DOCTOR OF NURSING RESEARCH PORTFOLIO

Post Traumatic Stress Disorder: A Portfolio of Research

Department of Clinical Nursing

The University of Adelaide

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Portfolio Overview

This research portfolio is comprised of the following:

The University of Adelaide
Faculty of Health Sciences
Department of Clinical Nursing

I certify that this doctoral portfolio entitled Post Traumatic Stress Disorder — A

Portfolio of Research and submitted for the degree of Doctor of Nursing, is the result

of my own research and contains no material which has been accepted for the award

of any other degree or diploma, in any university or tertiary institution. To the best of

my knowledge and belief it contains no material previously published or written by

another person, except where due reference is made in the text.

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Portfolio Structure

This doctoral portfolio comprises three research reports, presented separately but related to one topic of interest - Post Traumatic Stress Disorder (PTSD). The research projects seek to explore issues surrounding PTSD including treatment options, the nurses role in providing this treatment and the perceptions of those who have undergone treatment for PTSD.

While one of the research reports is specifically looking at combat-related PTSD the other two reports are more broadly based. However, in researching the role of the nurses in the accredited treatment programs available in Australia those in their care are predominantly suffering from combat-related PTSD.

The portfolio is divided into 5 sections:

Section 1 — The journey begins.

An introduction describing why this portfolio explores the issue of PTSD, where the interest in this topic came from and the areas this portfolio will explore.

Section 2 — A systematic review of the non-pharmacological treatment of combat-related PTSD.

The systematic review brings together a number of studies on the non-pharmacological treatments of combat-related PTSD. It compares the outcomes of studies as well as highlighting the way in which the studies were undertaken. In completing the review a number of recommendations have been made on the

literature available in this area and the treatments upon which it is reporting.

Section 3 — The role of nurses in PTSD treatment programs throughout Australia.

This study explores the role of the nurse in accredited PTSD treatment programs throughout Australia. It looks at where they are working, what they do within the treatment programs, their level of experience in this area and how they view the content of these programs.

Section 4 - A study of the perceived effectiveness of treatment for PTSD.

The focus of the final study is on the perceptions of those who have received treatment for PTSD, following a workplace incident. It outlines how the participants viewed their treatment, what they believed to be effective and ineffective and how they coped upon returning to the workplace.

Section 5 — The road ahead

In concluding this portfolio a summary of the three studies and recommendations from these are highlighted. How some of the findings may be utilised in a specific area is also discussed.

The Journey Begins

The decision to focus on Post Traumatic Stress Disorder (PTSD) within this portfolio was based on my experiences as part of the health care team within the Australian Defence Force (ADF). The two most common causes of PTSD are combat for the male population, and rape or sexual assault for females (Ashmore, 1996, p18).

In January 1993, following completion of my nursing diploma and spending time working in a public hospital in the Sydney area I joined the Royal Australian Navy (RAN). My role as a nurse in the RAN was not dissimilar from that of a nurse in the public hospital system but involved a greater amount of supervision than hands on nursing. The emphasis was on trauma training and preparing for the possibility of deployment. As a nurse this did not seem a high possibility at the time as I was the most junior nursing officer in the RAN. This however was a false assumption.

In August 1994 I was deployed as part of the medical support force Australia sent to Rwanda to assist in peacekeeping operations under the auspices of the United Nations. This was a six-month deployment in which I would face many challenges both professionally and personally.

As a group few of us had operational experience and we were all uncertain what we would encounter on arrival in the country. We were given information briefs and had all seen and read news reports but to have an understanding or be prepared for what the reality was like was not possible.

Many of the nursing officers chosen to go to Rwanda were young and had not been in the ADF for long, we represented all services but the majority were Army. The nurses were mainly experienced in adult general nursing with specialties in intensive care nursing, perioperative nursing and midwifery. Each of these areas of expertise were needed as our deployment involved caring for United Nations personnel as well as some humanitarian work which saw us caring for the local population and the range of trauma and illnesses that they presented with.

It was in caring for the local population that the greatest stressors occurred. Many of the patients were children and not all could be saved, also the illnesses that many were presenting with were not routinely seen in our country and the level of support we provided needed to be realistic so that it could be sustained after we left. This was one of the greatest difficulties we faced as we were providing a first world standard of health care in a third world setting which in the end provided unrealistic expectations for the local population. This was evidenced particularly in caring for a young child who had been injured when hit by a car. He did not look physically hurt but had sustained a head injury. His mother expected that with our equipment he would be cured and found it hard to accept that there was little we could do for her son as she had heard of others we had helped.

Many of the trauma injuries we cared for were inflicted by either motor vehicle accidents or land mines. The land mine injuries were especially difficult as again the majority of those injured were children and often there would be a group of them who had been playing together when the mine was detonated. This level of indiscriminate violence was one of the many stressors that we had to deal with.

After six months of working under these conditions we returned home. This was an eagerly awaited day by all but was also a difficult time. We were now alone, separated from our support systems and friends of the last six-months, people that understood where we had been, what our work had involved and the emotional and physical stresses we had dealt with. For some of us coming home and returning to our families and friends was a relatively smooth transition but for others it was not easy.

I became aware over a period of time that some of the people I had been away with were not coping as well as perhaps had been expected. Some had not returned to work, some had left the ADF, and some were trying to work but were frequently absent. There were others who had seemed to readjust without difficulty then had a delayed onset of problems. For many this was a transient stress response however some were diagnosed with Post Traumatic Stress Disorder.

Overall, a group of approximately 600 defence personnel had been deployed to Rwanda over a 12 month period, a large number had not suffered any adverse problems on return but some have suffered a range of mental health problems since returning to Australia. There are a number of questions that arise from this. These include:

Why were some affected so badly by their experiences on this deployment while others were not?

Was the level of support offered before, during and after deployment adequate and/or appropriate?

Are defence health personnel adequately trained to deal with mental health issues and is there an awareness of these issues throughout the ADF?

In this portfolio I will explore issues surrounding PTSD. The first study in the portfolio is a systematic review in which the current literature available on the non-pharmacological treatment of combat-related PTSD is examined. The decision to focus on non-pharmacological treatment was based on the assumption that nurses are more likely to initiate these forms of treatment whereas medical practitioners are more likely to prescribe pharmacological treatments.

Unfortunately the systematic review did not highlight nursing specific treatments hence the second study in this portfolio describes the roles nurses have within the PTSD treatment programs throughout Australia. It provides the opportunity to explore the diverse roles nurses have by focussing on this specialist area of nursing.

The final study highlights the treatment perceptions of those who have been diagnosed and treated for PTSD and have since returned to work. This study also evolved due to the findings from the systematic review. The studies that were included in the review focussed on the efficacy of the treatment through results on psychometric testing scales. They did not seek to explore how those who received the treatment perceived this or try to determine treatment preferences.

Reference

Ashmore, R. Post-traumatic Stress Disorder: Symptoms, Prevention, Treatment. *Mental Health Nursing* 1996; 16(2): 18-22.

Study One

A Systematic Review of the Non-pharmacological Treatment of Combat- Related Post Traumatic Stress Disorder

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Background

Post traumatic stress disorder (PTSD) was first recognised as a disorder by the DSM III in 1980 (1). Prior to this, the symptoms that are indicative of this illness were referred to by a variety of different names, for example; shell shock, combat fatigue, anxiety disorders and in some cases considered a form of cowardice.

Since due recognition has been given to the symptoms of PTSD as an illness a variety of treatment regimes have been used to help individuals to lead a normal life. These treatments, both pharmacological and non-pharmacological have been found to be effective in different combinations with different people. One of the major associated problems with PTSD is concomitant substance abuse (1) a situation that makes it imperative that treatment regimes are identified that work without the use of medications.

PTSD is believed to effect up to 31% of war veterans (2) however caution is advised with regard to this figure because symptoms and their impact on the individual s life vary. Treatment for PTSD has been provided in venues used for the treatment of general psychiatric patients but is now becoming a more specialised, focussed area. Individuals with combat-related PTSD are mostly male (3), this is reflective of the general composition of defence forces.

As recognition of PTSD as an identifiable illness is only relatively new, PTSD specific literature is also still evolving with much of it opinion and or discussion rather than research based articles.

Previous systematic reviews have been undertaken in the area of PTSD and are included as part of the Cochrane Library. One of these focussed upon pharmacotherapy in the treatment of PTSD (4), while the other examined the role of psychological debriefing in preventing PTSD (5). Neither of these studies looked specifically at combat-related PTSD, instead including PTSD attributable to all causes.

Objectives

The aim of this review is to identify non-pharmacological treatments of combat-related PTSD, determine their effectiveness and their implications for practice.

Inclusion Criteria

Types of Participants

Studies that focussed on combat-related PTSD in defence force personnel, both current and past members.

Types of Interventions

The interventions were any used to treat combat-related PTSD that did not involve medication. These treatments ranged from individual therapy to group therapy, in inpatient and outpatient settings.

Types of Outcome Measures

Any outcome that was achieved and reported upon through an accepted research design was included. The outcome measures specifically targeted were changes to PTSD symptomatology.

Types of Studies

This review considered any papers that described the treatment and outcome for individuals with combat-related PTSD. An initial search of the literature suggested few of the identified studies were randomised control trials (RCTs). While RCTs are viewed by Cochrane as the most valued form of research for a systematic review, to capture significant data this review has included studies conducted using other research methodologies. The methods used in the identified studies were randomised trials, controlled trials, descriptive and interpretive studies, quasi-experimental, pre-

experimental and comparative studies. This review considered any RCT or observational study that met the inclusion criteria.

