

Module Title: Chinese Herbal Medicine Clinical Practice

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How are practitioners and students of Chinese herbal medicine in the

UK informed in their clinical choices?

An analysis of the use of Xiao Yao San 逍遙散 and its modifications.

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Abstract

The aim is to investigate the use of the classical formula Xiao Yao San (rambling powder) and modifications through history to its use today in the university polyclinic. To compare and examine these uses in order to uncover more about the formula and how it is understood in the context of Chinese medical practice in the west (UK) at present, and to what extent traditional theory and modern research influence diagnostic practice. Traditional and modern use in the literature is examined and the way the formula is applied in the context of the University of Westminster Polyclinic is examined from this background.

Emerging themes examined are an association of the formula as applied to conditions exacerbated by what the patient calls stress, and to conditions with a psycho-emotional component. Diagnosis is given in terms of zangfu bianzheng 臟腑 辨證 almost exclusively and the range of conditions to which the formula is applied broadly corresponds to Chinese (CM) and Biomedical (BM) research implying that practice is guided in part by both. However a consistent application of the formula when the pulse, tongue and other signs do not fit the pattern is also evident, implying that the formula is sometimes applied when another might be more effective and that greater priority is given to patients' description of symptoms than traditionally used observable signs. Possible reasons for this are explored and conclusions about the changing meaning of language used in CM, by practitioners and by patients within western culture influencing clinical choices are made. Recommendations to practitioners about criticality of their own decision making processes leading to greater clarity in practice are made.

1. Introduction

It has been said that xiao yao san (hereafter XYs) and common variants hei and 'jia wei' or 'dan zhi' xiao yao san (hereafter HXYs and DZXYS) (see appendix 1 for constituent herbs) is 'overused' by practising Chinese herbalists and noted that it is commonly used in the university polyclinic setting. DZXYS is the most commonly prescribed formula in Taiwan (Hsieh et al., 2008), and the second most common for chronic hepatitis (Chen et al., 2008). As part of this study analysis of the formulae prescribed over a given year showed that 27.6% (see appendix 2) were based upon XYs. An investigation into the origins and usage of this formula through history and in the present should offer insight as to whether the claim that it is overused is justified and into how herbalists make, and are trained to make clinical judgements in practice today.

This is an exploratory piece of research, an iterative process, so conclusions have come up through the research processes that were not anticipated. As well as exploring the theoretical side to its usage and different historical views of its mechanism, it is also worthwhile in today's context of emphasising evidence based medical practice (Goldacre, 2008) to look at to what extent practice is influenced by BM research.

The study offers insight into the way herbalists in the UK diagnose and prescribe with Chinese Medicinals, (in the context of a supervised teaching clinic) and how the practice is learned and understood by students. This process illuminates some ways in which the history and modern research informs clinical practice and teaching; how we integrate different forms of knowledge into practice. The notion of tradition is complex in itself (Hsu, 1999) (Scheid, 2007) (Scheid, 2002a) and cannot be addressed here due to

space constraints, Traditional Chinese Medicine (TCM) is used here specifically to denote the medicine institutionalised and politicised in the People Republic of China (PRC) since the 1950's (Unschuld, 1985), (Hsu, 1999). An increasing interest in Chinese medicine in the West (Scheid, 1999) combined with changes in its theory in China (Unschuld, 1985) (Scheid, 2002b) make this an issue of interest and importance for practitioners and educators applying knowledge in the field of Chinese Medicine in the west.

2. Methodology

This piece will employ literature searches of extant English language sources on Chinese medicine traditional use and Biomedical research literature to establish a basis of practice standards from these two different but overlapping areas. What is meant by this is that modern 'TCM' has been informed and adapted by biomedicine both in terms of anatomical information (Farquhar, 1994) (Scheid, 2002a) (Karchmer, 2004) and pharmacological research (Scheid, 2002a) (Chen & Chen, 2004) (Wright, 2004). It is therefore a knotty business to unravel, and for the purposes of this research, terms are defined as follows: Chinese medicine (CM) refers to sources drawing primarily from historical wisdom and usage; Biomedicine (BM) refers to sources operating from the more western associated positivist scientific paradigm (Kuhn, 1970) which examine medical treatments by testing against a hypothesis in order to establish evidence of a causal relationship between treatment and cure, just as scientific method attempts to find truth by these means (Popper, 1972) and assume there is truth to be found.

Examining the classical and modern CM literature will provide the theoretical basis of how formula use is and has been recommended. An exposition of the accepted, traditional actions and indications of YYS will also be given so the underlying energetic dynamic of the patient can be understood by the reader conversant in CM theory.

The available research literature is also reviewed in order to establish what conditions YYS derivatives are considered useful for or have been shown effective for. The rationale is that researchers testing the formula are likely to be influenced by practice in what conditions they choose to apply YYS or DZYS to in trials. This is an assumption, but a reasonable one; given the aim is partly to discover how research findings are influencing practice, the important thing is to establish what research is available which may do this. This assumption will also be assessed in the latter part of the study triangulating the information gleaned.

These preliminaries serve as contextual or background research which can then be applied to an analysis of case notes from the university polyclinic. This analysis was done using a modified grounded theory to note the occurrence of diagnostic terminology and recorded symptoms to identify themes, over multiple readings of the records, and can therefore be considered qualitative in approach. Case records are used as a source since it avoids ethical issues which may be associated with interviews, patients are made aware that their notes may be used in research and agree to it when attending. Furthermore it provides an element of repeatability since the records can potentially be re-examined by future researchers, and ought to offer a concrete exposition of the signs, symptoms and treatment the practitioner thought most relevant to record at the time.

This is also an assumption, but again one which is reasonable given that case notes ought to provide enough detail for another practitioner completely new to the case to familiarise themselves quickly, and ought to provide a detailed enough record to satisfy a court of law in case of any problems. Problems involving using case notes to analyse include the possibility that they are incomplete, as was sometimes found, and disparity between what the recording practitioners consider important to record. Moreover there is the possibility that terms recorded may mean different things to different practitioners. Hsu (1999) has shown that Chinese medical words and phrases take on different meanings depending on the context of transmission, and this too is compounded by their translation into English (Turner, 2004).

