

**An Examination of the Effectiveness of Acupuncture
as an Adjunct to an Alcohol and Other Drugs (AOD)
Treatment Program:**

A Pilot Study

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Certificate of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Katherine Berry

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Abstract

Background to the study:

Alcohol and other drugs are one of the leading causes of preventable deaths and hospital admissions in Australia. Treatment services are expected to meet the growing needs of the community in the delivery of appropriate and timely interventions for patients and their families. Despite this, these services are inadequately funded and have significant staff shortages. There is an urgent need to explore adjunct treatments to complement public health care services. Research emerging from the United States and United Kingdom suggests acupuncture is effective in treating alcohol and other drug dependencies. In 2004, the University of Technology, Sydney (UTS) conducted Australia's first hospital based study examining the effectiveness of acupuncture as an adjunct to an alcohol and other drugs treatment program.

Objectives:

The aim of the study was to determine the feasibility of acupuncture as an adjunct treatment in an existing AOD program.

Study Design:

The study was an uncontrolled, open label pilot study.

Subjects:

Forty seven subjects (29 male and 18 female) volunteered to receive acupuncture treatments during their admission to Palm Court Residential Rehabilitation Unit, Rozelle Hospital.

Method and interventions:

Acupuncture treatments were delivered weekly between May 21 and October 8 2004. Subjects received up to four, one hour acupuncture sessions, during their four week admission. Pre and post treatment anxiety scores were measured for each session, to determine immediate changes in anxiety. Variables for analysis included gender ratio, drug of choice, mean age, acupuncture points selected, initial treatment date, principal student practitioner and total number of treatments received. Subjects' perceptions of the effectiveness of acupuncture were recorded in a client satisfaction questionnaire. The average length of stay (number of days in treatment) for the trial subjects was retrospectively compared to the average length of stay for the same period, in the previous two years.

Results:

The subjects fell into four categories determined by whether they: could not complete the program (because of time constraints); dropped out of Palm Court; elected to drop out of the acupuncture program; or completed both programs. Thirteen of the 47 subjects (5 male, 8 female) completed the trial, receiving four treatments in total.

With all four groups, there were statistically significant decreases in mean anxiety scores for the initial treatment ($p < 0.05$). This was the only treatment for which between group comparisons could be made because of subject drop out.

Alcohol, accounting for 60% of the sample group, was the only drug with adequate representation to consider for analysis. No obvious patterns were found to suggest alcohol was a predicting factor for program completion.

Analysis was conducted to determine if age or gender were predicting factors for program completion. The mean age was similar for all four groups, therefore age was not a predicting factor for program completion. However, it was found that while men comprised the majority of subjects, women were statistically significantly more likely to complete it ($p = 0.03$).

The average length of stay (number of days) in Palm Court was higher for the trial period than for the same time in previous years. However data were limited and it is difficult to draw conclusions from such a small sample size and short trial duration (21 weeks).

Limitations of the study included a high drop out rate; small sample sizes; difficulties distinguishing between acupuncture and health improvements over time; difficulties disentangling the effects of acupuncture from non treatment specific health outcomes (placebo); sample and practitioner bias; no treatment prescription leading to a wide range of points selected and no post treatment follow up.

Discussion:

Uncontrolled clinical trials are essential in new frontiers of research to determine whether the clinical effects are worth investigating. Decreases in mean anxiety scores for all the groups, increase in program retention rates and positive feedback from client satisfaction surveys suggest that further research is warranted.

Conclusions:

Despite the limitations of this uncontrolled open label pilot study, it has been a necessary first step. The study *An Examination of the Effectiveness of Acupuncture as an Adjunct to an Alcohol and Other Drugs Treatment Program* has provided a foundation on which to build an evidence base in the future.

Supporting Conference Presentations

Australasian Acupuncture and Chinese Medicine Annual Conference, Melbourne May 2005

Meeting of the Minds Langton Centre, Sydney February 2005

World Federation of Acupuncture and Chinese Medicine Society, Gold Coast November 2004

Royal North Shore Hospital Annual Scientific Research Meeting, Sydney November 2004

University of Technology, Sydney Postgraduate Research Conference, Sydney August 2004

International Harm Reduction Conference, Melbourne April 2004

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Chapter 1

Introduction

1.1 Background to the study

Alcohol and other drugs (AOD) are one of the leading causes of preventable deaths in Australia (Intergovernmental Committee on Drugs, 2005). Deaths in 1998 were estimated at 17,671 and 185,558 hospital episodes were related to drug use (Australian Institute of Health and Welfare, 2004). Drugs cost the community lives and money. Health care, road accidents and crime cost \$34.5 billion in 1998 as the result of alcohol and drug use (Collins and Lapsley, 2003).

There is a wide range of licit and illicit drugs available in our community. Alcohol (38%) and cannabis (22%) were the principal drugs of concern for clients seeking treatment in 2002 to 2003, followed by heroin (18%), amphetamines and other drugs (both 11%) (Australian Institute of Health and Welfare, 2004). These drugs are pharmacologically diverse. They have different psychotropic and physiological effects, likeability, abuse liability and dependence potential. That is, they vary in the relative probability that they will become a social, psychological, or physical problem for an individual or for society (World Health Organization, 2005).

Treatment approaches also vary for different drugs. Based on the 2002 to 2003 national minimum data set, 130, 930 treatment episodes were conducted (Australian Institute of Health and Welfare, 2004). The most common types of treatment were counselling (42%) and detoxification (19%). Men accounted for nearly two thirds of all treatment episodes (Australian Institute of Health and Welfare, 2004). This is despite the strong evidence that men are less likely than women to access health care services (NSW Health Department, 1999).

Alcohol and other drug (AOD) dependence is a chronic relapsing disorder similar to asthma, arthritis, and diabetes (Whelan, 2002). Drop out rates are high with an estimated 49% of all treatment episodes not completed (Australian Institute of Health and Welfare, 2004). Retaining patients in treatment programs is a major focus of health care services, as time in treatment predicts the outcome (Australian National Council on Drugs, 2001). That is, treatments are more effective the longer patients have them.

There is a community expectation that an appropriate and adequate range of services will be accessible for all drug users and their families, and that quality and timely interventions will be delivered (Ministerial Council on Drug Strategy, 1998). Health care services vary in how they meet their treatment goals which include reducing the use of alcohol and illicit drugs, reducing the risk of infectious diseases, improving physical and psychological health, reducing criminal behaviour and improving social functioning (Gowing et al, 2001).

AOD treatment is a good economic investment for Governments and the community. While there are large economic demands on health services, numerous studies have demonstrated that the benefits of providing treatment equal or exceed the costs associated with its provision (Australian National Council on Drugs, 2003). For example, for every \$1 spent on AOD treatment, Gerstein and colleagues (1994) found there was a direct economic return of \$7 in reduction of criminal behaviour, improved physical and mental health and increase in employment. Improved social functioning, improved relationships and wellbeing are examples of intangible benefits of AOD treatment. Despite this, treatment services in Australia are inadequately funded and have significant staff shortages (The Commonwealth Fund, 2004). There is a need to explore additional cost effective treatments to complement and support existing AOD treatment services.

Acupuncture is the most extensively studied alternative treatment for drug dependence, according to the National Health and Medical Research Council (1999).

In 2004 the University of Technology Sydney (UTS) Department of Health Sciences trialled a pilot acupuncture study at Palm Court Intensive AOD Rehabilitation Unit, Rozelle Hospital. The trial, which commenced in May, involved the participation of fourth (final) year students enrolled in a Bachelor of Health Science Traditional Chinese Medicine at UTS. The students participated in a voluntary clinical placement program at Palm Court, under UTS clinical supervision. The trial ran for six months finishing in October 2004.

1.2 Overview of acupuncture treatment

Acupuncture is part of a system of healing known as Traditional Chinese Medicine (TCM) which has been practiced in China and other Eastern countries for approximately 2000 years. It involves the insertion of fine gauge needles into specific points on the body. The aim of acupuncture is to promote metabolic functions and restore homeostasis.

1.3 Acupuncture in Australia

Close to 60% of Australians access some form of complementary therapy (NSW Health Department, 2002). The use of acupuncture is increasing for the treatment of a wide range of health and medical conditions. There are growing concerns that many Australians use complementary therapies concurrently with mainstream medicine. The potential risks and harms of concurrent use are unknown. There is insufficient research in this area and little understanding of the interaction between these systems and further research is needed (NSW Health Department, 2002).

1.4 Historical development of the use of acupuncture for AOD treatment

Exactly how acupuncture works is largely unknown. While the bio-physiological mechanisms for acupuncture are still unclear, there is evidence to suggest it activates the dopinergic limbic system (Scott and Scott, 1997). This system, also known as the *Reward Cascade* (Blum, Cull and Braverman, 1996), is governed by the release and regulation of serotonin, an endogenous neurotransmitter. Scott and Scott (1997) suggest that acupuncture directly effects the reward cascade by increasing the amount of serotonin in the hypothalamus, the part of the brain responsible for emotion and reward.

The reward cascade theory may explain the effectiveness of acupuncture in treating opiate and amphetamine dependencies, where serotonin depletion is the likely cause of the symptoms associated with drug withdrawal including cravings and dysphoria (Scott and Scott, 1997). However with alcohol dependence, the mechanism for how acupuncture works is currently unresearched.

Acupuncture treatment for substance dependence was first reported by a Hong Kong based neurosurgeon, Dr Wen, in 1973. The article which appeared in the *Asian Journal of Medicine* tabled the use of electrical stimulation to a specific point (Lung) on the ear to treat the symptoms of opiate withdrawal (Wen and Cheung, 1973). It was noted that all of the 40 patients who received treatment, reported a relief of substance withdrawal symptoms. Unfortunately, the outcome measures were not reported for the study which did not include a long term follow up, leaving a shadow over the validity of the research.

In 1974, Dr Michael Smith, Medical Director of the Substance Abuse Division at the Lincoln Hospital New York, introduced Wen's electrostimulation auricular (ear) acupuncture treatment (Smith and Butler-Arkow, 2001). Later a five point, manual (non electrostimulation) auricular acupuncture protocol was developed for treating heroin dependence. This became a generic treatment for substance dependence including alcohol and other drugs treatment.

In 1985 Smith founded the National [USA] Acupuncture Detoxification Association (NADA) to train and certify health care professionals in using the five point auricular acupuncture protocol (Smith and Butler-Arkow, 2001). The auricular acupuncture protocol for addiction is commonly referred to as *NADA*.

Recent meta analyses of NADA and body acupuncture studies for the treatment of alcohol and other drugs agree that while there is some evidence to suggest that the therapeutic effects of acupuncture are due to more than placebo, there are mixed results concerning its efficacy (Culliton and Kiresuk, 1996; Green et al, 2002; Otto, 2003).

1.5 Acupuncture for AOD treatment in Australia

In a survey of Australian AOD treatment services, it was found that there was little activity and a limited awareness of using acupuncture in alcohol and other drugs programs (Downing, 1996). Downing's literature review revealed there had been only three Australian acupuncture research papers published that dealt specifically with alcohol and other drugs. The survey, distributed to existing AOD treatment services, asked about their use, knowledge and interest in acupuncture, which was found to be limited. This preliminary study has paved the way for further investigations.

1.6 Anxiety treatment in AOD populations

Anxiety is defined as an abnormal and overwhelming sense of apprehension and fear often marked by physiological signs (such as sweating, tension, and increased pulse); by doubt concerning the reality and nature of the threat; and by self doubt about one's capacity to cope with it (British Acupuncture Council, 2002). Anxiety can underpin a range of clinical presentations including insomnia, head aches and heart palpitations. These symptoms are often precipitating

factors for relapse and drug use. For this reason, the value of reducing anxiety and its associated symptoms cannot be understated in a post withdrawal AOD population.

Common treatment for anxiety includes prescribing pharmacotherapies, many of which have a delayed onset and negative side effects, the most significant of which is dependence on the drug. Appendix A provides a brief overview of common anxiety medications. It is important to note that these pharmacotherapies carry strong warnings for pregnant women.

Because of the delayed onset, toxicity, dependence potential and abuse liability of some anxiety medications, there is a need to explore non pharmacological treatments for AOD patients. Acupuncture could play a significant role in treating anxiety. A recent meta analysis of acupuncture for the treatment of anxiety and depression concluded that the findings from seven randomised controlled trials supported the use of acupuncture (British Acupuncture Council, 2002). Acupuncture could potentially reduce patient discomfort, increase patient retention rates and a decrease the amount of prescribed anxiolytic medications in AOD treatment services.

1.7 Study design

An uncontrolled, open label pilot study, the trial is Australia's first hospital based research program examining the effectiveness of acupuncture for the treatment of AOD dependencies.

Uncontrolled clinical trials are a necessary first step in providing evidence that will lead to improved care (White and Ernst, 2001). Pilot studies are essential in new frontiers of research to determine:

- i. whether there are clinical effects worth investigating;
- ii. who are the most suitable subjects;
- iii. what are the most appropriate treatments, and settings;
- iv. how large are the clinical effects; and
- v. how can the clinical effects be measured.

1.8 Study aims

The aim of the study was to determine the feasibility of acupuncture as an adjunct treatment in an existing AOD program, by investigating whether:

- i. the addition of acupuncture had an effect on anxiety;
- ii. the addition of acupuncture increased program retention rates;
- iii. there are predictors for acupuncture treatment outcomes (such as gender, drug of choice and age);
- iv. participants perceived acupuncture to be a beneficial adjunct to their treatment program;

1.9 Format of the thesis

Chapter 2: Literature review

Chapter 2 is a review of current literature on the effectiveness of acupuncture for the treatment of alcohol and other drugs. The literature was sourced from a number of peer reviewed journals and selected on the basis certain criteria were met. Study flaws are discussed, as well as areas of research that warrant further investigation.

Chapter 3: Method

Chapter 3 outlines the treatment and research protocol for the study. This chapter includes the subject selection criteria, data collection and research tools.

Chapter 4: Results

A major series of comparisons concerned the acupuncture program and a range of subject and intervention variables. Variables included for analysis were pre and post treatment mean anxiety scores, gender ratio, primary drug of choice, mean age, acupuncture points selected, initial treatment date, principal student practitioner and total number of treatments received. Key findings are reported in Chapter 4.

Chapter 5: Discussion

Chapter 5 considers the key findings and discusses the shortcomings of the acupuncture trial. Limitations are to be expected, given that the trial was the first of its kind and an uncontrolled pilot study.

Chapter 6: Conclusion and future considerations

Future recommendations are discussed for the design and implementation of a more rigorous, controlled study of acupuncture as an adjunct for alcohol and other drugs treatment.

References

Appendices

Chapter 2

Literature Review

2.1 Databases and search engines

The following databases were utilised in a comprehensive search of current literature: Allied and Complementary Medicine (AMED), Australasian Medical Index (AMI), Australian Bureau of Statistics (AusStats), Cochrane Database of Systematic Reviews, Cochrane multfile EBM reviews - DSR, ACP Journal Club, DARE, and CCTR, Core Biomedical Collection, Cochrane Controlled Trials Register (CCTR), EBM Reviews - Database of Abstracts of Reviews of Effectiveness, EBM Reviews Best Evidence, EBSCO Online Electronic Journal Service, Evidence Based Medicine Reviews Multifile, HIVA HIV/AIDS Database, OVID, PubMed Meditext, Medline, Science Direct.

2.2 Search strategies

Key words included: abstain, abstinence, abuse, acupuncture, addiction, alcohol, auricular, cessation, chemical, cocaine, crack, dependence, dependent, detoxification, disorder, drug, ear, electro, heroin, illegal, illicit, intoxicated, methadone, morphine, NADA, narcotic, non prescription, opiate, polydrug, prescription, prison, rehabilitation, retention, street drugs, substance and withdrawal.

2.3 Selection criteria for literature review inclusion

Following is a review of current literature selected on the basis of specific inclusion and exclusion criteria. Studies were included if they were published in peer review journals 1970 to 2005; published in English only and focussed on acupuncture and:

1. alcohol and other drugs (four articles);
2. alcohol (seven articles);
3. cocaine including crack cocaine (four articles);
4. heroin (four articles); and
5. alcohol and other drugs in Australia (one article).

2.3.1 Treatment intervention

Interventions were accepted as acupuncture if they included:

1. Needle insertion; at acupuncture points on the body; auricular (ear) acupuncture, trigger points
2. Other methods of stimulation of acupuncture points; electro acupuncture; laser acupuncture; press stud needles and staple-puncture.

All relevant randomised controlled trials and controlled trials involving humans were included in the literature review.

2.3.2 Control intervention

Studies were accepted as controlled if they used one of the following control strategies:

1. 'Sham' acupuncture (2-5mm away from acupuncture points)
2. Nonspecific point acupuncture (at points unrelated to detoxification for example shoulder and knee auricular points)
3. Sham laser therapy (non active laser beam)
4. Standard treatment (current treatment such as counselling, medication and group therapy)
5. No treatment intervention (wait list)

2.3.3 Outcome measures

Studies were included if they involved one or more of the following outcome measures:

1. Retention rate in programs/ drop out rate
2. Physiological measure of relapse/ abstinence rate (eg urine tests)
3. Scale measure of craving/ anxiety/ depression pre and post treatment

2.4 Exclusion criteria

Studies were excluded if they were not published in peer reviewed journals, were in a foreign language or focused on tobacco and smoking cessation. Uncontrolled trials or research with poor and inconsistent methodology were not included in this review.

2.5 Alcohol and other drugs studies

Several studies did not differentiate between drug of choice (DOC) and examined acupuncture for the treatment of alcohol and other drugs (AOD). The following are reviews of these studies.

In 1993 Wells et al established a pilot project using the treatment interventions to examine the efficacy of acupuncture in an inpatient medical detoxification program. The randomised controlled trial focused on two patient groups; 71 alcohol dependent patients (57 male and 14 female) and 74 opiate dependent patients (46 male and 28 female). The first treatment group (N = 48; 23 alcohol and 25 opiates) received bilateral auricular acupuncture at specific NADA points (Shen Men, Kidney, Liver, Lung and Sympathetic) as well as standard treatment, including medication. The control group (N = 50, 24 alcohol and 26 opiates) received sham auricular acupuncture at nonspecific points as well as regular detoxification services, including medication. The no treatment control group (N = 47; 24 alcohol and 23 opiates) did not receive any additional interventions to their standard care. The acupuncture interventions were conducted twice daily and the duration of the treatment was dependent on the patient's length of stay (as it was a self discharging inpatient program). The outcome measures included retention in the program, physiological effects (blood pressure, pulse rate, respiration rate and body temperature), self reported mood ratings, withdrawal symptoms, cravings and change in doses of prescription medication. These physiological and psychological outcomes were measured before and after each intervention. The study found no difference between the three groups in attendance, length of stay or medication regimes. However, statistical significance was reported for opiate dependent patients who self reported an increase in relaxation following treatment (from morning to afternoon $p < 0.05$). Unfortunately methodological flaws such as no fixed treatment duration compromised the credibility of the findings.

Konefal et al used a larger AOD sample (N = 321) in a randomised control trial conducted in 1995. This trial was based on a previous study conducted by Konefal and colleagues in 1994 which examined the acceptability of acupuncture by patients and whether it enhanced an AOD treatment program generally. Although the 1994 trial had an alarmingly high drop out rate (46% after the first session) the researchers noted acupuncture warranted further research (Konefal et al 1994). The aim of the 1995 trial was to examine the effect of three different auricular acupuncture protocols for substance dependent outpatients. The 321 subjects (220 male and 101 female) were randomised into three groups. The first treatment group (N = 113) received bilateral auricular

acupuncture points for detoxification (Shen Men, Sympathetic, Liver, Kidney and Lung) as well as standard care. Standard outpatient care consisted of counselling, urine testing and group therapy sessions. The second treatment group (N = 110) received bilateral auricular acupuncture (identical to the first treatment group) with an additional body point to treat specific self reported physical symptoms, and standard care. The third treatment group (N = 98) received bilateral auricular acupuncture at one point only (Shen Men) as well as standard care. The treatments were administered for 16 weeks, with 45 minute treatment sessions five times a week for the first and second week, then three times a week from weeks three to 12, and then twice a week for weeks 13 to 16. Urinalysis and program attendance were measured at each session for the 16 week duration. Konefal and colleagues found no difference in attendance for the three groups, however at the end of 16 weeks, the single point group (group three) had a higher relapse rate (indicated by urinalysis) than group one and group two (Konefal et al, 1995). A no treatment control may have added value to this research.

More recently a randomised control trial was conducted using auricular acupuncture on prison inmates (Berman et al, 2004). The trial was based on a previous pilot study conducted by Berman and Lundberg (2002) which found anecdotal support for acupuncture improving subjects' psychological and physical health. The authors attempted to overcome nonspecific positive responses to sham auricular acupuncture by using points on the helix of the ear, as recommended by Margolin et al (1993) in their study, *Effects of Sham and Real Auricular Needling: Implications for Trials of Acupuncture for Cocaine Addiction*. Berman and colleagues aimed to test the viability of acupuncture to reduce the symptoms of psychological and physical discomfort and reduce drug use in the 158 inmates (men and women) recruited from two prisons. The trial was conducted over an 18 month period (1997 to 1998). The treatment group (N = 82) received bilateral auricular NADA acupuncture (Shen Men, Sympathetic, Kidney, Liver and Lung points) and the control group (N = 76) received nonspecific auricular acupuncture at five points along helix of the ear. The 40 minute treatment sessions were given five times during the first week, three times a week during week two to four with a total of 14 sessions over four weeks. In the men's prison, urinalysis was used to detect drug use (cannabis, amphetamines, benzodiazepines and opiates). In both prisons, a comprehensive evaluation included a (self reported) drug use questionnaire, Acupuncture Treatment Assessment Scale (ATAS), Symptom Check List 90 (a Swedish version of psychiatric status measurement), Treatment Credibility Scale (TCS), group interviews (including those who dropped out of program), number of sessions attended (<10 sessions was considered drop out, 10 to 14 was considered completion). The results of the trial

were disappointing. Of the treatment group, only 39% completed the program compared to 58% in helix control group ($p < 0.005$). The authors noted an unexpected positive outcome was the 77% improvement of night time sleep for the treatment group and 50% for the control group. The authors reported that the trial did not cause any harm to the subjects, although this had been a prior concern for the prison authorities. A recommendation by the authors was to compare auricular acupuncture to a noninvasive control to disentangle active effects from placebo (Berman et al, 2004). The results of the trial are questionable given the authors' comments concerning the lack of rigorous data collection, an example of which was the reported loss of data for five subjects.

2.6 Reviews of studies for alcohol dependence

In 1987, Bullock et al conducted a trial to determine if sobriety could be achieved and or episodes of drinking and detoxification admissions decreased by acupuncture treatment. The study recruited 54 alcohol dependent males from an inpatient detoxification centre. The subjects had more than 20 repeat admissions to the inpatient detoxification service, reported no identifiable support and were unemployed. The subjects were randomised into two groups. The treatment group ($N = 27$) received auricular acupuncture at three points considered effective in detoxification (Shen Men, Lung, and either Liver, Kidney or Occiput). The control group ($N = 27$) received nonspecific sham auricular acupuncture as well as two body points Large Intestine 4 (LI 4) and Triple Energiser 5 (TE 5). Both interventions were administered for 45 minutes daily for five days, three times a week for four weeks (28 days) then twice a week for 45 days. The total treatment duration was 78 days. The study measured completion rate, drinking episodes, alcohol cravings and admission to detoxification services at five days, 33 days and 78 days. The study reported a higher completion rate, fewer drinking episodes, decreased alcohol cravings and reduced admission to detoxification services at the 78 day follow up in the auricular acupuncture treatment group. The study failed to report all the data for the groups and did not include TCM diagnosis or specify why LI 4 and TE 5 were selected as the control points.

Worner et al (1992) in a later study, examined the role of acupuncture in alcohol detoxification treatment.. The study involved 56 subjects (49 male and 7 female) attending an outpatient treatment service. Auricular and body acupuncture were examined with the treatment group ($N = 19$) receiving bilateral treatment at LI 4, TE 5, Liver 3 (LR 3), Stomach 36 (ST 36) and Governor Vessel 20 (GV 20) in addition to the auricular points Shen Men and Lung. Additionally, the

treatment group received standard care consisting of counselling, group therapy and Alcoholic Anonymous (AA) meetings. A comparison group (N = 21) received transdermal electrostimulation at sham body points as well as standard care while a third group (N = 16) simply received standard care. The treatment and comparison group received treatment three times a week for three months. Outcome measures were attendance at AA meetings, number of attendance at group therapy sessions, retention rate in program and relapse rate. The study found no difference in retention rates for the three groups and concluded that 'acupuncture fails to improve treatment outcome in alcoholics'. While the data for the research were not reported, the small sample size may have prevented statistically significant results being achieved. The study also failed to describe the subject allocation procedure and lack of randomization may have introduced subject bias. Worner and colleagues cautioned the use of acupuncture in treatment services until further randomised studies confirmed its validity.

Toteva and Milanov (1996) also examined treatment efficacy of body acupuncture with conventional medical detoxification for alcohol dependence and withdrawal. The 118 subjects (90 male and 28 female) were receiving treatment in an outpatient detoxification unit and all met the DSM-IV criteria for alcohol dependence. The treatment group (N = 50) received a combination of the following body points, needled bilaterally; LI 4; TE 5; Large Intestine 11 (LI 11); Pericardium 6 (PC 6); Small Intestine 4 (SI 4); Gall Bladder 8 (GB 8); Gall Bladder 14 (GB 14); Heart 7 (HT 7); Taiyang and Yintang (extra points). The control group (N = 68) received standard medical detoxification which included vitamins and pharmaceutical management of withdrawal symptoms. It is important to note that the treatment duration for this brief trial was five days. Alcohol cravings, depressive symptoms, participation in group sessions and tremor reduction were measured pre and post treatment and relapse and drop out rate were measured at the six month follow up. The study reported that body acupuncture reduced alcohol cravings, retained patients in the treatment service, reduced tremors and increased participation in group activities. The trial was conducted in Bulgaria and the authors of a recent American meta analysis, stated their concerns about the validity and application of the research findings due to different standards in research procedures (Green et al, 2002) .

Rampes et al (1997) conducted a single blind randomised controlled trial to determine whether auricular electro acupuncture reduced craving for alcohol. All of the 59 subjects (46 male and 13 female) met DSM-III-R criteria for alcohol dependence and were receiving outpatient care. The treatment group received auricular acupuncture (N = 23) consisting of bilateral needling and

stimulation of three ear acupuncture points (Shen Men, Sympathetic and Lung) as well as standard treatment. Standard treatment included assessment by a counsellor, group therapy, detoxification and referral to rehabilitation services. The sham acupuncture group (N = 20) received electro acupuncture at three irrelevant auricular points (unrelated to detoxification: knee, elbow and internal secretion points) as well as standard treatment. The active wait list control group (N = 16) received standard care with no acupuncture intervention. The specific and sham acupuncture interventions were administered weekly for six weeks and cravings for alcohol were measured using a visual analog scale at the beginning of the trial, at eight weeks and again at 24 weeks. The study reported that at eight weeks, both the acupuncture and sham acupuncture groups had significantly reduced cravings for alcohol compared to the standard care treatment group. At week 24, the study found that there was no difference between the groups. Unfortunately small sample sizes for each group make it difficult to draw conclusions from the study.

Sapir-Weise et al (1999) conducted a randomised single blind study of 72 alcohol dependent outpatients (51 male and 21 female). The treatment group (N = 36) received auricular acupuncture at three points (Sympathetic, Shen Men and Lung) whereas the control group (N = 36) received auricular acupuncture using sham points located 3-5mm away from the treatment points. The treatment regime was identical for both groups and consisted of daily 30 to 45 minutes sessions (five days a week) for two weeks, three days a week for the following four weeks then two days a week for the next four weeks. The total treatment duration was ten weeks. Both groups received standard care as well as the treatment intervention. Standard care consisted of social support with approximately half of the subjects receiving aversive disulfiram or calcium carbimide medication. The study found no difference between groups for alcohol craving and number of drinking days. Interestingly, the study observed that anxiety levels in female subjects in the treatment group were reduced at a one month follow up ($p < 0.05$) though no difference was found at the end of the ten weeks.

Many of the discrepancies in previous trials investigating acupuncture for alcohol used small samples. To remedy this problem, Bullock et al (2002) recently conducted a large randomised, single blind acupuncture trial with 503 inpatient subjects. The trial was controlled with four treatment options. The first treatment group (N = 132) received auricular acupuncture (Shen Men, Lung, Sympathetic and Liver points). The second treatment group (N = 104) received traditional symptom based body acupuncture. The third group (N = 133) received irrelevant auricular

acupuncture (points unrelated to detoxification). The fourth group (N = 134) simply received standard care which consisted of abstinence based treatment. Alcohol use (Time Line Follow Back), addiction severity index, alcohol dependence scale, breathalyser, alcohol cravings (Likert scale), depression (Beck Depression Inventory), Self rating Anxiety Scale (SAS), functional status, and preference about treatment were measured. The treatment duration was 21 days with follow up face to face interviews at three, six and 12 months. The study failed to show any difference in outcome measures for all four groups, although 49% of the subjects reported acupuncture reduced their cravings for alcohol (groups one to three). It was noted that the body acupuncture group had a higher completion rate (83.7%, $p = 0.002$) than the auricular acupuncture group (72%), sham acupuncture group (64.7%) and standard treatment group (67.2%). The study did not find supporting evidence for the use of acupuncture in conventional treatment programs however the authors acknowledged that staff and patients perceived there to be benefits of acupuncture, despite the failure of the research to demonstrate these benefits.

A more recent randomised controlled trial conducted in Switzerland compared needle auricular acupuncture (N = 15) with laser acupuncture (N = 17) and a sham laser acupuncture control (N = 16), (Trumpler et al, 2003). The authors noted their disappointment that a second control sham auricular needle intervention was rejected by the ethics committee. The needle acupuncture group received 30 to 45 minute treatment sessions. The laser acupuncture group and sham non active laser beam group received daily exposure to acupuncture points for one minute at each point. For all three interventions, auricular points were chosen individually in each session (out of Diaphragm, Cheerfulness, Insomnia, Sympathetic, Spleen, Laterality, Lung and Shen Men). The translation of these point names from Swiss into English makes it difficult to determine exactly which points were used. Unlike other studies which focused on relapse prevention, Trumpler and colleagues measured the length of withdrawal (up to 7 days) the severity of withdrawal (Mainz Alcohol Withdrawal Scale) and the need for concomitant benzodiazepines and clomethiazole sedative medication for withdrawal symptoms. Initial findings stated that the laser and sham laser groups had identical withdrawal durations (mean = 4 days) whereas the auricular needle group had mean withdrawal of three days ($p = 0.019$). The study concluded that laser acupuncture was not found to be an effective intervention in alcohol withdrawal. The small sample size and short treatment duration compromised the power of the study and the authors recommended that future trials use a large parallel group trial comparing auricular laser and needle acupuncture with adequate sham interventions (Trumpler et al, 2003).

