of herbal medicine:

Clary sage - **no traditional uses of the essential oil.** The herbal infusion was given to expel the afterbirth or dead child - see culpepper.

Cajuput - extensively used as herbal infusions in Vietnam and surrounding areas.

Any of the citrus oils - not much as traditional medicines, mainly for food flavourings.

Eucalyptus - yes, was used extensively as a herbal preparation and **the infusion** is mentioned under the term 'kino' in several pharmacopoeias.

Frankincense - yes, extensively used internally and externally - see my book Frankincense and Myrrh by M. Watt and W. Sellar.

Lavender herb - was extensively used in many parts of Europe *as a herbal infusion* for many problems and still is used by herbalists as an infusion.

Melissa - there is absolutely **no traditional use of the essential oil.** All the aromatherapy information is based on the plants long history as a herbal infusion. With maybe one exception, in that the oil is proven antibacterial.

Neroli or orange blossom - widely used in the Mediterranean area **as an infusion of the dried flowers** for treating depressive type illnesses as well as lotions for skin conditions and other conditions.

Patchouli - not much known on its herbal use, but neither is there hardly ANY accurate aromatherapy therapeutic use. An oil always primarily for the perfume trade.

Pelargonium - **no traditional uses of the oil**, but native South Africans used the herb as an emmenogue.

Pines - in various kinds of herbal preparation this has been used for thousands of years.

Rosewood - certainly the heartwood was never used by the natives of South America. All aromatherapy uses are 'made-up' based on this oils chemistry.

Sandalwood (GROUND WOOD) was used in India as a paste applied to the head to reduce a high temperature and decoctions of the wood were used to treat urinary tract disorders.

Tea tree - yes, the aboriginal peoples of Australia used it **as an infusion** as did the later European settlers.

Ylang ylang - no traditional medicinal uses that I am aware of, but neither is there any accurate aromatherapy therapeutic uses.

On the chamomiles you are correct to a degree. However, never forget that new compounds are constantly being discovered in herbs and essential oils which have been analysed over and over again. Therefore, attributing therapeutic activity based on current knowledge of given compounds can be most unreliable. This is the major problem that the French aromatherapy teachers seem to fail totally to comprehend. Anyway that was not the issue we were talking about. My point was that most of the OILS you mentioned did not have any evidence whatsoever of having a PHYSICAL emmenogue action, while several have been used as herbal preparations for that problem.

I am NOT saying these oils do not have therapeutic uses, but by and large most are not well documented. What I am absolutely certain of though, is that most of the claimed PHYSICAL effects in aromatherapy are based on the past use of the herb, which may or may not have similar actions to the oil. Certainly in many cases the compounds occurring in the herb have a far wider spectrum of therapeutic activity than those occurring in the same plants essential oil. A classic example of this is peppermint oil, a powerful CNS stimulant, whereas the herbal TEA has a short lived CNS stimulating action, followed by a longer lasting sedative effect caused by the water soluble compounds which do not occur in the essential oil.

Martin Watt

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