The information will then be 'triangulated' (G.S.R.U., 2007) in an attempt to examine how much correlation there is between practice and the historical/ traditional understanding or the extant research bases. The traditional uses and research findings can be compared to examine if there is indeed a CM use influence on what tends to be examined in trial situations. Since grounded theory is a 'bottom up', iterative process, theory should not be decided in advance; however finding incidence of both convergence and divergence between sources and clinical practice was expected.

3. Literature

3.1 Chinese Medicine

The study is limited to English language sources and translations for the historical element of the study. This is considered indicative of how non Chinese speaking practitioners, the majority of ethnically western practitioners, would be expected to practice and be informed. A discussion of the formula in translated works of Qin Bowei (1901-1980) (Chace, 1997) as well as modern English language textbooks of Chinese herbal medicine (Bensky & Barolett, 1990) (Scheid et al., 2009) (Fratkin, 2001) (Ehling, 2002) etc have been studied to ascertain the understanding of Xiao Yao San gleaned from classical CM knowledge.

3.1.1 Historical background

Xiao Yao San was first recorded in the 'Imperial Grace Formulary of the Taiping Era' (taiping huimin heji jufang) commissioned by emperor Taizong in the Northern Song dynasty, published in 1107ce (Scheid et al., 2009) or 1151ce (Goldschmidt, 2009). This was after the rediscovery of the classical text Shang Han Zabing Lun to Chinese medicine and its increased use in the context of a series of epidemic diseases in the 11th century. It was also published after the establishment of an imperial formulary and pharmacy (1076) which, under emperor Huizong moved from selling individual herbs to pre packaged formulas and powders which were available 'off the shelf' possibly directly to the public, and with only a brief description of symptoms (Goldschmidt, 2009). All of which may have had an impact on the kinds of formulas in use at the time, and how they were understood.

3.1.2 The name “Xiao Yao san”

Xiao Yao san is so named after the first chapter of the Taoist classic the Zhuang Zi (Chuang-Tzu, 1964) which contains many stories about the changing of perception to be more all-encompassing in ones world view, to see the bigger picture. This is thought to be related to its functions in that it is a formula that primarily works on a pattern in which the Liver Qi 肝氣 is unable to course (shu 疏) the middle jiao due to a deficiency of Blood 血, and this failure also involves Spleen weakness (Chace, 1997) since without the supportive dredging and draining function of the Liver the Spleen may not transform and transport effectively (Scheid et al., 2009). This philosophical connotation also adds to the notion that it treats emotionally related disorders. Other translations include ‘melting and moving’ (Fruehauf, 1995) and the suggestion it is synonymous with homonyms meaning ‘reduce and shake’ (Scheid et al., 2009). Other texts describe ‘Liver/ Spleen disharmony’ (Ehling, 2002) or ‘wood overly restraining earth’ (Chace, 1997). Others believe the formula is for an excess Liver pattern with concurrent Spleen deficiency (Dharmananda, 2002) (Chace, 1997).

The original formulation of XYS is as a powder (san 散) and this has connotations as to how it was used. The kind of powders used in the Song dynasty were made of mixed ground up ingredients which were usually taken as a draft with the Bo He (*menthae herba*) and Wei Jiang (*Zingiberis rhizome preperata*) added at this stage (Scheid et al., 2009). As such the formulas are easily pre prepared, quick and convenient; useful in emergency situations. Master Li Dong-Yuan of the Jin dynasty states “A powder is to

disperse, and used to treat urgent diseases” (Versluys & Fruehauf, 2004 p31); YYS disperses constrained Liver Qi.

3.1.3 Provenance

Xiao Yao San is considered to be a variation of Si Ni San or a combination of that formula with Dang Gui Shao Yao San (Fruehauf, 1995) both of which are formulas of Zhang Zhong-Jing from the Shanghan Lun (discussion of cold damage 傷寒論) and Jin Gui Yao Lue (essentials of the golden cabinet 金櫃要略) respectively (Scheid et al., 2009). These together comprised the Shanghan Zabing Lun, and YYS was first recorded in the period after the reintroduction of these classics as described above. The original indication for Si Ni San was of a shaoyin level pattern with counterflow cold in the limbs, abdominal pain and diarrhoea, to course the Liver and harmonise the Stomach (Mitchell, 1999). Dan Gui Shao Yao San was compiled to treat a pattern of Liver Blood deficient, Spleen disharmony with Qi stagnation and accumulation of Dampness characterised by abdominal pain (Scheid et al., 2009) (See appendix 4 for formula ingredients).

The most common modification, Dan Zhi or Jia Wei Xiao Yao San has been attributed to both to Xue Ji (summary of internal medicine), in the Ming Dynasty (Bensky & Barolet, 1990) (Scheid et al., 2009) and to Wen Shang in 1860 (Qing Dynasty) (Fratkin, 2001). This immediately brings to attention an issue around the veracity of English language sources in general, implying the western practitioner ought to take care in deciding what sources are most reliable.

3.1.4 Composition and indications

The formula includes Chai Hu (*Bupleurum radix*) and Bo He (*Menthae herba*) which together assist the expansive outward movement of Liver Qi and vent constrained heat. Dang Gui (*Angelica sinensis radix*) and Bai Shao Yao (*Paeonia alba radix*) together nourish the Liver Blood and prevent damage to Liver Yin and Blood (Scheid et al., 2009). The essentials of the golden cabinet notes that since, in a Liver disorder, the Liver will transmit to the Spleen, one should also treat the Spleen (Ibid.). Bai Zhu (*Atractylodis macrocephalae radix*) and Fu Ling (*Poria cocos*) are added to support the Spleen and Stomach function and drain dampness. Wei Jiang (*Zingiberis rhizoma preperatum*), or Sheng Jiang (*Zingiberis rhizoma*) in some formulations together with Zhi Gan Cao (*Glycerrhizae radix preperata*) harmonise the Stomach and prevent the development of rebellious Qi while supporting the functions of the middle jiao (Spleen and Stomach).