2.7 Reviews of studies for cocaine and crack cocaine dependence

When reviewing the literature for substance dependence treatment, a large number of studies were found examining acupuncture for cocaine dependence (in comparison to other drugs), particularly in the United States. This is probably due to the high incidence of cocaine and crack cocaine dependence in the United States and lack of a suitable conventional treatment for this high need population (Avants et al, 2000).

In 1994, Lipton et al conducted the first randomised controlled trial to determine the efficacy of auricular acupuncture in reducing cocaine and crack cocaine craving and consumption. Of the 150 subjects (108 male and 42 female), 73 were randomly assigned to receive auricular acupuncture (Shen Men, Sympathetic, Liver and Lung bilaterally). The control group (N = 77) received auricular acupuncture at points irrelevant to detoxification (knee, sciatic, elbow and shoulder bilaterally). Participants were excluded from the trial if they had lower back pain as there were concerns that the analgesic effect of the control points may skew the data. Both sessions were conducted up to twice daily, (six days a week) for a month. The trial duration was ten days, and the acupuncture sessions thereafter were optional or as needed. Participants received transport vouchers in return for their participation to facilitate attendance at the clinic. No counselling or other services were provided for the subjects in the trial. The outcome measures included daily urinalysis, the Addiction Severity Index (ASI) to determine drug usage at onset, 30 days and 90 days; craving, measured every fourth treatment; and attendance in the acupuncture program. The researchers attempted to make the trial rigorous by blinding the assessors and subjects to treatment allocation. Contact between subjects and the five acupuncturists was limited and externally monitored to minimise subject bias concerning treatment allocation. Subjects were interviewed at intake, after 30 days and at 90 days, receiving a payment of \$15 for each follow up interview. The results for the trial were disappointing. No differences were reported for any of the outcome measures including abstinence, request for additional treatment, cocaine craving and urinalysis (85.9% positive cf C 89% positive). However, it was noted at two weeks, the amount of cocaine metabolites in the acupuncture group were significantly lower than the control group ($p < 0.05$). The authors suggested that by withholding counselling and other services, the trial indirectly affirmed that acupuncture may be more effective as an adjunct rather than stand alone intervention. The authors also noted that the

control points may have had an effect on endogenous opiate peptides (endorphins and enkephalins) and therefore have been an active rather than inert control.

Otto and colleagues (1998) conducted a randomised controlled trial to determine if auricular acupuncture could reduce craving, increase treatment retention, and prevent relapse in cocaine dependent inpatients. The 36 male subjects were randomised to receive either bilateral auricular acupuncture (N = 25) at NADA points (Shen Men, Sympathetic, Kidney, Liver, and Lung) or bilateral irrelevant auricular acupuncture (N = 11) at points close to the detoxification sites (sciatic nerve and knee, and lumbosacral, dorsal, and cervical vertebrae points). The treatments were administered for 30 to 45 minute treatment sessions in three phases; five days a week for first two weeks; three days a week for second two weeks; and one day a week for last eight weeks (modelled on a trial conducted by Bullock et al, 1987). In addition, a retrospective comparison (N = 24) was conducted of patients from previous admissions. Depression and anxiety, cocaine craving, general wellbeing, urinalysis (measured weekly), retention and relapse rates were measured over the course of the 12 week trial. The trial reported a high drop out rate with only four subjects completing the program (11%). Of the small data set, no differences were found between the groups for any of the outcome measures. Again, small sample sizes preclude definitive results.

In a study conducted by Avants et al (2000), 82 cocaine dependent methadone maintained patients were randomly assigned to three treatment groups. The first group (N = 28) received auricular acupuncture treatment (Sympathetic, Shen Men, Liver and Lung points bilaterally), the second group (N = 27) received a sham control intervention (four points on the helix not associated with any clinical effects) and the third group (N = 27) received an active control consisting of relaxation videos and music. The study reported that urinalysis for group one showed significantly less cocaine use than group two or three ($p = 0.002$). However on close inspection, only 46% of the group one completed the study compared to 63% of group two and 81% of group three. The results of this study are questionable given the small sample size and high drop out rate.

More recently, in 2002 Margolin and colleagues investigated the effectiveness of auricular acupuncture as a treatment for cocaine addiction in a randomised controlled trial. With 620 subjects (429 male and 191 female) recruited from six different sites, the sample size for the trial was larger than previous studies. The trial differentiated patients by two categories; primary

cocaine dependent (N = 412) and cocaine dependent methadone maintained patients (N = 208). The groups were randomly assigned to receive one of three treatments. The first group (N = 222) received auricular acupuncture at bilateral points: Shen Men, Lung, Liver and Sympathetic. The second group (N = 203) received sham acupuncture at sites in the helix of the auricle. The third group (N = 195) were a non needle insertion control relaxation group and were given relaxing videos to watch, as well as soft music to listen to. The acupuncture treatments were conducted for 40 minute sessions, five days a week for eight weeks. The outcomes measured were urinary cocaine levels (urine toxicology screens), retention in the program and self reported cocaine use. These were measured weekly during the treatment and at a three and six month follow up. The results showed a general reduction in cocaine use ($p = 0.002$) for all three groups. For all of the groups, counselling appointments were poorly attended and the retention rate was between 44 to 46%, with no difference between the groups. It was found that acupuncture did not appear to be more effective than a needle insertion or relaxation control in reducing cocaine use for either cocaine dependent or methadone maintained cocaine dependent subjects.

2.8 Reviews of studies for heroin dependence

Following Wen's first report of acupuncture for opiate withdrawal (1973), a second trial was conducted in 1979. The trial, which was more comprehensive than the 1973 study, examined whether outpatient acupuncture detoxification was acceptable to heroin dependent patients in Hong Kong and compared its ability to block opiate cravings compared to other treatments (Wen et al 1979). The 300 subjects were all heroin dependent adult males admitted to an outpatient treatment program. Patients were randomised to receive one of four treatment regimes. The first treatment group received electro acupuncture at auricular acupuncture points. The second group received electro auricular acupuncture, preceded by three days of methadone treatment. The third group received electro auricular acupuncture, preceded by seven days of methadone treatment. And the fourth group received electro auricular acupuncture, preceded by 14 days of methadone. The 30 minute sessions were offered as many times as patients desired for up to 14 days. The results were measured by urinalysis at one, seven and 14 days. The drop out rate for the trial was extremely high, with only 77 of the 300 (26%) subjects completing the 14 day program. The results were poorly reported and it was not clear which treatment intervention retained the highest number of subjects. A 12 month follow up report was never published.

In 1993, Washburn et al conducted the first single blind, randomised control trial to determine if auricular acupuncture had an effect on treatment retention rates when compared to sham acupuncture for heroin dependence. Of the 100 outpatient heroin dependent subjects, 55 were randomly assigned to receive auricular acupuncture (bilateral Shen Men, Kidney, Sympathetic and Lung) or a sham auricular acupuncture (N = 45) at irrelevant points. In addition to the treatment and control interventions, both groups received standard treatment consisting of support services, physical examinations, counselling, discharge planning and HIV/ AIDS education. The auricular acupuncture sessions were conducted for 20 to 45 minutes daily, for 21 days (though patients were encouraged to continue with auricular acupuncture treatment after the 21 day trial period). Measured weekly, the outcome measures included attendance rate and program drop out, withdrawal symptoms, urine analysis and self reported drug use. The initial attrition was alarmingly high for both groups with less than 40% of the treatment group returning after the first session and less than 20% of the control group returning after the first session. Results indicated the treatment group stayed in treatment longer than those assigned to the sham condition and the treatment group were more likely to stay in the program after the 21 day trial period (49.6%). Additionally the trial found that subjects with a 'light to medium' dependence were more likely to enroll in the program, and more likely to get a positive response to acupuncture treatment than those with a 'heavier' habit (injecting heroin three or more times a day). The high initial drop out rate could be explained by a \$20 payment subjects received for their time to complete the intake form to participate in the trial. Subjects may have enrolled in the trial for this incentive alone. It is important to note that patients were also paid \$5 for each urine sample throughout the trial. The popularity of acupuncture with heroin users is noted by the authors who suggest this be explored in future trials. There were no follow up interviews after patients left the service and the authors concluded by saying that it was difficult to establish whether those who completed the 21 day trial were detoxified from heroin at the end of the trial (Washburn et al, 1993).

Wells et al, in 1995 established a randomised controlled trial to determine the efficacy of acupuncture as an adjunct to outpatient methadone maintenance and detoxification services. The trial recruited 60 opiate dependent patients (31 male and 29 female) from a private outpatient methadone maintenance treatment program. The first group (N = 31) received auricular acupuncture at NADA points (Shen Men, Kidney, Liver, Lung, and Sympathetic) as well as standard methadone treatment. The second group (N = 29) received sham auricular acupuncture at points 1 - 3 mm away from specific points and methadone treatment. The third group (N = 57) was a retrospective comparison of methadone clients previously admitted to treatment program

who did not receive acupuncture. Group one and two received 30 - 40 minute auricular acupuncture sessions five days times a week for first two weeks, and then treatment was available on a daily basis for up to six months. The outcomes measured included methadone dose level, relaxation and irritability level, cravings, abstinence, program attendance and drug use (urinalysis and self report). Relaxation and anxiety were measured at week four, week 12 and week 26, urinalysis and craving were measured weekly for 26 weeks and other measures were recorded before and after acupuncture sessions. The trial ran for six months. A disappointing outcome, the trial found no difference in attendance, withdrawal symptoms or drug use.

An Iranian journal recently published a study examining the effects of acupuncture on acute withdrawal symptoms from rapid opiate detoxification (Montazeri et al, 2002). The randomised controlled trial measured the severity of withdrawal in 40 male opium or heroin dependent patients. The first group received body acupuncture at the following points; Governor Vessel 20, Governor Vessel 14, Pericardium 6, Stomach 36, Large Intestine 4, Heart 7 and Liver 3. The second group received standard care only. The acupuncture treatments were delivered prior to the administration of nalozone and then daily for three days. The needles were retained for 45 minutes with manual stimulation every ten minutes. The Clinical Institute Narcotic Assessment (CINA) was the primary outcome measure to determine the severity of withdrawal. The need for prescription medication post withdrawal for the first three days was also assessed. The authors noted that the CINA score increased significantly during the consecutive days following rapid opiate detoxification for both groups compared with baseline scores, but the rise was significantly lower in the acupuncture group. It was also noted that 50% of group one required prescription medication after rapid opiate detoxification compared to 90% of the group two. The authors concluded that body acupuncture reduces the severity of opiate withdrawal.

Very few trials have examined body acupuncture for heroin detoxification, and this may explain the poor methodology, as there is no established reliable research framework for studies of this kind. Unfortunately with participants in both groups knowing who received active treatment (ie not blinded), bias was introduced. Placebo or nonspecific treatment effects cannot be ruled out. Also, no follow up data were recorded for either groups after the three day trial, therefore little evidence exists for the effectiveness of acupuncture within this trial. Body acupuncture treatment, with single blinding and active controls may warrant further more rigorous investigations.

2.9 Alcohol and other drugs (AOD) acupuncture research in Australia

In 1994, Berle conducted Australia's first trial of auricular acupuncture for alcohol and other drug patients (Berle, 1997). The uncontrolled trial was conducted by the *Foundation for the Wholistic Treatment of Substance Dependency* and involved the participation of inpatients enrolled in two (male and female) residential detoxification programs run by a Non Government Organisation, We Help Ourselves at Redfern Sydney. The trial, which ran for 18 months, was reported in 1997. The trial centred on investigating whether auricular NADA acupuncture (Shen Men, Sympathetic, Liver, Kidney and Lung bilaterally) showed an increase in patient retention rates and decrease in readmission rates. Subjects were not randomly allocated to groups, there was no control and in each session subjects could choose freely between auricular acupuncture and a meditation group. Two treatment groups emerged, an acupuncture and meditation group (group one) and a meditation only group (group two). The effectiveness of auricular acupuncture was measured using an unspecified health appraisal questionnaire. Completion rate for the trial was considered between 151 - 180 days. The study reported a statistically significantly higher retention rate for group one subjects compared with group two subjects (77% cf 21%). Anecdotally, subjects reported a decrease in stress, anxiety and craving. An unexpected outcome of the research was the anecdotal effect acupuncture had on decreasing alanine amino transferase (ALT) levels in Hepatitis C positive patients (Berle, 1997), an area which warrants further investigation.

2.10 Limitations of current studies

Despite attempts to control for nonspecific treatment effects (placebo), the research papers reviewed above had a number of notable shortcomings. Some findings were invalid ranging from falsely negative, through to inconclusive and falsely positive. Common methodological and reporting flaws were encountered, including:

2.10.1 Small sample sizes

Small sample sizes with insufficient power to detect a small treatment effect representing a Type II error, limited a number of studies (Avants et al, 2000; Bullock et al, 1987; Montazeri et al, 2002; Otto et al, 1998; Rampes et al, 1997; Trumpler et al, 2003; Worner et al, 1992). The only three studies with a large sample sizes were Bullock et al (2002) which recruited 503 subjects, Konefal et al (1994) with 568 subjects and Margolin et al (2002) which had 620 subjects.

However, despite the larger sample sizes, Bullock et al (2002) was the only study to report a statistically significant reduction in alcohol cravings, drinking episodes and readmission rates.

2.10.2 Short treatment duration

The treatment duration in these studies ranged from three days (Montazeri et al, 2002) to 182 days (Wells et al, 1995). The treatment duration for three studies was less than one week (Montazeri et al, 2002; Toteva and Milanov, 1996; Trumpler et al, 2003). Five studies had a treatment duration of one to four weeks (Berman et al, 2004; Bullock et al, 2002; Lipton et al, 1994; Washburn et al, 1993; Wen et al, 1993). Five studies had a treatment duration of five to ten weeks (Avants et al, 2000; Bullock et al, 1987; Rampes et al, 1997; Margolin et al, 2002; Sapir-Weise et al, 1999). Four studies had a treatment duration of 11 to 16 weeks (Konefal et al, 1994; Konefal et al, 1995; Otto et al, 1998; Worner et al, 1992). Two studies had longer treatment durations, 24 and 26 weeks (Berle, 1997; Wells et al, 1995). In one study, there was no specified treatment duration (Wells et al, 1993). Interestingly, studies with a duration of eight to 11 weeks had more positive findings than the shorter and longer term studies (Avants et al, 2000; Bullock et al, 1987).

2.10.3 Practitioner bias

It is unknown whether a single practitioner or group of practitioners conducted the treatments in all, except one, of the studies (Berle, 1997). The treatment procedures and point locations may have varied slightly between practitioners. The amount of patient/ practitioner contact, type of interaction and prior relationship were not clearly stated in all studies excluding Lipton and colleagues (1994).

2.10.4 Variation in acupuncture points

Acupuncture points varied within and between the trials, and included auricular acupuncture, body acupuncture and a combination of the two systems. The names of some acupuncture points were also unknown (which may be due to translation into English). For example a study conducted in Switzerland (Trumpler et al, 2003) used 'cheerfulness' and 'insomnia' auricular acupuncture points, which are not in the Nogier's standard auricular acupuncture system (Oleson, 2003). The majority of the studies examined auricular acupuncture only, except for four studies which examined both auricular and body acupuncture (Bullock et al, 1987; Bullock et al, 2002; Konefal et al, 1995; Worner et al, 1992) and two studies which examined body acupuncture only (Montazeri et al, 2002; Toteva and Milanov, 1996). Both Bullock et al (1987) and Konefal et al

(1995) did not specify which body points were used in conjunction with auricular acupuncture. For the two body acupuncture only studies, Toteva and Milanov (1996) reported that not all the acupuncture points were used simultaneously, whereas Montazeri and colleagues (2002) did not specify if all reported points were used. In trials where body acupuncture points were used, the diagnostic approach and TCM diagnosis were not reported. It is unclear how the body points were chosen. The lack of a standardised procedure compromises the validity of the findings, which is a problem encountered with all alternative medicine research (Margolin et al, 1998).

2.10.5 No follow up

Many trials did not attempt to follow up subjects after the study, to determine the long term effects of acupuncture treatment. Only seven studies included a post treatment follow up. Bullock and colleagues (2002) attempted three follow up intervals; at three; six and 12 months; however follow up data were not reported. Margolin and colleagues (2002) included a three and six month follow up but again, data were not reported. Otto et al (1998) attempted a 12 month follow up, but due to the high drop out rate, with only four subjects completing the trial, this was not carried out. Rampes and colleagues (1997) conducted a follow up session two and 18 weeks after the study (at week eight and 24). Rampes et al (1997) found two weeks after receiving acupuncture, there were no differences in cravings for alcohol between the groups, however the treatment group reported a significant decrease in anxiety. At week 24 there were no differences between the groups for all variables. This suggests the effects of acupuncture are not long lasting. Despite a short trial duration of only five days, Toteva and Milanov (1996) attempted a follow up at six months, however follow up data were not reported. Lipton et al, (1994) attempted to increase the attendance at the 30 and 90 day follow up interviews, by offering a payment of \$15 for each interview. Despite this incentive, follow up interviews were poorly attended. Bullock et al (1987) claimed to include a post treatment follow up however these data were not reported. In any study sample, it can be difficult to conduct follow up sessions. This is also true of AOD subjects who have transient tendencies.

2.10.6 Drug of choice

The subjects in the studies had different drug dependencies which may have impacted on their treatment outcome. Five studies viewed alcohol and other drugs collectively (Wells et al, 1993; Konefal et al, 1994, Konefal et al, 1995, Berman et al, 2004; Berle, 1997). Seven studies examined alcohol as the subjects' principal drug of choice (Bullock et al, 1997; Bullock et al, 2002; Worner et al, 1992; Toteva and Milanov, 1996; Rampes et al, 1997; Sapir-Weise et al,

1999; Trumpler et al, 2003). Cocaine and crack cocaine treatment was examined in four studies (Lipton et al, 1994; Otto et al, 1998; Avants et al, 2000; Margolin et al, 2002). And four studies examined acupuncture for the treatment of heroin (Wen et al, 1979; Washburn et al, 1993; Wells et al, 1995; Montazeri et al, 2002). These drugs are pharmacologically diverse, with different physiological effects, therefore it is difficult to compare the findings of these studies.

2.11 Conclusion

Margolin and colleagues (1998) allude to the difficulties in clinically evaluating the efficacy of acupuncture in their paper titled *Investigating Alternative Medicine Therapies in Randomised Controlled Trials*. The authors note that acupuncture procedures are not readily testable under blinded conditions, unlike pharmacotherapy trials. Further to this, Margolin and colleagues (1998) note there is a lack of a suitable acupuncture control, varying retention rates and potential for participant bias (including patient, treatment provider and staff). Margolin et al (1998) conclude that acupuncture does not fit neatly into the scientific research model, which complicates the attempt to support its scientific viability.

Despite the lack of rigorous research methods, there are several noteworthy findings of these studies which may warrant further investigation. The trials using body acupuncture reported higher treatment success than the auricular acupuncture trials (Toteva and Milanov, 1996; Bullock et al, 2002; Montazeri et al, 2002). Many trials also identified an anecdotal reduction in anxiety, though it was not uniformly measured and inconsistently reported (Wells et al, 1993; Berle, 1997; Otto et al, 1998; Sapir-Weise et al, 1999; Bullock et al, 2002).

While drug use was a focus of many studies, patient and staff perception of acupuncture and the acceptability of a new adjunct treatment intervention were overlooked. This cannot be understated as attracting patients into services and engaging them in longer term care will determine their treatment outcome (Australian National Council on Drugs, 2003). This review of the current literature highlights areas for further investigation including; acupuncture for anxiety, the use of body treatment interventions and measures to record the acceptability of acupuncture by patients and staff in the service.

A noticeable gap in current acupuncture literature is an exploration of how substance dependence is viewed within the (TCM) paradigm. In an article titled *Understanding Addiction According to*

Chinese Medicine, Given (1997) supports the use of NADA in large settings, but he is critical that people with substance dependence are viewed collectively, rather than according to their individual clinical presentations, and TCM pathologies. It is suggested that by refining our understanding of alcohol and other drugs from a Traditional Chinese Medicine perspective, we may be better equipped at managing substance dependence, leading to more favourable results from clinical trials.

Table 2.1 summarises the studies reviewed in Chapter 2. This table is modelled on a table which appeared in a meta-analysis of AOD research conducted by Green and colleagues (2002).

Table 2.1: Summary of the studies presented in this literature review

Study	Aims	Sample	Intervention	Outcome Measure	Results
Avants et al 2000 New Haven, USA	To evaluate the effectiveness of auricular acupuncture for the treatment of cocaine dependence	82 (47 M 35 F) cocaine dependent, methadone maintained patients Inc: >18 yrs; enrolled in an methadone maintenance program with stable dosage; met DSM-IV criteria for cocaine dependence; evidence of recent cocaine use Exc: dependence on other substances; current cocaine dependence or acupuncture treatment or psychotropic medication (<90 days); actively psychotic or suicidal	Rx 28: ear Ac at bilateral points: Shen Men, lung, liver, and sympathetic C1 27: sham Ac inactive sites C2 27: relaxation group (non needle insertion control) commercially available relaxation videos <i>Protocol:</i> Same protocol and perhaps same patient population as the Cocaine Acupuncture Treatment Study (CATS) (See Margolin et al '98 65) Rx received 40 min sessions 5 days/wk for 8 wks	Change in illicit drug use (objective lab measure, urine toxicology screens and urine screens); psychosocial assessment Measured at: 3 x weekly Treatment Duration: 8 wks No follow up	46% of the Rx group retained compared to 63% of (C1) and 81% relaxation control group (C2). 54% of Rx group provided significantly more consecutive cocaine negative urine samples than (C1: $p = .02$) and the relaxation control group (C2: $p = .002$).
Berle 1997 Sydney Australia	Whether auricular acupuncture shows an increase in patient retention rates and decrease in re admission rates in an inpatient AOD treatment program	Male and female patients in an inpatient detox/ rehab service	Rx 1 Ear Ac (Shen Men, Sympathetic, Liver, Kidney and Lung) + Meditation Rx 2 Meditation only Rx 1 + Rx 2 Sessions daily, 5 days a week Total trial duration 18 months 1994-1996	Health appraisal questionnaire (not specified) Trial completion = 151-180 days No follow up	Higher retention rate for Rx 1 (77%) versus Rx 2 (21%) 2.5% of Rx 2 completing the program in comparison to 21% Rx 1 Decrease in ALT levels in Hepatitis C positive patients ($p < 0.05$)
Berman et al 2004 Stockholm, Sweden	To test the viability of acupuncture to reduce the symptoms of psychological and physical discomfort and reduce drug use	158 men and women in two prisons Exc: pregnancy, ear infections, pre-psychotic and psychotic states	Rx: (82) NADA ear acupuncture (Shen Men, sympathetic, kidney, liver and lung points) C: (76) non-specific ear Ac, 5 points along helix of the ear <i>Protocol:</i> 14 x 40 min / 4 wks: Week 1: 5 sessions Week 2: 3 Sessions Week 3: 3 Sessions Week 4: 3 Sessions Study duration 1997-1998 (18 months total)	Urinalysis NB, Men's prison only. Drug use questionnaire. Acupuncture Treatment Assessment Scale (ATAS) Symptom Check List 90 Treatment Credibility Scale (TCS) Group interviews (incl drop outs) Number of sessions attended (<10 considered drop out) Treatment duration: 4 weeks No follow up	Rx group 39% completion compared to 58% in helix Control group ($p<0.005$) Improved nighttime sleep Rx 77% and C 50%

Study	Aims	Sample	Intervention	Outcome Measure	Results
Bullock et al 1987 Minneapolis, USA	To determine if sobriety could be achieved and/or episodes of drinking/detox admissions decreased by Ac therapy in chronic alcoholics	54 male chronic alcoholics from an inpatient detoxification centre <i>Inc:</i> 25-65 yrs; ≥ 20 detox admissions; previous treatment failure; no identifiable support; unemployed <i>Exc:</i> taking prescribed steroids or mood altering drugs	Rx (27): ear Ac at points: Shen Men, lung, + either liver, kidney or occiput C: (27): nonspecific ear Ac points; + two wrist points: L1 4 and TE 5 <i>Protocol:</i> Rx and C received 45 min sessions daily for 5 days; then 3/week for 28 days; then 2/week for 45 days	Study completion rate, drinking episodes, patient need for alcohol, admission to detox Measured at: 5 days, 33 days, and 78 Days Treatment duration: 45 days Trial duration: 78 days Follow up at 78 days (33 days after completion)	Fewer drinking episodes ($p<0.0076$), decreased need for alcohol ($p<0.003$), decreased admission to detoxification programs ($p<0.03$) and patient's perceived acupuncture had an impact on overall desire to drink ($p<0.015$) $P<0.05$
Bullock et al 2002 Minneapolis, USA	To delineate the role of acupuncture in the treatment of alcoholism	503 patients <i>Inc:</i> 18-66 y/o, English speaking, blood platelet count $>22,000$ not involved in previous NIDA acupuncture trials <i>Exc:</i> medications: beta blockers, sympathomimetics (ephedrine, sedatives, amphetamines), phenothiazines, lithium, or other mood altering drugs, naltrexone, disulfiram, or acamprosate. Not pregnant or breastfeeding.	Rx 1: (132) ear Ac (Shen Men, Lung, Sympathetic & Liver) Rx 2: (104) symptom based (traditional) body Ac C1: (133) sham Ac (ear acupuncture at points unrelated to detox) C2: (134) standard treatment (abstinence based treatment). Protocol: 40 minutes Treatments daily (6 days Mon-Sat) Treatments up to 6 times/ 3 weeks.	Alcohol use (time line follow back), addiction severity index, alcohol dependence scale, breathalyzer, alcohol cravings (Likert scale) depression (Beck Depression Inventory), Self rating anxiety scale (SAS), functional status, and preference about treatment (PAT) were measured Treatment duration 21 days. Follow up at 3, 6 and 12 months.	Completion rate for 3 Rx 1, Rx 2 and C1 not stat sig. Retention during treatment No treatment difference in alcohol use measures between groups. Conclusion: Ac not stat sig. $P<0.05$

Study	Aims	Sample	Intervention	Outcome Measure	Results
Konefal et al 1994 Miami, USA	To examine whether Ac treatment introduced to a usual care program could be useful in the substance abuse treatment process; specifically to see if Ac would be accepted by the clients and if it would enhance the overall effect of the program	568 (300M 268F) self-referred or assigned to an outpatient substance abuse program <i>Inc:</i> between 18 and 65 yrs;	Rx (186): ear Ac at bilateral points: Shen Men, sympathetic, kidney, liver, and lung; + usual care; + frequent urine testing C1 (188): usual care + frequent urine testing C2 (194): usual care <i>Protocol:</i> Rx received 45 min sessions, 5x/wk for weeks 1-2, 3x/wk for weeks 3-12, and 2x/sk for weeks 13-16 Rx and C1 received urine testing 3x/wk for weeks 1-12, and 2x/wk for weeks 13-16 Rx, C1, and C2 received usual care consisting of counselling, sporadic urine testing, and group sessions 5x/wk for weeks 1-3, 3x/wk for weeks 4-12, and 2x/wk for weeks 13-16	Urinalysis, and program attendance Measured at: refer to protocol for urine testing Treatment duration: 16 wks No follow up	46% dropout rate after first session. Reported decreased time to negative urine however data not presented.
Konefal et al 1995 Miami, USA	To examine the effect of 3 different Ac treatments in substance abuse	321 (220M 101F) same study population as Konefal '94 above <i>Inc:</i> between 18 and 65 yrs;	Rx1 (113): bilateral ear Ac at points: Shen Men, sympathetic, liver, kidney and lung (NADA protocol); + standard care Rx2 (110): bilateral ear Ac at points: Shen Men, sympathetic, liver, kidney and lung (NADA protocol); + one body point for symptomatic relief of self reported physical ailment; + standard care Rx3 (98): bilateral ear Ac at point: Shen Men only; + standard care <i>Protocol:</i> Rx1, Rx2 and C received 45 min sessions 5x/wk for weeks 1-2, 3x/wk for weeks 3-12, and 2x/wk for weeks 13-16; + standard outpatient care	Urinalysis and program attendance Measured at: every treatment visit to clinic. Treatment duration: 16 wks No follow up	No difference in attendance for three groups (Rx 1, Rx 2 and Rx 3). At the end of 16 weeks single needle group (Rx 3) had more higher relapse (indicated by urinalysis) Stat sig not reported.