Search Strategy

The search sought to find both published and unpublished papers on PTSD and was limited to papers written in English, due to the difficulty to get accurate translations of foreign articles, prior to the year 2000. The initial search was of the CINAHL and Medline databases to identify optimal search terms.

Key words used in the search were:
    Post and Traumatic and Stress and Disorder or PTSD
    War
    Combat
    Veteran
    Military
    Treatment
    Non-pharmacological

The second search of databases used all the key words as listed. The databases searched were:CINAHL
    Medline
    Embase
    PsycLIT
    Cochrane Library
    HERIT: MIHLIST
    PILOTS

In addition to this, hand searches of the Journal of Traumatic Stress and Military Medicine Journal were also conducted, for articles since 1981 until 2000. The reference lists of all relevant articles were searched for additional studies not identified during the database searches.

Assessment of Quality

The quality of identified studies was assessed using a specific checklist (appendix 1). This was developed to allow an assessment of each of the studies to determine whether they were RCTs or not. The first 4 questions are specific to determine if the study is an RCT the final 3 questions allows for studies that do not meet RCT requirements to be categorised.

Data Collection

Data were extracted using a data extraction tool (appendix 2). This summarised the study, focussing on key points needed when comparing studies for this review. It was designed to allow quick referral for the main points presented in each study and allows for quick comparison between studies.

Data Synthesis

Meta-analysis was not undertaken during this review. Reasons for this include:
    *Few RCTs were identified
    *The RCTs evaluated different types of interventions
    *The RCTs commonly used different outcome measures

As a result of this the findings from individual studies were summarised by narrative and using summary tables.

Excluded Studies

The studies that were identified through the literature search but did not meet the inclusion criteria are listed at appendix 3.

Results

Based on the search terms used, 59 references relating to the topic were identified. Of this number, 35 were excluded as they only described treatment and did not evaluate the effectiveness of treatment. Of the remaining 24 papers 6 reported research that had used RCT s. Table 1 indicates the different types of studies that met the inclusion criteria.

Types of Studies	Number Meeting Inclusion Criteria
RCTs	6
Randomised Trial	1
Controlled Trials	3
Descriptive	7
Interpretive	2
Quasi-experimental	3
Pre-experimental	1
Comparative	1

Table 1: Types of studies

In reviewing the included studies each is discussed by intervention, outcome measure, and assessment timings. For each of the studies, unless stated otherwise, the population involved is Vietnam Veterans. In each study different psychometric tests were used to measure the impact of the intervention, a list of the different tests used throughout all the studies are listed below:

AX   Speilberger Anger Expression Inventory
BAI   Beck Anxiety Inventory
BAT   Behavioural Avoidance Test
BDI   Beck Depression Inventory
BHS   Beck Hopelessness Scale
CAPS-1   Clinician Administered PTSD Scale
CES   Combat Exposure Scale
CGI   Clinical Global Impressions
FIRO-B   Fundamental Interpersonal Relations Orientation — Behaviour
GAS   Goal Attainment Scale
GHQ   General Health Questionnaire
HAMA   Hamilton Rating Scale for Anxiety
IES   Impact of Events Scale

ISS	Interpersonal Shame Scale
MCMI	Millon Clinical Multiaxial Inventory
MGRS	Male Gender Role Stress
MMPI	Minnesota Multiphasic Personality Inventory
NVVRS	National Vietnam Veterans Readjustment Scale
PTSD-I	Post Traumatic Stress Disorder Interview
PRF	Problem Report Form
QOLI	Quality of Life Inventory
RULS	Revised UCLA Loneliness Scale
SCL-90-R	Symptom Checklist 90 Revised
SI-PTSD	Structured Interview for PTSD
SPAI	Social Phobia and Anxiety Inventory
STAI	State-Trait Anxiety Inventory
STAS	State-Trait Anger Scale
SUD	Subjective Units of Distress
VETS	Veterans Adjustment Scale
VoC	Validity of Cognitions

Exposure to Combat Scale
Fear Survey Schedule
Mississippi Scale for Combat Related PTSD
Novaco Provocation Inventory
Penn Inventory for PTSD
Revised Combat Scale
Zung Depression Scale

Although many of the studies use similar testing scales they are often modifications of the original tool. Studies will not be discussed in relation to a specific test; instead the outcomes measured with these testing scales will be discussed as the aim of this review is to highlight treatment effectiveness.

The studies that met the inclusion criteria for this review will have reported results shown in table form to support the narrative summary. The treatments discussed are:

- Exposure therapies
    - Eye Movement Desensitisation and Reprocessing
    - Flooding Therapy
- Relaxation Therapy
- Behaviour Management Therapy
- Inpatient Treatment Programs
- Specialised Programs

Exposure Therapies

Within the area of exposure therapies for PTSD are flooding therapy, implosive therapy, systematic desensitisation, as well as eye movement and desensitisation reprocessing (EMDR).

~Eye Movement Desensitisation and Reprocessing

Type of Study	Number Identified	Authors
RCT	3	Jensen (6) Carlson (7) Pitman (8)
Controlled Trial	1	Silver (9)

Table 2: EMDR studies

EMDR is a treatment that has been used in PTSD therapy since 1989 when

> Shapiro reported her novel and brief procedure for trea ting anxiety and PTSD symptoms. The general premise of the procedure is that simultaneously induced saccadic eye movements, combined with appropriate cognitions and images, genuinely contribute to a restoration of neural balance, ultimately ceasing intrusive symptomatology (Jensen, 1994, p313).

The use of this therapy for the treatment of combat-related PTSD along with the outcome of the therapy was clearly defined in the following articles:

Author	Treatment	Number of Participants	Assessment Timings	Outcomes
Carlson et al (7)	EMDR	35	Pre-treatment Post-treatment 3 months post 9 months post	Decrease in intensity & frequency of PTSD symptoms. Decrease in depression Decrease in anxiety Lowered physiological arousal
Jensen (6)	EMDR	25	Pre-treatment Post-treatment	Decreased in-session anxiety Nil improvement in PTSD symptomatology
Pitman et al (8)	EMDR	17	1 week pre-treatment Midway through	Nil improvement in PTSD symptomatology Decrease in intrusive

			treatment 1 week post	thoughts Decrease in avoidance
Silver et al (9)	EMDR	83	Pre-admission Admission Discharge	Decreased anxiety Decreased isolation

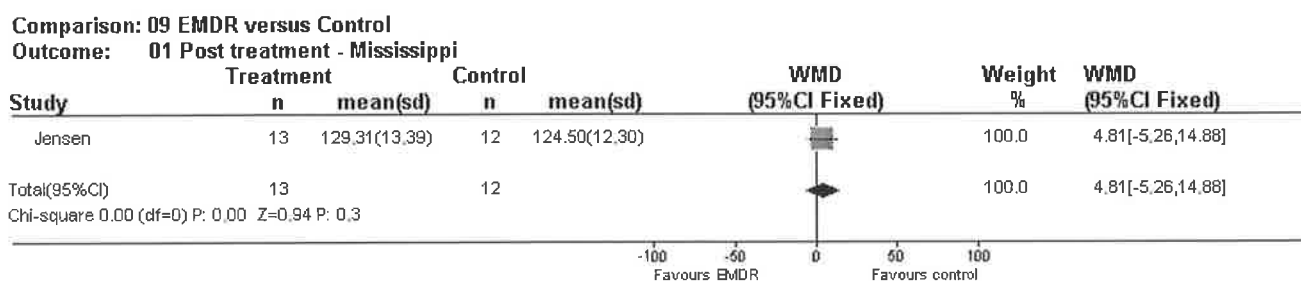Table 3: Details of EMDR studies.

Each of these articles presented EMDR as the treatment in comparison with a control group, another treatment type or as a comparison of variations of EMDR. Each assessed the participants prior to treatment and on completion of treatment, with only the Carlson (7) study assessing participants again following treatment. Each showed improvement in specific areas although two of the studies showed no improvement in PTSD symptomatology.

The Pitman (8) RCT compared two variations of EMDR. For one group the eyes remained fixed during the treatment, for the other group eye movement was allowed. The findings of this study showed that those in the eyes-fixed group had slightly more improvement on the Impact of Events Scale (IOES) than those in the eye-movement group. The other data also did not support the eye movement group with no significant differences shown between this group and the eyes fixed group on the physiological measures or self-reported variables.

The Carlson (7) and Jensen (6) RCT findings differ with the Carlson study favouring the treatment whereas the Jensen study favoured the control. Each of these in assessing the effectiveness of EMDR in comparison to a control group had only a small number of participants. Jensen (6) had 25 participants, with 13 in the treatment group and 12 in the control group, whereas Carlson (7) had 22 participants, 10 receiving EMDR and 12 in the control group. One of the psychometric tests used to assess the efficacy of the treatment, that was common to both studies, was the M-PTSD. It was in comparing the findings on this scale that it became apparent that the studies results differed. For the Jensen study the post-test mean of the M-PTSD results showed no statistically significant difference between the EMDR group and the control group. This study also found that post-test scores for both the EMDR group and the control group indicated that all participants were still suffering with significant PTSD symptomatology.

In the graphs below the findings for the Jensen (6) study (graph 1) and Carlson (7) study (graph 2), when assessing the study participants using the M-PTSD, are shown. As discussed the Jensen (6) study does favour the control group whereas the Carlson (7) study favours the group receiving EMDR treatment.