The Liver is closely linked to the reproductive system, the menses in particular, (Lyttleton, 2004) (Maciocia, 1998) (Shi, 2004) and to Spleen disharmony with digestive disorders (Fratkin, 2001) (Maclean & Lyttleton, 2002). The Liver is also seen as important in emotional issues (Williams, 1993) (Fruehauf, 1995) (Scheid et al., 2009) and XYS is applied to many disorders including depression (Flaws, 2002a), and stress related problems (MacLean & Taylor, 2003). As such the formula is considered to have a wide range of applications and indications in terms of diseases and symptoms including optic neuritis (Yin & Lu, 1993), fibrocystic breast disease (Deng & Liu, 1996), fibroids (Lyttleton, 2000) and insomnia (Lu, 1999)(see also appendix 3).

This is however contingent upon the right pattern being identified as present. Cardinal signs are a wiry (xian 弦) or wiry and 'deficient' (xu 虛) pulse (mai 脉) and a pale red or pale purple tongue (see appendix 3 for breakdown of sources). Deficient is in inverted commas because there are issues also around language (Turner, 2004) and pulse definitions (Turner, 2007); deficient may refer to different pulse manifestations which could be described as forceless (wuli 无力), fine/ thready (xi 細), weak (ruo 弱), or deep (chen 沉) depending on context. For the purposes of this study in the context of the formula analysis a combination of wiry with any of the other terms must be taken as indicative of the correct pattern picture since the language schema of the recording practitioner cannot be ascertained post hoc. This raises an issue of linguistic standardization for which there is also not space here, but will present a constant challenge to non Chinese-speaking practitioners. For a further discussion see (Reid, 2007) (Wiseman, 2007) (Bensky et al., 2007).

3.2 Biomedical research

The literature was searched using databases Pubmed, AMED, Althealthwatch, Psychinfo, and biomed central using the Chinese, Japanese and English pseudonyms (see appendix 1) as search terms. The Journal of Chinese medicine, The Lantern, The European Journal of Oriental medicine and online resources at www.bluepoppy.com and www.itmonline.com were also searched for translations and abstractions of research. As implied above, the aim was not to critically review each paper but to get an overview of what was being looked at in the field so exclusion criteria were decided upon based on availability and depth of information. The study had to be making some claim about the clinical application of YYS or modifications.

3.2.1 Depression and psychological

There is more research literature available on the treatment of depression and mood disorders by XYS formulas than any other disease categories, some of which overlap with menstrual disorders and are mentioned below, e.g. (Yamada & Kunba, 2007).

These are also some of the better designed and more rigorous tests. There is a research paper (Li et al., 2008) and discussion editorial (Davidson, 2003) specifically looking at post-stroke depression and finding benefit. One trial looks at using DZXYS with carbamazepine for bipolar disorder and finds dosage may be lowered if given with the herbal medicine and side effects are reduced (Zhang et al., 2007b). Another by the same team follows up with further data on bipolar disorder and reviews further application to depressive illness again finding positive results (Zhang et al., 2007a).

3.2.2 Gynaecological

Some of the research found on XYS modifications in Gynaecological disease overlaps with that on psychological problems. For example DZXYS applied to pre menstrual stress and depression disorders (Yamada & Kunba, 2007), (Flaws, 2001a). Menopausal syndromes also appear in the research literature as targets through looking at endocrine effects in mice and hypothesising mechanisms of action involving neurosteroid synthesis (Mizowaki et al., 2001); on cytokine effects in humans compared with SSRI (Yasui et al., 2009); or by measuring clinical markers in a group (Flaws, 2004). Hormone influenced problems including Fibrocystic breast disease (Flaws, 2008) .

3.2.3 Other

General research included pharmacological analysis of constituents (Zhang et al., 2008) and examinations of the effects of Chai Hu (*Bupleurum radix*) containing formula on various neurohumoral factors involved in both psychological diseases and other problems (Chen et al., 2005). Translated research also looked at YYS modifications in the treatment of insomnia (Flaws, 2002c), irritable bowel syndrome (Rogers, 2006), Chronic Fatigue syndrome (Flaws, 2007), 'male menopause' (Flaws, 2002b), and menopausal hypertension (Flaws, 2004).

4 Analysis of clinical records in the context of the literature

Case records had their formulae analysed in summary for the time period March 2008 through March 2009 inclusive. This period was chosen since the teaching clinic shuts in August for one month, so the thirteen month analysis actually covers one full year. In that time one hundred and forty-five consultations were observed, of these YYS based formulas were prescribed in forty cases giving an average of 27.6% (see appendix 2 for details). Four (10%) of the prescriptions given were to males and thirty-six (90%) to females. In the analysis it is important to clarify the criteria for inclusion and exclusion and the context of practice.

Six of the eight herbs in the basic formula were deemed necessary to identify it as a Xiao Yao San derivative. Of these the main core of the formula was considered to be Chai Hu (*Bupleurum radix*), Bo He (*Menthae herba*), Dang Gui (*Angelica sinensis radix*), Bai Shao Yao (*Paeonia alba radix*) and Bai Zhu (*Atractylodis macrocephalae rhizoma*). In some cases Bo He (*Menthae herba*) was omitted but these formulas were

included since it was the habit of one supervising teacher to consider the base formula complete without it. Other changes in this core that have been included are where Bai Zhu (*Atractylodis macrocephalae rhizoma*) was replaced with Cang Zhu (*Atractylodis rhizoma*) or where Bai Shao Yao (*Paeonia alba radix*) was replaced with Chi Shao Yao (*Paeonia rubra radix*). This is because it maintains a similar dynamic and it was not until the Song Dynasty around the time that the formula was first recorded that the varieties were differentiated (Bensky et al., 2004), indeed some formulations have Cang Zhu (*Atractylodis rhizoma*) as the correct herb (Chace, 1997). The most common omission was that of Wei Jiang, Sheng Jiang or Pao Jiang (all of which variations appear in different formulations (Scheid et al., 2009) (MacLean & Taylor, 2003) (Chace, 1997)). Where medicinals have been added or formulas combined, this has been taken into consideration in conclusions drawn around how the formula has been applied.