Study	Aims	Sample	Intervention	Outcome Measure	Results
Otto et al 1998 USA	To determine if auricular Ac could help reduce craving, increase treatment retention, and prevent relapse in cocaine dependent patients	36 male cocaine dependent patients from an inpatient treatment unit <i>Inc:</i> met DSM-III-R criteria; informed consent <i>Exc:</i> acute medical problems; current psychiatric co morbidity; dependence on other psycho active substances	Rx (25): ear Ac at bilateral points: Shen Men, sympathetic, kidney, liver, and lung C (11): ear Ac at bilateral sham points sciatic nerve and knee, and lumbosacral, dorsal, and cervical vertebrae points <i>Protocol:</i> Rx and C received 30-45 min sessions in three phases: 5 days/wk for first two weeks; 3 days/wk for second two weeks; and 1 day/wk for last 8 weeks (modelled after Bullock '87) Also retroactively compared 36 Ac patients (above) to 24 non Ac patients (earlier admission)	Depression; & anxiety; cocaine craving; general wellbeing; urinalysis; study retention; relapse Measured at: over the course of the study; craving and urinalysis measured weekly Treatment duration: 12 weeks with an attempt to follow up at 1 year	No difference in outcome measure between groups High drop out rate (only 4 subjects completed the trial) No data reported
Rampes et al 1997 UK	To determine whether auricular electro Ac reduces craving for alcohol	59 (46M 13F) patients from a community alcohol support team <i>Inc:</i> 18-65 yrs; met DSM-III-R criteria for alcohol dependence or abuse; attended initial support team assessment <i>Exc:</i> no craving; pregnant; have pacemaker; previous acupuncture; taking psychotropic medication	Rx (23): ear electro Ac (initial current = 100 Hz) at bilateral points: Shen Men, sympathetic and Lung; + treatment as usual C1 (20): nonspecific ear electro Ac at bilateral points: knee 2, internal secretion and elbow; + treatment as usual C2 (16): treatment as usual: assessment by counsellor; group therapy; detox and referrals to rehab. were made available <i>Protocol:</i> Rx and C1 received 30 min sessions weekly for 6 weeks	Craving for alcohol (VAS); also anxiety, breathalyser alcohol level, units of alcohol consumed in previous week, mean cell volume and γ -glutamyl transferase level Measured at: baseline, 8 and 24 weeks Treatment duration: 6 weeks Follow up at 8 and 24 weeks (ie 2 and 18 weeks after completion)	Cravings: Wk 8: Ac reduced (60%), C1 Sham reduced (54%), C2 no Rx increased (44%) Wk 24: all 3 groups reduced craving. Therefore: Not Stat Sig. NB. Reduced anxiety for Ac group wk 8 (not at wk 24)

Study	Aims	Sample	Intervention	Outcome Measure	Results
Sapir-Weise et al 1999 USA	To find out whether those given acupuncture on the correct points had better compliance, less craving, and less drinking than those receiving it on the incorrect points	72 (51M 21F) self referred alcoholic outpatients from a hospital clinic <i>Inc:</i> met DSM-III-R criteria for alcohol dependence <i>Exc:</i> pregnancy, diabetes mellitus, thrombocytopenia, metal allergy, present warfarin or analgesic medication	Rx (36): ear Ac using points (Sympathetic, Shen Men, Lung) C (36): ear acupuncture using nonspecific sham points <i>Protocol:</i> Rx and C received sessions of 30 min or more, 5 days/wk for first two weeks, 3 days/wk for next four weeks, 2 days/wk for final four weeks. Rx and C received usual treatment consisting mainly of social support and aversive treatment with disulfiram or calcium carbimide	Number of days alcohol consumption, number of days with alcohol consumption > 60g, craving smoking, pt knowledge of Rx assignment, specific influences, and depression, anxiety, irritation or sleep disturbance Treatment duration: 10 wks No follow up	No difference in number of drinking days or level of craving. Females reported reduction of anxiety than those in control group ($p<0.05$).
Toteva and Milanov 1996 Bulgaria	To evaluate and compare the treatment efficacy of body Ac with conventional medical detoxification for subjects with alcohol dependence and withdrawal syndrome	118 (90M 28F) alcoholics who had been treated in an outpatient detoxification unit <i>Inc:</i> met DSM-IV criteria for alcohol dependence; abstinence from alcohol for at least 10 days prior <i>Exc:</i> residence of halfway house; refusing randomization; currently taking an alcohol deterrent	Rx (50): Ac treatment at bilateral points: LI 4, LI 11, PC 6, TE 5, SI 4, GB 8, GB 14, HT 7, Taiyang and Yintang (extra points). Not all administered simultaneously C (68): standard medical detoxification which included parenteral application of serum glucose and vitamin C, intramuscular vitamins B1, B2, B6 and B12, benzodiazepines, soporifics and propranolol <i>Protocol:</i> Rx received 20-30 min sessions, daily for 12-15 days; for subjects with >10 yrs of alcohol abuse, extra points were stimulated 15 min 2x/wk.	Desire for alcohol use, depressive symptoms, participation in psychotherapeutic programs, tremor reduction, remission rate at six mths post treatment, and dropout rate. Measured at: before and after treatment; + 6 mth follow up Treatment duration: 5 days	Decreased drop out rate, decreased craving, reduced tremors, increased participation in group activities. Data not reported Stat sig. Not reported
Trumpler et al 2003 Munsingen, Switzerland	To perform a preliminary comparison of laser and needle acupuncture with a sham for reducing alcohol withdrawal	48 (gender not specified) inpatients undergoing alcohol withdrawal at psychiatric facility <i>Inc:</i> 18- 65 y/o and met DSM-IV criteria for alcohol dependence <i>Exc:</i> pregnancy, cognitive impairment, schizophrenia, epilepsy or coagulation disturbances	Rx: (17) Laser ear Ac Rx 2: (15) Needle ear Ac C1: (16) Sham laser ear Ac NB: Ac points individual in each session (out of Diaphragm, Cheerfulness, Insomnia, Sympathetic, Spleen, Laterality, Lung + Shen Men). Session duration 30-45 minutes for (Rx2) and 1 minute exposure for (Rx1 & C1)	Duration of withdrawal, duration of sedative prescription (benzodiazepines + clomethiazole) Severity of withdrawal (Mainz Alcohol Withdrawal Scale) Treatment duration: 7 days No follow up	Rx 1 Laser and C1 Sham laser had identical withdrawal durations (mean= 4 days). Rx 2 Ear needle Ac mean withdrawal = 3 days ($p= 0.019$)

Study	Aims	Sample	Intervention	Outcome Measure	Results
Washburn et al 1993 California, USA	To determine if Ac has an effect on treatment retention when compared to an Ac sham procedure	100 (45M 55F) heroin dependent patients residing in the area <i>Inc:</i> history of intravenous heroin use; not currently enrolled in methadone detox program <i>Exc:</i> pregnant; on parole or probation	Rx (55): ear Ac at points: sympathetic, Shen Men, kidney and lung; + support services C (45): ear sham Ac at points: not specific for addiction + support services <i>Protocol:</i> Rx and C received 20-45 min sessions daily for 21 days: support services involved physical examination, counselling, discharge planning, and AIDS education	Measures of attendance including: total no. of days received treatment, last day in treatment of the 21 day period, and no. of clients who stayed in treatment past 21 days; withdrawal symptoms; urine analysis; self report drug use Measured at: weekly Treatment duration: 21 days + varying no. of days for clients who stayed in treatment past 21 day period No follow up	Initial high attrition rate for both groups Rx <40% returned for second session, C <20% returned for second session. Rx group stayed in treatment longer than C group ($p < 0.05$) 70% evidenced signs of withdrawal compared to 66% in control (not stat sig) Urine analysis for drug use showed no difference between the groups Rx group more likely to stay in treatment beyond 21 day trial
Wells et al 1993 USA	To examine the efficacy of acupuncture in an inpatient medical detoxification program	Two groups: 71 alcohol dependent patients (57M and 14F) 74 opiate dependent patients (46M and 28F) <i>Inc</i> Not specified <i>Exc</i> not specified	Rx (N = 48; 23 alcohol and 25 opiates) received bilateral ear Ac Shen Men, Kidney, Liver, Lung & Sympathetic C (N = 50, 24 alcohol and 26 opiates) sham ear Ac at nonspecific points + standard care C2 (N = 47; 24 alcohol and 23 opiates) standard care only <i>Protocol:</i> twice daily (morning and afternoon) for entire length of stay (NB self discharging program)	Retention rates, blood pressure, pulse rate, respiration rate and body temperature, self reported mood ratings, withdrawal symptoms, cravings and change in doses of prescription medication. Measured at: before and after treatment Treatment duration: not specified. No follow up	Retention rate, medication regime, group attendance: Not Sig (all groups) Opiate patients reported decrease in withdrawal symptoms ($p < 0.05$)

Study	Aims	Sample	Intervention	Outcome Measure	Results
Wells et al 1995 USA	To determine the efficacy of Ac as an adjunct to outpatient methadone maintenance/detoxification services	60 (31M 29F) opiate dependent patients from a private methadone maintenance addiction treatment program <i>Inc:</i> opiates as primary drug; met federal requirements for entry into methadone treatment; consent <i>Exc:</i> pregnant; readmitted to an ongoing NIDA-funded methadone treatment study	Rx (31): ear Ac at points: Shen Men, kidney, liver, lung, and sympathetic; + methadone treatment C1 (29): ear Ac at points 1-3 mm away from specific points; + methadone treatment C2 (57): historical comparison group of methadone clients previously admitted to treatment program who did not receive Ac <i>Protocol:</i> Rx and C received 30-40 min sessions 5 days/wk for first two weeks, and then available on a daily basis for up to 6 mths	Methadone dose level, relaxation and irritability level, cravings, abstinence, program attendance, drug use (urinalysis + self report) Measured at: relaxation and irritability measured at 4, 12 and 26 wks; urinalysis and craving measured weekly; others measured before and after Ac sessions Treatment duration: 6 mths No follow up	Results were an increase in heroin and cocaine cravings. The same trial found no difference in attendance, withdrawal symptoms or opiate use.
Wen et al 1979 Hong Kong	To examine whether Ac detoxification is acceptable to narcotic dependents and to compare its ability to block opiate cravings compared to other treatments	300 male heroin dependent patients <i>Inc:</i> ≥ 18 yrs; dependent for at least 2 yrs <i>Exc:</i> female	Rx1: Ac and electrical stimulation (AES) alone Rx2: AES, preceded by 3 days of methadone Rx3: AES, supplemented by 7 days of methadone Rx4: AES, supplemented by 14 days of methadone <i>Protocol:</i> bilateral ear Ac - 30 min sessions as often as desired for 14 days.	Urinalysis, and program completion Measured at: day 1, 7, and 14 Treatment duration: 14 days No follow up	Only 77 of the 300 participants completed the trial (26%) Urinalysis data not included in report No 12 month follow up report

Study	Aims	Sample	Intervention	Outcome Measure	Results
Worner et al 1992	To determine the role of Ac in alcohol dependence treatment	56 (49M 7F) alcoholics attending outpatient treatment <i>Inc</i> : ≥ 18 yrs; drank alcohol within 10 days of enrollment; <i>Exc</i> : reside in halfway house; refuse randomization; taking disulfiram	Rx (19): bilateral body Ac points at LR 3, ST 36, TE 5, LI 4; also midline point, GV 20 and ear bilateral points; Shen Men and lung; + standard care C1 (21): sham trans dermal electro Ac at both forearms and one lower leg; + standard care C2 (16): standard care involving counselling 1/wk; group therapy 3/wk; AA meetings 2/wk; and task oriented group activities 2/wk <i>Protocol</i> : Rx and C1 received 30 min sessions, 3x/wk, for 3 mths	Attendance at AA meetings, no. of outpatient sessions attended, no. of weeks in either the study or outpatient program, no. of persons completing treatment, no. of relapses Measured at: 3 months Treatment duration: 3 months No follow up	No significant differences in: attendance at AA meetings, number of outpatient sessions attended, number of weeks in either the study or in the outpatient program, number of persons completing treatment or in the number of relapses. Figures not reported.

Glossary of Terms

AA = Alcoholics Anonymous;
 Ac = acupuncture;
 ASI = Addiction Severity Index;
 C = control group;
 DSM-III-R = Diagnostic and statistics manual of mental disorders, third edition -revised; 1980
 DSM-IV = Diagnostic and statistics manual of mental disorders, third edition -revised; 1994
 Exc = exclusion criteria;
 F = female;
 Inc = inclusion criteria;
 M = male;
 Mths= months
 No. = number
 Rx = treatment group;
 TCS = Treatment Credibility Scale;
 Yrs = years of age;

Chapter 3

Method

3.1 Research design

The acupuncture trial examining the effectiveness of acupuncture as an adjunct to an existing AOD treatment program commenced on May 21 2004 and ran for 21 weeks to October 8 2004. The trial was conducted at Palm Court Intensive Rehabilitation Unit Ward 28 East Rozelle Hospital, Sydney Australia. Acupuncture treatments were conducted once a week, on Friday afternoons from 1:00pm-5:00pm. During this time, individual treatment rooms were set up for private consultations. The research was an uncontrolled (phase 1) open label pilot study.

3.2 Student practitioners

The students eligible to participate in the trial were in their final (fourth) year of a Bachelor of Health Sciences, Traditional Chinese Medicine course at the University of Technology, Sydney (UTS). These students were required to complete a minimum of 500 hours as a fourth year student practitioner, under UTS clinical supervision. Students who participated in the trial were accredited with clinical hours for the treatments they conducted at Palm Court.

Students were required to work in pairs. Both students were responsible for determining a TCM diagnosis. However, the treatment plan needle insertion was conducted by a principal practitioner.

3.3 Subjects

Subjects were male and female inpatients (<18 years old) admitted to Palm Court Intensive Rehabilitation Unit, Ward 28 East, Rozelle Hospital. Treatment duration was one month (28 days) with voluntary admission to the service. Patients had undergone detoxification prior to entering the program evidenced by a letter of referral from a recognised detoxification unit; psychiatric unit or General Practitioner.

Prior to admission, patients were breathalysed and a Urine Drug Screen (UDS) was conducted to detect drug use and detoxification status. If benzodiazepines or tetrahydrocannabinol (THC, from cannabis) were detected, patients were admitted to the ward and re-tested (UDS) after four days. If a patient tested positive for alcohol or other drugs, they were not accepted to the program and told to reapply after complete detoxification. Palm Court accepted up to three applications and following this, patients were not permitted to apply again for three months. It is important to note that only two admissions were allowed per person. This is to ensure patients were highly motivated and 'ready for change'.

To recruit subjects to the trial, posters with information about the study were posted on notice boards at Palm Court. The subjects and UTS student practitioners volunteered to participate in the trial and there was no payment for their involvement.

3.4 Inclusion criteria

All patients in Palm Court were offered acupuncture as an adjunct to their treatment. The age range for inclusion was 18-65 years old (Palm Court does not admit patients under 18 years old). Both males and females were accepted into the program.

3.5 Exclusion criteria

Subjects were excluded if they were:

- i. psychiatrically unwell (meet DSM-IV criteria);
- ii. unable to give informed consent;
- iii. had medical precautions to acupuncture (epilepsy, bleeding diathesis);
- iv. pregnant. (Note: pregnancy is a precaution for treatment not a contraindication for acupuncture. As the program relied on inexperienced student practitioners, it was deemed unsuitable to treat pregnant women in the trial).

3.6 Scheduling

Subjects were required to register their interest in an appointment book which was kept in the staff office at Palm Court. To ensure continuity of care, in general, students were assigned to the same subject over four weeks. Because of a limit of student practitioners, there were only places

for up to six treatments a week. For this reason not all patients who registered for acupuncture appointments were treated.

3.7 Data collection

Subjects were given an information sheet (Appendix B) and a brief verbal explanation of the study. Subjects then signed a consent form (Appendix C).

The data collection forms for the project were designed to collect data on basic demographic information, clinical presentations, acupuncture diagnosis and treatment. The acceptability of acupuncture by patients was also assessed. The data collected were as follows.

3.7.1 Demographic information

Deidentified subject demographic data were collected at the initial consultation. These included gender, date of birth, nationality, occupation, education, marital status, accommodation. As well as primary drug of concern, route of admission and poly drug use was also collected in this patient demographic form (Figure 3.1). As a precaution before acupuncture treatment, subjects were asked whether they had fainting episodes unrelated to their drug use. Note that tobacco use was not included in the demographic data form as a primary drug of choice, however tobacco use was recorded in the comprehensive clinical assessment.

3.7.2 Initial consultation clinical assessment

At the initial consultation, students conducted a comprehensive clinical assessment using a standardised UTS initial treatment consultation form (Appendix E). The form included a comprehensive list of signs and symptoms denoted by check boxes as a prompt for students.

The initial treatment consultation form included questions about general health and wellbeing; musculoskeletal complaints; digestive functioning; urinary complaints; head, eyes, ears, nose and throat; respiratory system, cardiovascular system, skin, female reproductive system; as well as tongue and pulse conditions, used in TCM diagnosis.

Figure 3.1 Subject demographic form

Date: / /2004

CODE:

Patient Demographic Information Form

*Patients **must** sign a written consent form before commencing this questionnaire*

Date of admission to Palm Court / / 2004

Date of discharge from Palm Court / / 2004 (days)

Are you

- ☐ Male
☐ Female

What is your date of birth? _____

Age at consultation: _____

In what country were you born?

- ☐ Australia
☐ Other, please specify _____

Occupation _____

Education

- ☐ School certificate (year 10)
☐ Higher School Certificate (HSC)
☐ Tertiary
☐ Other _____

Marital status

- ☐ Married
☐ De facto
☐ Single
☐ Divorced

Accommodation

- ☐ Rented house or flat (private or public)
☐ Privately owned house
☐ Boarding house
☐ Hostel
☐ No usual residence/ homeless
☐ Other _____

What drug has led you to seek treatment from this service? Please specify (only one drug or alcohol)

How did you usually take this drug?

- ☐ Ingest (eat, drink, swallow)
☐ Smoke
☐ Inject
☐ Sniff (powder)
☐ Inhale (vapour)
☐ Other, please specify _____

What other drugs or alcohol have caused you concern over the last 12 months?

1. _____

2. _____

3. _____

Have you tried acupuncture before?

- ☐ Yes
☐ No

If yes, did you have any complications?

- ☐ Yes
☐ No

Have you had fainting episodes in the past (not related to drug and alcohol use)?

- ☐ Yes
☐ No

3.7.3 Anxiety research tool

To measure immediate changes in anxiety, the *state questionnaire* of the Spielberger State-Trait Anxiety Index (STAI) was used (Figure 3.3). The STAI comprises two separate scales for measuring state and trait anxiety. The two questionnaires have 20 screening questions, with four point Likert scales to measure self reported symptoms of anxiety. This instrument is developed from the Structured Clinical Interview for DSM-IV Disorders (Spielberger et al, 1970). According to Mimi and colleagues (1999) the STAI has been found to have acceptable validity, internal reliability, and test-retest reliability and is used widely as a standardised tool in studying self-reported anxiety treatment outcomes.

3.8 Treatment protocol (Appendix J)

The student practitioners discussed the subjects' case history with the clinical supervisor. Individual clinical reviews were indicated for particular needs of subjects, which led to tailored treatments. The students formulated an appropriate diagnosis, treatment principle, and selection of acupuncture points. There was no set protocol for the acupuncture treatments and points may have changed each treatment, and/or different points were used for each subject. Since the treatments were clinically indicated for individual subjects symptoms, the acupuncture points often varied between subjects.

For privacy, the command points and channel points on the arms and legs, back and mid torso were selected. This was to avoid asking subjects to undress for the treatment. Students collected the required number of needles, swabs and gloves for the treatment as these items were not kept in the treatment rooms to minimise the risk of patients self-harming with acupuncture needles.

The student practitioners conducted the consultations and inserted the acupuncture needles. The needles were retained for approximately 25 minutes. Needles were removed and disposed of in portable sharps containers with a screw-top lid.

Subjects were surveyed after the needles were removed, again using the Spielberger state scale.

Figure 3.2 Spielberger state scale

Developed by Charles D. Spielberger
In collaboration with
R.L. Gorsuch, R. Lushene, P.R. Vagg, and G. A. Jacobs

Date: / /2004
Time: _____

CODE:

Patient Pre/ Post-Treatment Survey

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best

	Not at All	Somewhat	Moderately so	Very much so
1. I feel calm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I feel secure.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I am tense.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I feel strained.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel at ease.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel upset.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am presently worrying over possible misfortunes.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I feel satisfied.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I feel frightened.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I feel comfortable.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I feel self-confident.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I feel nervous.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I am jittery.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I feel indecisive.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I am relaxed.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I feel content.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I am worried.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I feel confused.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I feel steady.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I feel pleasant.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3.8.3 Subsequent treatments

In week two, subjects were assessed using subsequent treatment form (Appendix H). This form was a standardised, abbreviated version of the initial treatment consultation form with questions to determine the efficacy and side effects of the previous acupuncture treatment as well as new clinical presentations.

The previous acupuncture treatments were either repeated or adjusted in light of this information and new clinical presentations. Follow up treatments followed the same treatment protocol (above) with the Spielberger state scale pre and post treatment questionnaires, diagnosis, treatment principle, acupuncture point selection and needling.

In week three and four, subjects were offered follow up sessions, at which time they were assessed again to ascertain if there were longer lasting effects from the previous treatments. Subjects were offered up to four, weekly, treatments of acupuncture over the period of one month.

3.9 Client satisfaction questionnaire

On conclusion of their fourth or final treatment, subjects were requested to complete a client satisfaction questionnaire (Figure 3.3). This questionnaire asked subjects about the effectiveness of acupuncture; whether they experienced the effect they wanted; whether their needs were met and their overall satisfaction with the program. Subjects were also asked for their comments and suggestions.

3.10 Data analysis

All data were entered into an electronic database specifically designed for this project. Minitab statistical program was used to analyse the data. An analysis of variance (ANOVA General Linear Model) was used with Tukey adjustments for multiple comparisons. Comparisons were made within treatments and between the four treatments. Statistical significance was determined $p < 0.05$.

Figure 3.3 Client satisfaction questionnaire

Client Satisfaction Questionnaire

Please help us improve our ACPUNCTURE program by answering some questions about the services and treatments you have received. We are interested in your honest opinions, whether they are positive or negative. Please answer all of the questions. We also welcome your comments and suggestions.

Thank you very much, we really appreciate your help.

CIRCLE YOUR ANSWER

1. How would you rate the effectiveness of the acupuncture treatment you received?

4	3	2	1
Excellent	Good	Fair	Poor

2. Did you get the kind of effect you wanted from the acupuncture treatment?

1	2	3	4
No, definitely not	No, not really	Yes, generally	Yes, definitely

3. To what extent has our acupuncture program met your needs?

4	3	2	1
Almost all of my needs have been met	Most of my needs have been met	Only a few of my needs have been met	None of my needs have been met

4. If a friend were in need of similar help, would you recommend acupuncture to him or her?

1	2	3	4
No, definitely not	No, not really	Yes, generally	Yes, definitely

5. How satisfied are you with the amount of help you have received from the student practitioner?

1	2	3	4
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied

6. Have the acupuncture treatments you received helped you to deal more effectively with your problems?

4	3	2	1
Yes, they helped a great deal	Yes, they helped somewhat	No, they really didn't help	No, they seemed to make things worse

7. In an overall, general sense, how satisfied are you with the acupuncture treatments you have received?

4	3	2	1
Very satisfied	Mostly satisfied	Indifferent or mildly dissatisfied	Quite dissatisfied

8. If you were to seek help again, would you have acupuncture again?

1	2	3	4
No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely

Any comments or suggestions?

Scoring

Scores are summed across items once Items 2, 4, 5, and 8 are reverse scored. Total scores range from 8 to 32, with the higher number indicating greater satisfaction.

Chapter 4

Results

4.1 Subject groups

The 47 subjects fell into four categories defined by whether they:

- i. could not complete the program because of time constraints (group A);
- ii. dropped out of the Palm Court and acupuncture program simultaneously (group B);
- iii. dropped out of the acupuncture program prior to dropping out of Palm Court (group C);
- iv. completed all four acupuncture treatment sessions (group D).

4.1.1 Group A Could not complete acupuncture treatment

There were ten subjects who could not complete the acupuncture program because of time constraints. Of these, two had commenced treatment at Palm Court before the acupuncture program started. These subjects received acupuncture for the remaining weeks they were in Palm Court (two and three treatments). In addition, there were two subjects who only received one or two of the four acupuncture sessions because the acupuncture program finished prior to their discharge from Palm Court.

Lack of availability of student practitioners resulted in five subjects who enrolled in the acupuncture program failing to receive the prescribed acupuncture treatment, on several occasions. On one occasion the NADA ear acupuncture protocol was administered, however no data were recorded for this treatment. The subjects completed the four week Palm Court program and received one or two of the prescribed acupuncture treatments.

One subject who enrolled in acupuncture suspected she might be pregnant. Therefore treatment was suspended for three weeks and so in her final week at Palm Court she received a single acupuncture treatment.

4.1.2 Group B Dropped out of Palm Court and acupuncture program simultaneously

Fourteen subjects dropped out of the Palm Court program and as a consequence, dropped out of the acupuncture program. These subjects received acupuncture every week they were in the service. One subject stayed in Palm Court for three weeks (ie three acupuncture treatments) ten subjects completed two weeks of both programs and three subjects completed only one week.

4.1.3 Group C Dropped out of acupuncture program prior to dropping out of Palm Court

Ten subjects selectively dropped out of the acupuncture program. Seven completed the Palm Court program and three subjects also dropped out of the Palm Court program one week after receiving acupuncture treatment.

Among group C, five subjects received one acupuncture treatment, four subjects received two acupuncture sessions and one subject received three acupuncture sessions. No reasons were recorded for dropping out of the acupuncture program except for the subject who completed three weeks who reported *Being a person with an addiction with IV drugs I found the treatment to be of use, I was happy with their professional help and understanding with the needs I was looking for. The calming aspect afterward of the treatment upset the controlling aspect of my addiction. I will try to continue if I feel any problem or condition that I feel acupuncture could help with.*

4.1.4 Group D Completed Palm Court and acupuncture program

Thirteen subjects completed both the four week Palm Court and acupuncture program.

The main outcome variables measured were pre and post treatment mean anxiety scores. Table 4.1 shows the mean anxiety scores by subject group, for week one. Note that this is the only treatment for which these comparisons can be made because of subject drop out leading to changing numbers for subject groups A, B and C in subsequent weeks. Group D subjects completed all four acupuncture sessions.

4.2 Mean anxiety scores pre and post initial treatment, by subject group

Group			Pre treatment anxiety scores (mean ± SEM)	Post treatment anxiety scores (mean ± SEM)	p value
A Could not complete (N = 10) (Time constraints)			49.2 ± 4.4	31.8 ± 2.4	0.003
Start Date (N = 2)					
End date (N = 2)					
Student availability (N = 5)					
Suspected pregnancy (N = 1)					
B Dropped out of Palm Court (N = 14)			46.2 ± 2.9	29.5 ± 8	0.000
Week 1 (N = 3)					
Week 2 (N = 10)					
Week 3 (N = 1)					
C Dropped out of acupuncture program prior to Palm Court (N = 10)			48.2 ± 4.3	32.6 ± 2.8	0.005
Ac Tx	PC wks	N			
1	2	3			
1	4	2			
2	4	4			
3	4	1			
D Completed (N = 13)			47 ± 4.2	33.5 ± 3.2	0.002

Table 4.1: Mean anxiety scores pre and post treatment one for group A, B, C and D (SEM = standard error of the mean)

From Table 4.1 it can be seen that all four subject groups showed a statistically significant decrease in mean post treatment anxiety scores for week one. Analysis of variance (ANOVA) comparing between groups pre treatment mean anxiety scores did not differ significantly for all four groups, ranging from 46.2 (group B) to 49.2 (group A). Analysis comparing between groups post treatment mean anxiety scores also did not differ significantly for all four groups, ranging from 29.5 (group B) to 33.5 (group D). Therefore initial anxiety levels or immediate treatment outcomes for this intervention did not predict subsequent completion status.

The four subject groups were further examined in an attempt to identify factors that may have predicted outcome status. Variables included gender ratio, drug of choice, mean age, acupuncture points selected, initial treatment date and principal student practitioner.

4.3 Gender ratio by group

Group	Males	Females	Gender ratio
A Could not complete	6	4	1.5:1
B Dropped out PC	10	4	2.5:1
C Dropped out AP prior to PC	8	2	4:1
D Completed	5	8	0.62:1
All subjects	29	18	1.61:1

Table 4.2: Gender ratio (M: F) for group A, B, C and D

The overall gender ratio (males to females) was 1.61:1. For the group A subjects who, for reasons beyond their control could not complete the acupuncture program, a similar gender ratio was present 1.5:1. However, for the two groups of subjects who either dropped out of both Palm Court and the acupuncture program simultaneously, or selectively from the acupuncture program (prior to dropping out of Palm Court) males comprised a greater proportion with ratios of 2.5:1 and 4:1 for group B and C respectively. By contrast, the group of 13 subjects who completed both programs showed an overrepresentation of females (ratio 0.62:1), with eight women and only five men making up this group. Chi square analysis comparing the drop outs (group B plus C) with the completions (group D) showed this difference in completion to drop out by gender to be statistically significant. Chi square $\chi^2_1 = 4.79$, $p = 0.029$. Males were overrepresented among dropouts and women overrepresented among completions.

That is, while men comprised the majority of subjects involved in the program, women were more likely to complete it. One possible explanation for this difference in completion rates may relate to different treatments if men and women presented with different drug dependencies.

4.4 Drug of choice

Table 4.3 shows the distribution of drug of primary concern among subjects overall and by subject group. The principal drug of choice was alcohol (60%) followed by opiates (17%) and amphetamines (13%). Cannabis, cocaine, benzodiazepines and poly drug use comprised the small remainder (10%).

Group	Alcohol	Amphetamines	Opiates	Other
A Could not complete (N = 10)	7	1	1	1
B Dropped out of PC (N = 14)	6	1	5	2
C Dropped out of AP prior to PC (N = 10)	6	1	2	1
D Completed (N = 13)	8	3	1	1
Total	27	6	9	5
B and C (All drop outs) (N = 24)	12	2	7	3

Table 4.3: Drug of choice for group A, B, C and D

The only drug with adequate representation among the sample to consider for gender related analysis was alcohol, being the drug of choice for 15 men and 12 women. Alcohol was similarly the primary drug of choice for males and females.

4.4.1 Gender ratio for alcohol dependent subjects

Status	Males	Females
1 Could not complete	4 (of 6)	3 (of 4)
2 Dropped out of PC	4 (of 10)	2 (of 4)
3 Dropped out of AP prior to PC	5 (of 8)	1 (of 2)
4 Completed	2 (of 5)	6 (of 8)
Total	15	12
2 and 3 (All drop outs)	9	3

Table 4.4: Proportions of alcohol dependent men and women in each of the subject groups

Looking at the proportions of alcohol dependent men to women, in each subject group there was no obvious pattern of alcohol predicting drop out or completion of the acupuncture program.

4.5 Mean age of men and women by subject group

Another factor which may have influenced drop out and retention rates was age of participants. The mean age by gender was compared for each subject group.

Group	Males \pm SD	Females \pm SD
A Could not complete (N = 10)	37 \pm 6.5 (N = 6)	34.3 \pm 13.1 (N = 4)
B Dropped out of PC (N = 14)	35.3 \pm 10.9 (N = 10)	37.2 \pm 9.7 (N = 4)
C Dropped out of AP prior to PC (N = 10)	38.9 \pm 9.9 (N = 8)	51.5 \pm 3.5 (N = 2)
D Completed (N = 13)	38.2 \pm 8.6 (N = 5)	37.8 \pm 14.2 (N = 8)

Table 4.5: Mean age by gender for group A, B, C and D (SD = Standard Deviation)

Table 4.5 shows the mean age for men and women by subject group. All were of similar mean ages except for the two women in group C (mean age 51.5). This atypical mean age most likely reflects the sample size of only two. Therefore age was not a predictor of program completion or drop out.

4.6 Initial treatment mean anxiety scores for alcohol subjects by group

Alcohol was the only drug of choice with sufficient numbers to compare mean anxiety scores pre and post treatment one, by subject group. These are shown in Table 4.6.

Group	Alcohol group mean anxiety scores \pm SEM		
	Pre	Post	p value
A Could not complete (N = 7)	48.4 \pm 4.1	34.4 \pm 4.1	0.3 NS
B Dropped out of PC (N = 6)	43.2 \pm 4.2	32.3 \pm 4.2	0.7 NS
C Dropped out of AP prior to PC (N = 6)	45.5 \pm 4.1	33.7 \pm 4.1	0.5 NS
D Completed (N = 8)	44.13 \pm 4.7	30.6 \pm 4.7	0.5 NS

Table 4.6: Mean anxiety scores pre and post treatment one for group A, B, C and D subjects for whom alcohol was the drug of choice (DOC). (SEM = standard error of the mean)

Analysis of variance showed there were no statistically significant differences in mean anxiety scores within the groups for alcohol dependent subjects. Given that the majority of the subjects presented with alcohol dependence, it would be expected that the outcomes for these comparisons would be similar to those for the whole group. It should be noted that, as previously shown on page 46 (Table 4.1) in all four subject groups, there were statistically significant decreases in mean anxiety scores overall.