Although these two studies are using the same assessment tool for this result a meta-analysis has not been done due to the small sample sizes, as the result may be misleading.

Comparison: 09 EMDR versus Control
Outcome: 01 Post treatment - Mississippi

Study	Treatment n	mean(sd)	Control n	mean(sd)	WMD (95%CI Fixed)	Weight %	WMD (95%CI Fixed)
Jensen	13	129.31(13.39)	12	124.50(12.30)		100.0	4.81[-5.26,14.88]
Total(95%CI)	13		12			100.0	4.81[-5.26,14.88]

Chi-square 0.00 (df=0) P: 0.00 Z=0.94 P: 0.3

-100   -50   0   50   100
Favours EMDR   Favours control

Graph 1

Comparison: 01 EMDR versus Relaxation
Outcome: 01 Post treatment - Mississippi

Study	Treatment n	mean(sd)	Control n	mean(sd)	WMD (95%CI Fixed)	Weight %	WMD (95%CI Fixed)
Carlson	10	92.80(20.80)	13	114.20(17.50)		100.0	-21.40[-37.42,-5.38]
Total(95%CI)	10		13			100.0	-21.40[-37.42,-5.38]

Chi-square 0.00 (df=0) P: 0.00 Z=2.62 P: 0.009

-100   -50   0   50   100
Favours EMDR   Favours relaxation

Graph 2

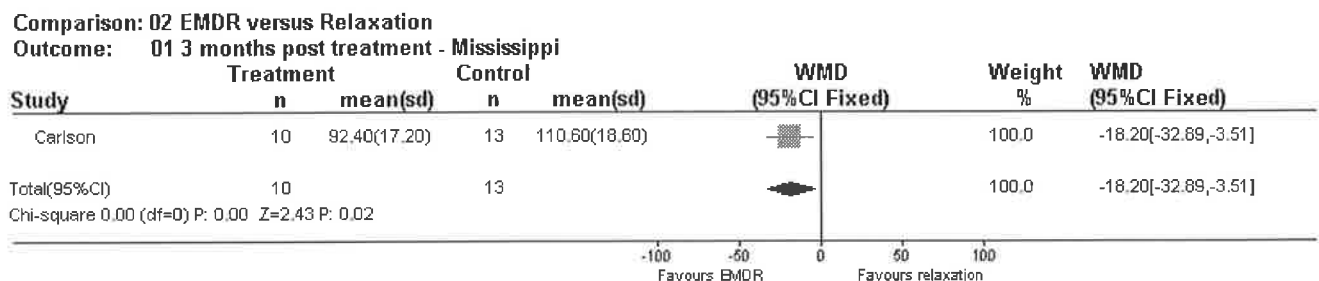For the Carlson study the M-PTSD post-test scores showed a significant decrease in the EMDR group, this was maintained at follow-up which indicates a decrease in PTSD symptomatology. Although in both studies other psychometric tests were used these are not comparable. Some of the other psychometric test results are shown in table 4 and indicate mixed success with the use of EMDR in treating PTSD.

Study	Measure	Group	Pretreatment Mean (S.D.)	Posttreatment Mean (S.D.
Jensen (6)	SI-PTSD	EMDR	29.92 (11.14)	35.69 (12.00)
		Control	37.08 (9.22)	46.92 (10.22)
	SUD	EMDR	8.27 (2.05)	6.18 (2.82)
		Control	8.88 (1.25)	8.50 (1.41)
	VoC	EMDR	5.30 (2.06)	5.20 (2.20)
		Control	2.43 (1.62)	4.14 (2.34)
	M-PTSD	EMDR		129.3 (13.39)
		Control		124.5 (12.30)
Carlson (7)	M-PTSD	EMDR	117.5 (14.3)	92.8 (20.8)
		Control	117.9 (17.6)	112.9 (21.7)
		Relaxation	119.4 (18.3)	114.2 (17.5)
	BDI	EMDR	20.1 (7.5)	6.9 (5.9)
		Control	24.0 (9.9)	23.5 (12.8)
		Relaxation	23.6 (10.8)	15.8 (12.5)
	PTSD Symptoms	EMDR	7.3 (2.1)	3.0 (2.4)
		Control	7.5 (1.7)	6.2 (2.4)
		Relaxation	6.8 (2.3)	4.7 (2.3)

Table 4: Summary of results of EMDR studies.

Graph 3 represents the 3-month post treatment assessment results using the M-PTSD as the assessment tool. This indicates that 3 months following treatment the use of EMDR is still showing a positive effect. In comparing this graph with graph 2 the weighting favouring EMDR has changed little. This indicates that the positive effect of the treatment has been maintained.

Comparison: 02 EMDR versus Relaxation
Outcome: 01 3 months post treatment - Mississippi

Study	Treatment n	mean(sd)	Control n	mean(sd)	WMD (95%CI Fixed)	Weight %	WMD (95%CI Fixed)
Carlson	10	92.40(17.20)	13	110.60(18.60)		100.0	-18.20[-32.89,-3.51]
Total(95%CI)	10		13			100.0	-18.20[-32.89,-3.51]

Chi-square 0.00 (df=0) P: 0.00 Z=2.43 P: 0.02

-100   -50   0   50   100
Favours EMDR   Favours relaxation

Graph 3

The different results obtained with these two studies could be attributable to a number of things. Some of the reasons may include the way in which the EMDR was performed, the application of the assessment tools, or the intensity of PTSD symptomatology to begin with. The mean M-PTSD of the participants in the Jensen study was higher post-treatment than it had been pre-treatment for those in the

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Carlson study. Both studies had only a small number of participants and this may also affect the reliability of the results.

The Silver (9) study, a controlled trial in that participants were not randomly placed in the different treatment groups, compares EMDR with biofeedback, relaxation and a control group as effective treatments for PTSD. This study indicates that EMDR in this context achieved significantly better results than the other treatments in improving anxiety, isolation and in comparison with just biofeedback also a decrease in intrusive thoughts, flashbacks and nightmares.

The authors of these studies, Jensen, Pitman, Carlson and Silver, are not in agreement as to the therapeutic value of EMDR for patients with PTSD. Jensen (6) states a lack of supportive results in future studies would limit the significance of any current and future theoretical EMDR developments, and would indicate insufficient justification for continued clinical use of the technique. (p323). The authors of the other studies are more supportive of the use of EMDR suggesting EMDR is about as efficacious as more traditional exposure therapy for combat-related PTSD. (Pitman, 1996, p428), and that EMDR may be an approach to resolving traumatic experiences that is less threatening for some patients with combat PTSD, (Carlson, 1998, p22). These differing opinions indicate further investigation of EMDR is required to reach a consensus on the efficacy of this treatment.

Flooding Therapy

Type of Study	Number Identified	Authors
RCT	2	Keane (10) Boudewyns (11)
Controlled Study	1	Cooper (12)

Table 5: Flooding therapy studies.

Flooding (implosive) therapy is another form of exposure therapy. The goal of implosive therapy is typically to access high levels of anxiety and arousal. (Keane et al., 1989, p248). To achieve this the patient is exposed to the traumatic event within the controlled therapy sessions, this occurs over a number of sessions as the patient learns to successfully reduce their anxiety levels when confronted by the stressor.

Table 5 highlights the studies that examined flooding therapy with table 6 providing a more detailed account of each of these studies.

Author	Treatment	Number of Participants	Assessment Timings	Outcomes
Keane (10)	Flooding/Implosive Therapy	24	Pre-treatment Post-treatment 6 months post	Decrease in depression Decrease in phasic levels of anxiety Decrease in PTSD symptomatology
Boudewyns (11)	Imaginal Flooding (Direct therapeutic exposure)	38	Pre-treatment Post-treatment 3 months post	Decreased response for skin conductance levels (SCL) Nil change heart rate or EMG
Cooper (12)	Flooding/Implosive Therapy	16	Pre-treatment Post-treatment 3 months post	Decrease in sleep disturbance Decrease in hypersensitivity to sound Decrease in psychotic-like symptoms Decreased anxiety related to targeted event Nil change in depression or violence-proneness

Table 6: Details of flooding therapy studies.

Each of the studies suitable for inclusion in this systematic review investigating flooding therapy show some areas of improvement, with the Keane (10) study the most promising as it assesses the patients six months following treatment and indicates that the gains with treatment are still being maintained.

The Keane (10) RCT compared a control group with a group undergoing implosive therapy. The results show improvement for the participants in the therapy group in the areas of depression, anxiety and PTSD symptomatology. This RCT involved 24

participants who were randomly assigned to either the treatment group, those receiving implosive therapy, or the control group, which was a wait-list group for treatment. For those in the treatment group the positive results included a decrease in depression, phasic levels of anxiety and PTSD symptomatology. These results were measured by using a number of psychometric tests to evaluate the treatment. The tests used included the BDI, the state and trait anxiety inventories, the Zung depression scale, the fear survey schedule and the PTSD MMPI. The results on each of these scales are shown graphically within the study comparing the pre-treatment, post-treatment and follow-up results.