4.1 Considerations of context

Firstly it is important to mention at this stage that the quality of the records found in the case notes was variable. Some consultations had detailed records accompanying each prescription, where others were very brief and omitted information usually considered essential in Chinese diagnosis like pulse and tongue description (Farquhar, 1994) (Scheid, 2005). Since the source material was incomplete the analysis must also be considered incomplete.

Secondly the context of the Polyclinic needs to be borne in mind. As a teaching clinic the practice consists of students of Chinese Herbal Medicine, all qualified and practising Chinese medicine practitioners of acupuncture with varying experience length. This

practice is under the auspices of a clinical supervisor, of which there were four different individuals in the time examined; two of them were Chinese and therefore had more access to the Chinese language literature. Their combined training has included studies in Shanghai, Gansu, Tianjing, Nanjing, and Taiwan as well as in the UK and USA; together they have over eighty-five years of clinical experience. As such this analysis can be considered as indicative of CM practice and education in the UK, not purely of the abilities of students. That said it is also important to acknowledge that there is a wide disparity of practice and teaching in China (Hsu, 1999), let alone in other countries.

4.2 Results

The range of conditions for which people were attending treatment and were given XYs derivatives was quite large as may be expected with respect to the findings above. They included female infertility, Sjogrens syndrome, Hashimotos thyroiditis, amenorrhea, Irritable bowel syndrome and nausea, chronic fatigue/ M.E., depression, asthma, hay fever, fibroids, gallstones (abdominal pain) and eczema. There is therefore some overlap in the BM defined conditions that XYs is applied to in clinic, and the BM research and CM literature.

The formula was usually modified in some way with DZXYS used more frequently (twenty-four cases, 60%) than XYs (ten cases, 25%) and only twice without modification (5%). HXYS was not used but Sheng Di Huang (*Rhemannia glutinosa radix*) was added to DZXYS in twelve cases (30%) which could be considered an amalgam of HXYS and DZXYS. The degree of formula modification varied with different presentations from being combined with other nearly whole formula (e.g. Chai hu Shu Gan San) to the

addition of one or two medicinals (e.g. Xiang Fu (*Cyperus rhizoma*) or Yi Mu Cao (*Leonuri herba*)). Modified grounded theory analysis (Silverman, 2005) looked for common key words and phrases recorded in the notes and picked up on themes; percentages are given to one decimal place.

Pulse and Tongue

It was found that the Pulse information was lacking in 20% of the case notes and tongue details in 10%. More strikingly perhaps the tongue information recorded correlated with the pattern descriptions from extant textbooks (appendix 3) in the cases of only thirteen (32.5%) consultations, and the pulses matched some combination of wiry (xian 弦) and deficient (xu 虛) in only seven (17.5%). There was also disparity in the detail given for the pulse and tongue with some practitioners labelling one quality overall, and others breaking down different pulse qualities into different positions. The most common omission in tongue picture description was the body colour so where pale was recorded without a colour it was assumed that it was normal as opposed to pale red or purple which potentially adds some bias into the interpretation of records in that regard.

Frequently Recorded Symptoms

Gynaecological problems were recorded as relevant to the day's consultation in half the case-notes, which is 55.6% of the women. Some mention of stress (47.5%) depression (27.5%), anger and irritability (25%), digestive symptoms (IBS, alternating loose stool and constipation) (22.5%) and tightness in the chest or hypochondrium (12.5%) occur and are the themes identified connecting diagnostic criteria between patients.

Diagnostic Terminology

Diagnosis where recorded was given in terms of Zangfu Bianzheng in 75% of the case notes. Other CM diagnostic systems included six divisions (e.g. 'shaoyang' symptoms) San-Jiao (e.g. 'Blood stasis in Lower jiao') and by Channel (e.g. 'disharmony of Chong Mai'). Abdominal diagnosis only featured in one case in which the patient experienced heat and yet the practitioner assessment was that the abdomen was cold. The diagnosis revealed appears to be predominantly symptom led taking into account the discrepancies of pulse and tongue labelling

4.3 Discussion of Themes identified

Discussion of findings will be broken down in the same way as the results present the identified themes that have come up in analysis. It has been suggested that triangulation as a process can be criticised since it assumes there is a truth which can be elaborated or uncovered (Silverman, 2005). To avoid this criticism the process undertaken is defined as exploring something specific, a process, rather than moving closer to a more general truth or 'fact'. It could be claimed that this is not a 'true' triangulation due to the similarity of the kind of information in the CM and BM arms. It can furthermore be seen that they have influenced each other, i.e. CM theory influencing research choices, and BM research influencing modern CM textbooks e.g. (Chen & Chen, 2004). Nonetheless the juxtaposition of extant literature and actual clinical practice follows.

In examining the BM and CM literature, a straight forward comparison of diseases to which XYS formulas are applied is inadequate since it is well known that Chinese

formulas may be applied to a wide range of conditions and this is especially acknowledged for XYS (Scheid et al., 2009) as stated in the adage, one disease (can be treated by) many formulas, one formula (can treat) many diseases (Flaws, 1994). Many of the papers identified do not give Chinese pattern differentiation information, but apply the Chinese medicinal to the bio-medically defined disease category. Since the case notes are in Chinese pattern terminology there is little to be gained in answering how they might have influenced this aspect of the clinical process. It is clearer in terms of the BM disease category which is often the language used by the patient in describing their complaint; i.e. students and practitioners may add to their knowledge for example that DZXYS is effective for treating 'depression' (Zhang et al., 2007a) and then use that in their clinical decision making extraneous to the pattern diagnosis.