4.7 Pre treatment one, mean anxiety scores by gender and subject group

Group	Pre treatment anxiety scores (mean \pm SEM)		p value
	Male	Female	
A Could not complete (N = 10)	56.8 \pm 3.6 (N = 6)	37.8 \pm 4.4 (N = 4)	0.002
B Dropped out of PC (N = 14)	45.2 \pm 2.9 (N = 10)	48 \pm 4.6 (N = 4)	NS
C Dropped out of AP prior to PC (N = 10)	45.3 \pm 3.9 (N = 8)	60.0 \pm 7.8 (N = 2)	NS
D Completed (N = 13)	45.6 \pm 6.3 (N = 5)	47.9 \pm 5 (N = 8)	NS

Table 4.7: Pre initial treatment mean anxiety scores for group A, B, C and D by gender (SEM = standard error of the mean)

Table 4.7 shows the mean Pre treatment anxiety scores by gender for treatment one. Men in the could not complete group (A) had statistically higher Pre treatment mean anxiety scores than women in the same group ($p = 0.002$). However there were no statistical differences between Pre treatment one mean anxiety scores by gender for group B, C and D. Therefore differences in Pre treatment mean anxiety scores were not predictors of program completion among subjects.

4.8 Mean anxiety score for initial treatment by gender and subject group

Another possibility was that the subjects who dropped out did not receive similar benefits from the acupuncture. As already discussed, the main symptom treated with acupuncture was anxiety and as shown in Table 4.1 there were statistically significant changes in pre and post treatment mean anxiety scores by subject group for treatment one. However, possibly there were gender related differences in pre and post mean anxiety scores at treatment one among the subject groups. These results are summarised in Table 4.8.

Group	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)	p value
A Could not complete (CNC N = 10)			
All group A subjects (N = 10)	49.2 \pm 4.4	31.8 \pm 2.4	0.003
Male (N = 6)	56.8 \pm 3.6	34.00 \pm 3.6	0.002
Female (N = 4)	37.8 \pm 4.4	28.5 \pm 4.4	NS
B Dropped out of Palm Court (DO PC N = 14)			
All group B subjects (N = 14)	46.2 \pm 2.9	29.5 \pm 8	0.000
Male (N = 10)	45.2 \pm 2.9	26.6 \pm 2.9	0.0007
Female (N = 4)	48 \pm 4.6	36 \pm 4.6	NS
C Dropped out of acupuncture program not Palm Court (DO AP N = 10)			
All group C subjects (N = 10)	48.2 \pm 4.3	32.6 \pm 2.8	0.005
Male (N = 8)	45.3 \pm 3.9	31.2 \pm 3.9	NS
Female (N = 2)	60.0 \pm 7.8	37.5 \pm 7.8	NS
D Completed (Comp N = 13)			
All group D subjects (N = 13)	47 \pm 4.2	33.5 \pm 3.2	0.002
Male (N = 5)	45.6 \pm 6.3	33.4 \pm 6.3	NS
Female (N = 8)	47.9 \pm 5	33.6 \pm 5	NS

Table 4.8: Mean anxiety scores pre and post treatment one for group A, B, C and D by gender (SEM = standard error of the mean)

Table 4.8 shows the pre and post treatment mean anxiety scores by gender and subject group, for treatment one. It can be seen that men in group A (could not complete, N = 6) and group B (dropped out of Palm Court, N = 10) had a statistically significant decrease in mean anxiety for treatment one.

Men in group C (dropped out of acupuncture program) and group D (completed) did not have statistically significant changes in anxiety for treatment one. However it is likely that the very small numbers involved in the gender subgroups represent a type II error thus preventing statistical significance being achieved. Looking at the total group mean anxiety scores (independent of gender) in Table 4.8, statistically significant decreases in mean anxiety scores were recorded for group A, B, C and D, in treatment one. Therefore it appears that subjects in the four groups were responding similarly to the acupuncture treatments.

4.9 Most frequent acupuncture points used in treatment one

Another possible influencing factor considered was the actual points used in the initial treatment, by subject group. Two comparisons were made:

- i. did the groups receive on average a similar number of acupuncture points
- ii. was a similar profile of points used on the subjects in the four groups

Both these factors would be expected to be similarly distributed among the four groups because as shown in the previous comparisons, the groups had a similar make up in terms of level of anxiety, drug of choice, gender and mean age. The following Table shows all points that were used on more than one subject in one or more groups.

Group	Total	Range	Mean	Ear KD	Ear LR	Ear LU	Ear SM	Ear sym NS	GB 20	LI 4	LR 2	LR 3	PC 6	SP 6	ST 36
A. CNC (N = 10)	59	33	5.9	1	2	1	4	1	2	5	1	5	4	5	1
B. DO PC (N = 14)	77	29	5.5	3	4	3	7	3	4	10	0	9	2	4	4
C. DO AP (N = 10)	47	30	4.7	1	1	1	4	1	1	5	0	2	1	6	3
D. Comp (N = 13)	66	26	5.1	2	1	1	8	1	0	9	0	9	2	8	4

Table 4.9: Selection of main acupuncture points used in treatment one, by subject group

4.9.1 Similar number of points

Table 4.9 shows the mean number of points used for each patient varied from 4.7 (group C) to 5.9 (group A). The mean number of points used in treatment one did not differ significantly by subject group.

4.9.2 Profile of acupuncture points

In Table 4.9, points that were used on at least 30% of a given group are shown in bold. The two main differences among the groups were:

- i. Group D subjects had a smaller range of total points needed (N = 26) compared with group A (N = 33) group B (N = 29) and group C (N = 30).
- ii. Only 5 subjects in group C had Liver 3 (LR 3) needled compared with five out of ten subjects in group A, nine out of 14 subjects in group B, and nine out of 13 subjects in group D.

The profiles for points used by subject group are summarised Figure 4.1

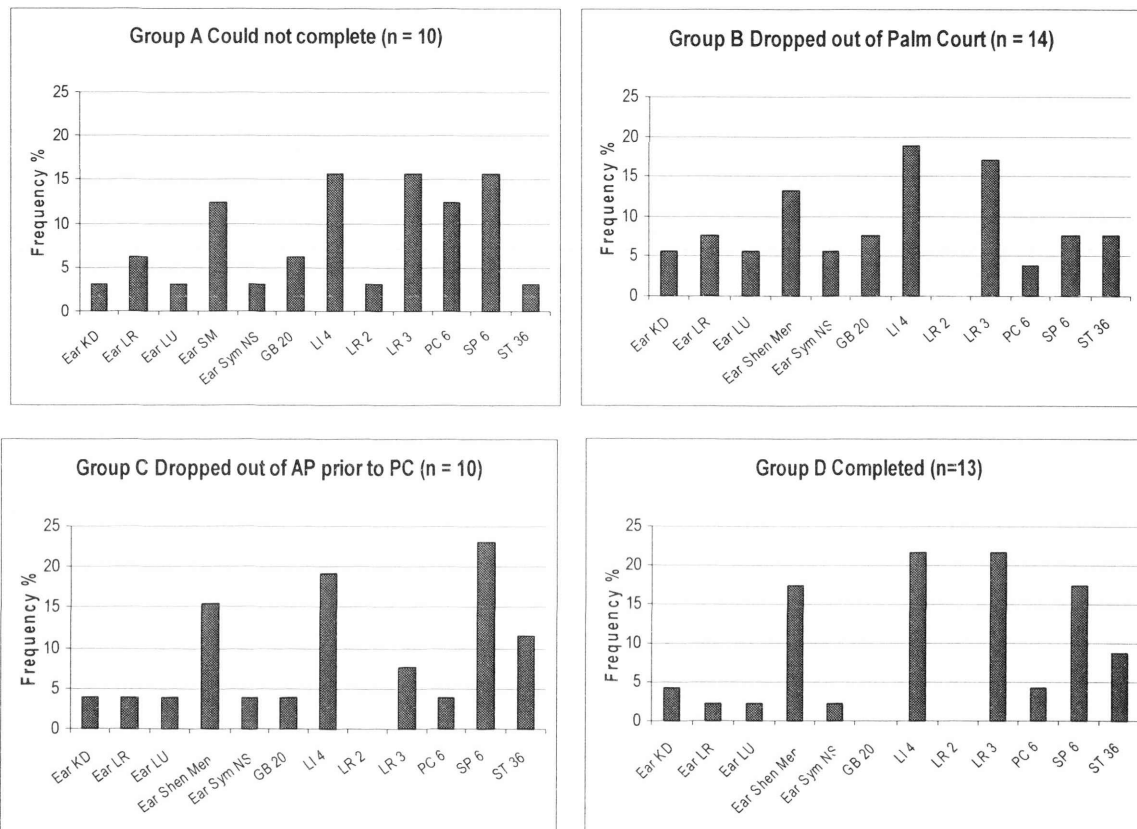


Figure 4.1: Profile of main points used by subject group

Thus Table 4.9 and Figure 4.1 show that there were several differences in the point selections among the subject groups for the initial treatment intervention.

In view of the lack of differences among the subject groups in relation to the previous subject variables examined in this Chapter, the difference in point selection warrants further examination.

One possibility was that, with the program running over 21 consecutive weeks (May to October 2004), there were changes in the point profiles that were selected by the students practitioner and had developed over time (ie time tied factor). If this occurred, its origin would be the practitioners conducting the acupuncture treatments.

This raises the following questions:

- i. did some points selected gradually change over time as the practitioners developed more experience?
- ii. were different practitioners on duty at different stages of the 21 week program and did the practitioners have different prescription choices?

However, neither of these factors would be important unless subjects in the different groups participated in the acupuncture program at different stages of the 21 week program. These factors are examined in the following section with respect to:

- i. the initial treatment date by subject group;
- ii. the principal student practitioner for the initial treatment, by subject group.

4.10 Initial treatment date by subject group

To examine this possibility further, the distribution of initial treatment week by subject group was compared and summarised in Table 4.10.

Week	Initial treatment date	Group A Could not complete (N = 10)	Group B Dropped out of Palm Court (N = 14)	Group C Dropped out of acupuncture program (N = 10)	Group D Completed (N = 13)
1	21.05.04	2	3	2	
2	28.05.04		1		1
3	04.06.04			2	1
4	11.06.04		1		1
5	18.06.04				3
6	25.06.04				
7	02.07.04				1
8	09.07.04			1	
9	16.07.04			1	1
10	23.07.04	1			2
11	30.07.04			2	1
12	06.08.04				
13	13.08.04				
14	20.08.04	1	3		2
15	27.08.04		1		
16	03.09.04		1		
17	10.09.04				
18	17.09.04	2	2	1	
19	24.09.04	2	2		
20	01.10.04	1		1	
21	08.10.04	1			

Table 4.10: Distribution of initial treatment date by subject group

Table 4.10 shows striking differences in commencement week by subject group. The majority of group D subjects did not commence their treatment on weeks when the other subject groups did. In addition, their commencement tended to be clustered from weeks five to 11. By comparison, the other three groups were more likely to commence their treatment either in the initial few weeks or in the final third (weeks 14 to 21) of the study.

Therefore it is possible that:

- i. differences in treatment could have arisen from different practitioners;
- ii. these different point selections may have varied in effectiveness; and
- iii. this could have been an important factor in drop out rates for group B and C.

4.11 Student practitioner for initial treatment by subject group

Ten students delivered acupuncture over 21 weeks. The students were scheduled to participate in the program in a four to six week roster.

Week	Initial treatment date	Group A Could not complete (N = 10)	Group B Dropped out of Palm Court (N = 14)	Group C Dropped out of acupuncture program (N = 10)	Group D Completed (N = 13)
1	21.05.04	2 (S3)	1 (S1), 2 (S2)	2 (S2)	
2	28.05.04		1 (S3)		1 (S4)
3	04.06.04			1 (S2), 1 (S3)	1 (S3)
4	11.06.04		1 (S4)		1 (S4)
5	18.06.04				2 (S1), 1 (S2)
6	25.06.04				
7	02.07.04				1 (S8)
8	09.07.04			1 (S7)	
9	16.07.04			1 (S6)	1 (S5)
10	23.07.04	1 (S5)			1 (S6), 1 (S7)
11	30.07.04			1 (S7), 1 (S8)	1 (S5)
12	06.08.04				
13	13.08.04				
14	20.08.04	1 (S7)	1 (S7), 2 (S8)		2 (S10)
15	27.08.04		1 (S9)		
16	03.09.04		1 (S9)		
17	10.09.04				
18	17.09.04	1 (S9), 1 (S10)	2 (S10)	1 (S9)	
19	24.09.04	1 (S9), 1 (S10)	2 (S9)		
20	01.10.04	1 (S9)		1 (S10)	
21	08.10.04	1 (S9)			

Table 4.11: Distribution of initial treatment by subject group and principal student practitioner (S1-10)

Student	Group A Could not complete (N = 10)	Group B Dropped out of Palm Court (N = 13)	Group C Dropped out of acupuncture program (N = 10)	Group D Completed (N = 13)	Ratio of total dropouts (B plus C) to completed (D) by student
1		2		1	2:1
2		2	3	2	5:2
3	2	1	1	1	2:1
4				2	0:2
5	1			2	0:2
6			1	1	1:1
7	1	1	2	1	3:1
8		2	1	1	3:1
9	4	4	1		5:0
10	2	2	1	2	3:2

Table 4.11.1: Completion and drop out data for the principal practitioner who delivered the initial treatment, by subject group (Note Group A is excluded).

Table 4.11.1 shows the principal student practitioner who delivered the acupuncture treatment by subject group. The number of subjects treated at the initial consultation by individual practitioners ranged from two to seven.

It can be seen in Table 4.11.1 that student 9 treated four subjects in both group A and B, and one in group C, but no group D subjects. Thus the drop out to completion ratio for student 9 was 5:0. In comparison, student 4 and student 5 treated two group D subjects and no subjects in drop out groups, thereby achieving a drop out to completion ratio of 0:2.

These data suggest that the differences in treatment efficacy may have been related to factors associated with the principal practitioner's choice of treatment; for example point profile or point prescription.

The acupuncture point selections by student, for treatment one are shown in Table 4.11.2 (group D), Table 4.11.3 (group B) and Table 4.11.4 (group C). It can be seen that in the majority of treatments, LR 3 and LI 4 were used concurrently. This point combination was used for nine (out of 13) subjects in group D (completed), and only one group C subject (dropped out of acupuncture program). Appendix L provides a comprehensive report of symptoms, diagnosis and acupuncture points used for each treatment.

Group D Completed					
Student	Date	Subject Gender	Age	DOC	Points
1	18/06/04	Female	60	Alcohol	LR 3 LI 4 SP 6
2	18/06/04	Male	30	Opiates	LR 3 LI 4 SP 6 ST 36
	18/06/04	Female	60	Alcohol	LR 3 LI 4 SP 6
3	4/06/04	Female	53	Alcohol	LR 3 LI 4 SP 6 Ear Shen Men
4	28/05/04	Male	34	ATS	LR 3 LI 4 Ht 7 Si Shen Cong (Extra) Ear Shen Men
	11/06/04	Female	24	Alcohol	LR 3 LI 4 SP 6 Ear Shen Men
5	16/07/04	Male	52	Alcohol	BL 40 BL 60 BL 63 CV 9 KI 7 TE 2 TE 3
	30/07/04	Female	22	ATS	GB 21 SP 6 PC 6 Yin Tang
6	23/07/04	Male	36	Alcohol	GB 31 KI 6 LI 11 LU 9 ST 40 Ear Shen Men
7	23/07/04	Female	33	Alcohol	LR 3 LI 4 LI 11 ST 36 SP 6 ST 37
8	2/07/04	Female	35	Alcohol	LR 3 LI 4 LI 11 Ear Shen Men
10	20/08/04	Female	27	Alcohol	LR 3 LI 4 Ear Shen Men
	20/08/04	Male	43	ATS	Ear Kidney Ear Liver Ear Lung Ear Sympathetic Ear Shen men

Table 4.11.2: Point selection for group D initial treatment, by student

Group B Dropped out of Palm Court					
Student	Date	Subject Gender	Age	DOC	Points
1	21/05/04	Male	43	Alcohol	LR 3 LI 4 HT 7 LI 15 LI 11
	11/06/04	Female	26	Opiates	KI 6 LV 3 LI 4 SP 6 Ear – Liver Ear - Shen Men (Neurogate)
2	21/05/04	Male	40	Alcohol	BL 18 BL 23 BL 28 BL 40 BL 63 GV 20
	21/05/04	Male	35	Alcohol	LI 4 LV 3
3	28/05/04	Female	33	Alcohol	GB 21 GB 34 LR 3 SP 6 Ear - Shen Men (Neurogate)
7	20/08/04	Female	33	Opiates	Ear - Shen Men (Neurogate) LI 4 LV 3 ST 36 SP 6
8	20/08/04	Female	49	Alcohol	LI 20 LI 4 SP 6 St 36 Yin Tang Ear- Shen Men (Neurogate)
	20/08/04	Male	27	Cocaine	ST 36 HT 7 LI 4 Yin Tang (Seal Hall) Ear - Shen Men (Neurogate)
9	27/08/04	Male	60	Alcohol	LI 4 LV 3 LU 7 GB 20 An Mian (Peaceful Sleep)
	3/09/04	Male	27	ATS	LR 3 LI 4 Ear – Kidney Ear –Liver Ear – Lung Ear – Sympathetic Ear – Shen Men
	24/09/04	Male	25	Opiates	LI 4 LV 3 Ear – Kidney Ear –Liver Ear – Lung Ear – Sympathetic Ear – Shen Men

Group B Dropped out of Palm Court (continued)					
Student	Date	Subject Gender	Age	DOC	Points
9	24/09/04	Male	28	Opiates	LI 4 LR 3 Ear – Kidney Ear – Liver Ear – Lung Ear – Sympathetic Ear – Shen Men
10	17/09/04	Male	49	Cannabis	PC 6 ST 36 SP 9 Yin Tang (Seal Hall)
	17/09/04	Male	32	Opiates	Ah Shi BL 15 BL 17 BL 62 PC 6 SI 3 SP 6

Table 4.11.3: Point selection for group B initial treatment, by student

Group C Dropped out of Acupuncture Program prior to dropping out of Palm Court					
Student	Date	Subject Gender	Age	DOC	Points
2	21/05/04	Male	41	Alcohol	GB34 LI 14 LI 15 LI 4 LR 3 SP 4 SP 6 Ear - Shen Men (Neurogate)
	21/05/04	Male	40	Alcohol	GB 20 GB 21 LI 4
	4/06/04	Male	58	Alcohol	KI 3 LI 4 SP 10 SP 6 ST 36
3	4/06/04	Male	40	ATS	HT 6 KI 3 SP 6 Ear - Shen Men (Neurogate)
6	16/07/04	Male	36	Opiates	SP 6 Ear – Kidney Ear – Liver Ear – Lung Ear – Sympathetic Ear – Shen Men
7	9/07/04	Female	49	Alcohol	LI 20 LI 4 SP 6 ST 36 Ear - Shen Men (Neurogate)
	30/07/04	Male	48	Alcohol	HT 5 LI 4 LR 5 LR 8 SP 6 LU 5
8	30/07/04	Male	31	Opiates	HT 7 ST 36
9	17/09/04	Female	54	Alcohol	BL62 LU 7 TE 5
10	1/10/04	Male	28	Alcohol	CV 12 KI 6 LR 3 LR 8 PC 6

Table 4.11.4: Point selection for group C initial treatment, by student

4.12 Retention rate at Palm Court 2002-2004

Limited data were collected by Rozelle Hospital on:

- a) the overall number of admissions to Palm Court and
- b) the average length of stay (ALOS) by month for the period 2002 to 2004

The acupuncture program ran from May 21 to October 8 2004, with only one subject enrolling in the study in October. Data for the same period (May to September) were analysed from 2002 to 2004 and summarised in Table 4.12.

	2002		2003		2004	
	Admissions	ALOS (days)	Admissions	ALOS (days)	Admissions	ALOS Acu Subjects (days)
May	8	19.3	12	14.3	10	18.1
June	10	18.2	9	22.6	12	27.1
July	13	19.9	13	13.9	10	26.9
August	8	19.4	13	16.9	8	18.6
Sept	7	16.1	6	19.2	9	21.9
Mean	9.2	18.6	10.6	17.4	9.8	22.5

Table 4.12: Number of admissions to Palm Court and average length of stay (ALOS) from May to September 2002-2004

There is no recognisable pattern in average monthly admissions at Palm Court from 2002 to 2004 as seen in Figure 4.2. The total number of admissions from May to September ranged from six in September 2003, to 13 (July 2002, July and August 2003). The average number of patients admitted to Palm Court from May to September in 2004 (mean N = 9.8) was similar to the average number of patients admitted at the same time, in previous years (2003, mean N = 10.6 and 2002, N = 9.2).

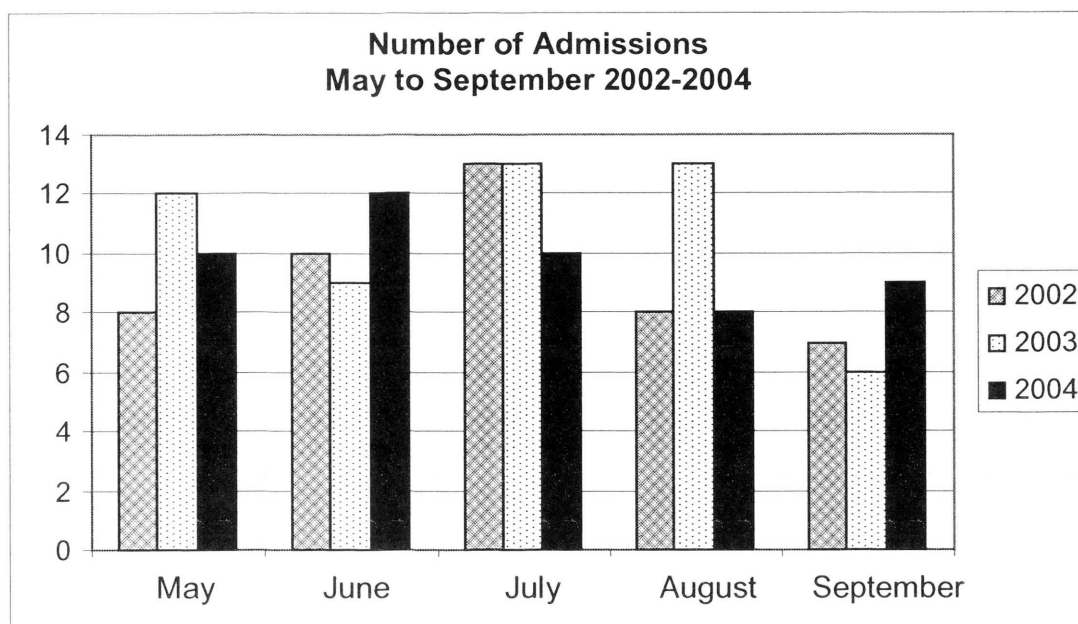


Figure 4.2: Number of admissions to Palm Court from May to September 2002-2004

For the duration of the study, from May to September 2004, the average length of stay for the acupuncture subjects was 22.5 days, in comparison to 16 days in 2003 and 18.1 days in 2002, for the same period.

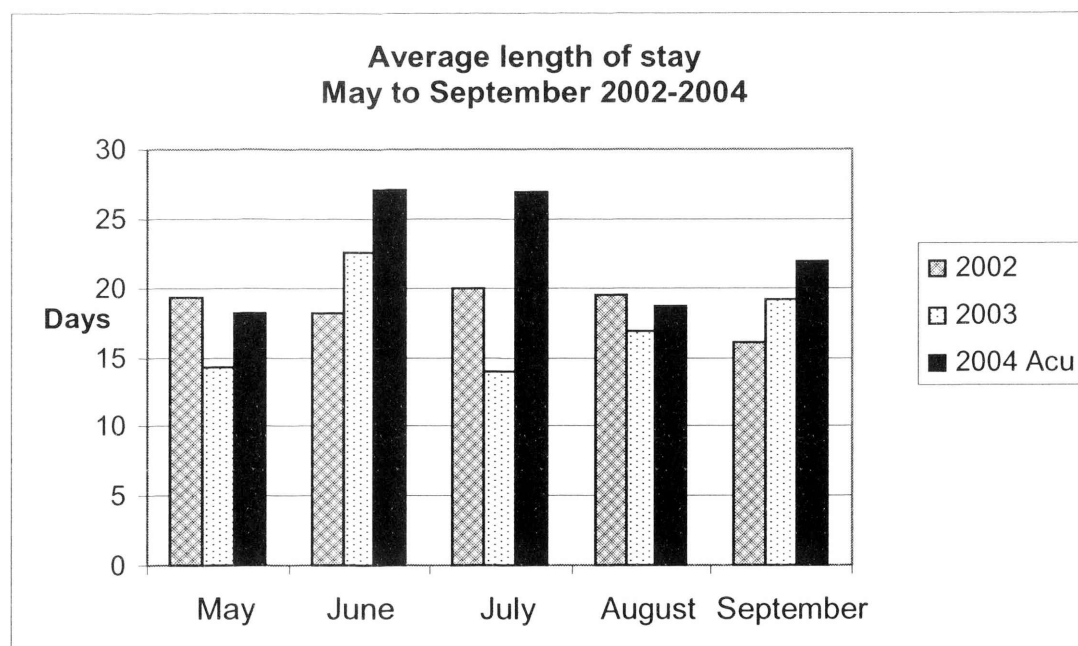


Figure 4.3: Average length of stay (days) at Palm Court from May to September 2002-2004

4.13 Overall number of treatments received, by week

Another set of analysis considered subjects in relation to the number of treatments they received. There were four of these status groups. Status 1 subjects received one of the four prescribed acupuncture treatments. Status 2 subjects received two treatments and Status 3 and 4 subjects received three and four treatments respectively. Note: Status 4 and Group D include the same 13 subjects (ie all those who completed both the acupuncture and Palm Court program).

4.13.1 Pre and post treatment mean anxiety scores: Treatment 1

Status (number of total treatments)	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)	p value
1 (N = 15)	45 \pm 2.9	31 \pm 2.9	< 0.02
2 (N = 12)	46 \pm 3.2	32 \pm 3.2	< 0.04
3 (N = 7)	55 \pm 4.2	31 \pm 4.2	< 0.004
4 (N = 13)	47 \pm 3.1	34 \pm 3.1	NS

Table 4.13.1: Status 1 to 4 mean anxiety scores pre and post treatment at treatment 1 (SEM = standard error of the mean)

Table 4.13.1 compares pre and post treatment mean anxiety scores for the four status groups for the first treatment intervention (week 1). There were no significant differences between the groups' Pre treatment mean anxiety scores which ranged from 45 to 55. For all status groups, the mean anxiety scores decreased post treatment. These changes were statistically significant for status 1, 2 and 3 but not for status 4 (note that this is the completion group).

4.13.2 Pre and post treatment mean anxiety scores: Treatment 2

Status	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)	p value
2 (N = 12)	42 \pm 3.2	28 \pm 3.2	< 0.03
3 (N = 7)	44 \pm 4.2	30 \pm 4.2	NS
4 (N = 13)	42 \pm 3.1	26 \pm 3.1	< 0.01

Table 4.13.2: Status 2 to 4 mean anxiety scores pre and post treatment at treatment 2 (SEM = standard error of the mean)

Table 4.13.2 shows the pre and post mean anxiety scores for the three status groups that returned for a second treatment intervention (week 2). Again, there were no significant differences among the three status groups in the Pre treatment mean anxiety scores (range 42 - 44). While mean anxiety scores decreased after the intervention for all three groups, this decrease was not statistically significant for status 3.

4.13.3 Pre and post treatment mean anxiety scores: Treatment 3

Status	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)	p value
3 (N = 7)	43 \pm 4.7	29 \pm 4.7	NS
4 (N = 13)	47 \pm 3.5	26 \pm 3.5	< 0.001

Table 4.13.3: Status 3 and 4 mean anxiety scores pre and post treatment at treatment 3 (SEM = standard error of the mean)

Table 4.13.3 shows the pre and post mean anxiety scores for the two remaining status groups who received a third treatment intervention (week 3). Again the pre and post treatment mean anxiety scores did not differ for the two groups. The treatment intervention achieved a significant reduction in mean anxiety scores for status 4 but not for status 3.

4.13.4 Pre and post treatment mean anxiety scores: Treatment 4

Status	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)	p value
4 (N = 13)	34 \pm 3.6	24 \pm 1.2	< 0.01

Table 4.13.4: Status 4 mean anxiety scores pre and post treatment at treatment 4 (SEM = standard error of the mean)

Table 4.13.4 shows the pre and post mean anxiety scores for status 4 who received all four treatment interventions (week 4). There was a statistically significant decrease in anxiety following the fourth treatment intervention.

4.14 Effects of treatment within the same status group

A second set of comparisons examined the effects of the treatments within the same status group, across the treatment weeks (ie the number of treatments completed). At the same time, Pre treatment mean anxiety scores across the treatment were also examined for statistically significant changes.

4.14.1 Status 2 (N = 12)

Status 2	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)
Treatment 1	46 \pm 3.1	32 \pm 3.1
Treatment 2	43 \pm 3.1	28 \pm 3.1

Table 4.14.1: Status 2 mean anxiety scores pre and post treatment at treatments 1 and 2 (SEM = standard error of the mean)

Status 2 completed two weeks of treatment. It can be seen from Table 4.14.1 that Pre treatment mean anxiety scores for the group did not differ significantly across the two weeks, with means of 46 and 43 respectively ($p > 0.6$). For both weeks, although the mean anxiety scores post treatment decreased statistically significantly, these decreases did not differ significantly from each other across the two weeks. That is, there was no significant change in the mean anxiety scores for the group across the two weeks ($p > 0.7$).

4.14.2 Status 3 (N = 7)

Status 3	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)
Treatment 1	55 \pm 4	31 \pm 4
Treatment 2	45 \pm 4	30 \pm 4
Treatment 3	43 \pm 4	29 \pm 4

Table 4.14.2: Status 3 mean anxiety scores pre and post treatment at treatments 1, 2 and 3 (SEM = standard error of the mean)

Table 4.14.2 shows similar treatment comparisons for status 3 across the three weeks of interventions. It should be noted that status 3 comprised only seven subjects. Among the pre and post treatment comparisons, the only statistically significant decrease in the mean anxiety score occurred following the initial treatment (ie week one). This score was statistically higher than all the post treatment mean anxiety scores for the three treatments.

Pre intervention mean anxiety scores: These did not differ significantly across the three weeks completed (55, 45 and 43 respectively).

Post intervention mean anxiety scores: The mean anxiety scores were very similar for the three weeks of intervention (31, 30 and 29 respectively) and clearly did not differ significantly from each other. While all three post treatment mean anxiety scores were lower than their Pre treatment mean anxiety scores, again there was no evidence of a progressive improvement with ongoing treatment.