In the other RCT that examined exposure therapy, Boudewyns (11) compares a group receiving individual counselling, the control group, with a group receiving direct therapeutic exposure. Initially 51 participants were recruited for the study but only 38 continued with the study and were included in the analysis. The results of this study showed a decrease in response for skin conductance levels (SCL) in the treatment group. This was assessed using a monitor attached to the index finger and ring finger of the non-dominant hand and readings were recorded throughout the therapy session. This decrease in SCL is indicative of a decrease in arousal at being exposed to the stressor. There are also some psychological changes between the treatment group and the control this was assessed on the VETs assessment scale and participant s results were compared pre-treatment and at the three month follow-up. This showed that the treatment group perceived positive gains in their post-treatment functioning whereas the control group results indicated a decrease in level of functioning during the time of the study. This study as with the others assesses participants in the months following completion of treatment and emphasises the need for further follow-ups at longer intervals after treatment.

The Cooper (12) controlled study also shows improvement in those participants who received implosive therapy. This study examines implosive therapy as a supplementary treatment for individuals with PTSD and compares a control group with the treatment group. The results show some areas of improvement including a decrease in anxiety related to the traumatic event, decrease in sleep disturbance, decrease in psychotic-like symptoms and a decrease in hypersensitivity to sound. As with the Keane (10) RCT, assessment was undertaken pre-treatment, at treatment

completion and then at 3 months. This was to determine whether initial changes on completion of treatment were sustained and in this study they were. This was demonstrated in the results of the BAT and the individual s reporting of SUDS as shown in table 7.

Study	Measure	Group	Pre-treatment Mean (S.D.)	Post treatment Mean (S.D.)
Cooper (12)	BDI	Flooding	21 (5.8)	12 (8.2)
		Control	23 (7.4)	17 (12.1)
	BAT/SUDS	Flooding	5.3 (.72)	3.5 (.88)
		Control	4.4 (1.1)	5.1 (.46)

Table 7: Summary of results of flooding therapy study.

From the findings of these three studies implosive/flooding therapy is supported as a treatment for PTSD, however Cooper (12) is cautious in recommending it, suggesting its use as an adjunctive therapy with other therapeutic approaches.

Relaxation Therapies

Type of Study	Number Identified	Author
Randomised Trial	1	Watson (13)

Table 8: Relaxation therapy study.

Relaxation therapies have been used in the treatment of PTSD as an adjunct to other treatments. It is rarely assessed as an individual treatment but rather mentioned as part of the treatment regime.

Table 8 reflects that only one study specifically reviewed relaxation therapy, this study being a randomised trial which is detailed in table 9.

Author	Treatment	Number of Participants	Assessment Timings	Outcomes
Watson (13)	Relaxation Therapy	90	Pre-treatment Post-treatment	Nil improvement on assessed criteria Decrease muscle tension and increase in skin finger temperature during sessions

Table 9: Details of relaxation therapy study.

Within the Watson (13) trial 3 different types of relaxation therapies were used. The outcomes however remained similar for all three with the variations of therapy related to the addition of deep breathing and thermal biofeedback. The results while suggesting some mildly therapeutic benefits did not differ between the relaxation therapy alone, which was relaxing in a reclining chair, and the addition of deep-breathing and thermal biofeedback. The main area of reported improvement was in the decrease in muscle tension and increase in finger temperature during the sessions (table 10). The results of this study indicate that relaxation does have some positive effect on physiological measures but the addition of deep breathing and biofeedback did not improve this result and while some of the results were statistically significant, none of the results for interaction effects testing for differences in improvements across treatment conditions were.

In assessing the 3 different therapies this study was comparing the participants by using the results measured on biofeedback equipment, skin temperature and frontalis muscle EMG, and psychometric tests, the PTSD-I and the Mississippi Scale for Combat-related PTSD. These measurements were recorded at the initial treatment session and the final treatment session.

Study	Measure	Group	Pre-treatment Mean	Post-treatment Mean
Watson (13)	Finger Temp. (^{0}F)	Relaxation	86.1	89.5
		Relaxation & Breathing	87.8	91.7
		Biofeedback, Relaxation & Breathing	86.8	91.7
	EMG Muscle Tension (V)	Relaxation	30.0	29.6
		Breathing & Relaxation	29.9	29.5
		Biofeedback, Breathing & Relaxation	29.9	29.0

Table 10: Summary of results of relaxation therapy study.

While the results indicated no improvement with the addition of thermal biofeedback and deep breathing to relaxation, the author reminds us that there are other forms of

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biofeedback that may provide different results as well as more extensive relaxation exercises that may also alter the findings.

This study is an initial attempt to assess the effects of relaxation, deep breathing and biofeedback on reducing PTSD symptomatology but is only a small study focussing on specific techniques with further investigation into the variations of these techniques necessary to conclusively determine the effect such techniques have on reducing PTSD symptomatology.

Behaviour Management Therapies

Type of Study	Number Identified	Authors
RCT	1	Chemtob (14)
Quasi-experimental	1	Gerlock (15)
Descriptive	1	Frueh (1)

Table 11: Behaviour management studies.

The use of behaviour management therapies for the treatment of PTSD is discussed in many of the studies, usually in combination with other therapies, table 11 lists those studies identified that focus primarily on behaviour management. Frueh (1996, p535) suggests that

> The treatment is designed to reduce emotional and physiological reactivity to traumatic cues, reduce intrusive symptoms and avoidance behaviour, improve interpersonal skills and emotion modulation, restore or improve occupational adjustment, and increase the range of enjoyable social activities.

Author	Treatment	Number of Participants	Assessment Timings	Outcomes
Chemtob (14)	Cognitive-behaviour Therapy for Severe Anger	15	Pre-treatment Post-treatment 18 months post	Decrease in anger Increase in anger control Decrease in anxiety Decrease in frequency and intensity of re-experiencing
Frueh (1)	Multicomponent Behavioural Therapy	15	Pre-treatment Post-treatment	Increase in sleep Increase in social activities Decrease in nightmares Decrease in anxiety Decrease in heart rate reactivity to trauma exposure
Gerlock (15)	Anger Management	51	Pre-treatment Post-treatment	Decrease in anger

Table 12: Details of behaviour management studies.

For these three studies the focus on a particular behaviour management therapy indicates some improvement in specific areas (table 12). Two of the studies, Chemtob s (14) and Gerlock s (15) concentrate on anger management, while the Frueh (1) study focuses upon multicomponent behavioural treatment for chronic PTSD sufferers.
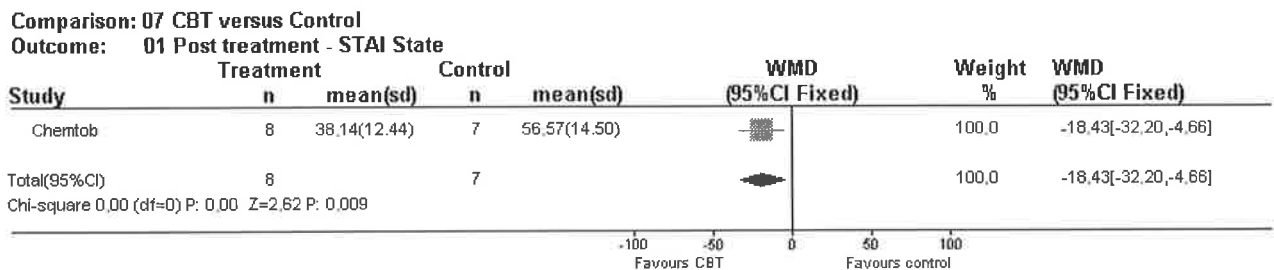
The Chemtob (14) RCT and the Gerlock (15) quasi-experimental study both examined anger management. The Gerlock (15) study, while having a greater number of participants, was only a preliminary study in this area but showed a positive effect from anger management with a decrease in anger in the participants, shown by the participants scores on the STAS. The results on this in both the state-anger and trait-anger showed a significant decrease at the final treatment session compared to the pre treatment score.

Results from the RCT using anger management as the intervention (14) indicated improvement by those in the treatment group in a number of areas (table 13), showing a decrease in anger, an increase in anger control, decrease in anxiety, and a decrease in intensity and frequency of re-experiencing the traumatic event. This study also followed-up participants 18 months after treatment had been completed and found that those in the treatment group still showed greater anger control than those who were in the control group or had dropped out of the study.
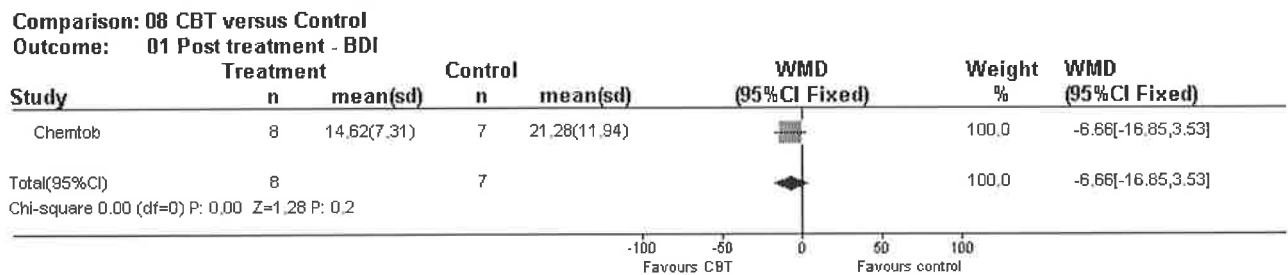
Study	Measure	Group	Pre-treatment Mean (S.D.)	Post treatment Mean (S.D.)
Chemtob (14)	BDI	Anger Treatment	22.25 (9.16)	14.62 (7.31)
		Control	25.50 (11.41)	21.28 (11.94)
	Speilberger State-Trait Anxiety Scale	Anger Treatment	51.5 (11.46)	38.14 (12.44)
		Control	51.50 (22.13)	56.57 (14.50)
	Trait subscale	Anger Treatment	54.75 (7.72)	45.14 (11.88)
		Control	62.28 (7.50)	55.71 (8.83)
	Speilberger State Anger Scale	Anger Treatment	30.1 (11.5)	19.5 (7.3)
		Control	35.0 (16.7)	33.7 (14.9)

Table 13: Summary of results of behaviour management study.