4.3.1 Pulse diagnosis

Pulse diagnosis is seen as an important part of Chinese medical diagnosis (Deng, 1999) (Maciocia, 2004) and even a distinctive part as to the way it is interpreted (Kuriyama, 2002). It has been noted that contemporary practitioners often downgrade the importance of the pulse, for Fei Boxiong it was considered essential (Scheid, 2005). Feeling the pulse gives the practitioner of CM a route into understanding the underlying physiology of the patient which can cut through the often confusing morass of symptoms experienced by them, is the only palpated sign routinely recorded in China (Farquhar, 1994) and as such plays a pivotal role in the CM diagnostic process in most settings in which it is presently practised, China, Japan and the west.

Pulse interpretation was not consistent with the CM pattern espoused in literature as appropriate for treatment with XYS. One thing all sources agree on is that the presentation includes a wiry 弦 pulse (see appendix 3) be it deficient 虛 or not. On examination of those notes which record the pulse, only 17.5% are regarded as wiry. There is a potential bias here in that some student practitioners may not be confident in their pulse diagnosis skills, but since there was always a discussion on pulse with other students and the supervisor present, there ought to have been some confidence in its final interpretation.

A possible reason for the disagreement of the pulse is that of the experience of the practitioner or supervisor that XYS is still effective in such patterns even when the pulse does not match. This sort of inductive empirical reasoning is something continually going in clinical practice and many reasoning tools are applied to clinical problems (Farquhar, 1994) (Scheid, 2002a). If this is the case it would imply that practitioners are not as influenced by the CM literature as may have been assumed. It does not however give an indication as to whether BM research has influenced decision making over the observation that mention of the pulse is often absent. The other likely explanation is that in practice more theoretical weight is put on the presenting picture of signs and symptoms than that of the pulse. If the reasoning above is valid, some confidence in the reliability of the pulse image obtained can be accepted, then it follows that in the diagnostic schema of the practitioners, reported symptoms are considered more important than signs.

4.3.2 Tongue diagnosis

Tongue records are more consistent with the XYS pattern than the pulses but still reveal anomalies with the application of the formula according to CM sources. The Tongue picture recorded in the notes was inconsistent with either of those described in the literature in 67.5% of the case notes. The most common descriptions were that they were pale and swollen, which is more consistent with a diagnosis of Spleen deficiency and dampness (Deng, 1999) (Maciocia, 2004). The reasoning outlined above for the pulse also follows in this instance except that more inter-rater reliability might be expected from tongue diagnostics, so the possibility that this sign was ignored due to lack of confidence is lower. This implies that something was happening in the decision making processes of the practitioners that made them decide to base their diagnosis and treatment on reported symptoms over 'traditional' observation of signs.

4.3.3 Stress and depression

As has been shown the CM literature and the BM research strongly supports the use of this formula in the treatment psycho-emotional issues like depression or stress related disorders and XYS is one of the most commonly prescribed formulas for this (Fruehauf, 1995). And the CM sources also cite this relationship with stress (MacLean & Taylor, 2003) or emotional disorders (Chace, 1997) (Scheid et al., 2009). To the practitioner of CM relating 'stress' to the Liver Qi may seem to be a no-brainer, but if the mention of stress, or conditions exacerbated by stress leads directly to a diagnosis of Liver Qi stagnation there could be something missing.

Stress can manifest as Worry which relates to the spleen, easy fright or palpitations, which relate to the Heart, a lingering fear that something bad is going to happen which might be considered due to Kidney weakness. This begs the question 'what is meant by stress?' specifically what the patient means when they use the term. Details of the patients' experience of 'stress' are lacking from the notes preventing a deeper analysis. It can be inferred from this that stress is seen as a symptom in its own right, and in this analysis one that is related to the Liver. Considered alongside the information above on pulse and tongue, the label of 'stress' seems to be considered more indicative of a Liver Qi stagnation pattern than is a wiry 弦 pulse.

Similarly where depression is mentioned as a problem by the patient, be it a primary or lesser concern, in the notes it is recorded as a symptom with no further details. There is no description of the patients' experience of the condition, overriding emotions or other differentiation. The implication here is that depression is seen as synonymous with Liver illness in Chinese medicine in this group rather than a complex disorder in its own right. Some sources even make this link explicit (Dharmananda, 2002). This conclusion is supported by the BM research, but less so by the CM literature which acknowledges many other patterns as possible causes including Heart and Spleen deficiency, Blood stagnation and Phlegm (Flaws, 2001b), more sources commonly list depression as a possible indication (See appendix 3).

A possible reason for this is translation, the character *yu* 鬱 is sometimes translated as depression or stagnation, it contains the meanings of being constrained or 'pent up' rather than the common English meaning of pressed down (Bensky et al., 2007). Qin

Bowei further differentiates the meanings using the term Liver depression to refer specifically to Qi stagnation due to Liver Blood deficiency (Chace, 1997), the indication of XYS. It is possible that this linguistic issue influences the way depression is thought of in CM by practitioners, and stagnation has been explored as a distinct disease category in its own right (Ng et al., 2006). Unfortunately it is beyond the scope of this work to explore and define depression. Suffice it to say that there is a correlation between the mention of depression and the application of XYS which implies that BM research may be given more weight than CM theory.

4.3.4 Anger and irritability

These two descriptors of emotional states appear in 25% of the notes as relevant. The Liver is associated primarily with anger (Ni, 1995) above all other emotions and irritability is considered a Liver sign in most cases and texts. It is to be expected therefore that it would occur a reasonable amount in the notes and it does. What is highlighted here is that the BM research for the most part does not measure or mention anger, but it appears consistently in the CM literature (Deng, 1999) (Maciocia, 1994) (Ni, 1995) (Chace, 1997). This piece implies practice is informed by traditional knowledge. It is much more common to see mention of stress, which appears less in CM texts. Since it is comparatively more common we can deduce that modern BM *labelling of symptoms* is more prevalent than using CM terminology. This does not show that there is more use of the research however, but rather that the western cultural milieu influences the way clinical data is recorded, and by extension perceived, and given authority by the practitioners.