4.14.3 Status 4 (N = 13)

Status 4	Pre treatment anxiety scores (mean \pm SEM)	Post treatment anxiety scores (mean \pm SEM)
Treatment 1	47 \pm 4	34 \pm 4
Treatment 2	42 \pm 4	26 \pm 4
Treatment 3	47 \pm 4	26 \pm 4
Treatment 4	34 \pm 4	24 \pm 4
p value	T 4 < T 1 p < 0.01 T 4 < T 3 p < 0.02	

Table 4.14.3: Status 4 mean anxiety scores pre and post treatment at treatments 1, 2, 3 and 4 (SEM = standard error of the mean)

Pre intervention mean anxiety scores: Among the four weeks Pre treatment mean anxiety scores there were some statistically significant differences. Treatment 4 Pre treatment mean anxiety score was statistically lower than treatment 1 mean (34 cf 47; p < 0.01) and treatment 3 (34 cf 47; p < 0.021) Pre treatment mean anxiety scores. There is some evidence that decreases in mean anxiety scores were maintained following treatment 3 as is evident from the lowered Pre treatment mean score for week 4.

Post intervention mean anxiety scores: The mean decrease in anxiety scores achieved post treatment did not differ significantly across the four weeks. Interestingly, the decrease in post treatment mean anxiety score was statistically significant for weeks 1, 2 and 3 but not for week 4. This reflects the significant decrease in Pre treatment anxiety for week 4 already mentioned. That is, the mean decrease effected at week 3 intervention appears to have been maintained through to week 4.

In summary, these analyses indicate a similar pattern across the four weeks. There was typically a decrease in mean anxiety scores from pre to post treatment for each status group and in the majority of cases (seven out of ten) these decreases achieved statistical significance.

Table 4.15 shows the total number of points needed for each status group for each week (in view of the different numbers in each group the average is shown in parenthesis).

Status	N	Week 1	Week 2	Week 3	Week 4
1	15	83 (5.5)			
2	12	63 (5.3)	64 (5.4)		
3	7	36 (5.2)	41 (5.9)	40 (5.7)	
4	13	66 (5.1)	63 (4.9)	55 (4.2)	54 (4.2)

Table 4.15 shows the total number of points needed for each status by week

From Table 4.15 it can be seen that status groups received an average of 4.2 to 5.9 points per treatment. It is notable that the lowest averages were recorded for status 4, ranging from 5.1 on week one, to 4.2 on week 4. By contrast, all of the point selections for the other three status groups on any week were higher for status 4 in the same week.

Note that for week 2 there was a borderline significant difference in that status 4 received relatively fewer needling of points than expected ($p = 0.05$).

Table 4.16 shows the number of different points from which selection was made for each status group and each week (ie the frequency of points).

Status	N	Week 1	Week 2	Week 3	Week 4
1	15	30			
2	12	36	35		
3	7	24	35	29	
4	13	26	18	28	27

Table 4.16: Frequency of acupuncture points by week

While the status groups varied in number of subjects (and this could possibly influence the variety of different points selected) this does not appear to be the case, as can be seen in Table 16. For example status 2 ($N = 12$) and status 4 ($N = 13$) were almost the same size, and yet the former had points selected from a clearly wider distribution than did the latter, on the two comparable treatment weeks available e.g. 36 cf 26 for week 1 and 35 cf 18 for week 2.

Another feature of the table is the relatively wider array of points selected for the three noncompleting status groups compared with status 4. For example, the broadest array for status 4 was 28 points (week 3) ranging down to 18 (week 2).

While for status 1-3 there was only one occasion of the nine, where a narrower array was evident and that was for the very small status 3 (N = 7) on week 1. The remaining arrays range from 29 to 36.

4.15 Feedback from client satisfaction survey

Subject perceptions of the acupuncture treatment program were recorded and are summarised in Table 4.17 for the 22 who completed the questionnaire (47%).

In the Table it can be seen that 16 out of 22 subjects (73%) rated the effectiveness of acupuncture as *excellent*. Nineteen (86%) reported they were *very satisfied* with the acupuncture treatments generally. Twenty one subjects (96%) reported they were *very satisfied* with the help they received from the student practitioners. Subjects were asked if they would have acupuncture again if in need of similar help, 20 (91%) indicated *yes definitely* with the remaining two subjects reporting *yes generally*.

1. How would you rate the effectiveness of the acupuncture treatment you received?			
Poor	Fair	Good	Excellent
	N = 1	N = 5	N = 16
2. Did you get the kind of effect you wanted from the acupuncture treatment?			
No, definitely not	No, not really	Yes, generally	Yes, definitely
	N = 1	N = 8	N = 13
3. To what extent has our acupuncture program met your needs?			
None of my needs have been met	Only a few of my needs have been met	Most of my needs have been met	Almost all of my needs have been met
	N = 1	N = 7	N = 14
4. If a friend were in need of similar help, would you recommend acupuncture to him or her?			
No, definitely not	No, not really	Yes, generally	Yes, definitely
		N = 5	N = 17
5. How satisfied are you with the amount of help you have received from the student practitioner?			
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied
		N = 1	N = 21
6. Have the acupuncture treatments you received helped you to deal more effectively with your problems?			
No, they seemed to be making things worse	No, they really didn't help	Yes, they helped somewhat	Yes, they helped a great deal
		N = 8	N = 14
7. In an overall, general sense, how satisfied are you with the acupuncture treatments you have received?			
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied
		N = 3	N = 19
8. If you were to seek help again, would you have acupuncture again?			
No, definitely not	No, not really	Yes, generally	Yes, definitely
		N = 2	N = 20
Comments:			
Good for relaxation			
Being a person with an addiction with IV drugs I found the treatment to be of use, I was happy with their professional help and understanding with the needs I was looking for. The calming aspect afterward of the treatment to the controlling aspect of my addiction. I will try to continue if I feel any problem or condition that I feel acupuncture could help with.			
Difficult to gauge the acupuncture effects specifically because of other treatments (medical, exercise etc) at Palm Court. Certainly I have improved and will keep an open-mind as to how acupuncture has helped. The treatment was well delivered, peaceful and most friendly. All therapists were extremely understanding and kind- I looked forward to Fridays. Many thanks.			
I found I looked forward to acupuncture whether it was placebo effect or not, it worked. I was extremely agitated last week and after treatment I was absolutely relaxed. I always seem to feel great during the week however on Thursdays I have a BAD day I can suffer because I know Acupuncture is the next day. I will definitely seek acupuncture as an alternative to Doctors or medicine. Thank you.			
Every one should give it a go			
I have not had acupuncture before. I did not know what to expect. It was all right.			
Very pleasantly presented and practiced. Much more effective than preconceived. Extremely delightful acupuncturist.			
(Student) was excellent, he made sure I was always comfortable and at ease and he taught me a lot about how acupuncture works. Before I tried it, I had a very negative attitude towards it. I thought it was up there with witch craft. But after experiencing my reactions, and feeling energy travel through my body, I was very convinced that acupuncture truly is a healing science. I will be visiting (student) at the clinic- you can count on it. Thank you very much			
I am a sceptical person by nature. But will give anything a go to prove/ disprove this scepticism. Treatment has proved to be 100 x better than my expectation. I have suffered 'shin splints' for over 20 years. The aches I have felt during this time have disappeared after 3 acupuncture treatments.			
I found it to be extremely calming and helpful especially in regards to anxiety.			

Table 4.17: Feedback from client satisfaction survey (N = number of subject responses)

Chapter 5

Discussion

Alcohol and other drugs are one of the leading causes of preventable mortality and morbidity in Australia. Despite this, treatment services are not adequately resourced to manage the enormity of the problem. Current evidenced based AOD treatment centres on cognitive behavioural therapy (CBT), counselling and focused psychological strategies aimed at reducing consumption, minimising harm or total abstinence. It has been the aim of this research study to explore acupuncture as a complementary treatment to an existing AOD treatment program.

As the first study of its kind in Australia, there were no functional models on which to base the trial. However, Victoria University have run a similar student placement program for some years and this was used as a basic framework for the present study. The program at Palm Court took two years to develop to the stage of implementation (Appendix K), including the lengthy process of applying for ethics approval from two hospital ethics committees and UTS. One of the conditions of the ethics approval was that in this pilot study, where there was no prior documented evidence to predict positive clinical effects from acupuncture treatment, there would not be a no treatment or placebo control. Rather, it was agreed by UTS and senior hospital staff that an uncontrolled pilot study was a necessary first step to determine the feasibility of acupuncture as an adjunct to an AOD treatment program.

The study had several limitations. Acupuncture was examined within a supportive, structured program and there was no baseline data to compare with the outcomes of the existing program. It is difficult to disentangle the effects of acupuncture from the effects of other treatments (including CBT and in some instances, antidepressant medications). Time in treatment may also have been an influencing factor. That is, patients may have reported a decrease in anxiety over four weeks regardless of whether they received treatment with acupuncture.

It is also important to note that Palm Court has rigorous admission criteria. Patients are only admitted if they can demonstrate that they are highly motivated, have undergone detoxification and have the intellectual and literacy capacity to participate in an intensive CBT program. The acupuncture trial recruited a self nominating sample within this group. Thus, the subjects recruited to the study are not necessarily representative of the general AOD population,

representing a sampling bias. Findings from this study may not apply in other alcohol and other drug treatment settings.

The lack of a control places many limitations on interpreting the findings. First, no cause and effect can be established between the acupuncture program and the clinical outcomes. At best, correlations could be analysed in relation to the acupuncture program and a range of subject and intervention variables. Possibly this would identify useful predictors of positive or negative clinical outcomes for the acupuncture program. A major series of comparisons concerned the retention rate, and efforts to determine whether subject variables explain who might complete the program. Variables included for analysis were pre and post treatment mean anxiety scores, gender ratio, drug of choice, mean age, acupuncture points selected, initial treatment date, principal student practitioner and total number of treatments received. Findings are discussed in the following sections.

Overall the mean anxiety levels decreased immediately after treatment for all groups, independent of drug of choice, mean age, number of treatments and gender. However, no strong predictors were identified. There was some indication that the point prescription and principal practitioner may have had an influence, with some students achieving a greater completion to drop out ratio. Possibly minor differences in point selections may have influenced the treatment outcomes.

The decrease in mean anxiety scores post treatment may be due to a number of non specific treatment outcomes including:

- i. subjects may have been anxious about receiving acupuncture, leading to a false high pre treatment anxiety score;
- ii. subjects may have had a positive therapeutic response to the consultation process;
- iii. the process of acupuncture treatment which involves lying down in a quiet room may have promoted (nontreatment) relaxation;
- iv. subjects may have reported a reduction in anxiety to please the student practitioners;
- v. subjects may have believed they were more likely to receive priority appointment bookings (the following week) if they responded positively to treatment;
- vi. subjects may have reported a decrease in anxiety if they believed the students were being assessed on the basis of their treatment outcome.

The strongest predictor of program completion was gender with females (regardless of drug of choice and mean age) more likely to complete the program than males. According to the Australian National Council on Drugs gender is not usually a predicting factor of program completion (2001).

While student practitioners conducting the treatments were all in the same level at University, their clinical competencies and confidence varied. The results show a range of treatment outcomes with some students having a greater completion to drop out ratio than others. This may have influenced the program retention rate as the therapeutic alliance is considered an important factor in program completion rates (Petry and Bickel, 1999). That is, patients were more likely to do well, and return for subsequent treatments if they had confidence and trust in the practitioner delivering acupuncture treatments.

The small sample sizes in each group may have prevented statistical significance being achieved. The subjects were defined by a number of key categories including gender, drug of choice, retention status and total number of treatments received. In all of these instances, the sample sizes were too small to draw conclusions, however the overall decrease in mean anxiety scores warrants further investigation.

Program completion rates were also examined and compared with a similar period for previous years. That is, the average length of stay for Palm Court residents for the 21 weeks (May to September 2004) were compared with the same data for these months in 2002 and 2003. Interestingly, there was evidence of a general increase in average length of stay for the acupuncture subjects with an average of 22.5 days compared with 18.1 and 16 for 2002 and 2003 respectively, despite similar number of admissions for the same period. By retaining patients in treatment, acupuncture may be an effective adjunct to current treatment programs.

It is important to note that there are a number of contributing factors to program admission and retention. Drug trends change over time. For example, during the Australian heroin drought in early 2001, Degenhardt and colleagues (2005) reported a decrease in number of patients seeking treatment for opiate dependence and a concurrent increase in treatment episodes for methamphetamines and cocaine. It was suggested that some heroin users switched to injecting other drugs (Degenhardt et al, 2005). A future retrospective analysis of retention rates would need to differentiate principal drug of choice for all subjects which could confound the results.

The current study was established as a capacity building initiative between the University of Technology, Sydney and Rozelle Hospital. The student clinical placement component of the study served a number of purposes. Most importantly, it was a cost effective way to deliver a greater number of treatments to patients (see Appendix M Budget and Expenditure).

Other benefits included increasing the knowledge and skills of students, to help them deal more effectively with all clinical presentations. That is, AOD patients often have chronic and complex complaints. By introducing students to complex disorders they have an opportunity to enhance their clinical knowledge, skills and confidence.

Peer based learning was another strength of the program. Working in pairs facilitated the exchange information and ideas about diagnosis and appropriate treatments. It is envisaged that by training students to manage AOD patients, as graduate practitioners, they are equipped to treat AOD disorders in the broader community. With this specialist training, new graduates are in a strong position to approach AOD treatment services and offer acupuncture sessions in a range of settings. Thereby increasing the awareness and uptake of acupuncture in mainstream AOD treatment services.

An unexpected outcome of the trial resulted in two (of 13) participants who completed the trial, attending the UTS Acupuncture Clinic for ongoing outpatient treatment following their discharge from Palm Court.

The anecdotal health benefits perceived by patients and staff have led to an ongoing continuation of the student clinical placement program. At the time of publication, 270 acupuncture treatments have been delivered to 108 patients enrolled in the program.

Chapter 6

Conclusion and future considerations

One of the functions of a pilot study is to facilitate development of a suitable design and methodology for an effective full scale study. This pilot identified the following important areas that must be considered in future controlled studies:

1. Only include subjects who will be able to complete the entire program. In the present program there were ten subjects who could not complete because of a limit to the number of treatments delivered each week. The average was six acupuncture treatments per week. Palm Court accommodates up to 15 inpatients at any one time, therefore subjects who elected for acupuncture may not have received treatments due to a busy treatment schedule. Also, patients who were in Palm Court when the trial commenced (May 21 2004) were at different stages of their treatment program and may have been due for discharge shortly after the trial commenced. On several occasions the acupuncture sessions conflicted with other appointments such as dental appointments, individual sessions with the primary nurse or scheduled leave.
2. Some form of adequate control needs to be included. This is always a problem with acupuncture. With an AOD population in a therapeutic treatment environment, there are ethical concerns about withholding a treatment. Because admission to Palm Court is time limited to four weeks, it would not be feasible to use a wait list control. One relaxing aspect to treatment with acupuncture that may contribute nonspecifically to relaxation and possible decrease in anxiety is the process of lying in quiet room and talking to a supportive health care practitioner. A possible control for these nontreatment specific health outcomes is a relaxation control group. Other possibilities include:
 - i. sham laser using a non active laser beam
 - ii. magnetic acupuncture which involves taping magnets over acupuncture points instead of inserting needles.

These methods are more suitable for either an acupuncture naive sample, or alternatively if the subjects are informed they are receiving a *different* method of treatment.

3. Ensure there are adequate student practitioners available to conduct the treatments. In the present pilot study on one occasion (week 17) there were no student practitioners to deliver the individual treatments and therefore subjects received a group (NADA) ear acupuncture session. For consistency, the pre and post treatment questionnaires for this session were not used in the final data analysis.
4. Set parameters of acupuncture points and have the same person determining the point selection for all subjects, so that the same prescription is being used for similar presentations. This may be determined by the drug of choice (ie all alcohol patients receive the same set of acupuncture points) or by a cluster of clinical presentations (ie anxiety with insomnia is treated uniformly for all patients).
5. Restrict the subject inclusion criteria to a single primary drug of choice, for example alcohol. This will help tighten the point prescription as it would be expected that subjects would present with similar complaints.
6. Collect baseline mean anxiety data prior to the study and at the end of the trial to determine general levels of anxiety and changes over time. The Speilberger trait anxiety scale (Appendix F) is a suitable measure of pre intervention baseline anxiety. The current study could have been made more rigorous with the inclusion of this research tool.
7. Compare the duration of stay for the same period in previous years excluding the trial period (May to October 2004). A retrospective study of patients may give an indication of overall changes in program retention rates.
8. Have an independent evaluator, not the principal practitioner, administer the pre and post treatment anxiety questionnaires. A therapeutic alliance is formed when patients have trust and confidence in their treating practitioner (Petry and Bickel, 1999). This rapport may influence self reporting of patient outcomes. That is, patients may report a decrease in anxiety to please the practitioner. An independent assessor may minimise practitioner bias.

9. Conduct an alcohol and other drugs training session for all participating students, to ensure their level of knowledge and skills are similar across the group. This study demonstrates the role of the principal practitioner in achieving high program completion rates. For this reason, the practitioners must be able to demonstrate a high level of clinical knowledge and confidence to build a therapeutic alliance with their patients.
10. Recruit a larger sample size to have sufficient power to detect a small treatment effect. As a general rule, a larger sample size will decrease a sampling error. That is, with a larger AOD sample group, the results are more likely to apply to the general AOD population. Findings of the current study are limited by small sample sizes for each group.

A further consideration may be to conduct a follow up at three, six and 12 months will determine the longer term benefits of acupuncture treatment. However, this is costly and due to the transient nature of some AOD patients, may be difficult to conduct.

Despite the limitations of this uncontrolled open label pilot study, it has been a necessary first step. The study *An Examination of the Effectiveness of Acupuncture as an Adjunct to an Alcohol and Other Drugs Treatment Program* has provided a foundation on which to build an evidence base in the future.

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Appendices

Appendix A: Summary of common anxiety medications

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Appendix A: Summary of common anxiety medications

Selective Serotonin Reuptake Inhibitors (SSRIs)

These are antidepressant medications which are prescribed for their anxiolytic (reducing anxiety) effects. Side effects include insomnia, increased sweating and decreased libido (Kasper and Heiden, 1995). SSRIs must be taken on a daily basis for at least a few weeks before they are effective

Serotonin and Noradrenalin Reuptake Inhibitors (SNRIs)

These antidepressant medications influence the levels of serotonin and noradrenalin, endogenous neurotransmitters responsible for emotions and mood. Side effects of SNRIs include nausea, sexual dysfunction, sleep disturbances, tremors and hypertension (Hickie, 2000).

Monoamine Oxidase Inhibitors (MAOIs)

MAOIs are antidepressants which work by decreasing the rate at which serotonin and noradrenalin are broken down and reabsorbed into the blood stream (Andrews and Hunt, 1998). This leads to a gradual rise in both neurotransmitters in the endocrine system and in time, an enhanced sense of wellbeing. Side effects of MAOIs include sudden onset of hypotension, headaches and vomiting. These side effects are exacerbated by common foods containing tyramine, an amino acid in foods such as alcohol, coffee and cheese. Other side effects include insomnia, fatigue or drowsiness, sexual dysfunction and weight gain.

Benzodiazepines

Benzodiazepines are central nervous system depressants and are prescribed in the treatment of anxiety for their tranquilizer effects (Norman et al, 1998). Benzodiazepines are regarded cautiously for patients with previous drug dependencies as benzodiazepines have a high incidence of toxicity, dependence and abuse potential.

Beta Blockers

Beta blockers reduce the effects of noradrenalin and adrenalin in the endocrine system. Noradrenalin and adrenalin stimulate the central nervous system resulting in increased alertness, heart rate and sweating. Beta blockers are faster acting than antidepressants, the effects of which are noticeable within a few hours of taking them (Burns, 1999). However, sudden cessation of treatment with beta blockers is potentially dangerous and may lead to heart attacks. For this reason, beta blockers are only suitable for stable, compliant patients which may exclude some AOD patients.

INFORMATION FOR PARTICIPANTS

An examination of the effectiveness of acupuncture as an adjunct to an alcohol and other drug treatment program: A pilot study

You are invited to take part in a research study into the effectiveness of acupuncture as an addition to an alcohol and other drug (AOD) treatment program.

The objective of the research is to investigate whether the addition of acupuncture to an existing AOD program has an effect on anxiety and insomnia, general health and program retention rates. The study is being conducted by Dr Joanne Ferguson (CSAHS) and Katherine Berry of the University of Technology, Sydney (UTS).

If you agree to participate in this study, you will be treated by a final (4th) year student practitioner from UTS. Up to four weekly treatments of acupuncture will be administered (over the period of one month). Each acupuncture treatment is expected to take one hour. During each one-hour session a student practitioner will ask you a number of questions involving your present health, presenting problem and level of anxiety. For the first session you will be asked to provide demographic details and describe physical complaints in order to formulate a treatment plan. After each acupuncture session you will be asked to fill in a brief questionnaire to assess the immediate effects of acupuncture. After the end of all the sessions, you will be asked to fill in a patient satisfaction survey.

The acupuncture procedure involves the insertion of fine needles into the skin which may feel like a mosquito bite. Side effects in acupuncture are infrequent and generally limited to bruising and spot bleeding. On rare occasions patients may feel faint and nauseous. In the unlikely event that this occurs, the treatment session would be terminated and a nurse would attend you.

The acupuncture treatments will be offered every Friday afternoon from 1.00pm- 5.00pm at Palm Court Unit Ward 28E, Rozelle Hospital.

All aspects of the study, including results, will be strictly confidential and only the investigators named above will have access to information on participants following the trial. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

While we intend that this research study furthers medical knowledge and may improve treatment of people in rehabilitation programs in the future, it may not be of direct benefit to you.

Participation in this study is entirely voluntary: you are in no way obliged to participate and - if you do participate - you can withdraw at any time. Whatever your decision, please be assured that it will not affect your rehabilitation or your relationship with staff.

When you have read this information, the student practitioner will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Dr Joanne Ferguson (telephone 9556 9100) or Katherine Berry (9514 2000).

This information sheet is for you to keep.

This study has been approved by the Ethics Review Committee (RPAH Zone) of the Central Sydney Area Health Service. Any person with concerns or complaints about the conduct of a research study can contact the Secretary on 02 9515 6766.

PATIENT CONSENT FORM

I _____ have read and understood the information for participants

and discussed the study with _____ (name of student) and freely choose to participate in the study titled *An examination of the effectiveness of acupuncture as an adjunct to an existing alcohol and other drug treatment program* being conducted by Katherine Berry of the University of Technology, Sydney, for the purpose of her Masters degree.

I understand that the purpose of this study is to evaluate if the addition of acupuncture to an existing drug and alcohol program improves patient health outcomes.

I understand that my participation in this research will involve receiving up to four acupuncture treatments, conducted by a volunteer student practitioner. I understand that the duration of these treatments will be approximately one hour and that information collected by a questionnaire before and after the treatments. **I am aware that I may choose to withdraw from the research at any time and that this will not prevent me receiving any current or future treatment.**

To the best of my knowledge I do not have epilepsy or any other medical conditions (e.g., past history of fainting) that would preclude me from this study.

I am aware that I can contact Katherine Berry or her supervisor Dr Deirdre Cobbin if I have any concerns about the research (telephone 02 9514 2000). I also understand that I am free to withdraw my participation from this research project at any time I wish and without giving a reason.

I agree that the student practitioner has answered all my questions fully and clearly.

I agree that the research data gathered from this project may be published in a form that does not identify me in any way.

_____/_____/_____
Signed by

_____/_____/_____
Witnessed by

NOTE:

This study has been approved by the Ethics Review Committee (RPAH Zone) of the Central Sydney Area Health Service. Any person with concerns or complaints about the conduct of a research study can contact the Secretary on 02 9515 6766.

Appendix D Patient Demographic Information Form

Date: / /2004

CODE:

Patient Demographic Information Form

*Patients **must** sign a written consent form before commencing this questionnaire*

Date of admission to Palm Court / / 2004

Date of discharge from Palm Court / / 2004 (days)

Are you

- ☐ Male
☐ Female

What is your date of birth? _____

Age at consultation: _____

In what country were you born?

- ☐ Australia
☐ Other, please specify _____

Occupation _____

Education

- ☐ School certificate (year 10)
☐ Higher School Certificate (HSC)
☐ Tertiary
☐ Other _____

Marital status

- ☐ Married
☐ De facto
☐ Single
☐ Divorced

Accommodation

- ☐ Rented house or flat (private or public)
☐ Privately owned house
☐ Boarding house
☐ Hostel
☐ No usual residence/ homeless
☐ Other _____

What drug has led you to seek treatment from this service? Please specify (only one drug or alcohol)

How did you usually take this drug?

- ☐ Ingest (eat, drink, swallow)
☐ Smoke
☐ Inject
☐ Sniff (powder)
☐ Inhale (vapour)
☐ Other, please specify _____

What other drugs or alcohol have caused you concern over the last 12 months?

1. _____

2. _____

3. _____

Have you tried acupuncture before?

- ☐ Yes
☐ No

If yes, did you have any complications?

- ☐ Yes
☐ No

Have you had fainting episodes in the past (not related to drug and alcohol use)?

- ☐ Yes
☐ No

UTS TCM Clinic - Initial Treatment Form

List any concurrent therapies: _____

General

- | | | | | |
|--|---|---|--|--|
| <input type="checkbox"/> Chill | <input type="checkbox"/> Fever | <input type="checkbox"/> Night Sweats | <input type="checkbox"/> Sweats Easily | <input type="checkbox"/> Cold hands / feet |
| <input type="checkbox"/> Fatigue | <input type="checkbox"/> Heavy Sleep | <input type="checkbox"/> Insomnia | <input type="checkbox"/> Depression | <input type="checkbox"/> Anxiety |
| <input type="checkbox"/> Occupational stress | <input type="checkbox"/> Emotional stress | <input type="checkbox"/> Wakes (time) _____ | | |

Notes: _____

Average Daily Diet

Morning / noon: _____ Evening: _____

Cravings: _____ Thirst (hot / cold): _____

Musculoskeletal

- ☐ Muscle pain ☐ Joint pain ☐ Bone pain **Refer to diagram overleaf**

Describe nature / location of pain: _____

Digestive

- | | | | |
|---|--------------------------------------|--|--------------------------------------|
| <input type="checkbox"/> Appetite poor / strong | <input type="checkbox"/> Indigestion | <input type="checkbox"/> Flatulence | <input type="checkbox"/> Borborygmus |
| <input type="checkbox"/> Nausea | <input type="checkbox"/> Vomiting | <input type="checkbox"/> Constipation | <input type="checkbox"/> Diarrhoea |
| <input type="checkbox"/> Cramps | <input type="checkbox"/> Pain | <input type="checkbox"/> Blood in stools | |

Bowel Movement:

Frequency: _____ Colour: _____ Form: _____

Notes: _____

Urinary

- ☐ Pain on urination ☐ Urgency to urinate ☐ Blood in urine ☐ Dribbling
- ☐ Wakes to urinate How often: _____ Frequency: How often: _____

Notes: _____

Head, Eyes, Ears, Nose, Throat

- | | | | | |
|--|--|---------------------------------------|--|--------------------------------------|
| <input type="checkbox"/> Eye strain | <input type="checkbox"/> Eye pain | <input type="checkbox"/> Dry eyes | <input type="checkbox"/> Spots in vision | <input type="checkbox"/> Ear aches |
| <input type="checkbox"/> Ringing in ears | <input type="checkbox"/> Sinus problem | <input type="checkbox"/> Mucus | <input type="checkbox"/> Dry throat | <input type="checkbox"/> Sore throat |
| <input type="checkbox"/> Dry mouth | <input type="checkbox"/> Mouth ulcers | <input type="checkbox"/> Gum problems | <input type="checkbox"/> Grinding of teeth | |

Headaches (where, when, duration, nature): _____

Notes: _____

Respiratory

- | | | | |
|--------------------------------------|---|--|-------------------------------------|
| <input type="checkbox"/> Dry Cough | <input type="checkbox"/> Productive Cough | <input type="checkbox"/> Asthma | <input type="checkbox"/> Wheezing |
| <input type="checkbox"/> Tight chest | <input type="checkbox"/> Difficulty breathing | <input type="checkbox"/> Shortness of breath | <input type="checkbox"/> Bronchitis |

Mucus / phlegm (colour, consistency etc.) _____

Notes: _____

UTS TCM Clinic - Initial Treatment Form

Cardiovascular

- ☐ High BP ☐ Low BP ☐ Irregular heartbeat ☐ Difficulty breathing
☐ Chest pain ☐ Fainting ☐ Dizziness ☐ Swollen ankles

Notes: _____

Skin

- ☐
- Rashes
- ☐
- Eczema
- ☐
- Purpura
- ☐
- Acne
- ☐
- Pimples
- ☐
- Itching

Notes: _____

Female Reproductive

$$\text{Age at first menses} : \frac{\text{Duration}}{\text{Period (days)}}$$

eg. $13 \frac{5}{28}$

Menses

- ☐ Irregular periods ☐ Amenorrhoea ☐ Dysmenorrhoea

Describe type and nature of menses in relation to:

Flow: _____ Clots (size): _____

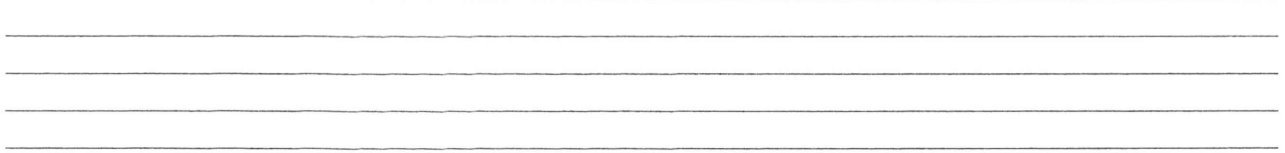
Discharge: _____ Colour: _____

Changes in body / psyche prior to menstruation: _____

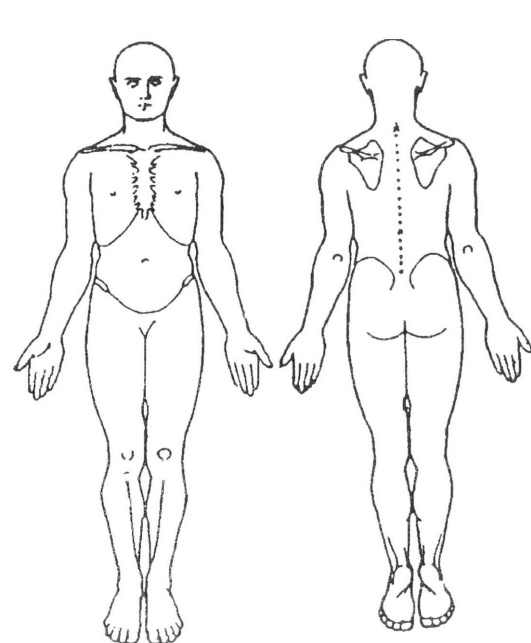
No. of pregnancies: _____ No. of miscarriages: _____ Contraceptives: _____

Notes: _____

General Comments:



Mark areas of pain/ tenderness, skin lesions etc on the diagram below



Note tender Mu points: _____

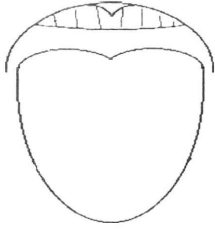
Note tender Shu points:_____

Note areas of abdominal tenderness:_____

Tongue

Indicate cracks / ulcerations / teeth marks etc on diagram.