In graphs 4 and 5 it can be seen that for both the Speilberger State-Trait Anxiety Scale (STAI State) and the BDI, post-treatment assessment favoured the treatment group. In using both these assessment tools there is some difference in the weighting with STAI State (graph 4) assessment post-treatment favouring CBT more than when the BDI (table 5) was used as the assessment tool. As the sample sizes in these studies were small the significance of these results is questionable.

Comparison: 07 CBT versus Control
Outcome: 01 Post treatment - STAI State

Study	Treatment		Control		WMD (95%CI Fixed)	Weight %	WMD (95%CI Fixed)
	n	mean(sd)	n	mean(sd)			
Chemtob	8	38.14(12.44)	7	56.57(14.50)		100.0	-18.43[-32.20,-4.66]
Total(95%CI)	8		7			100.0	-18.43[-32.20,-4.66]

Chi-square 0.00 (df=0) P: 0.00 Z=2.62 P: 0.009

-100   -50   0   50   100
Favours CBT   Favours control

Graph 4

Comparison: 08 CBT versus Control
Outcome: 01 Post treatment - BDI

Study	Treatment		Control		WMD (95%CI Fixed)	Weight %	WMD (95%CI Fixed)
	n	mean(sd)	n	mean(sd)			
Chemtob	8	14.62(7.31)	7	21.28(11.94)		100.0	-6.66[-16.85,3.53]
Total(95%CI)	8		7			100.0	-6.66[-16.85,3.53]

Chi-square 0.00 (df=0) P: 0.00 Z=1.28 P: 0.2

-100   -50   0   50   100
Favours CBT   Favours control

Graph 5

The final study examining behaviour management therapies meeting inclusion criteria for this systematic review is the Frueh (1) study. In this study the development of multicomponent therapy, or trauma management therapy, is assessed. Positive outcomes are reported (table 14) with participants showing improved sleep patterns, reduction in nightmares, decrease in anxiety and heart rate reactivity when exposed to the traumatic event, and an increase in social activities. The results did not show a statistically significant change in anger or anger management on the reported testing scales, however through observation the authors believe there was a positive effect.

Study	Measures	Group	Pre-treatment Mean (S.D.)	Post treatment Mean (S.D.)
Frueh (1)	HAMA	Trauma Management Therapy	33.91 (9.38)	23.26 (4.20)
	CGI	Trauma Management Therapy	6.09 (0.70)	4.00 (0.78)
	CAPS	Trauma Management Therapy	82.46 (19.23)	65.55 (8.51)

Table 14: Summary of results of behaviour management study. (2)

The findings reported indicate some positive outcomes in specific treatment areas of PTSD. The Chemtob (14) and Gerlock (15) studies show the successful reduction in anger while the Frueh (1) study demonstrates a reduction in a number of PTSD symptoms. Only the Chemtob (14) study did a follow-up after treatment completion to see if treatment effect was maintained. The outcomes reported by these authors are statistically significant in a few areas but due to the small sample sizes in these studies the authors have cautioned against generalising these results.

Inpatient Treatment Programs

Type of Study	Number Identified	Authors
Controlled	1	Hammarberg (16)
Quasi-experimental	1	Fontana (17)
Pre-experimental	1	Hyer (18)
Interpretive	1	Johnson (19)
Descriptive	5	Forman (20) Johnson (21) Margalit (22) Funari (23) Creamer (24)
Comparative	1	Rosenheck (25)

Table 15: Inpatient treatment programs.

Since the recognition of PTSD as a disorder a number of inpatient treatment programs have evolved. Some of these are conducted in specific PTSD units while others take place in general psychiatric facilities. Rather than discuss individual therapies many of the studies on treatment effectiveness for PTSD look at the treatment package as a whole and not just the components that they consist of. Table 15 summarises the studies in this review that belong in this category.

Author	Treatment	Number of Participants	Assessment Timings	Outcomes
Hammarberg (16)	Multiple therapies	98	Pre-treatment 4 weeks into treatment 8 weeks into treatment Post-treatment 1 year post	Initial improvement in PTSD symptoms, at yearly follow-up return to pre-treatment levels
Fontana (17)	Long-stay unit Short stay unit General psychiatric unit	785	Pre-treatment Post-treatment 4 monthly for 1 year post	Initial improvement in PTSD symptoms & social functioning, decreased on follow-up Improvement in short-stay PTSD unit and general psych unit > long stay PTSD unit
Hyer (18)	Multiple therapies	50	Pre-treatment Discharge	Nil change on MCMI (specific testing scale)
Johnson (19)	Multiple therapies	65	Discharge 4 months post 12 months post	4 months post PTSD symptoms worse, this maintained at 12 months
Forman (20)	Multidisciplinary	38	Retrospective study	Increase in sleep Decrease in nightmares Increase in socialisation Increase in hope
Johnson (21)	Multidisciplinary Unit	51	During 1st week of treatment Discharge 6 months post 12 months post 18 months post	Improvement in psychological distress, family problems & violence (btn. Admission & discharge) 18 month post: fewer legal problems Increase in personal & survivor guilt Increase in suicide attempts Increase in family problems Increase in psychiatric symptoms
Margalit (22)	Multiple therapies	Israeli soldiers (actual number not identified)	Pre-treatment Discharge 2 _ years later 6 years later	Increase level of functioning at discharge 2 _ year follow-up regulars maintained improvement, reservists some deterioration Increase in regular soldiers returning to their units Increase in psych discharges in reservists
Funari (23)	Multiple therapies	112	During first 2 weeks of treatment Discharge	Improvement in avoidant and passive-aggressive traits Decrease in anxiety Increase in paranoia
Creamer (24)	Specialised inpatient programs	419	Pre-treatment 3 months post 9 months post	Improvement in a range of psychosocial domains (group results). Individual variances from this noted.
Rosenheck (25)	Specialised inpatient programs	4165	4 months post	Clinical outcomes are related to readmissions

Table 16: Details of inpatient treatment programs.

Although the inpatient therapies all assess the effectiveness of a particular program for a number of reasons they do not easily allow for comparisons between units. Each program s assessments are based on different criteria, using different psychometric testing scales and often with assessments undertaken at different times before, during and after treatment. Table 16 summarises the details of each of the studies.

All of the studies examine the outcomes for participants undergoing multiple therapies within a structured PTSD program. Fontana s (17) study looks in particular at three different types of units offering treatment programs for PTSD sufferers. The outcomes of this indicate that for PTSD treatment those patients in the long-stay PTSD unit showed some initial improvement in PTSD symptomatology and social functioning but these deteriorated in the year following treatment. For those treated in the short-stay PTSD unit and in the general psychiatric hospital improvement was greater initially than for those in the long-stay unit and this trend continued during the year of follow-up (table 17). This study did include 10 separate units where these different programs were being offered and indicates that the more expensive long-stay PTSD unit did not appear to be as effective in reducing PTSD symptoms as either the short-stay or general unit, while this finding was statistically significant the authors note that clinically it was a more modest result.

Study	Measure	Group	Admission Mean (S.D.)	Discharge Mean (S.D.)
Fontana (17)	PTSD Scores	Long-stay PTSD Unit	87.79 (17.27)	76.43 (22.13)
		Short-stay PTSD Unit	102.66 (18.12)	82.77 (25.27)
		General Psych Unit	97.08 (17.35)	81.76 (17.92)
	Mississippi Scale for Combat-related PTSD	Long-stay PTSD Units	135.32 (16.31)	134.99 (18.28)
		Short-stay PTSD Units	133.69 (15.21)	130.03 (16.48)
		General Psych Units	136.90 (14.68)	133.13 (13.44)

Table 17: Summary of results of inpatient treatment program.

In the studies that examine the effectiveness of the multiple therapies without unit comparison a trend appears to have developed showing initial improvement on completion of treatment but at follow-up PTSD symptoms have worsened. The Hammarberg (16), Johnson (19) and Johnson (21) studies all reported this finding. Each of these studies had follow-up in the year post-treatment, and in the Johnson (21) study 18 months post-treatment (table 18). For these three studies participants reported a worsening of symptoms since treatment completion and in the Hammarberg (16) study participants stated they had returned to pre-treatment levels of PTSD symptoms (table 18).

Study	Measure	Group	Admission Mean (S.D.)	4-weeks Mean (S.D.)	8-weeks Mean (S.D.)	12-weeks Mean (S.D.)
Hammarberg (16)	Penn Inventory	In-treatment	55.0 (9.2)	49.92 (10.2)	52.34 (11.3)	45.96 (16.0)
		Out-of-treatment	53.88 (9.0)	53.32 (9.1)	50.41 (11.8)	51.33 (10.9)
		Non-PTSD Non-treatment	14.76 (9.3)	14.14 (8.0)	13.63 (7.7)	13.54 (8.4)
			Admission Mean (S.D.)	Discharge Mean (S.D.)	6-months Mean (S.D.)	18-months Mean (S.D)
Johnson (21)	Mississippi PTSD Scale	Intensive Inpatient Treatment	129.50 (15.39)	132.69 (16.30)	135.06 (14.79)	134.87 (17.07)

Table 18: Summary of results of inpatient treatment programs (2)

The Forman (20) study also discussed the outcomes of an inpatient treatment program. However, the evidence is anecdotal and it describes the improvement in participants sleep patterns, decrease in nightmares, an increase in socialisation and an increase in feelings of hope. It does not discuss long-term follow-up so the results cannot be directly compared to the previous three studies in that area but initial improvements are similar.