4.3.5 Gynaecological symptoms

After depression the next most commonly BM tested and the most frequently CM supported group of conditions is the treatment of gynaecological problems, from the source text indication of treating “virgin girls with weak blood and yin” (Scheid et al., 2009 p122) to ‘pre menstrual dysphoric disorder’ (Yamada & Kanba, 2007). It was common that patients had menstrual problems indicating Liver Qi stagnation even if their primary complaint was not gynaecological. It is not possible to conclude much from this however since there are not big differences between the BM and CM claims. It can be assumed that CM texts informed diagnosis and it may be that BM research supported the process leading to treatment determination.

4.3.6 Tightness or pain in the chest/ hypochondrium

This is the main sign of a Liver Qi pattern which occurs when the Livers' usually expansive wood nature is constrained by one thing or another, be it the presence of heat, a deficiency of Blood, or continually suppressed emotions. This is because the Liver channel traverses the ribs and the organ also lies in this area (Chace, 1997). It is not only caused by the Liver but is most commonly seen in Liver illness. Tightness in the chest is a related sign due to the Liver constraint preventing the normal descending movement of Lung Qi (Jennes, 2007).

In the case notes this symptom is recorded in only 12.5% of cases. It is impossible to be sure whether this absence is due to the absence of the symptom, or that the questions did not reveal it, however it is strange that in so many cases the diagnosis of Liver Qi

stagnation was made in its absence. Once again this implies that perhaps another formula may have been more appropriate, and that inquiry into symptoms to support the diagnosis could perhaps be more thorough.

4.3.7 Diagnostic language

It is not surprising that the diagnoses are given in terms of Zangfu Bianzheng (pattern differentiation by organ system 臟腑 辨證) given post PRC Chinese medicine and its emphasis on bianzheng lunzhi 'pattern differentiation and treatment determination' (Hsu, 1999) which has been shown to be structured in such a way as to demarcate CM from BM, while simultaneously aligning with it allowing for modernization (Scheid, 2002a). Zangfu bianzheng is also emphasised in CM training in the west. The majority of common CM textbooks in English are devoted to Zangfu patterns with very little space given to other diagnostic systems e.g. (Maciocia, 1989) (Maciocia, 1994) (Maclean & Lyttleton, 1998) (MacLean & Lyttleton, 2002) with a little more in the translated Chinese ones (Deng, 1999).

5. Development and synthesis

It is not possible to conclude what rationale the students and supervisors used to decide that the diagnosis and following treatment was valid even though the pulse or tongue picture did not agree. However it can be said that it frequently was the case that decisions were made to, if not ignoring the pulse perceived and recorded, then to reinterpret them in the light of other findings. The Chinese diagnostic process has been examined in depth (Farquhar, 1994) as have different methods of teaching (Hsu, 1999) and the spread of knowledge in xuepai 學派 (currents of study) (Scheid, 2007) and if

understood in its own context as “relying on classifications of dynamic forms, rather than on the reductive analysis of causes, it is an important step beyond a mere mechanical transposition of Chinese medical drugs and techniques into Western discourses” (Farquhar, 1994 p37) is internally consistent.

The practitioners in these cases seem to be placing more emphasis on reported signs and symptoms, like stress, ‘depression’, ‘PMS’ or irritability as pathognomic; i.e. that the presence of one or two symptoms indicates the presence of the attributed disease pattern, in this case, ‘Liver Qi stagnation with Spleen Qi deficiency’. That for example symptoms aggravated by Stress automatically make practitioners think of Liver Qi, which could be erroneous. Cases where the pulse was recorded as soft and the tongue pale and swollen would be more appropriately seen as primarily Spleen and Stomach deficiency patterns with dampness, the patient describes themselves as stressed and they are given a XYS formula. It may still help them, but there may be another, more appropriate formula that would help more.

It has been noted that in CM many doctors “habitually emphasise the role of one or other visceral system in producing a wide variety of symptoms” (Farquhar, 1994 p107) and from the above analysis it could be concluded that practitioners in the western context today tend to frequently emphasise the role of the Liver in a wide variety of diseases as Dr Zhong does in the example. It is also emphasised by Farquhar (1994) that this is not to be seen as illegitimate bias since the organ systems of CM are all ultimately connected, and thus may influence each other eventually. If good results are obtained then it is all to the good and reinforces this view. It cannot be concluded then

that the practice uncovered in analysis is somehow not Chinese medicine, it is clearly something that happens in China as well as in the west (Farquhar, 1994) (Hsu, 1999). The question it then raises is what is Chinese medicine, and how do we understand it? It is a plural tradition that has adapted time and again assimilating information and skills and creating novel uses from a variety of theoretical frameworks. Therefore if good results are not obtained then it is worth examining the biases taken into a treatment situation and re-evaluating the wisdom of the classics, the BM research or both to inform the process and perhaps take a different approach to the clinical problem at hand.

It has been concluded that the reason for the prevalence of 'Zangfu' diagnosis is to a great extent driven by politicisation and the project of aligning CM to a system more similar to Western established anatomy (Hsu, 1999) yet still distinct, (Scheid, 2002a) and a process of systematization deemed to make CM more scientific. This has happened on a historical background of cultural imperialism, mistrust, competition and final acceptance of the 'dual truths' of anatomy and Qi transformation (Karchmer, 2004).