UTS TCM Clinic - Initial Treatment Form



Shape: ☐ Pointed ☐ Splayed ☐ Swollen

Coat: ☐ Dry ☐ Greasy ☐ Moist
☐ Peeled ☐ Ulcerated ☐ Papillae

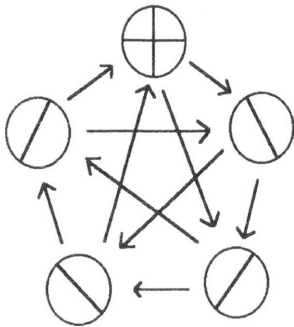
Coat Colour ☐ Yellow ☐ White ☐ No Coat Other _____

Body Colour ☐ Red ☐ Pale ☐ Purple Other _____

Notes: _____

Pulse

Mark excess / deficient pulse positions on diagram



Left/right balance: _____

Cun / Guan / Chi: _____

Rate: _____

Depth: _____

Qualities: _____

Diagnosis: _____

Treatment Principle: _____

Treatment:

☐ Acupuncture ☐ Moxa ☐ Cupping ☐ Electro ☐ Laser ☐ Tui Na

☐ Ear Acupuncture Other: _____

Print Student Name: _____

Practitioner Signature _____

Appendix F: Speilberger Trait Scale

Developed by Charles D. Speilberger
In collaboration with
R.L. Gorsuch, R. Lushene, P.R. Vagg, and G. A. Jacobs

Date: _____ / _____ /2004

CODE: _____

Self Evaluation Questionnaire

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describes how you generally feel.

	Almost	Never	Sometimes	Often	Always
1. I feel pleasant.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I feel nervous and restless.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I feel satisfied with myself.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I wish I could be as happy as others seem to be.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel like a failure.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel rested.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am 'calm, cool and collected'.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I feel that difficulties are piling up so that I cannot overcome them.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I worry too much over something that really doesn't matter.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I am happy.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I have disturbing thoughts.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I lack self confidence.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I feel secure.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I make decisions easily.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I feel inadequate.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I am content.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Some unimportant thought runs through my mind and bothers me.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I take disappointments so keenly that I can't put them out of my mind.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I am a steady person.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I get in a state of tension or turmoil as I think over my recent concerns & interests.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix G: Spielberger state scale

Developed by Charles D. Spielberger
In collaboration with
R.L. Gorsuch, R. Lushene, P.R. Vagg, and G. A. Jacobs

Date: / /2004
Time: _____

CODE:

Patient Pre/ Post-Treatment Survey

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best

	Not at All	Somewhat	Moderately so	Very much so
1. I feel calm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I feel secure.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I am tense.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I feel strained.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel at ease.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel upset.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am presently worrying over possible misfortunes.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I feel satisfied.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I feel frightened.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I feel comfortable.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I feel self-confident.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I feel nervous.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I am jittery.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I feel indecisive.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I am relaxed.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I feel content.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I am worried.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I feel confused.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I feel steady.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I feel pleasant.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Date: _____

UTS TCM Clinic – Subsequent Treatment Form

The presenting problem is:

Old (returning for treatment)

New (symptom not reported before)

Presenting problem 1: _____

New Symptom 1: _____

Improvement factor

☐ Worse ☐ No Change ☐ Slight Improvement
☐ Cured ☐ Good Improvement

New Symptom 2: _____

Presenting problem 2: _____

New Symptom 3: _____

Improvement factor

☐ Worse ☐ No Change ☐ Slight Improvement
☐ Cured ☐ Good Improvement

General Notes: _____

Presenting problem 3: _____

Improvement factor

☐ Worse ☐ No Change ☐ Slight Improvement
☐ Cured ☐ Good Improvement

Tongue

Indicate cracks / ulcerations / teeth marks



Shape:

☐ Pointed
☐ Splayed
☐ Swollen
☐ Papillae

Coat:

☐ Dry
☐ Greasy
☐ Moist
☐ Peeled
☐ Ulcerated

Coat Colour

☐ Yellow
☐ White
☐ No Coat
Other _____

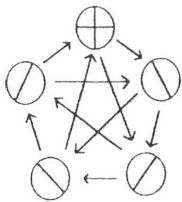
Body Colour

☐ Red
☐ Pale
☐ Purple
Other _____

Notes: _____

Pulse

Mark excess / deficient pulse positions



Left/right balance: _____

Cun / Guan / Chi: _____

Rate: _____

Depth: _____

Qualities: _____

Diagnosis: _____

Treatment Principle: _____

Treatment: ☐ Acupuncture ☐ Moxa ☐ Cupping ☐ Electro ☐ Laser ☐ Tui Na
☐ Ear Acupuncture Other _____

Print Student Name _____ Practitioner Signature _____

Appendix I: Client satisfaction questionnaire

Client Satisfaction Questionnaire

Please help us improve our ACPUNCTURE program by answering some questions about the services and treatments you have received. We are interested in your honest opinion, whether they are positive or negative. Please answer all of the questions. We also welcome your comments and suggestions.

Thank you very much, we really appreciate your help.

CIRCLE YOUR ANSWER

1. How would you rate the effectiveness of the acupuncture treatment you received?

4	3	2	1
Excellent	Good	Fair	Poor

2. Did you get the kind of effect you wanted from the acupuncture treatment?

1	2	3	4
No, definitely not	No, not really	Yes, generally	Yes, definitely

3. To what extent has our acupuncture program met your needs?

4	3	2	1
Almost all of my needs have been met	Most of my needs have been met	Only a few of my needs have been met	None of my needs have been met

4. If a friend were in need of similar help, would you recommend acupuncture to him or her?

1	2	3	4
No, definitely not	No, not really	Yes, generally	Yes, definitely

5. How satisfied are you with the amount of help you have received from the student practitioner?

1	2	3	4
Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied

6. Have the acupuncture treatments you received helped you to deal more effectively with your problems?

4	3	2	1
Yes, they helped a great deal	Yes, they helped somewhat	No, they really didn't help	No, they seemed to make things worse

7. In an overall, general sense, how satisfied are you with the acupuncture treatments you have received?

4	3	2	1
Very satisfied	Mostly satisfied	Indifferent or mildly dissatisfied	Quite dissatisfied

8. If you were to seek help again, would you have acupuncture again?

1	2	3	4
No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely

Any comments or suggestions?

Scoring

Scores are summed across items once Items 2, 4, 5, and 8 are reverse scored. Total scores range from 8 to 32, with the higher number indicating greater satisfaction.



ACUPUNCTURE

Policies and Procedures Manual

2004

**Palm Court, Rozelle Hospital
Central Sydney Area Health Service**

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Clinic Sessions

Friday afternoons 1:00pm-5:00pm

Palm Court, Ward 28 Rozelle Hospital

Arrival

Arrive at 1.00pm

Park in the car park out the front and leave wallet, bags and mobile phones in the car.

Enter via west entrance and proceed to Staff office.

Introduce students to staff and discuss appointment schedule (red appointment book) for the afternoon.

Students and supervisor are to wear a personal 'telePROTECT' alarm while on the hospital premises. The alarm number will be allocated and written with the student's name, on the whiteboard in the staff office. The alarm is to be set to [1] located on the side of the alarm.

The supervisor is to unlock the staff tea room (with the blue-string key) at the end of the corridor. Supervisor and students to leave belongings in the staff tea room (including laptop).

Tea room door is to remain locked at all times.

Set-up

Furnishings

A staff member will give the supervisor the key to unlock the storeroom (opposite and to the right of the staff office). Students will collect the following acupuncture equipment from this room:

- Massage tables
- Pillows

Treatment Rooms

The Supervisor is to unlock the two treatment rooms the east wing and the middle room.

Students are to set up the two treatment rooms rearranging furniture to accommodate the massage table. Chairs are to be set up for consultation- for example facing each other. For security, chairs and tables are not obscure the door way. Curtains are to be closed with a sheet covering any gaps to protect the patient's privacy.

Linen

Linen is found in the linen room, at the west wing near the entrance. Linen includes:

- Sheets (for tables and curtains)
- Pillow cases
- Blankets
- Towels

Equipment

The supervisor will unlock the clinic room (opposite staff room) using the blue-string key where the following items are stored:

- Equipment box (with Acupuncture needles, Swabs, Ear studs, gloves, cotton wool and name tags)
- Paper towel
- Small white bins (labeled UTS Acupuncture Clinic)
- Yellow Sharps containers

Stationery and Forms

The acupuncture files and forms are stored in the Stationery Room, (opposite and to the left of the staff room). The blue-string key will unlock the stationery room and the files are kept in the second drawer of the middle filing cabinet. The white folders are labeled:

- Treatment forms

- Acupuncture Patient file

After the rooms are set up, the students and supervisor are to meet in the staff tea room to discuss the appointment schedule for the day.

NB. Students and supervisor are to wear the CSAHS Security tag (stored in the white equipment box) as well as the personal alarm.

Treatment

The red acupuncture appointment book should have bookings (from the previous week). If there are still appointments available the supervisor is to approach the patients, inform them of the acupuncture program and offer an afternoon appointment. If there are still appointments available, the staff may be offered treatments.

The treatment forms for new patients are kept in the back of the white folder labeled 'Acupuncture Patient File'. All the necessary forms are contained in individual plastic sleeves (one per patient). Duplicate copies are kept in the white folder labeled 'Treatment forms'.

A patient code (AOD00...) is given to each patient and is recorded in the front of the Acupuncture Patient File- with first name only.

Students are to go into the kitchen area or outside BBQ area and find the patient. Students are to introduce themselves and take the patient through to the treatment rooms making the patient comfortable (sitting or lying down).

Initial Treatment protocol

(Subsequent treatment go to page 7).

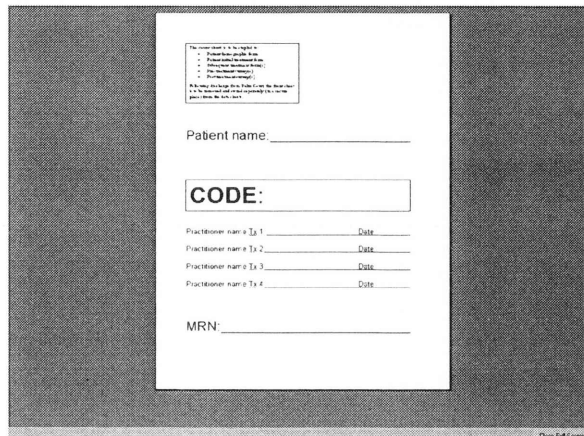
Introduction

Students are to briefly explain the principles of Chinese medicine and the treatment procedure, answering any questions that may arise. Patients are to be given the *Information for Participants* sheet.

Form 1: Cover page

Student:

- ☐ Fill in the patient's name and code (from supervisor).
- ☐ Fill in student(s) name and date.

The image shows a form titled 'Form 1: Cover page' with a header section containing a small box with text and a larger box with the text 'Patient name:'. Below this is a section labeled 'CODE:' with a large empty box for the code. Underneath the code box are four lines for 'Practitioner name Tx 1', 'Practitioner name Tx 2', 'Practitioner name Tx 3', and 'Practitioner name Tx 4', each followed by a 'Date' field. At the bottom is an 'MRN:' field with a line for the MRN number. The form is set against a dark, textured background.

Form 2: Information for Participants

Patient:

- ☐ Read this information sheet.

Student:

- ☐ Make sure the patient understands the information including the treatment process - assessment, diagnosis, discussion and treatment. And treatments will be offered each week for up to 4 weeks. Information sheet is double-sided.

- ❑ Ask the patient “when did you come to Palm Court” (date) or “how many days have you been here for?” Fill in admission date/ no. of days.
- ❑ Go through Qs 1-14.
- ❑ If Q 14 is “yes” to fainting unrelated to drug use, see the supervisor.

This is a 'Patient Demographic Information Form' from the University of Michigan. It includes fields for date, code, and admission date. The form is divided into two columns of questions. The left column covers personal information like age, sex, and education. The right column covers medical history, current symptoms, and social habits. Questions are numbered 1 through 14.

Form 5: Self Evaluation Questionnaire (pale blue form)

Student:

- ❑ Fill in the patient's code.
- ❑ Fill in date.

Patient:

- ❑ Read and fill in form- how they feel **generally**

This is a 'Self Evaluation Questionnaire' from the University of Michigan. It includes fields for date, code, and admission date. The form is divided into two columns of questions. The left column covers personal information like age, sex, and education. The right column covers medical history, current symptoms, and social habits. Questions are numbered 1 through 14.

Form 6: Clinical Assessment- UTS TCM Clinic Initial Treatment form

Student:

- ☐ Fill in as per treatment protocol.
- ☐ Take pulse/ check tongue.
- ☐ Inform the patient that you will be discussing their symptoms with the supervisor.
- ☐ Take detailed notes for data collection.
- ☐ NB. 3 pages single sided.

Form 7: Patient Pre- Treatment survey

Student:

- ☐ Fill in date, patient code and time.
- ☐ Request patients fill in the answers reading it carefully as the questions alternate between positive to negative expressions.

Patient:

- ☐ Fill in the wellness scale colouring in the circles (to be completed by patient when students are discussing the case in a separate room with the supervisor).

Case discussion (in Staff tea room)

- ❑ Students and supervisor to discuss the patient's presentation including appropriate treatment. NB. For privacy, the command points and channel points on the arms/legs, back and mid torso are more appropriate (as we do not want patients to disrobe).
- ❑ Students are to collect the required number of needles, swabs and gloves from the white equipment box (kept in the staff tea room).

Needle Insertion

- ❑ The student is to inform the patient of the points they intend to needle, giving a brief overview of the point functions and dynamics.
- ❑ With verbal consent, the points are to be sterilised using alcohol swabs.
- ❑ Gloves are to be worn during needle insertion.
- ❑ All rubbish (e.g. swabs) is to be disposed of in the small white acupuncture bins.
- ❑ NB. Tui Na and moxibustion are not appropriate for this population group.
- ❑ One student is to sit quietly outside the room for the duration of the treatment.

Needle withdrawal

- ❑ Needles are withdrawn after approximately 20 minutes.
- ❑ Gloves are worn when withdrawing the needles.
- ❑ Needles are immediately placed in a yellow sharps container.
- ❑ Needles are counted on disposal- to ensure all needles are withdrawn and that they are all accounted for.
- ❑ Gloves, swabs and cotton are disposed of in small white acupuncture bins.

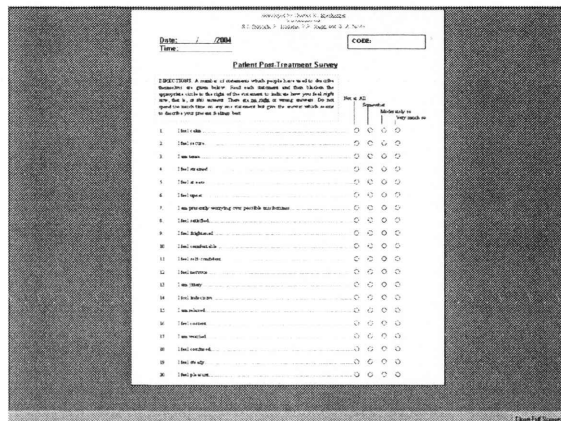
Form 8: Patient Post- Treatment survey (reverse side of the Pre -Treatment survey)

Student:

- ☐ Write the patient code and time.
- ☐ Inform the patient that we are assessing whether they feel any different after the treatment.

Patient:

- ☐ Fill in the wellness scale again (colouring in the circles).



Conclusion

Students are to check to ensure the patient is feeling okay. Patients are offered treatment for the following week.

Students to write appointment bookings into the red book.

Students are to fill in the Feedback sheet (which will be given to Palm Court staff at the end of the day).

Subsequent Treatment Protocol

Patient forms are kept in alphabetical order in the 'Acupuncture Patient File'.
For subsequent treatments, only two forms are required:

1. UTS Subsequent treatment form
2. Pre-Post Treatment survey

Form 1: UTS Subsequent treatment form

Student:

- ☐ Fill in as per treatment protocol
- ☐ Take pulse/ check tongue
- ☐ Inform the patient that you will be discussing their symptoms with the supervisor

Form 2: Patient Pre- Treatment survey

Student:

- ☐ Fill in date, patient code and time

Patient:

- ☐ Fill in the wellness scale colouring in the circles (to be completed by patient when students are discussing the case in a separate room with the supervisor).

Case discussion (in Staff tea room)

- ❑ Students and supervisor to discuss the patient's presentation including appropriate treatment.
- ❑ Students are to collect the required number of needles, swabs and gloves from the white equipment box (kept in the staff tea room)

Needle Insertion

- ❑ The student is to inform the patient of the points they intend to needle, giving a brief overview of the point functions and dynamics.
- ❑ With verbal consent, the points are to be sterilised using alcohol swabs.
- ❑ Gloves are to be worn during needle insertion.
- ❑ All rubbish (e.g. swabs) is to be disposed of in the small white acupuncture bins.
- ❑ One student is to sit quietly outside the room for the duration of the treatment.

Needle withdrawal

- ❑ Needles are to be withdrawn after approximately 20 minutes.
- ❑ Gloves are to be worn when withdrawing the needles.
- ❑ Needles are immediately placed in a yellow sharps container.
- ❑ Needles are to be counted on disposal- to ensure all needles are withdrawn and that they are all accounted for.
- ❑ Gloves, swabs and cotton are to be disposed of in small white acupuncture bins.

Form 3: Patient Post- Treatment survey (reverse side of the Pre -Treatment survey)

Student:

- ☐ patient code and time

Patient:

- ☐ Fill in the wellness scale (colouring in the circles).

Conclusion

Students are to check to ensure the patient is feeling okay. Patients are offered treatment for the following week.

Students to write appointment bookings into the red book.

Students are to fill in the Feedback sheet (which will be given to Palm Court staff at the end of the day).

Final (4th) Treatment

(As above).

Additional: After the post treatment survey, patients are to complete a 'Client Satisfaction Survey'.

Data Entry

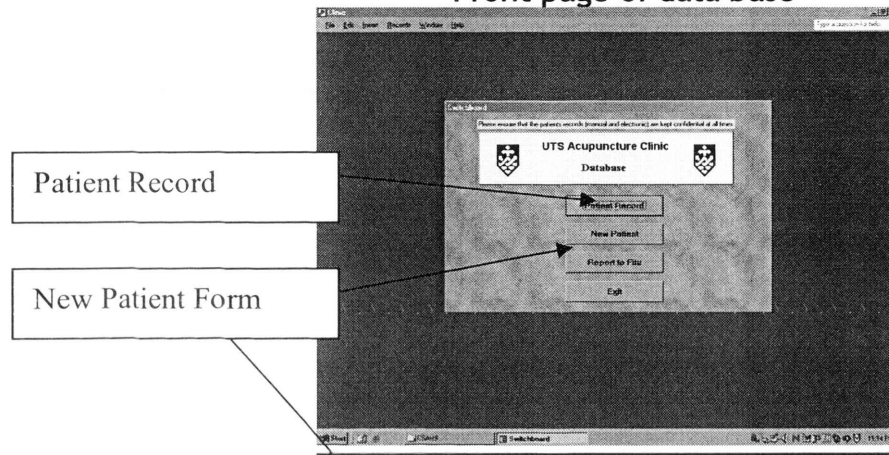
Patient Information

All patient information is to be entered into the UTS database on the (black) Dell Laptop.

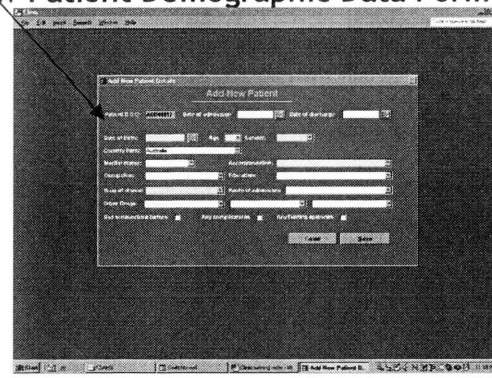
The database file is located on the *Desktop* of the laptop.

Students are responsible for keeping this database up to date.

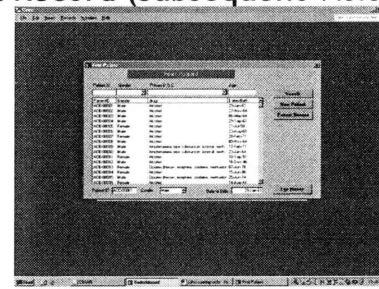
Front page of data base



New Patient Demographic Data Form



Patient Record (Subsequent Visit)



Palm Court Statistics

A record of the treatments provided and patient codes are to be entered in an excel spreadsheet each session.

File path:

C:\Documents and Settings\katherine-berry\My Documents\Acupuncture Research Project\Data Collection\Palm Court

Patient Code

Date Code Name Gender Drug of Choice Age

	A	B	C	D	E	F	G	H	I
1	Date	Code	Name	Gender	D.O.C	Age			
2	21/5/04	AOD001	Neil	M	Alcohol	43			
3		AOD002	Philip	M	Alcohol	39			
4		AOD003	David	M	Alcohol	40			
5		AOD004	Robert	M	Alcohol	40			
6		AOD005	Frances	F	Alcohol	53			
7		AOD006	Darren	M	Alcohol/ Cannabis	35			
8									
9	28/5/04	AOD007	Leanne	F	Alcohol	33			
10		AOD008	Brett	M	Alcohol	39			
11		AOD009	Mick	M	Amphetamines	33			
12									
13	4/6/2004	AOD010	Colin	M	Amphetamines	40			
14		AOD011	Belen	F	Alcohol	53			
15		AOD012	Bruce	M	Alcohol	57			
16									
17	11/6/2004	AOD013	Marina	F	Heroin	26			
18		AOD014	Kristen	F	Alcohol	23			
19									
20	18/6/2004	AOD0015	Jason	M	Heroin	29			
21		AOD0016	Annabel	F	Alcohol	59			
22		AOD0017	Sylvia	F	Poly Drug Use	48			
23									
24					mean age	40.58824			
25									
26									

Treatment Schedule

Date	Code	Name	Gender	Drug of Choice	Age							
A	B	C	D	E	F	G	H	I	J	K	L	
1	Date	Code	Name	Gender	D.O.C	Age						
2	21/5/04	AOD001	Neil	M	Alcohol	43						
3		AOD002	Philip	M	Alcohol	39						
4		AOD003	David	M	Alcohol	40						
5		AOD004	Robert	M	Alcohol	40						
6		AOD005	Frances	F	Alcohol	53						
7		AOD006	Darren	M	Alcohol/ Cannabis	35						
8	28/5/04	AOD007	Leanne	F	Alcohol	33						
9		AOD002	Philip	M	Alcohol	39						
10		AOD008	Brett	M	Alcohol	39						
11		AOD005	Frances	F	Alcohol	53						
12		AOD003	David	M	Alcohol	40						
13		AOD009	Mick	M	Amphetamines	33						
14	4/6/2004	AOD006	Darren	M	Alcohol/ Cannabis	35						
15		AOD010	Colin	M	Amphetamines	40						
16		AOD004	Robert	M	Alcohol	40						
17		AOD003	David	M	Alcohol	40						
18		AOD012	Bruce	M	Alcohol	57						
19		AOD011	Belen	F	Alcohol	53						
20		AOD009	Mick	M	Amphetamines	33						
21	11/6/2004	AOD009	Mick	M	Amphetamines	33						
22		AOD013	Marina	F	Heroin	26						
23		AOD010	Colin	M	Amphetamines	40						
24		AOD012	Bruce	M	Alcohol	57						
25		AOD014	Kristen	F	Alcohol	23						
26		AOD011	Belen	F	Alcohol	53						
27	18/6/2004	AOD009	Mick	M	Amphetamines	33						
28		AOD013	Marina	F	Heroin	26						
29		AOD010	Colin	M	Amphetamines	40						
30		AOD014	Kristen	F	Alcohol	23						
31		AOD015	Jason	M	Heroin	29						
32		AOD017	Sylvia	F	Poly Drug Use	48						
33		AOD016	Annabel	F	Alcohol	59						
34	25/6/2004	AOD017	Sylvia	F	Poly Drug Use	48						
35		AOD016	Annabel	F	Alcohol	59						
36		AOD011	Belen	F	Alcohol	53						

Pack up

All equipment is to go back into the white equipment box (located in the staff tea room). This includes unused:

- Acupuncture needles
- Swabs
- Gloves
- Ear studs

Linen

Dirty linen is to go into the white bags in the linen room, at the west wing near the entrance. This includes:

- Sheets (from tables and curtains)
- Pillow cases
- Blankets
- Towels

Furnishings

A staff member will give the supervisor the key to unlock the storeroom (opposite and to the right of the staff office). Students will return the acupuncture equipment to this room including:

- Massage tables
- Pillows (without pillow cases)

Equipment

Name tags are to be removed and put into equipment box.

The supervisor will unlock the clinic room using the blue-string key (opposite staff room). Acupuncture equipment includes:

- Equipment box (with Acupuncture needles, Swabs, Ear studs, gloves, cotton wool and name tags)
- Paper towel
- Small white bins (labeled UTS Acupuncture Clinic)
- Yellow Sharps containers

Stationery and Forms

The acupuncture files and forms are to be stored in the Stationery Room, (opposite and to the left of the staff room). The blue-string key will unlock the

stationery room and the files are to be kept in the second drawer of the middle filing cabinet. These include:

- Treatment forms
- Acupuncture Patient file


Handover

After the rooms are packed up, Students and supervisor are to meet in the staff room with the Palm Court Nursing Staff.

The students are to give a brief hand over of the treatments including patient name, presentation, response to previous treatment and any significant information.

Students are to have filled in the Feedback Sheet which is kept in the staff room.

Alarms are to be removed and returned to the storage clips on the wall.


An Examination of the Effectiveness of Acupuncture as an Adjunct to
Alcohol and Other Drug Treatment Programs: A Pilot Study
Feedback Sheet

Date: _____ Total Patients treated with acupuncture: _____

Patient name	Student Practitioner	Comments (presentation/treatment)

Other Comments: _____

Supervisor: (print) _____ (signature) _____

Close Full Screen

To be signed by the UTS Supervisor

Appendix 1

Student Dress Code

Students are required to wear neat, professional clothes while practicing at Palm Court.

Preferable:

Dark shirt/ blouse
Dark pants
Dark skirt
Comfortable flat shoes

Not acceptable:

T-Shirts
Jeans
Track-suit pants
Sand shoes/ runners/ trainers
Sandals, thongs or open-toed shoes

The white lab coats are not required, however students will need to wear a name tag/ security pass at all times.

Background to the study

The initial stages of developing the research project were instrumental in the later implementation phases. The first stage of the project was a scoping exercise- looking at what was currently going on in Sydney, NSW and Australia.

The Foundation for the Wholistic Treatment of Substance Dependency (FWTSD) was founded in 1994 to 'establish a community based organisation in Sydney where a wholistic (sic), natural therapy based approach would be used to help people achieve and maintain lifestyles free of substance dependency'(Foundation for the Wholistic Treatment of Substance Dependency, 1996).

The FWTSD was at the forefront of introducing complementary and alternative medicine (CAM) to the AOD field in Australia. In 1994 the FWTSD set up a NADA research project in a Non-Government Organisation, *We Help Ourselves*, Redfern Sydney. The project ran for 18 months and showed an increase in patient retention rates, though this was not stringently researched. An unexpected outcome of the research was the anecdotal effect acupuncture had on decreasing ALT levels in Hepatitis C positive patients (Berle, 1997).

In a meeting with the FWTSD in June 2002, a loose framework for the project was drafted, and highlighted many of the obstacles that would have to be overcome before implementing the trial. The obstacles identified were typical of acupuncture research- lack of a suitable control, funding for the research and sustainability beyond the trial period. On the advice of the FWTSD, it was important we develop and pilot a functional model.

Piloting a functional model

Victoria University (VU) has facilitated student clinical placement program since the early 1980s. The program involves the participation of VU TCM students working in a range of AOD settings in Melbourne. To date there has been no formal research or data collection for this program. The strength of the VU model rests on its symbiotic partnership between the AOD Treatment Services and the University, both parties gaining from the relationship.

Benefits to VU

Victoria University offer their students an opportunity to treat and manage patients with a complex range of medical and psycho-emotional conditions, strengthening their diagnostic and clinical expertise. This is coupled with having students practice off-campus in established services, which has financial advantages for the University.

The associated overhead costs of running an on-campus clinic (including rental, heating, stationery and linen costs) cannot be underestimated. For this reason, training students off-campus reduces the economic burden of running an onsite student clinic.

By having a range of AOD treatment services engaged in the program, the university timetable is eased as there are enough places to accommodate all students (first to fourth year).

AOD Treatment Services also have a 'captive audience'. Patients admitted for inpatient detoxification are enrolled in the program full time for seven to ten days. For VU students, there is a stable, consistent source of patients, unlike a student clinic which needs heavy promotion and marketing to drum up enough business to sustain the student's training needs.

Benefits to AOD Treatment Service

The benefits to AOD Treatment services centre on enhancing patient health outcomes as well as providing an adjunct support to staff. Offering drug-free treatment to patients with drug dependencies is attractive to treatment services which aim to reduce drug seeking and drug using behaviour.

Acupuncture is a non-addictive therapy and therefore safe to administer to patients in AOD treatment services. Acupuncture is also regarded as a marketing tool to making the AOD Treatment Service more attractive to difficult to reach groups such as psychostimulant users and young people.

Further to this, AOD treatment services are burdened with a disproportionate demand for services to what they can deliver. This is reflected in the high staff burn-out rate and difficulties recruiting staff to AOD treatment facilities. The acupuncture program offers a support to the existing services and practitioners.

Input into the UTS Project

Lengthy consultations with VU staff and clinical supervisors took place in early April 2003. These meetings further consolidated the need to set up the project with strong research foundations. These consultations also identified that acupuncture anecdotally reduced the anxiety levels of patients in AOD treatment services.

With input from the VU clinical supervisors, the UTS project was beginning to take shape. The project would be a fourth year clinical placement program with volunteer practitioners from the University of Technology, Sydney (UTS) Health Sciences TCM Course.

Insurance

Public Liability and Personal Accident Insurance was identified as a major issue in the initial stages of the project development. To resolve the issue of insurance, the UTS Research and Commercialisation Office were consulted. In March 2003 the Traditional Chinese Medicine Department received confirmation that the students would be covered by the UTS Public and Product Liability Insurance Policy with QBE Insurance Co of Australia Limited. The policy stated:

Legal liability to the Public in respect of Personal Injury (including Death) and/or Property Damage as a result of an occurrence and happening in connection with the Insured's Business including Product's Liability

This policy was effective 'anywhere in the world'.