Another of the studies that looks at an inpatient treatment program is the Margalit (22) study that focused on the outcomes for Israeli soldiers. The program reported is different to those in the previous studies in that it is being provided to serving soldiers

as a frontline treatment. It is based on a military model and involved not only therapy sessions but included combat fitness retraining and sport and group exercise activities. The results reported from this study indicate an improvement in all participants with none requiring psychiatric hospitalisation, an increase in the number of regular soldiers returning to their combat units and an increase in the 6 year follow-up in the number of reserve soldiers psychiatrically discharged which was not evident in the regular soldiers.

Creamer s (24) study compared data collected from patients participating in 8 different programs. These programs were accredited by a national body to provide PTSD specific treatment within Australia. Overall the results showed an improvement in PTSD symptomatology with the greatest improvement evidenced between the admission test results and the results at the 3-month follow-up. The improvement was then maintained with similar results found at the 9-month follow-up. The authors provided a note of caution with their findings highlighting how variable responses alter the reported outcomes noting that while some participants reported significant improvement others reported slight improvement while some believed that their had been no change in their symptoms.

In all of these studies the outcomes are measured by carefully administered psychometric testing scales. The Funari (23) and Hyer (18) studies specifically look at the outcomes of a PTSD program in validating a new assessment tool, the Millon Clinical Multiaxial Inventory (MCMI). The results indicate that using this tool in the Hyer (18) study participants showed no changes in PTSD symptomatology before or after treatment whereas when used in the Funari (23) study participants indicate an improvement in avoidance and passive-aggressive traits, a decrease in anxiety and an increase in paranoia.

The final study that looks at outcomes from inpatient PTSD programs is the Rosenheck (25) study in which patient outcomes and performance indicators are compared. It found that readmissions are related to clinical outcomes and for those participants who did not respond well to treatment there was a greater likelihood of readmission.

In comparing all of these studies related to inpatient treatment programs the conflicting outcomes of the studies are prominent. Some showed improvement in PTSD symptomatology, mostly this was an initial response that was not maintained at follow-up in the few studies that actually did follow-up. The number of participants within each study varied greatly as did the study designs. These factors made comparison of the research results difficult.

The results indicate that short stay PTSD units had better outcomes than longer length of stay treatment programs (17). For the multiple therapy treatment programs initial improvement was evident in many of the studies, (16,17,19-21,23), but for those that did follow-up at a later date, (16,19,21), this has not been maintained with PTSD symptoms again increasing with the exception of Creamer s (24) study.

Further studies should include a larger number of participants, throughout a number of different facilities, all with reported post-treatment follow-ups at regular intervals. Collaborative studies between units should also be considered but mindful of the need to assess participants using similar measures.

Specialised Programs

Type of Study	Number Identified	Authors
Quasi-experimental	1	Ragsdale (3)
Interpretive	1	Johnson (26)
Descriptive	1	Attarian (27)

Table 19: Specialised programs.

Some of the included studies discuss specific elements that are part of a treatment regime or offered as a complementary therapy. Table 19 lists what type of study each of these are while table 20 gives a summary of each of the studies.

Author	Treatment	Number of Participants	Assessment Timings	Outcomes
Johnson (26)	Single Sessions within a PTSD Programme	25	Before and after individual sessions over a 2-week period in the programme	Improvement after sessions with an external focus, action modality and little Vietnam content Art therapy had greater improvement in those with high levels of PTSD
Attarian (27)	Adventure Programme		Retrospective	Increase in self-confidence Increase in trust in others Ability to function as part of a team Group cohesion
Ragsdale (3)	Adventure-based Counselling & Psychodrama	48	Pre-treatment Post-treatment	Decrease in feelings of loneliness Reduction in feelings of guilt Reduction in feelings of shame Reduction in feelings of emotional isolation and hopelessness

Table 20: Details of specialised programs.

The three specialised programmes reviewed each show some positive outcomes. The Ragsdale (3) and Attarian (27) studies focused on the use of adventure training as an adjunctive therapy to PTSD programmes. These studies indicate improvements in many areas with Ragsdale s (3) study showing a decrease in participants feelings of loneliness, guilt, shame, emotional isolation and helplessness (table 21) whereas Attarian s (27) study indicated positive effects on self-confidence, trust and the ability of participants to work together as part of a group.

The positive outcome appeared to be that when participants returned to the more traditional PTSD program there was group cohesion, they had bonded with others and had a greater awareness of each other as individuals.

Study	Measure	Group	Pre-treatment Mean (S.D.)	Post treatment Mean (S.D.)
Ragsdale (3)	Beck Hopelessness Scale	Therapy	15.4 (4.2)	9.0 (5.9)
		Wait List	12.9 (6.0)	13.6 (5.9)
	State-Trait Anger Scale	Therapy	44.8 (8.4)	44.7 (9.1)
		Wait List	44.4 (8.1)	45.4 (8.5)
	Mississippi Scale for Combat-Related PTSD	Therapy	139.4 (12.2)	134.9 (13.1)
		Wait List	137.3 (16.5)	139.9 (16.7)

Table 21: Summary of results of specialised program.

The study by Johnson (26) differs from the others in that it explored the effectiveness of different programmed sessions within a treatment programme. The study was to determine which if any sessions offered the most benefit to participants. The results of this study showed that treatment was most effective for those with milder PTSD symptoms and that the preferred treatment sessions were those with an external focus, action modality and minimal Vietnam content. Another finding in this study is that for those with higher PTSD symptomatology art therapy was the treatment to which they best responded.

Summary

In conducting this systematic review a common theme within the studies is the need for further research to be undertaken with more participants within each study. There is also the question of generalisability which is raised, by a number of authors due to the small number of participants within studies and the specific psychometric testing scales they have used in testing the efficacy of the treatment. It is difficult to compare similar treatment modalities and their outcomes because most of the studies use an adaptation of a number of psychometric testing scales that are administered at different times throughout the treatment, and follow-up.

Another theme that is common throughout the studies is the need for increased assessment after treatment has been completed and participants have returned to their normal routine. Some of the studies have attempted to do this but a majority only assessed participants on treatment completion and did not discuss subsequent follow-ups.

Discussion

All of the studies in this systematic review discussed the outcomes for participants of combat-related PTSD treatment programs. The programs available vary widely as do the tools to assess their effectiveness. For some programs the participant is asked to complete many different testing scales, this has resulted in studies having a wide

range of data to discuss and use to highlight the efficacy of a specific treatment regime.

For the six RCTs included in this systematic review the main issue in terms of design is the small number of participants in each study and whether the findings are powerful enough to be indicative of the efficacy of a given treatment for this group of people. The maximum number of participants in the RCTs was 38 in the Boudewyns (11) study. The small number of participants in each of these studies limits the generalisability of the findings however the information from the studies does provide a starting point for further research.

In each of the RCTs the measurements used were both psychological and physiological, pre and post-treatment. For each study the psychological testing scales varied with up to eight different scales used in one study. While providing a broader range of information and reportable results this use of many different testing scales may also contribute to the poor completion rates reported with participants overwhelmed by the amount of psychological tests.

The reported results of some of the assessments conducted in the Jensen (6), Carlson (7), and Chemtob (14) studies were displayed graphically (graphs 1-5). This representation of the results allows those who are interpreting these to readily see whether the treatment or control is favoured. Unfortunately due to the low numbers in each of these studies the significance of the result is questionable. Not all the included RCTs could be displayed in this way as not all had included sufficient data in reporting their findings. Meta-analysis could not be undertaken due to the limited data reported within each study.

The other studies included in this review were all non-RCTs. The treatments reported in each of these studies are varied and the settings where they were undertaken are also varied. Studies were conducted in inpatient and outpatient facilities, PTSD units and general psychiatric wards. For most studies the participants were Vietnam Veterans, with one study focussing on the treatment provided to Israeli soldiers.

A limitation of all the studies was the high attrition rate of participants failing to complete the treatment and follow-up regime being reported. One of the studies, Chemtob s (14), noted that a high participant drop-out rate is expected with PTSD treatment research. This they attributed to the general distrust of research and its perceived exploitation by Vietnam Veterans, who for the majority of combat-related PTSD research are the group that is studied.

The overall results of these studies while describing and analysing treatments, and assessing participants pre and post-treatment suggest that while some improvement is made initially this is rarely sustained in the long-term. Not all studies assessed participants more than immediately post-treatment but for those that did the results indicated only a small improvement from the pre-treatment assessment.

In comparing these articles it is necessary to look first at the different treatments each is assessing and the methods that are used to assess these. The number of participants in each study is also important and this ranges from 14 to 4165, with most studies having fewer than 100 participants. The significance of this is the impact the results have when treatment designs are being considered in terms of the generalisability of the findings.

The majority of studies were undertaken at inpatient facilities, many of these funded by Veterans Affairs. The studies were mostly conducted by psychologists with the length of treatments quite varied.