Later after western social methods of quarantine proved more effective than treatment by herbs this dialogue began using the language of 'integration' and in the 1950's CM was systematised to facilitate this (Unschuld, 1985). The language used in the Chinese universities of medicine from which these sources are drawn similarly draws a lot from the language of Maoist and of Marxist dialectics (Hsu, 1999). Practitioners today in the west, largely alienated from much of the tradition and culture of Chinese medicine therefore adopt an approach linking sets of symptoms to diagnostic patterns, usually corresponding to the Zangfu organ systems. The language of CM has been changing

and is changing more in its western context, and the way we understand words used by patients need to be reinterpreted into a foreign system, and it seems the culture we live in affects this process, and thereby influences clinical decisions.

The diagnostic process employing predominantly symptoms is perhaps more akin to what is largely understood to be 'western' medicine than Chinese, and begs the question of how to define each. It has been said before that they are perhaps more similar than first appearances (Unschuld, 1987) and convincingly shown that there are historical convergences between ancient Greek and Chinese medicine (Kuriyama, 2002). Attempts to define Chinese medicine in the West today do not seem satisfactory (Deadman, 2009), but it's focus on the individual is agreed upon, although being a weakness in terms of credible research as well as a strength (Deadman et al., 2009). In the cases presented the treatment was usually modified for the individual, but was the diagnosis individualised? Without a cohesive picture presented, inconsistent pulse and tongue information it could be concluded that a diagnosis is made more on whether enough symptoms 'tick the boxes' of a given diagnosis to chose it, than on an understanding of the underlying Qi dynamic 氣機 causing the patients symptoms which may lead to a more effective treatment strategy.

The reasons for this are difficult to unpick but it is likely that there is a general trend toward thinking more along western biomedical lines. Logical positivism is strong in our culture and many assume a truth that can be found. Philosophers arguing against scientific method, (Feyerabend, 1975) (Rorty, 1980) have been largely discredited; in philosophy circles at least. As medical practitioners isn't it natural that a 'right way' would

be sought, and that scientific methods might appear a good way of finding it. More so in a cultural atmosphere which increasingly demands 'evidence based medicine' especially for those outside the mainstream, and an imperative to be 'scientific' in China (Hsu, 1999) isn't it natural to want to use research?

From another direction the practice revealed here could be influenced by other fields of practice familiar to us in the west. It has been suggested that integrating an alternative medical practice with the conventional inevitably changes it (Fadlon, 2004). Training in the west and China both includes anatomy and physiology. Being educated in the West and training in Chinese medicine consultation includes an emphasis on listening to the patient and focusing on their stated needs drawing from nursing (Jasper, 2003) and psychotherapy (Clarkson, 2003) and labelled reflective practice. Perhaps this is why practitioners would neglect the pulse and tongue and favour arriving at a diagnostic pattern based on a group of symptoms. Having shown that it goes on, maybe practitioners can find their own reasons, and decide if that is how they want to practice, and maybe after this process, become better at treating disease.

6 Conclusion and Recommendations

The analysis has broken down the information gained from the case notes into clear areas which have been examined in detail, i.e. incongruence of pulse and tongue descriptions in the majority of cases, a high incidence of menstrual and emotional symptoms used in making diagnosis and a lesser use of other key diagnostic symptoms. It was also found that by far the most common diagnostic labelling used zangfu

bianzheng (differentiation by organ system 辨證) and the potential reasons for this were examined.

This reveals certain biases in the thinking and diagnostic schema of the practitioner group but also demonstrates consistency of diagnosis by symptoms or disease categories with both the CM literature and the BM evidence base. What does stand out as an anomaly however, is a lack of correlation between the pulse and tongue pictures recorded, and the XYS formula pattern given in the CM literature. This implies that known research may play a greater role in clinical decision making than 'classical' knowledge. This is not a concrete conclusion due to the range of problem variables raised above, but what can be said is that more credence is given to reported symptoms than observable signs in the notes. This could be a product of the learning, a lack of confidence in the accuracy of pulse and tongue diagnosis or a cultural tendency borne of the idea that listening to the patient is of paramount importance (Egan, 2002) and the application of language used by western patients into a diagnostic system where words don't exist, are difficult to translate, or mean something different.

Recommendations with this in mind are that practitioners of CM themselves examine what they do in their own practices critically and examine how they are making decisions and coming to diagnosis and treatment principles. It is essentially a message of self development, cultivation of Yi 意 (signification) and Li 理 (coherence) (see (Scheid, 2002b) and (Scheid, 2007) Chapter 6). In so doing it is important to ask what Chinese Medicine is to practitioners and to what sources of knowledge is authority given? It seems in today's climate inevitable that biomedical knowledge will influence

practitioners, what they need to decide is whether it ought to given priority over CM knowledge, be integrated equally or to be another order of knowledge which may be considered separately and alongside. Thinking on and deciding how to deal with these issues clearly should help clarity and consistency in prescribing towards the effective practice of Chinese medicine. Further research in the form of interviews with or observation of practitioners could add depth to the analysis and elaborate on the conclusions made herein.

Appendix 1: **Xiao Yao San** and Common modifications:Chai Hu (*Bupleurum radix*)Bo He (*Menthae herba*)**Dan Zhi** or **Jia Wei** Xiao Yao SanDang Gui (*Angelica sinensis radix*)

+

Bai Shao Yao (*Paeonia alba radix*)Mu Dan Pi (*Moutan cortex*)Bai Zhu (*Atractylodis macrocephalae rhizoma*)Zhi Zi (*Gardeniae fructus*)Fu Ling (*Poria cocos*)**Hei** Xiao Yao SanWei Jiang (*Zingiberis rhizoma preperatum*) or Sheng Jiang (*Zingiberis rhizoma recens*)

+

Shu Di Huang (*Rhemmania radix preperata*)Gan Cao (*Glycyrrhizae radix*)

Alternate names:

Wade Giles: Hsiao Yao San

English pseudonyms: rambling powder, free and easy wanderer, free and easy powder, relaxed wanderer, free and relaxed bupleurum and tang-kuei powder (Scheid, 2009)

(Fratkin, 2001) (Ehling, 2002)

Japanese: shoyosan, kamishoyosan (Bensky & Barolet, 1990)

Korean:

Appendix 2: List of patient data, dates xiao yao san and derivatives used: a list in patient reference order preserving anonymity from 01/03/08 to 31/03/09 inclusive.