Stage 2. Development

In the second phase of setting up the project, there were four major things to consider:

1. Who was going to pay for it?
2. How could it be sustainable?
3. Who was going to be involved?
4. Where to run the pilot project?
5. What were we going to research (and how)?

1. Who was going to pay for it?

In March 2003 the NSW Department of Health Drug Programs Bureau (DPB) was approached with a request for funding for the acupuncture trial. The Director and Acting Clinical Director supported the project in principle, but deferred research funding to the Langton Centre. The Langton Centre is a Sydney-based AOD Treatment Service which receives additional funding to conduct AOD research in NSW. Unfortunately the research funding had already been allocated to other projects.

In May 2003 the Director of the Acupuncture Colleges Australia, Department of Traditional Chinese Medicine of UTS Sydney agreed to the proposed budget and committed to up to \$20,000 in kind for the support for the project. Approval was sought from the Dean of the faculty who was very supportive of the project as it fostered a community partnership with Rozelle Hospital, NSW Department of Health.

This was significant milestone for the project, making it an attractive package. UTS offered AOD Services an adjunct treatment intervention without any major associated costs¹.

2. How could the project be sustainable?

The feedback from both the FWTSD and VU was that sustainability was the key to the success of the project. The 18 month trial conducted by FWTSD had demonstrated that positive results are accumulative and that acupuncture not only has direct benefits for patients, it enhances the AOD program generally.

The VU model appeared to be the most successful, the strength of which centred on the symbiotic partnership between the University and the AOD Services.

3. Who was going to be involved?

The VU Clinical Placement program is a compulsory training component of the VU TCM Course curriculum. Therefore, students are required to attend the clinic sessions in order to be accredited for their clinical subjects. At UTS, an onsite Practitioner Clinic is the training ground for all students.

¹ The condition of funding put forward by UTS was that the AOD service would contribute in kind with linen, laundry services and needle and contaminated waste disposal.

Setting up an off-campus clinic required student participation. To gauge the level of student interest, confidence and clinical knowledge, students were requested to complete a questionnaire in October 2003. Feedback from this questionnaire showed students rated their confidence and knowledge as moderate (n = 26) but level of interest in participating in the project was very high (89%). In this questionnaire, students identified security as a major concern, though it was not a deterrent to participation.

4. Who was going to be involved?

The student's eligible to participate in this program were in their final (4th) year of a Bachelor of Health Sciences course. The course consists of eight academic stages, taken over four years, full time. The final year students had completed 250 hours of clinical observation and assistance in a supervised University Clinic. These students were required to complete a further 500 hours as 4th year student practitioners, under UTS clinical supervision.

4. Where to run the pilot project?

In searching for the ideal site to host the project, a set of criteria was developed. The site had to be:

- a) Close to UTS (within 25 Km)
 - b) Within a NSW Area Health Service
 - c) Residential, inpatient treatment facility
- a) Geographically it was considered important that the site be close to UTS, making it easily accessible for students. This was to increase the uptake and student interest and also ensure students did not have to travel long distances after dark.
- b) To give the project integrity and support the research findings, it was decided that the pilot site would be an Area Health Services (AHS) Hospital Program, under the auspices of the NSW Health Department. While non-government organisations (NGOs) are generally autonomous and therefore generally more flexible in their partnership arrangements, a hospital-based program was more considered more suitable. The rationale for this is that an acupuncture program within the hospital system will be more transferable to other services, than if it was set up in an isolated, autonomous NGO. In many ways, the hospital system was considered the most difficult to break in to- therefore if we could set this up in a hospital, in theory, we could set it up anywhere.
- c) A residential, inpatient program was modeled on the VU Acupuncture AOD program. It meant a consistent supply of patients and an increased chance of patients volunteering for the program

and showing up for appointments, than in an outpatient treatment service. An additional consideration, though not essential, was a longer term AOD treatment program. An acupuncture clinic once a week in a seven-day detoxification service would mean students would only see the patient once, making it difficult to track and evaluate treatment outcomes. For this reason, an AOD Service with a one-month residential treatment program was considered the ideal pilot site.

Initial contact with four AOD Treatment Services in the Sydney Metropolitan Area

Site 1: The Langton Centre, Surry Hills

Established in 1959, the Langton is a facility of the (former) South Eastern Sydney Area Health Service in Surry Hills, Sydney.

The Langton Centre provides assessment and management, detoxification, support groups (run by the Therapy Team), HIV prevention, research, maintenance treatment, family and adolescent treatment, chemical use in pregnancy, hospital liaison, child protection, welfare and a Koori healing unit (The Langton Centre Brochure, 2003).

In late April 2003, a meeting was organised with the Clinical Director of the Langton Centre. In the meeting several key factors were raised. It was identified that the Langton Centre offers an ambulatory, outpatient service. According to the Clinical Director, “people turn up when they feel like it and often don’t show up for appointments, 30-50% of the time”. This, coupled with the lack of treatment rooms, ruled out the Langton centre as a pilot site, despite their enthusiasm for the project.

Site 2: Herbert Street, Royal North Shore Hospital, St Leonards

Herbert Street Detoxification Unit is a 15 bed inpatient detoxification service at Royal North Shore Hospital in the (former) Northern Sydney Area Health Service. Herbert Street offers a 7-14 day detoxification process for patients 16 years and over, for all drugs of addiction. Herbert Street also has an outpatient methadone dispensing unit. The inpatient program is predominantly Cognitive Behavioural Therapy (CBT) with adjunct group sessions such as yoga. All group sessions are compulsory in the program.

Herbert Street Clinical Staff were supportive of the project, and while a limit of treatment rooms was a concern, negotiations were underway to set up the project for a six month trial.

After meeting with the Nurse Unit Manager and Clinical Director of Herbert Street the lengthy application for ethics approval was undertaken.

In August 2003, Herbert Street Staff received a NADA Ear acupuncture presentation and demonstration. The logistics of the acupuncture research program were discussed and Herbert Street staff were very supportive. The staff commented on the relaxation effects they had experienced with acupuncture and speculated this could be beneficial for their patients.

Ongoing consultation continued with Herbert Street between July 2003 and June 2004. Herbert Street supported the project in principle, however in June 2004 correspondence was received informing UTS of the decision not to carry out the research project on the grounds the research model was uncontrolled and therefore not scientifically rigorous enough.

The Research Committee for the Northern Sydney Drug and Alcohol Services offered their support for the project but declined further involvement with the current uncontrolled research model.

Site 3: McKinnon Detoxification Unit, Rozelle Hospital

At this time, meetings were taking place with the McKinnon Unit, an AOD detoxification unit at Rozelle Hospital.

McKinnon is a 20 bed, inpatient detoxification unit located on the grounds of Callum Park at Rozelle. The average inpatient admission for June 2003 was 16 patients with an average stay of 6.7 days. McKinnon Unit attracts moderate to severe cases of dependence with comorbidity (coexisting mental health and substance use dependencies) a major presentation.

In July 2003 a meeting was organised with senior staff and the Clinical Staff Specialist of McKinnon Detoxification Unit. The meeting was an introduction to the project which was followed by in-depth discussions on the treatment timetable; appropriate rooms to conduct treatments; privacy and confidentiality; ethics; research indicators; roles and responsibilities of all stakeholders; governance of the project; best way to operationalise project; accident and emergency procedures and infectious disease transmission controls.

Ongoing email and face to face meetings teased out many of these issues. However, September 2003 saw the closure of Campbell House, a nearby crisis centre for homeless men. The flow on of which effected the demand for services at the McKinnon Unit. There were a number of violent incidences in the service and in October 2003, the project was declined after concerns were raised for student safety. Palm Court residential rehabilitation unit was suggested as an alternative.

Site 4: Palm Court Intensive Rehabilitation Unit, Rozelle Hospital

Palm court is a residential rehabilitation unit specialising in post-withdrawal support. Palm Court is a voluntary program accommodating up to 15 inpatients at one time. It centres on a CBT- based group therapy, with a 28 day program.

In late October 2003, UTS conducted a site visit of Palm Court and met with the Nurse Unit Manager and Staff specialist. Concerns were raised that the current Palm Court program could not accommodate the acupuncture clinic session which was proposed for one morning or afternoon a week.

It was suggested the acupuncture sessions be conducted on Saturday mornings however patient numbers were dramatically low at this time, as patients had scheduled weekend leave to test and strengthen their abstinence skills while in the community.

A presentation of the proposed research was provided for Palm Court staff to gauge their level of interest and support for the project. At a meeting in December 2004 staff unanimously agreed that the acupuncture clinical placement program would be a beneficial adjunct to the CBT program at Palm Court. At this meeting, it was decided that Friday afternoons would be a suitable time for the acupuncture clinic session.

NSW Skin Penetration Compliance

A further advantage for choosing Palm Court was the pilot site was the treating room facilities. Palm Court is situated in a modern building at Rozelle Hospital. It features a three-wing architectural design with TV rooms at the end of each wing. These rooms have linoleum floors, with adjoining bathrooms- which meets the minimum requirements for the NSW Skin Penetration Act.

Palm Court was engaged as the pilot site and correspondence was exchanged between the

Director of the UTS Traditional Chinese Medicine Department and the Director of Clinical Services, Central Sydney Drug Health Services to consolidate this arrangement.

What were we going to research (and how)?

i) Ethics Approval

With a pilot site confirmed, the next step was to seek approval from the appropriate ethics committees.

Approval was granted by the UTS Human Research and Ethics Committee (UTS HREC) the Central Sydney Area Health Service Area Mental Health Research Advisory Committee (CSAHS AMRAC) and the Ethics in Clinical Practice Committee.

Following approval from these committees, and with minor amendments, the ethics application was approved by the over-arching Central Sydney Area Human Research and Ethics Committee (CSAHS HREC) on May 4 2004.

An unexpected outcome of this ethics application process was assisting the Central Sydney Research Development Office to write a policy for acupuncture procedures which included the use of sterile, single use needles, universal aseptic precautions and stringent needle disposal techniques. The Central Sydney Ethics in Clinical Practice Committee approved this policy (March 2004) which will pave the way for further acupuncture research in Central Sydney Area Health Service². This is a small but significant milestone for acupuncture research in Australia.

Identifying a research indicator

Ongoing consultations with Palm Court and UTS teased out a few major indicators for the research:

- Increasing retention rates
- Improving relaxation
- Relieving anxiety
- Improving insomnia
- Improving appetite
- Relieving aches and pains

In later discussions, *anxiety* was highlighted as a common presentation (regardless of drug of choice) and became the focus of the research.

² On January 1 2005 the NSW Health Department re-zoned the 17 Area Health Services. Central Sydney Area Health Service joined with South West Sydney Area Health Service forming the *Sydney and South West Area Health Service*.

Group A: Could not complete

AOD003

Male, 40, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	1.General weakness / tiredness / fatigue 2.Sweating problems (diaphoresis) 3.Feeling depressed 4.Anxiety / nervous / tense 5.Flatulence / gas pain / belching 6.dry mouth 7.Floaters / spots in vision 8.Headache (excluding migraine and sinus pain) 9.Uncomplicated hypertension 10.Palpitations / heart pounding	Liver Yin Xu Kidney Yin Xu Liver Qi Stagnation	Purple and moist body Vertical crack in centre White and greasy White and peeled	Kidney Thready Left Stronger Lung Weak Wiry (General Quality)	LI 4 (B) LV 3 (B) KI 6 (B) SP 6 (B)	43	45
2	28/05/04	1.Headache (excluding migraine and sinus pain) 2.dry mouth 3.Acne 4.Anxiety / nervous / tense	Damp Heat in the Gall Bladder Liver Qi Stagnation	Red body with purple centre spot Swollen body shape Yellow thin and moist coat	Left Stronger Wiry (General Quality) Rapid (General Quality)	Ear – Liver GV20 (C) LR2 (B) ST40 (B) Ear - Shen Men (Neurogate)	46	44
3	4/06/04	1. Headache (excluding migraine and sinus pain)	Liver Heat Rising Liver Qi Stagnation	Deep verticle centre crack with other small cracks Pale purple body Red body with purple centre spot Splayed (Hammer shaped) Yellow thin and dry coat	Left Stronger Wiry (General Quality) Rapid (General Quality)	GB34 LI11 LR2 Ear – Liver Ear - Shen Men (Neurogate)	40	40

AOD005**Female, 54, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	1. Feeling depressed 2. Anxiety / nervous / tense 3. Disturbances of sleep / insomnia 4. Knee symptoms / complaints 5. Postural hypotension (low blood pressure) 6. Atopic dermatitis / eczema	Liver Qi Stagnation Phlegm Heat Disturbing the Heart	Thin (pointed) body shape Yellow thin and dry coat	Intermittent - irregular (General Quality) Slippery (General Quality)	HT 3 (B) SP 6 (B) ST 40 (B) Yin Tang (Seal Hall) (C) Ear - Shen Men (Neurogate) (B)	45	38
2	28/05/04	1. Headache (excluding migraine and sinus pain) 2. Disturbances of sleep / insomnia 3. Atopic dermatitis / eczema 4. Neck symptoms / complaints (excluding headache)	Liver Qi Stagnation Stomach Yin Xu	Horizontal cracks Pale purple body Red Tip Yellow and greasy	Left Stronger Wiry (General Quality)	GB 20 (B) SP 6 (B) ST 36 (B) ST 44 (B) Ear - Shen Men (Neurogate)	36	36

AOD0018**Female, 33, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	23/07/04	1. Disturbances of sleep / insomnia 2. Feeling depressed 3. Anxiety disorder / anxiety state 4. Constipation 5. Acute bronchitis / bronchiolitis 6. Wheezing 7. Hay fever / allergic rhinitis 8. Localised redness / erythema / rash	Phlegm Heat Obstructing the Lung Wind Heat Attacks the Lung Liver Yin Xu	Red body Yellow thin and moist coat	Deep (General Quality) Lung Big Lung Firm Right Stronger	Ear - Lung (B) Ear - Shen Men (Neurogate) (B) LI 4 (B) LU 7 (B) PC 6 (B) ST 40 (B)	40	32

AOD029

Male, 37, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	20/08/04	1.General weakness / tiredness / fatigue 2.Feeling depressed 3.Anxiety disorder / anxiety state 4.Leg / thigh symptoms / complaints 5.Other urination problems 6.Shortness of breath, Dyspnea 7.Other breathing problems	Liver Yin Xu	Red body White thick and dry coat	Wiry (General Quality)	Ear - Shen Men (Neurogate) (B) KI 3 (B) LR 2 (B) PC 6 (B)	50	32
2	27/08/04	1.General weakness / tiredness / fatigue 2. Anxiety/ nervous/ tense 3.Back - lower symptoms / complaints without radiation 4. Disturbances of sleep / insomnia 5. Other symptoms / complaints of multiple / unspecified muscles	Kidney Yin Xu Liver Yin Xu	Red and peeled body Swollen body shape	Full (General Quality) Wiry (General Quality)	BL 18 (B) BL 20 (B) BL 23 (B) BL 28 (B) BL 40 (B) GB 25 (B) SI 11 (B) TE 5 (B) Ear - Shen Men (Neurogate) (B)	38	36
3	3/09/04	1. Anxiety/ nervous/ tense 2.Back - lower symptoms / complaints without radiation	Not specified	Pale body White thick and moist coat Yellow thin and moist coat	Leisurely (General Quality)	HT 7 (B) KD 6 (B) SP 6 (B) Yin Tang (Seal Hall) (C)	60	46

AOD037

Male, Cannabis, 31

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	17/09/04	1.Disturbances of sleep / insomnia 2.muscle spasm / twitching 3.Diarrhoea 4.Symptoms / complaints of sinus (including pain) 5.Tension Headache 6.Asthma 7.Wheezing 8.Chest symptoms / complaints 9.Other breathing problems 10.Vertigo / dizziness	Spleen Qi Xu Lung Qi Xu Qi Stagnation in the Bladder Channel	No coat Pale and dry body Swollen body shape Transverse cracks on the sides Vertical crack in centre	Rapid (General Quality)	BL12 (B) BL 17 (B) BL 20 (B) BL 40 (B) BL 57 (B) GB 20 (B) SP 6 (B)	63	26
2	24/09/04	1.Diarrhoea 2.Symptoms / Complaints of teeth and gums	Lung Qi Xu Spleen Qi Xu Stomach Qi xu Blood Xu	Pale red body Swollen body shape White and peeled	Weak (General Quality)	CV12 (C) LI4 (B) LR9 (B) SP10 (B) SP9 (B) ST25 (B) ST36 (B) ST37 (B)	50	23
3	1/10/04	1.Fainting / light headedness 2.Vertigo / dizziness 3.Disturbances of sleep / insomnia 4.Leg / thigh symptoms / complaints 5.Symptoms / complaints of throat 6. Cough	Wind Heat Attacks the Lung	Not specified	Rapid (General Quality)	BL12 (B) BL 17 (B) BL 21 (B) BL 58 (B) BL 57 (B) GB 20 (B) LI 11 (B) LI 4 (B)	39	24

AOD038**Male, 38, Amphetamine Type Substances**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	17/09/04	1. Disturbances of sleep / insomnia	Not specified	Blue purple and moist body White thick and moist coat Yellow root and white tip coat	Left Stronger Liver weak Slippery (General Quality)	GB 34 (B) LV 3 (B) LI 4 (B) ST 36 (B) ST 40 (B) ST 44 (B)	58	28
2	24/09/04	1. Leg / thigh symptoms / complaints 2. Abnormal sputum / phlegm / mucus 3. URI (head cold) 4. Cough 5. Other symptoms / complaints of nose	Wind Cold Attacks the Lung	White and yellow coat	Right Stronger Slow (General Quality)	Bi Tong (Nose Passage) LU 7 (B) SP 9 (B) ST 40 (B)	49	26
3	1/10/04	1. URI (head cold) 2. runny nose / rhinorrhoea 3. General weakness / tiredness / fatigue 4. Abnormal sputum / phlegm / mucus	Wind Cold Attacks the Lung	Pale and moist body White and yellow coat Yellow thick and moist coat	Liver Weak Slippery (General Quality) Wiry (General Quality)	CV 17 (C) LU 9 (B) SP 9 (B) ST 40 (B)	53	25

AOD042**Male, 34, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	24/09/04	10. Depressive Disorder 11. Anxiety disorder/ anxious state 12. Back symptoms/ complaints 13. Diarrhea 14. Asthma 15. Hay fever / allergic rhinitis 16. Vertigo / dizziness	Kidney Yang Xu	Not specified	Pericardium (Kidney Yang) Weak Rapid (general quality)	CV 17 (C) Ht 3 (B) KI 6 (B) LU 7 (B) PC 6 (B) SP 6 (B)	77	37
2	1/10/04	1. Anxiety disorder/ anxious state 2. Hay fever / allergic rhinitis 3. Back symptoms/ complaints	Kidney Yang Xu	Swollen body shape	Heart weak	BL 18 (B) BL 17 (B) BL 15 (B) BL 58 (B) GB 20 (B) SP 6 (B) PC 6 (B)	63	29
3	8/10/04	1. Anxiety disorder/ anxious state 2. Anger 3. Tobacco abuse/ smoking- quit	Liver Qi Stagnation	Not specified	Pericardium (Kidney Yang) Empty Lung weak Heart weak	CV 13 (C) LV 3 (B) LI 4 (B) LV 14 (B) Ear Liver (B) Ear Lung (B) Ear Shen Men (B)	54	27

AOD043**Female, 28, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	24/09/04	1.Tension Headache 2.Pain - general / unspecified 3.Premenstrual symptoms 4.Menstrual pain	Liver Qi Stagnation	Pale purple body	Not specified	BL 10 (B) GB 20 (B) GB 21 (B) GV 14 (C) LI 4 (B) LR 3 (B) SP 6 (B) TE 5 (B)	34	21

AOD045**Female, 23, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	1/10/04	1.Tension Headache 2..Arm symptoms / complaints 3..fullness in the head 4.Back - lower symptoms / complaints without radiation	Liver Heat Rising	Not specified	Empty (General Quality) Kidney Weak Left Stronger Lung Weak Rapid (General Quality)	GB 34 (B) LI 10 (B) LI 14 (B) LR 3 (B) TE 5 (B)	32	23

AOD047**Male, 48, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	8/10/04	Anxiety / nervous / tense Feeling depressed Elevated blood pressure without hypertension	Liver Qi Stagnation	Not specified	Not specified	LI 4 (B) LR 3 (B) PC 6 (B) Ear – Kidney (B) Ear – Liver (B) Ear – Lung (B) Ear – Sympathetic (B) Ear – Shen Men (B)	50	36

Group B: Dropped out of Palm Court and acupuncture program simultaneously

AOD001

Male, 43, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	1.Shoulder symptoms / complaints 2.Disturbances of sleep / insomnia 3.Atopic dermatitis / eczema 4.Anxiety / nervous / tense	Liver Qi Stagnation Qi & Blood Stagnation (trauma - localised) Liver Heat Rising	Red body with purple centre spot Red Tip Yellow thick and dry coat	Wiry (General Quality) Rapid (General Quality) Flooding (General Quality) Right Stronger	LR 3 (B) LI 4 (B) HT 7 (B) LI 15 (B) LI 11 (B)	20	20

AOD002

Male, 40, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	1.Back - lower symptoms / complaints without radiation 2.Tingling fingers / feet / toes 3.Red Eye 4.Symptoms / complaints of sinus (including pain) 5.dry mouth 6.Generalised redness / erythema / rash	Not specified	Transverse cracks on the sides	Lung Weak Right Stronger	BL 18 (B) BL 23 (B) BL 28 (B) BL 40 (B) BL 63 (B) GV 20 (C)	37	30
2	28/05/04	5.Back - lower symptoms / complaints without radiation 6.Anxiety / nervous / tense 7.Disturbances of sleep / insomnia 8.Tension Headache	Heart Qi Xu	Pale red body Red papillae (spots) Thin (pointed) body shape	Slippery (General Quality) Thready (General Quality) Weak (General Quality)	GV20 (C) HT7 (B) LR3 (B) ST36 (B) Yin Tang (Seal Hall) (C)	42	32

AOD006**Male, 35, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	1.Disturbances of sleep / insomnia 2.Muscle pain, myalgia, fibrositis 3.Back symptoms / complaints 4.Ringing / buzzing / tinnitus 5.Headache (excluding migraine and sinus pain) 6.Abnormal sputum / phlegm / mucus 7.Postural hypotension (low blood pressure) 8.Symptoms / Complaints of teeth and gums	Liver Qi Stagnation	Pale red body White and greasy and moist coat	Rapid (General Quality) Wiry (General Quality)	LI 4 (B) LV 3 (B)	46	36
2	28/05/04	1.Disturbances of sleep / insomnia 2. Back symptoms / complaints 3. Headache (excluding migraine and sinus pain) 4.Diarrhoea 5.Swelling / oedema (excluding ankles)	Liver Qi Stagnation	White and greasy Red tip	Rapid (General Quality) Wiry (General Quality)	LI 4 (B) LV 3 (B) BL 18 (B) BL 21 (B) BL 40 (B) BL 60 (B) GB 34 (B) GV 20 (C) Yin Tang	50	22

AOD007**Female, 33, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	28/05/04	1.Disturbances of sleep / insomnia 2.Feeing depressed 3.Anxiety / nervous / tense 4.hot and cold flushes 5.Constipation 6.dry mouth 7..Headache (excluding migraine and sinus pain) 8.Vertigo / dizziness	Liver Qi Stagnation Liver Heat Rising Spleen Qi Xu	Pale purple body Pale, bright and shiny body Swollen body shape Swollen edges (teeth marked)	Deep (General Quality) Full (General Quality) Kidney Weak Left Stronger Thready (General Quality) Weak (General Quality)	GB 21 (B) GB 34 (B) LR 3 (B) SP 6 (B) Ear - Shen Men (Neurogate) (B)	55	42

AOD013**Female, 26, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	11/06/04	1.Sweating problems (diaphoresis) 2.Feeling depressed 3.Anxiety / nervous / tense 4.Knee symptoms / complaints 5.Floaters / spots in vision 6.Headache (excluding migraine and sinus pain) 7.Chronic bronchitis / bronchiectasis 8.hepatitis C	Spleen Qi Xu Kidney Yin Xu Liver Qi Stagnation	No coat Purple red body Swollen body shape	Intermittent - irregular (General Quality) Kidney Weak Liver Weak Lung Weak Right Stronger Thready (General Quality)	KI 6 (B) LV 3 (B) LI 4 (B) SP 6 (B) Ear – Liver Ear - Shen Men (Neurogate)	36	27
2	18/06/04	1.Sweating problems (diaphoresis) 2.Chronic bronchitis / bronchiectasis 3.Anger 4.Headache (excluding migraine and sinus pain)	Kidney Yin Xu Liver Qi Stagnation	Red Tip Purple and moist body Swollen edges (teeth marked) White thick and moist coat	Deep (General Quality) Kidney Weak Rapid (General Quality)	Ear – Liver (B) GB 34 (B) KI 16 (B) KI 6 (B) LR 2 (B)	25	21

AOD028**Female, 49, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	20/08/04	1.Sinusitis acute / chronic 2.Diarrhoea	Spleen Qi Xu	Pale and moist body	Spleen Slippery	LI 20 (B) LI 4 (B) SP 6 (B) St 36 (B) Yin Tang (B) Ear- Shen Men (Neurogate) (B)	54	43

AOD030**Female, 33, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-	Post-
1	20/08/04	1.Chills 2.Fever 3.Sweating problems (diaphoresis) 4.Night Sweats 5.Feeling depressed 6.Anxiety disorder / anxiety state 7.Disturbances of sleep / insomnia 8.Acute stress / transient situational disturbance 9.Constipation 10.Cough	Spleen Qi Xu Stomach Qi xu	Pale body White thick and dry coat	Soft (General Quality) Weak (General Quality)	Ear - Shen Men (Neurogate) LI 4 (B) LV 3 (B) ST 36 (B) SP 6 (B)	50	35

AOD032**Male, Cocaine, 27**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	20/08/04	1.Loss of appetite 2.Shoulder symptoms / complaints 3.Cough 4.Anxiety / nervous / tense 5.Disturbances of sleep / insomnia	Not specified	Swollen edges (teeth marked)	Rapid (General Quality) Wiry (General Quality)	ST 36 (B) HT 7 (B) Yin Tang (Seal Hall) (C) Ear - Shen Men (Neurogate) (B)	37	23
2	27/08/04	1.Anxiety / nervous / tense 2.Headache (excluding migraine and sinus pain)	Not specified	Purple red body Swollen body shape Yellow and moist coat	Firm (General Quality) Wiry (General Quality)	LR 3 (B) LI 4 (B) SP 6 (B) HT 7 (B) Yin Tang (Seal Hall) (C) Ear - Shen Men (Neurogate) (B)	41	22

AOD034**Male, 60, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	27/08/04	1.Disturbances of sleep / insomnia 2.Anxiety / nervous / tense 3.Diabetes mellitus 4.Headache (excluding migraine and sinus pain) 5.Haemorrhoids 6.Cough 7.Chest symptoms / complaints 8.Hearing complaints (excluding deafness)	Liver Wind (Internal - moving)	Quivering Red and dry body White thin and moist coat	Heart Weak Slippery (General Quality) Sunken (General Quality)	LI 4 (B) LV 3 (B) LU 7 (B) GB 20 (R) An Mian (Peaceful Sleep) (R)	47	23
2	3/09/04	1.Disturbances of sleep / insomnia 2.Headache (excluding migraine and sinus pain) 3.Sinusitis acute / chronic 4.Neck symptoms / complaints (excluding headache) 5.Ankle symptoms / complaints 6.Arm symptoms / complaints	Qi & Blood Stagnation in the Stomach Channel	Not specified	Not specified	GB 34 (B) GB 40 (B) LI 11 (B) SP 5 (B) TE 5 (B)	26	21
3	10/09/04	1.Disturbances of sleep / insomnia	Liver Yin Xu	Red body	Rapid (General Quality)	Ear – Kidney (B) Ear – Liver (B) Ear – Lung (B) Ear – Sympathetic Ear – Shen Men B	20	20

AOD035**Male, 27, Amphetamine Type Substances**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	3/09/04	1.Disturbances of sleep / insomnia 2.Foot and toe symptoms / complaints 3.Nausea 4.Vertigo / dizziness	Blood Xu Kidney Qi Xu	Pale body Swollen body shape Verticle crack in centre	Rapid (General Quality)	LR 3 (B) LI 4 (B) Ear – Kidney (B) Ear – Liver (B) Ear – Lung (B) Ear – Sympathetic (B) Ear – Shen Men (B)	49	22
2	10/09/04	1.Disturbances of sleep / insomnia	Liver Qi Stagnation	Red body	Rapid (General Quality)	Ear – Kidney (B) Ear – Liver (B) Ear – Lung (B) Ear – Sympathetic (B) Ear – Shen Men (B)	31	29

AOD036**Male, 25, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	24/09/04	General weakness / tiredness / fatigue Back - lower symptoms / complaints without radiation Pain attributed to respiratory system (excluding sinus)	Not Specified	Pale red body Splayed (Hammer shaped)	Slippery (General Quality) Lung Weak Heart Weak	LI 4 (B) LV 3 (B) Ear – Kidney (B) Ear – Liver (B) Ear – Lung (B) Ear – Sympathetic (B) Ear – Shen Men (B)	48	23

AOD039**Male, 49, Cannabis**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	17/09/04	1.Disturbances of sleep / insomnia 2.Stomach ache / stomach pain / stomach 3.cramps 4.Haemorrhoids 5.Flatulence / gas pain / belching 6.Constipation 7.Diarrhoea 8.Palpitations / heart pounding	Heart Blood Xu Spleen Qi Xu	Not Specified	Right Stronger Choppy (General Quality)	PC 6 (B) ST 36 (B) SP 9 (B) Yin Tang (Seal Hall) (C)	48	24
2	24/09/04	1.Disturbances of sleep / insomnia 2.Stomach ache / stomach pain / stomach cramps 3.Diarrhoea	Heart Fire (blazes upwards) Heart Yin Xu Kidney Yin Xu	Verticle crack in centre	Full (General Quality)	KI 1 (B) LR 3 (B) LI 4 (B) SP 6 (B) Yin Tang (Seal Hall) (C)	30	23

AOD041**Male, 32, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	17/09/04	1.Night sweats 2.Sweating problems (diaphoresis) 3.Depressive disorder 4.Anxiety disorder / anxiety state 5.Other symptoms / complaints of multiple / unspecified muscles 6.Back symptoms / complaints 7.Constipation 8.Other symptoms / complaints of digestive system 9.Diarrhoea 10.Symptoms / complaints of sinus (including pain) 11.Vertigo / dizziness 12.Other symptoms / complaints of hair / scalp	Heart Blood Xu Cold Stagnation in the Bladder Channel	Not specified	Choppy (General Quality) Heart Weak Right Stronger	Ah Shi BL 15 (B) BL 17 (B) BL 62 (B) PC 6 (B) SI 3 (B) SP 6 (B)	61	26
2	24/09/04	1. URI (head cold)	Liver Qi Stagnation Liver Blood Xu Wind Cold Attacks the Lung	Verticle crack in centre	Not specified	Ah Shi BL 18 (B) BL 17 (B) BL 58(B) GB 20 (B) LI 4 (B) PC 6 (B) LV 8 (B) SP 6 (B)	62	20