It is suggested in many of the studies that the degree of incapacity related to PTSD is one of the indicators in treatment effectiveness. The chronicity of this illness is such that small improvements take time and to sustain this improvement ongoing treatment is a necessity. The difference between inpatient and outpatient programs is not shown to be great but this may be attributable to the selection process for participants in each of these.

The comparison between treatment regimes is not conclusive as only a few programs offer multiple treatment choices with most having a treatment regime, which all

participants follow. In studying the effectiveness of the treatment the unit is not compared with others.

In outlining the different therapies that have been highlighted in this review mixed results have been found even within similar treatment regimes. The positive outcomes reported for specific areas within individual studies have rarely been followed up after completion of treatment and in the few studies where this has happened the trend is that participants have not maintained the treatment gains and are again experiencing increasing PTSD symptomatology.

The few RCTs that were identified are concentrated in the areas of exposure therapies, relaxation therapy and behaviour management therapy, whereas the largest number of studies came from the area of multidisciplinary inpatient treatment programs with none of these studies RCTs. This highlights a main area where further rigorous research should be undertaken to determine the efficacy of these treatment programs.

Another concern with these results is the apparent ineffectiveness for the treatments studied to maintain treatment gains. This indicates a need to further investigate the treatments and their long-term effectiveness.

The chronic nature of PTSD does not lend itself to a 100% treatment success rate, with results perhaps needing to be measured by the person s ability to function optimally in their daily routine. Treatment regimes may need to focus on skills to manage the illness rather than to cure it.

Recommendations

The following recommendations are made on the basis of the findings from this Systematic Review.

> * Follow-up is required after completion of any of the treatments discussed as maintaining treatment gains has been shown to be difficult and this is not included in many of the studies.

* Further research involving larger numbers of participants, focussing on inpatient, multiple therapy programs is required.

* Collaborative research between PTSD programs and units is required.

* A standardisation of testing scales, used to determine outcomes, across studies.

* Many of the papers on this topic are descriptive with no treatment outcomes discussed, for treatments to be recommended for practice their efficacy with this group of patients needs to be tested and reported upon.

* Majority of the studies outcomes are based on responses measured on particular psychometric testing scales and physiological tests; rather than how the participant feels after treatment is completed? Further research is necessary to investigate this question.

The opportunity to implement these recommendations is dependent upon the continued support from those working in this area towards continuing research of their treatment programs.

Appendix 1

RCT Critical Appraisal Form - PTSD

Author:

Year:

Questions 1-4 must be answered yes for study to be included in meta-analysis.

1.   Were the participants randomised to study groups?

        Y   N

2.   Other than the research intervention were participants in each group treated the same?

        Y   N

3.   Were the outcomes measured in the same manner for all participants?

        Y   N

4.   Were groups comparable at entry?

        Y   N

Studies that answer no to the following questions may still be included in the report but this will be noted within the report.

5.   Was randomisation of participants blind?

        Y   N

6.   Was there adequate follow-up of participants?

        Y   N

7.   Were the outcomes of people who withdrew described and included in the analysis?

        Y   N

Appendix 2

Data Extraction Sheet - PTSD

Author:

Year:

Research Design:

Population:

Setting:

Interventions:

Outcome Measure:

Numbers in Study:

Results:

Conclusion:

Level of evidence:

Appendix 3
Excluded Studies

For the 35 articles that were excluded the criteria on which this was decided are as follows:

Blair et al., 1991   Nil treatment outcomes discussed

Burnstein et al., 1988   Comparative study of veterans v s civilians

Deahl, 1994   Effectiveness of specific treatment (psychological debriefing) but not specifically PTSD sufferers

Fontana, 1997   Nil treatment outcomes

Ford et al., 1997   Participants had not been diagnosed with PTSD prior to study

Frueh et al., 1995   Discussion paper, review of other published works on exposure therapy.

Gerlock, 1991   Discussion paper, nil formal data

Golub, 1985   No definitive outcome

Hines-Martin et al., 1993   Discussion paper

Hutzell et al., 1997   Discussion paper, nil specific outcomes

Hyer et al., 1997   Assessment tool, discussion of how it should be utilised

Jelinek et al., 1984   Discussion paper PTSD and substance abuse, recommendations but no data.

Johnson et al., 1995	Discussion paper, nil outcomes
Johnson et al., 1994	Nil outcomes, 2nd generation program.
Johnson et al., 1997	Nil outcomes, comparative study.
Krippner et al., 1989	Descriptive, one case study.
Kubany, 1994	Discusses only one symptom of PTSD
Lee, 1997	Not combat-related PTSD
Lipton et al., 1988	Medication used as part of treatment
Marshall et al., 1995	Treatment model, nil outcomes
Obenchain et al., 1992	Results subjective, clinical impressions.
Rabin et al., 1991	Family therapy
Rosenheck et al., 1995	Not treatment focussed, therapist focussed.
Rosenheck et al., 1997	Discussion paper, historical perspective.
Scaturo et al., 1988	Discussion paper, comparing therapies
Schnurr et al., 1999	Not all participants combat veterans.
Scurfield, 1992	Not just PTSD sufferers.
Shalev, 1997	Discussion paper, how PTSD has evolved.
Sherman, 1998	Not all participants combat veterans.

Short-DeGraff et al., 1992   Discussion paper of occupational therapies in PTSD treatment.

Solomon et al., 1992   Not all participants combat veterans.

Snell et al., 1992   Treatment outline, nil outcomes.

Viola, 1994   Medication used as part of treatment.

Walker et al., 1981   Case studies.

Weitz, 1988   Discussion paper, evolution of PTSD treatment.

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Study Two

The Role of Nurses in Accredited PTSD

Programs throughout Australia

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Introduction

The role of the nurse in treatment programs for PTSD sufferers is one that is barely acknowledged within the literature. While there are studies that focus on specialised inpatient treatment programs for PTSD, the role the nurse plays within these programs is not highlighted.

That nurses have a function within these programs is understood through indirect references in the literature and personal experience. The opportunity to explore and describe this role will increase the awareness of how and where within these organisations the nurse fits and what it is that they contribute to the treatment programs.

It also offers the opportunity to focus on the skills that the nurse may have acquired that differ from other members of the health care team and how the role that the nurse has within these treatment programs compares with and complements the other health professionals. The findings of this study may also help establish a greater role for the nursing officer in the ADF when caring for patients with a mental illness.

This study is presented in five sections. The first section is a literature review relevant to this area, following on from this the research methods used in undertaking the study are discussed. The results are presented followed by a discussion of the results and recommendations.

Literature review

In undertaking a systematic review of non-pharmacological treatment of combat-related post traumatic stress disorder (PTSD), it was found that the literature was substantially concerned with inpatient treatment programs and described from the psychologist or psychiatrist s viewpoint. This literature review concentrates on studies relating to psychiatric mental health nursing, and nursing involvement in the treatment and care of persons with PTSD. This condition is classified as a psychiatric illness and many of the treatment units attended by patients are sub-units of larger mental health care facilities. In searching for nursing specific PTSD literature it was apparent that there is very little available. In trying to capture all the available literature broad search terms were used to reduce the chance of missing appropriate articles. The literature search returned a number of articles on psychiatric mental health nursing but when narrowed to those studies specifically discussing PTSD only a handful of articles were found.

The studies discussed here are grouped into four areas:
- The psychiatric mental health nurse in general
- Advance practice psychiatric mental health nursing
- Education for advance practice
- The nurse in PTSD programs

The Psychiatric Mental Health Nurse

In undertaking a study to define the role of the nurse in the specialty area of PTSD treatment, the role of the psychiatric mental health nurse in general will be explored. This will provide a baseline for nurses in this field before they specialise further.

Barker, Jackson and Stevenson [1] discussed the role of psychiatric mental health nurses in general. They questioned what role these nurses specifically fill. To address this question they invited people who had been involved with mental health services to participate in focus groups at which this question was discussed. The focus groups consisted of 92 people in total and their responses to the question indicated support

for psychiatric mental health nurses and suggested that these nurses are the link between the client and other health professionals. The authors discussed the complexity of this nursing role and the levels of communication these nurses require to successfully interact with the clients. Other members of the multidisciplinary health care team indicated that the psychiatric mental health nurse in the hospital setting has vital knowledge. This is knowledge other members of the health care team could never obtain due to their distance from the patient in that they only have contact with them for set appointment times rather than the nurse who is with the patient throughout the whole treatment program. Barker et al have suggested that Within the context of health care, psychiatric nursing may hold certain (pre-existing) lines of communication in place, while allowing new lines of communication to develop. (p280).[1] From this study some of the specific skills of the psychiatric mental health nurse have been recognised, as has the need for these nurses to show flexibility in being able to fulfil their different roles. The role differed depending on the perspective of the person in the focus group answering the question and highlights the multi-dimensional aspect of psychiatric mental health nursing.

Ferguson and Hope [2] discussed the role of the psychiatric mental health nurse from the perspective of transition from undergraduate to competent practitioner. Their study followed 10 nursing students who had chosen the mental health branch of study, from undergraduate to new practitioner. They highlighted the need for new practitioners to gain experience in working with clients who have a mental illness in order to become successful psychiatric mental health nurses and note the unique pressures new practitioners in the area face. They discussed the need for new practitioners to be given adequate support and on-going education in the workplace. They further suggested that the reason why those in the study, who had been through an undergraduate program that was to prepare them for both acute care and community nursing, chose to enter the acute care sector initially was that this area offered greater support. Their study providesd some insight into why nurses chose this specialty area; this includes age and life experience, and outlined recommendations on how other nurses may be recruited into psychiatric mental health nursing. A study such as this highlighted the need for successful staff education programs within the specialised areas of health care, and could indicate that for those working in PTSD programs, a sub-specialty within the specialty of mental health

nursing, ongoing education programs are a necessity. However one must also caution against highly specific areas of practice within a specialty because of the limited area of practice availability.