5534	26/11/08	8437
31/03/08	17/12/08	31/03/08
28/04/08	21/01/09	19/05/08
09/06/08	7180	8494
17/09/08	12/11/08	16/06/08
08/10/08	03/12/08	8524
6691	28/01/09	22/10/08
12/05/08	18/02/09	8533
09/06/08	7229	12/05/08
28/07/08	10/03/08	12/06/08
6847	8040	14/07/08
30/04/08	10/03/08	8695
02/05/08	31/03/08	22/10/08
18/06/08	12/05/08	8748
18/07/08	30/06/08	07/01/09
10/09/08	8426	04/03/09
29/10/08	15/10/08	8869
08/10/08	29/10/08	18/02/09

40 prescriptions from 14 patients divided by 145 total observed consultations

$40/145 \times 100 = 27.5862\% \sim 28\%$ to nearest integer.

Appendix 3: Comparison of differences in English language CM sources.

Source:	Pulse	Tongue	Actions	indications
(Bensky & Barolet, 1990)	Wiry, deficient	Pale red	Spreads liver Qi, strengthens the Spleen and nourishes blood.	Hypochondriac pain, headache, vertigo, bitter taste in the mouth, fatigue, reduced appetite, alternating chills and fever, irregular menstruation, distended breasts
(Fratkin, 2001)	Not given	Not given	Soothes the Liver, dispels Liver stasis, harmonises Liver and Spleen, moves qi, invigorates blood, tonifies Spleen Qi, Tonifies blood, regulates menses	PMT, irregular menses, irritability, anxiety, depression, headache, breast distension, poor appetite and loose stools, chronic hepatitis, menopause, dizziness and fatigue, also alternating chills and fever
(Ehling, 2002)	Wiry	Light purple, pale	Treats Liver/ Spleen disharmony with blood deficiency	Decreased appetite, irregular menstruation, pain in flanks or breast distension
(Scheid et al., 2009)	Wiry, deficient	Pale red	Spreads liver Qi, strengthens the Spleen and nourishes blood.	Hypochondriac pain, headache, vertigo, bitter taste in the mouth, fatigue, reduced appetite, alternating chills and fever, irregular menstruation, distended breasts Commentary (with

				modification) Hypertension, ophthalmic disorders, ying-wei disharmony, deficiency fire with night sweats etc Cholecystitis, goitre, depression, fibroids, fibrocystic breast disease etc
(Chace, 1997)	Wiry vacuity	Not given	Treats liver depression and blood vacuity	Headache, costal pain, anorexia, irregular menstruation. Chills and fever treated by YYS not the same as shaoyang pattern.
(MacLean & Taylor, 2003)	Thready, wiry pulse, 'paradoxical pulse'	Pale edges Red edges for DZYS	Softens the Liver, regulates Liver Qi, nourishes Blood, strengthens the Spleen, harmonises Liver and Spleen	Symptoms worse with stress, PMS, irritability, depression, mood swings, tight muscles, poor appetite, variable bowel habits, abdominal distension

Appendix 4 Other related formulas mentioned**Si Ni San**Chai Hu (*Bupleurum radix*)Shao Yao (Bai Shao Yao (*Paeonia alba radix*) usually used*)Chao Zhi Shi (*Aurantii fructus immaturus preperata*)Zhi Gan Cao (*Glycyrrhizae radix preperata*)**Dang Gui Shao Yao San**Dang Gui (*Angelica sinensis radix*)Shao Yao (Bai Shao Yao (*Paeonia alba radix*) usually used*)Bai Zhu (*Atractylodis macrocephalae rhizoma*)Fu Ling (*Poria cocos*)Ze Xie (*Alismatis rhizoma*)Chuan Xiong (*Chuanxiong rhizoma*)**Chai Hu Shu Gan San**Chai Hu (*Bupleurum radix*)Chao Zhi Ke (*Aurantii fructus preperata*)Shao Yao (Bai Shao Yao (*Paeonia alba radix*) usually used*)Chuan Xiong (*Chuanxiong rhizoma*)Chen Pi (*Citri reticulatae pericarpium*)Xiang Fu (*Cyperii rhizoma*)Zhi Gan Cao (*Glycyrrhizae radix preperata*)

*When the source texts were written (Han Dynasty ~c.220)the different species of *Paeoniae alba* and *rubra* were not differentiated. In these formulae Bai Shao is commonly understood to be the better choice but is often adapted. Similarly the two species of *Atractylodis*, Bai Zhu and Cang Zhu were not distinguished as they are today.

Addendum

In the preceding analysis I have been critical of the approach to practice of not only my supervisors, and peers with respect to the use of Xiao Yao San but also of myself. It was from an observation that the formula was used a lot, as well as being told by practitioners that it was overused, that the idea for the study grew. Establishing whether it was overused was considered impracticable since it involves establishing a 'right' way to use it, and who is to say? I am certainly not in the position to make that claim.

I was the principle practitioner for five of the fourteen patients analysed, and was involved in discussions around many more of them. I didn't always agree with what was decided, but that goes both ways in that I was 'wrong' as much as anyone else; the nature of collaborative working in a learning environment involves disagreements, there is no blame implied by this work.

Ultimately the acting supervisor had the last say in the matter, and the amount to which they let the students dictate treatment was a difficult balance between what is best for learning experience and what is best for the patients. Discussions within the group were a useful learning experience, and help to highlight strengths and weaknesses in all our skills. As such it is as much to the aim of personal growth as a practitioner of Chinese medicine that the project has been undertaken as it is about the practice and teaching methods described.

This is hopefully also useful to other practitioners, to encourage them to be critical of their own practice and usage of formulae or acupuncture prescriptions for it is through such practice that we develop and grow as healers as well as human beings.

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