AOD044**Male, 28, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	24/09/04	1.Disturbances of sleep / insomnia 2.Pain - general / unspecified 3.Constipation 4..Anxiety disorder / anxiety state	Not specified	Red and moist body Thin (pointed) body shape Verticle crack in centre	Empty (General Quality) Left Stronger Superficial (General Quality) Wiry (General Quality)	LI 4 (B) LR 3 (B) Ear – Kidney (B) Ear – Liver (B) Ear – Lung (B) Ear – Sympathetic (B) Ear – Shen Men (B)	59	39

Group C: Dropped out of Acupuncture prior to dropping out of Palm Court

AOD004

Male, 41, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	1.Shoulder symptoms / complaints 2.Disturbances of sleep / insomnia 3.dry mouth 4.Floaters / spots in vision 5.Symptoms / complaints of throat 6.Eye Pain 7.Cough 8.Postural hypotension (low blood pressure)	Liver Qi Stagnation Qi & Blood stagnation in the Large Intestine Channel	Transverse cracks on the sides Red body Yellow and greasy	Rapid (General Quality) Wiry (General Quality)	GB34 (B) LI 14 (B) LI 15 (B) LI 4 (B) LR 3 (B) SP 4 (B) SP 6 (B) Ear - Shen Men (Neurogate) (B)	31	43
2	4/06/04	1.Shoulder symptoms / complaints 2.General weakness / tiredness / fatigue 3.Disturbances of sleep / insomnia	Liver Qi Stagnation	Not specified	Red and moist body Yellow and greasy	LI 11 (B) LI 15 (B) LI 4 (B) PC 6 (B) ST 38 (B) TE 14 (B) Yin Tang (Seal Hall) (C) Ear - Shen Men (Neurogate) (B)	41	39

AOD008

Male, 40, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	21/05/04	Sweating problems (diaphoresis)	Not specified	Pale and moist body White thin and moist coat	Left Stronger Rapid (General Quality) Superficial (General Quality)	GB 20 (B) GB 21 (B) LI 4 (B)	59	23

AOD010**Male, 40, Amphetamine Type Substances**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	4/06/04	1. Sweating problems (diaphoresis) 2. Disturbances of sleep / insomnia 3. Other symptom / complaint of musculoskeletal 4. Back - lower symptoms / complaints without radiation 5. Headache (excluding migraine and sinus pain) 6. Anxiety / nervous / tense 7. Uncomplicated hypertension	Heart Fire (blazes upwards) Kidney Qi Xu	Pale purple body Red Tip Vertical crack in centre Yellow thin and dry coat	Deep (General Quality) Kidney Empty Left Stronger Rapid (General Quality) Wiry (General Quality)	HT 6 (B) KI 3 (B) SP 6 (B) Ear - Shen Men (Neurogate) (B)	49	29
2	11/06/04	1. Headache (excluding migraine and sinus pain) 2. Other symptoms / complaints of multiple / unspecified muscles 3. Pain of face 4. Disturbances of sleep / insomnia	Qi Stagnation in the Large Intestine Channel	Purple and dry body Swollen body shape White thin and dry coat	Rapid (General Quality) Right stronger	LI 4 (B) LV 3 (B) ST 34 (B) LI 7 (B) Ear - Shen Men (Neurogate)	41	23
3	18/06/04	1. Pain of face	Liver Qi Stagnation Qi Stagnation in the Large Intestine Channel	Purple red body Vertical crack in centre White thin and dry coat	Deep (General Quality) Flooding (General Quality) Right Stronger Wiry (General Quality)	KI16 LI 4 (B) LV 3 (B) ST 34 (B) LI 7 (B) Ear - Liver Ear - Shen Men (Neurogate)	37	24

AOD012**Male, 58, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	4/06/04	1. Back symptoms / complaints	Qi & Blood Stagnation in the Bladder Channel	Pale and moist body Yellow and greasy	Upper Heater Rapid Weak (General Quality)	KI 3 (B) LI 4 (B) SP 10 (B) SP 6 (B) ST 36 (B)	34	23
2	11/06/04	1. Back symptoms / complaints	Wind Heat Attacks the Lung	Red and dry body White and greasy	Deep (General Quality) Lung Rapid Weak (General Quality)	LI 11 (B) LI 4 (B) ST 37 (B) ST 39 (B)	47	28

AOD020**Female, 49, Benzodiazepines**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	9/07/04	1.General weakness / tiredness / fatigue 2.muscle spasm / twitching 3.Loss of appetite 4.Hay fever / allergic rhinitis 5.Sinusitis acute / chronic 6.Constipation 7.Postural hypotension (low blood pressure) 8.Psoriasis 9.Menopausal symptoms / complaints	Heat in the Stomach Spleen Qi Xu	Pale body White thin and dry coat	Heart Empty Liver Empty Spleen Thready Stomach Thready Sunken (General Quality)	LI 20 (B) LI 4 (B) SP 6 (B) ST 36 (B) Ear - Shen Men (Neurogate) (B)	76	43
2	16/07/04	1.General weakness / tiredness / fatigue 2.Other sensation disturbances and abnormal involuntary movements 3.Other psychological symptoms / complaints	Liver Blood Xu Spleen Qi Xu Liver Wind (Internal - moving) Spleen Blood xu	Quivering Swollen body shape Swollen edges (teeth marked) White thin and moist coat	Rapid (General Quality) Right Stronger Weak (General Quality)	GB 21 (B) SP 6 (B) ST 36 (B) Ear - Liver (B) Ear - Shen Men (Neurogate) (B)	66	41

AOD022**Male, 36, Opiates**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	16/07/04	1.Disturbances of sleep / insomnia 2.Constipation	Qi Stagnation in the Spleen Channel Qi Stagnation in the Stomach Channel	Flaccid body Horizontal cracks White thin and moist coat	Heart Full Lung Empty Moving (General Quality)	SP 6 (B) Ear - Kidney (B) Ear - Liver (B) Ear - Lung (B) Ear - Sympathetic (B) Ear - Shen Men (B)	35	22

AOD025**Male, 48, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	30/07/04	1. Depressive disorder 2. Anxiety disorder / anxiety state 3. General weakness / tiredness / fatigue 4. Acute stress / transient situational disturbance 5. Loss of appetite 6. Cough 7. Elevated blood pressure without hypertension 8. Stroke / cerebrovascular accident	Lung Yin Xu Spleen Qi Xu Liver Wind (Internal - moving)	Red Tip Yellow thick and dry coat	Lung Sunken Pericardium (Kidney Yang) Sunken Wiry (General Quality)	HT 5 (B) LI 4 (B) LR 5 (B) LR 8 (B) SP 6 (B) LU 5 (B)	57	44
2	06/08/04	1. Stroke / cerebrovascular accident	Damp Heat in the Spleen	White thin and moist coat	Slippery (General Quality) Liver Wiry	TE 2 (B)	39	26

AOD026**Male**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	30/07/04	General weakness / tiredness / fatigue Acute stress / transient situational disturbance Ringing / buzzing / tinnitus Other symptoms complaints of skin and subcutaneous tissue Anxiety disorder / anxiety state Depressive disorder	Not specified	No coat Pale purple body	Liver Full Rapid (General Quality) Wiry (General Quality)	HT 7 (B) ST 36 (B)	49	30

AOD040**Female, 54, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	17/09/04	1. General weakness / tiredness / fatigue 2. Symptoms / complaints of throat 3. Headache (excluding migraine and sinus pain) 4. Other symptoms / complaints of digestive system 5. Feeling depressed 6. Anxiety disorder / anxiety state	Wind Heat Attacks the Lung Phlegm Heat Obstructing the Lung	Pale body Pale purple body Swollen body shape	Full (General Quality) Rapid (General Quality)	BL62 (B) LU 7 (B) TE 5 (B)	44	32

AOD046

Male, 28, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	1/10/04	Night sweats Disturbances of sleep / insomnia General weakness / tiredness / fatigue Anxiety disorder / anxiety state Problems with working conditions, occupational problems hot and cold flushes Knee symptoms / complaints Tension Headache Back - lower symptoms / complaints without radiation dry mouth	Liver Qi Stagnation Liver Yin Xu	Not specified	Not specified	CV 12 (C) KI 6 (B) LR 3 (B) LR 8 (B) PC 6 (B)	48	37

Group 4 Completed acupuncture and Palm Court programs

AOD009

Male, 34, Amphetamine Type Substances

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	28/05/04	2. Anxiety/ nervous/ tense 3. Disturbance of sleep/ insomnia 4. Headache (excluding migraine and sinus pain) 5. Eye pain 6. Neck symptoms/ complaints (excluding headache) 7. Shoulder symptoms / complaints	Liver Qi Stagnation	Pale red body Yellow and greasy and moist coat	Right side stronger Wiry (general quality)	LR 3 (B) LI 4 (B) Ht 7 (B) Si Shen Cong (Extra) Ear Shen Men (B)	20	23
2	4/06/04	1. Headache (excluding migraine and sinus pain) 2. Pain general/ unspecified 3. Sweating problem (diaphoresis) 4. Disturbance of sleep/ insomnia 5. Back symptoms/ complaints	Liver Qi Stagnation	Pale moist body Purple red body	Wiry (general quality)	LR 3 (B) LI 4 (B) PC 6 (B) Ear Shen Men (B)	23	20
3	11/06/04	1. Headache (excluding migraine and sinus pain) 2. Knee symptoms/ complaints 3. Shoulder symptoms / complaints 4. Hot and cold flushes 5. Neck symptoms/ complaints (excluding headache) 6. Disturbance of sleep/ insomnia	(not specified)	Red body Swollen body shape White thin and moist coat	Deep (general quality) Rapid (general quality) Thready (general quality)	BL 18 (B) BL 23 (B) BL 39 (R) BL 40 (B) BL 60 (B) GB 21 (B) GB 20 (B) GB 34 (R) GV 20 (C) SI 3 (B)	20	20
4	18/06/04	1. Headache (excluding migraine and sinus pain) 2. Eye pain 3. Knee symptoms/ complaints 4. Disturbance of sleep/ insomnia	Liver Qi Stagnation	Pale and moist body Red body Swollen body shape White thin and moist coat	Deep (general quality) Rapid (general quality)	LR 3 (B) LI 4 (B) GB 34 (B) Si Shen Cong (Extra) Ear Shen Men (B)	20	20

AOD011

Female, 53, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	4/06/04	1. Disturbance of sleep/ insomnia 2. Feeling depressed 3. Anxiety/ nervous/ tense 4. Hot and cold flushes 5. Other symptom/ complaint of musculoskeletal system 6. Symptoms/ complaints of teeth and gums 7. Other symptoms/ complaints of the eyes 8. Psoriasis	Liver Qi Stagnation Liver Heat rising	No coat Red dry body Red tip Transverse cracks on the side	Deep (general quality) Thready (general quality)	LR 3 (B) LI 4 (B) SP 6 (B) Ear Shen Men (B)	34	20
2	11/06/04	1. Disturbance of sleep/ insomnia 2. Anxiety/ nervous/ tense 3. Feeling depressed 4. Back- lower symptoms / complaints without radiation 5. Cough 6. URI (head cold) 7. Sneezing/ nasal congestion 8. Symptoms/ complaints of throat	Liver Qi Stagnation Wind cold attacks the lungs	No coat Purple red body Thin (pointed) body shape Transverse cracks on the side	Rapid (general quality) Slippery (general quality) Wiry (general quality) Thready (general quality)	LR 3 (B) LI 4 (B) SP 6 (B) KD 3 (B) Ear Shen Men (B)	24	20
3	18/06/04	1. Anxiety/ nervous/ tense 2. Feeling depressed 3. URI (head cold) 4. Cough 5. Symptoms/ complaints of teeth and gums	Liver Qi Stagnation Wind cold attacks the lungs	No coat Pale red body Transverse cracks on the side	Lung flooding	KD 3 (B) LU 7 (B) ST 44 (B) TE 4 (B) Ear Shen Men (B)	20	20
4	25/06/04	1. General weakness/ tiredness/ fatigue 2. URI (head cold) 3. Cough 4. Symptoms/ complaints of teeth and gums	Liver Qi Stagnation Phlegm cold obstructing the lung		Left stronger Pericardium (Kidney Yang) weak Wiry (general quality) Thready (general quality)	LR 3 (B) LU 9 (B) ST 44 (B)	20	20

AOD014

Female, 24, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	11/06/04	1. Disturbances of sleep/ insomnia 2. Anxiety/ nervous/ tense	Heart Qi Xu	Pale and moist body White thin and moist coat	Weak (general quality)	LR 3 (B) LI 4 (B) SP 6 (B) Ear Shen Men (B)	60	38
2	18/06/04	1. Other disease of the circulatory system 2. Anxiety/ nervous/ tense	Kidney Qi Xu	Pale and moist body	Kidney Weak Weak (general quality)	LR 3 (B) LI 4 (B) SP 4 (B) SP 6 (B) PC 6 (R) ST 36 (B) SI 4 (L)	37	24
3	25/06/04	1. Anxiety/ nervous/ tense	Kidney and Heart not communicating	Pale and moist body Pale red body	Weak (general quality)	GV 20 (C) LR 3 (B) LI 4 (B) SP 4 (B) SP 6 (B) ST 36 (B) PC 6 (B) Yin Tang	68	35
4	2/07/04	1. Anxiety/ nervous/ tense	Wood (liver) invades earth (spleen)	Red and moist body White thin and moist coat	Weak (general quality) Wiry (general quality)	CV 12 (C) SP 6 (B) Ear Shen Men	47	36

AOD015

Male, 30, Opiates

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	18/06/04	1. Sweating problems/ diaphoresis 2. Anxiety/ nervous/ tense 3. Other symptoms complaints of skin and subcutaneous tissue 4. Leg/ thigh symptoms/ complaints 5. Stiffness of arms and legs 6. Diarrhoea 7. Floaters/ spots in vision 8. Headache (excluding migraine and sinus pain) 9. Red eyes 10. Palpitations/ Heart pounding 11. General weakness /tiredness/ fatigue	Liver Qi Stagnation Blood Xu	Red and moist body White and thin moist body	Rapid (general quality) Thready (general quality)	LR 3 (B) LI 4 (B) SP 6 (B) ST 36 (B)	67	42
2	25/06/04	1. Disturbance of sleep/ insomnia 2. Anxiety/ nervous/ tense 3. Puritis/ skin itching (excluding anogenital) 4. Diarrhoea 5. Sweating problems/ diaphoresis 6. Red eyes 7. Excessive appetite	Heart yin xu Kidney yin xu	Pale red body Red papillae (spots) Red tip Splayed (hammer shaped) White and greasy	Rapid (general quality) Superficial (general quality) Wiry (general quality)	KD 6 (B) PC 6 (B) ST 36 (B)	66	35
3	2/07/04	1. Anxiety/ nervous/ tense 2. Sweating problems/ diaphoresis 3. Pain- general/ unspecified 4. Headache (excluding migraine) 5. Disturbance of sleep/ insomnia 6. Disability/ impairment of sight	Kidney yin xu Heart yin xu	Red body Thin (pointed) body shape White greasy moist coat	Rapid (general quality) Wiry (general quality)	KD 6 (B) PC 6 (B) ST 36 (B) Ear Shen Men (B)	58	35
4	9/07/04	1. Anxiety/ nervous/ tense 2. Sweating problems/ diaphoresis 3. URI (head cold) 4. Runny nose/ rhinorrhoea 5. Sneezing/ nasal congestion	Wind cold attacks the Lung Heart yin xu Kidney yin xu	Pale purple body Red papillae (spots) Red tip White thin and moist coat	Rapid (general quality) Superficial (general quality) Tight (general quality)	KD 6 (B) LU 7 (B) PC 6 (B) ST 36 (B) Ear Shen Men (B)	42	33

AOD016

Female, 60, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	18/06/04	1.Excessive thirst 2. Nausea 3. Elevated blood pressure without hypertension 4. Anxiety/ nervous/ tense	Liver Qi Stagnation Spleen Qi Xu	Pale body Swollen body shape White and thin moist coat	Deep (general quality) Rapid (general quality) Weak (general quality)	LR 3 (B) LI 4 (B) SP 6 (B)	32	26
2	25/06/04	1. Anxiety/ nervous/ tense	Liver Qi Stagnation Spleen Qi Xu	Pale body Swollen body shape White and thin moist coat	Deep (general quality) Left side stronger	KD 6 (B) LR 3 (B) PC 6 (B) ST 36 (B) Yin Tang (C) Ear- Kidney (B) Ear Shen Men (B)	34	35
3	2/07/04	1. Anxiety/ nervous/ tense 2. Disturbances of memory/ concentration/ orientation 3. Urinary candidiasis proven 4. General weakness/ tiredness/ fatigue 5. Disturbance of sleep/ insomnia	Liver Blood Xu	Red body White thin moist coast Yellow thin moist coat	Liver weak Tight (general quality)	HT 7 (B) LR 3 (B) St 26 (B) Ear Shen Men (B)	38	23
4	9/07/04	1. Anxiety/ nervous/ tense 2. Disturbances of memory/ concentration/ orientation 3. Disturbance of sleep/ insomnia	Heart yin xu Spleen Qi xu	Blue purple and moist body Red and shiny body	Deep (general quality) Large Intestine slippery Small Intestine slippery	KD 6 (B) PC 7 (B) LI 4 (B) SP 6 (B) Ear Shen Men (B)	30	29

AOD017

Female, 60, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	18/06/04	1.Excessive thirst 2. Nausea 3. Elevated blood pressure without hypertension 4. Anxiety/ nervous/ tense	Liver Qi Stagnation Spleen Qi Xu	Pale body Swollen body shape White and thin moist coat	Deep (general quality) Rapid (general quality) Weak (general quality)	LR 3 (B) LI 4 (B) SP 6 (B)	32	26
2	25/06/04	1. Anxiety/ nervous/ tense	Liver Qi Stagnation Spleen Qi Xu	Pale body Swollen body shape White and thin moist coat	Deep (general quality) Left side stronger	KD 6 (B) LR 3 (B) PC 6 (B) ST 36 (B) Yin Tang (C) Ear- Kidney (B) Ear Shen Men (B)	34	35
3	2/07/04	1. Anxiety/ nervous/ tense 2. Disturbances of memory/ concentration/ orientation 3. Urinary candidiasis proven 4. General weakness/ tiredness/ fatigue 5. Disturbance of sleep/ insomnia	Liver Blood Xu	Red body White thin moist coat Yellow thin moist coat	Liver weak Tight (general quality)	HT 7 (B) LR 3 (B) St 26 (B) Ear Shen Men (B)	38	23
4	9/07/04	1. Anxiety/ nervous/ tense 2. Disturbances of memory/ concentration/ orientation 3. Disturbance of sleep/ insomnia	Heart yin xu Spleen Qi xu	Blue purple and moist body Red and shiny body	Deep (general quality) Large Intestine slippery Small Intestine slippery	KD 6 (B) PC 7 (B) LI 4 (B) SP 6 (B) Ear Shen Men (B)	30	29

AOD019

Female, 35, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	2/07/04	1. Disturbance of sleep/ insomnia 2. Anxiety/ nervous/ tense 3. Constipation	Wood (liver) invades earth (spleen) Heart yin xu Liver wind (internal - moving)	Deviated Red and dry body Yellow and greasy and dry coat	Rapid (general quality) Tight (general quality)	LR 3 (B) LI 4 (B) LI 11 (B) Ear Shen Men (B)	46	41
2	9/07/04	1. Disturbance of sleep/ insomnia 2. Anxiety/ nervous/ tense 3. Other symptom/ complaint of heart/ circulatory system	Wood (liver) invades earth (spleen) Heart yin xu	Red tip Yellow and greasy and dry coat	Deep (general quality) Rapid (general quality) Soft (general quality)	LR 3 (B) LI 4 (B) PC 6 (B) Ear Shen Men (B)	53	26
3	18/07/04	1. Disturbance of sleep/ insomnia 2. Acute stress/ transient situational disturbance	Kidney Qi Xu Liver wind (internal - moving)	Red papillae (spots) Yellow and moist coat	Rapid (general quality) Right stronger	BL 52 TE 17 Ear Shen Men (B)	53	28
4	23/07/04	1. Anxiety/ nervous/ tense 2. Muscle spasm/ twitching	Kidney Qi Xu Liver Qi Stagnation	Deviated Pale purple body Yellow and moist coat	Deep (general quality) Hasty (general quality) Weak (general quality)	BL 18 BL 23 BL 52 LR 3 (B) PC 6 (B) Ear Shen Men (B)	47	24

AOD021**Male, 52, Alcohol**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	16/07/04	1. Back - lower symptoms / complaints without radiation 2. Swollen ankles / oedema	Kidney Qi Xu	Red and dry body Splayed (Hammer shaped) White thin and dry coat	Deep (General Quality)	BL 40 (L) BL 60 (L) BL 63 (L) CV 9 (C) KI 7 (R) TE 2 (L) TE 3 (L)	38	45
2	23/07/04	1. Back - lower symptoms / complaints without radiation 2. Swollen ankles / oedema	Kidney Qi Xu Kidney Yang Xu		Kidney weak Rapid (general quality)			
3	30/07/04	1. Diarrhoea 2. Back - lower symptoms / complaints without radiation 3. Swollen ankles / oedema	Kidney Yang Xu Spleen Yang Xu	Swollen body shape	Slippery (general quality)	CV 6 (C) SP 6 (B) ST 36 (B) KI 7 (B) Ear Shen Men (B)	30	29
4	6/08/04	1. Swollen ankles / oedema	Kidney Qi Xu Spleen Qi Xu	Yellow and greasy	Kidney weak	CV 6 (C) SP 9 (B) ST 36 (B) KI 7 (B) Yin Tang (C) Ear Shen Men (B)	20	20

AOD023

Female, 33, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	23/07/04	1. Feeling depressed 2. Anxiety disorder / anxiety state 3. Disturbances of sleep / insomnia 4. Back pain (radiating) or Sciatica , Lumbar disc lesion 5. Asthma 6. Chest symptoms / complaints 7. Menstruation irregular / frequent 8. Vertigo / dizziness	Liver Qi Stagnation Spleen Qi Xu	Pale red body White thin and dry coat	Slow (General Quality) Wiry (General Quality)	LR 3 (L) LI 4 (L) LI 11 (L) ST36 (L) SP 6 (L) ST37 (L)	48	36
2	30/07/04	1. Tobacco abuse / smoking – quit 2. Anxiety disorder / anxiety state 3. Constipation	Liver Qi Stagnation Wood (liver) invades Earth (spleen)	Red body White thin and dry coat	Kidney weak Liver wiry Lung knotted	LR 3 (R) LI 11 (L) SP 6 (B) PC 6 (R) TE 5 (R) Ear Kidney (R) Ear Liver (R) Ear Lung (R) Ear Spleen (R) Ear Shen Men (R)	45	24
3	6/08/04	1. Anxiety disorder / anxiety state	Liver Qi Stagnation Damp heat in the spleen	Gray and dry coat Normal	Liver wiry Spleen empty	LR 13 (L) LU 3 (R) LU 7 (R) ST 27 (L)	46	23
4	13/08/04	1. Abdominal distension / bloating 2. Tension Headache	Qi Stagnation in the Liver	Pale purple body	Superficial (General Quality)		36	23

AOD024

Male, 36, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	23/07/04	1. Disturbances of sleep / insomnia 2. Back - lower symptoms / complaints without radiation Anxiety disorder / anxiety state 3. Knee symptoms / complaints 4. Diarrhoea 5. Other symptoms / complaints of eye 6. Cough 7. Abnormal sputum / phlegm / mucus 8. Elevated blood pressure without hypertension 9. Other disease of skin / subcutaneous tissue	Kidney yin xu Phlegm Heat Obstructing the Lung	Pale purple body White thin and moist coat	Lung full Lung slippery	GB 31 (B) KI 6 (B) LI11 (B) LU9 (B) ST40 (B) Ear Shen Men (B)	38	24
2	30/07/04	1. Hay fever / allergic rhinitis 2. Anxiety / nervous / tense 3. Shoulder symptoms / complaints 4. Flatulence / gas pain / belching 5. Diarrhoea	Phlegm Heat Obstructing the Lung Spleen Qi Xu	Pale purple body Yellow and greasy Swollen body shape	Kidney weak Lung full Lung slippery Right Stronger	LI 4 (B) KI 6 (B) LI11 (B) ST 36 (B) Ear Shen Men (B)	42	23
3	6/08/04	1. Anger 2. Back - lower symptoms / complaints without radiation	Liver Qi Stagnation Spleen Qi Xu	Blue purple and moist body Swollen body shape	Liver wiry Spleen weak	BL 23 (B) KI 3 (B) KI 6 (B) KI 8 (B) SP 5 (B) Yin Tang (C) Ear Shen Men	57	29
4	13/08/04	1. Palpitations/ Heart pounding 2. Anxiety / nervous / tense 3. Back - lower symptoms / complaints without radiation	Spleen Qi Xu	Yellow and greasy Swollen body shape	Liver Rapid	Ashi BL 17 (B) BL 18 (B) BL 23 (B)	26	27

AOD027**Female, 22, Amphetamines**

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	30/07/04	1. Depressive disorder 2. Anxiety disorder / anxiety state 3. Acute stress / transient situational disturbance 4. Disturbances of sleep / insomnia 5. Excessive thirst 6. Shoulder symptoms / complaints 7. Excessive appetite 8. Tension Headache 9. Other symptoms complaints of skin and subcutaneous tissue 10. Menstruation irregular / frequent	Kidney yin xu Liver Yang Rising Liver yin xu	Yellow thin and dry coat Red body	Kidney weak Rapid (General Quality) Sunken (General Quality)	GB 21 (B) SP 6 (B) PC 6 (B) Yin Tang (C)	67	60
2	6/08/04	1. Anxiety disorder / anxiety state 2. Tension Headache	Heat in the heart	Pale purple body Yellow and greasy Swollen body shape	Deep (General Quality) Liver wiry	PC 3 (B) SP 6 (B) LI11 (B) ST 36 (B) Yin Tang (C)	79	25
3	13/08/04	1. Anxiety / nervous / tense 2. Frequent / urgent urination	Heat in the heart Liver yin xu	Normal	Liver wiry Liver superficial	??	68	30
4	20/08/04	1. Overactive child, hyperkinetic ??	Heart Fire (blazes upwards)	Purple red body	Liver Rapid Gallbladder superficial	HT 7 (B) St 36 (B) Ear Shen men	62	27

AOD031

Female, 27, Alcohol

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	20/08/04	1. Symptoms / Complaints of teeth and gums 2. Excessive thirst 3. Anxiety / nervous tense 4. Acute stress / transient situational disturbance	Kidney yin xu Liver Yang Rising Liver yin xu	Yellow thick and moist coat Swollen edges (teeth marked)	Left stronger Rapid (General Quality) Lung empty	LR 3 (B) LI 4 (B) Ear Shen Men (B)	57	21
2	27/08/04	1. Anxiety / nervous tense 2. Disturbances of sleep / insomnia	Heat in the heart	Swollen edges (teeth marked) Yellow root and white tip coat White and peeled	Deep (General Quality) Liver hollow Wiry (General Quality)	LR 3 (B) LI 4 (B) Si Shen Cong (Four Angels)	36	20
3	3/09/04	1. Disturbances of sleep / insomnia	Kidney yin xu	Swollen edges (teeth marked) White and peeled	Pericardium (Kidney Yang) Empty Lung empty Rapid (General Quality)	KI 6 (B) LU 7 (B) SP 6 (B)	35	21
4	10/09/04	1. Disturbances of sleep / insomnia	Kidney yin xu	Swollen edges (teeth marked)	Rapid (General Quality)	Ear Kidney (B) Ear Liver (B) Ear Lung (B) Ear Sympathetic (B) Ear Shen men (B)	24	20

AOD033

Male, 43, Amphetamines

Tx	Date	Symptoms	TCM Diagnosis	Tongue	Pulse	Points	Pre-Test	Post-Test
1	20/08/04	1. Disturbances of sleep / insomnia 2. Shoulder symptoms / complaints 3. Loss of appetite 4. Elevated blood pressure without hypertension	Liver Qi stagnation	Thin pointed body shape	Right stronger Rapid (General Quality)	Ear Kidney (B) Ear Liver (B) Ear Lung (B) Ear Sympathetic (B) Ear Shen men (B)	65	33
2	27/08/04	1. Anxiety / nervous tense 2. Disturbances of sleep / insomnia 3. Elevated blood pressure without hypertension 4. Headache (excluding migraine and sinus pain) 5. Shoulder syndrome	Liver yin xu	Swollen body shape Pale red body White thick and dry coat	Choppy (General Quality) Right stronger Slow (General Quality)	HT 7 (B) SP 6 (B) Ear Kidney (B) Ear Liver (B) Ear Lung (B) Ear Sympathetic (B) Ear Shen men (B)	39	27
3	3/09/04	1. Disturbances of sleep / insomnia 2. Shoulder symptoms / complaints 3. Headache (excluding migraine and sinus pain) 4. Anxiety / nervous / tense 5. Leg / thigh symptoms / complaints	Blood xu Spleen Qi xu	Swollen body shape Red body	Choppy (General Quality) Slow (General Quality)	KI 6 (B) LU 7 (B) SP 6 (B) PC 6 (B) ST 38 (B)	44	25
4	10/09/04	1. Disturbances of sleep / insomnia	Kidney yin xu	Swollen edges (teeth marked)	Choppy (General Quality)	Ear Kidney (B) Ear Liver (B) Ear Lung (B) Ear Sympathetic (B) Ear Shen men (B)	30	23

Appendix M: Budget and expenditure 2004

Stage	Resources	Cost	Total
Set up	Insurance	Covered by UTS current policy	
	Upgrade service facilities with appropriate equipment	3 x \$300 (per table) 3 x portable stereos (@ \$50 each)	\$ 900 \$ 150
	Printing of Policy and Procedures Manual	Printing and binding 10 copies	\$ 40
Sub total			\$ 1090
Implementation	UTS clinical supervisor 1.00pm- 5.00pm (4 hrs)	4 @ \$43.49 p/hr= \$173.96 (week) 21 weeks= \$3653.16	\$ 3653.16
	Acupuncture equipment - Needles - Swabs - Sharps containers	21 weeks: 3130 Needles @ \$0.05 per item = \$156.50 3130 Swabs @ \$0.05 per item = \$156.50	\$ 313 Total needles plus swabs
	Linen and disposable towels	Rozelle in kind contribution	
Subtotal			\$ 3966.16
TOTAL (set up and implementation)			\$ 5056.16

Summary of expenditure for the AOD acupuncture trial 2004