O Brien[3] discussed New Zealand psychiatric mental health nurses perceptions of their practice. This descriptive study used focus groups to gain the required information. The two groups represented were nurses who worked at an inpatient facility and community based psychiatric mental health nurses. The main theme that emerged from the focus groups was that of the nurse-patient relationship, with sub-themes of involvement, individualizing nursing care and minimizing visibility. The author acknowledged that while this a good beginning point in trying to articulate the contribution that mental health nurses make to mental health care, further investigation of this needs to be undertaken to gain a better understanding of this role.

In another study that aimed to define the role of mental health nurses, Graham[4], conducted a phenomenological study involving mental health nurses at a community mental health centre in Northern England. This study found that for these nurses their aim of nursing was to promote positive self-concepts in clients, achieving this through the relationship-building process. It was important for the nurses to define their role so that they could educate other members of the health care team about this. Initial discussions with the other team members revealed that they did not see the nurse as having an independent role but rather that they were there to carry out clinical functions as directed by others.

By the completion of the study the nurses had worked through a process in which their relationship with the patient had been explored. They were able to conceptualise this and gained insight into how to implement what they had learnt. As part of the process they were able to explain their nursing care with other team members. While this study has examined the way in which nurses from one unit were able to reflect on their practice, learn from this and apply this to their nurse-patient relationships, similar studies could be undertaken in other areas of psychiatric mental health nursing to assist in establishing a greater understanding of what these nurses do.

Graham[4] articulated the lack of understanding others had of the role of the nurse and this notion was supported by findings from Barker and Walker s[5] study of the nurses perception of being part of the multidisciplinary team in acute psychiatric settings. In this study a telephone survey was undertaken involving 26 acute psychiatric admission wards in a region in England. The aim was to describe the nurses perceptions of the form and functions of care delivered by the multidisciplinary team. (p539).[5] The responses of nurses from each of the units provided an overview of how the multidisciplinary team worked within each setting. It would appear that the teams consisted mainly of nursing and medical personnel, with some small representation of social workers and occupational therapists. The nurses within these teams while priding themselves on their ability to work as part of the team were not in leadership positions, and not as assertive as they perhaps should be in a true team environment. The medical members of the team had sole control over patient admissions and the involvement of the community psychiatric nurse was not apparent in all units. Patients were also excluded in many units from involvement in planning of care, which was often undertaken solely by nurses and only shown to the patient when their signature was required.

In exploring the perceptions of the nurses working in the multidisciplinary team, this study highlighted that although these teams exist they do not fully realise the potential of all the team members and that further research in this area should include the perceptions of other members of the team. This would allow further understanding of the team dynamics by establishing the role each team member believes they play or should play within each team.

As psychiatric mental health nurses become part of the multidisciplinary team and their position evolves, there is a move in the United Kingdom towards multiprofessional clinical supervision. This development is discussed in a study by Mullarkey, Keeley and Playle,[6] in relation to the challenge this provides the psychiatric mental health nurse. The study looked at how the current situation in mental health has evolved, discussed different types of models for supervision and identified that clinical supervision for different health professionals implied different meanings. In concluding the authors recognized the need for the different professional

groups to work together to establish a common view, prior to implementing the multiprofessional supervisor role.

In working as part of a multidisciplinary team and being seen as equal to the other health professionals within the team, there is now the opportunity for the psychiatric mental health nurse to further their role by accepting the challenges of advanced practice nursing.

Advance Practice Psychiatric Nursing

The role of the nurse in PTSD treatment programs may be one of advanced practice as this is a specialty area within psychiatric care. To further examine this the role of advance practice nurses as presented in some of the literature will be discussed with relevance to the specialty area noted.

Ingersoll, McIntosh and Williams,[7] described the role of the advance practice nurse as one in which the nurse provides advanced clinical care to patients, manages health care systems and influences health care decision making through expert clinical reasoning and research. (p1272).[7] This study focused on the requirement to have nurse appropriate indicators to measure the advance practice nurse s effect on care delivery outcomes. The information collected for this study was done via the posting of questionnaires to all registered advance practice nurses in a state in America. Unfortunately the response rate to this was low, however from the limited responses received recommendations for appropriate indicators were made. These included indicators relating to patient satisfaction, symptom resolution, compliance, knowledge of patient and family, quality of life issues and collaboration among care providers.

While this study outlined responses from a group of advance practice nurses, psychiatric mental health nurses were not specifically targeted. However in reporting the results it was noted by the authors that a similar study of psychiatric advance practice nurses demonstrated 3 similar nurse appropriate indicators for advance practice in the top 10 indicators of health care outcomes. These were patient satisfaction, symptom relief and compliance with treatment plan.

Allen[8] discussed the role of the advance practice nurse based on the opinions of a random sample of United Kingdom psychiatric mental health nurses. The sample of nurses was accessed through the Network for Psychiatric Nursing Research with 100 nurses randomly selected to receive a postal survey. The survey focused on the role of the nurse in psychiatric care, what nurses stated they do, what they would like more scope to do and areas they believe are not within a nursing role. Nurse prescribing was discussed, as was the reluctance of some of the respondents to take on this role amongst other advance practice roles that they perceived as being not an extension of their nursing role but rather picking up what other health professionals didn t want to do. In discussing the responses the perception of the nurses surveyed was that the nursing practice role was one that could be expected of nurses to fulfil on completion of basic training with the advance practice role incorporating a range of psychiatric and psychotherapeutic practices. This study represented the views of a randomly selected group of psychiatric mental health nurses. These nurses have been accessed through a professional interest group so the views they represented may not be generalisable to all psychiatric mental health nurses.

Tucker [9] used surveys as well as interviews to evaluate the perceptions of experienced psychiatric mental health nurses towards integrating advanced practice nurses into a psychiatric unit. Surveys were sent to all of the nurses (45 surveys sent, 34 returned) working within a 20-bed psychiatric unit, and then 20% of these nurses were randomly selected to participate in an interview. The results showed that the experienced nurses saw the role of the advance practice nurse as   enhancing professional growth included providing education, consultation and leadership to staff; (p138) .[9] The findings highlighted the confusion between some of the nursing staff regarding the role of the advance practice nurse, and reinforced the necessity for clearly defined job descriptions and the correct approach when introducing the role of the advance practice nurse into the unit. Unfortunately this study only surveyed nurses from one psychiatric hospital in America so the findings may not be representative of all psychiatric mental health nurses.

Further studies examining the role of the advance practice nurse included a study by Cutcliffe[10] into what psychiatric mental health nurses believed to be the nature of

expert psychiatric nursing practice. This study was undertaken with members of a ward manager s group from one hospital in the United Kingdom. Through the use of semi-structured focus groups the thoughts and beliefs of the group members were explored. For those surveyed their perception of expert nursing practice was made up of many different components and evolved over time, however these thoughts were placed into four main categories, these being; attitudes and philosophy, knowledge, skills and roles. Those involved in the focus groups discussed the role the nurse plays in different situations, the level of knowledge needed to be effective as an expert practitioner, the skills they believe an expert psychiatric mental health nurse utilizes in patient care and their attitudes and philosophy towards nursing. The surveyed group viewed the patient as the focus of the care and believed that rather than just doing things for the patient the expert practitioner empowers the patient to act on their own behalf. Outside of the four main components they defined for expert practice was the ability of the expert to recognise the multidisciplinary team and use these expert skills to complement the skills of other team members.

Tolchard and Battersby [11] focused on the extended role some nurses have in behavioural psychotherapy. In this study the way in which the role evolved for nurses is discussed, and how specialist trained nurses are able to provide this specific treatment and practice independently. Areas in which this skill can be applied are examined with this study focusing mainly on pathological gambling. The authors consider that the pool of experienced psychiatric mental health nurses could provide a source of individuals to become qualified in behavioural psychotherapy. These therapists could then support the role of the nurse therapist within the multidisciplinary health care team. This study also highlighted the economic advantages of using nurses as therapists, and discussed the practical need in relation to the shortage of psychologists and psychiatrists. While focusing upon the experience of nurses in this role in the United Kingdom the authors are comparing this to the current Australian situation with regards to helping compulsive gamblers and using these experiences to call for Australian psychiatric mental health nurses to have the opportunity for similar training so as they too can practice as independent therapists.

A similar study by Gournay, Denford, Parr and Newell [12] discussed the role of British nurses in behavioural psychotherapy. It looked at the background of this role and then

focused on the results of a postal survey sent to the majority, 237 of the 274, registered nurse behaviour therapists. The results, from data received from 105 of those surveyed, indicated that most of these nurses work in clinical practice, are involved in research and teaching and are becoming increasingly involved in primary care. A concern raised in this study is the small number of nurses who have chosen to specialise in this area and the apparent obstacles to nurses integrating fully with other health professionals for training in this area. It has been suggested that nurses undertaking this training are educated with doctors and psychologists rather than each professional group being trained separately to perform the same therapy. This therapy provides an evidence-based approach and consideration for training more health professionals in its use would offer more mental health patients the chance to receive this treatment. It has even been suggested that abridged versions of the training be given to psychiatric mental health nurses so they can offer their clients this treatment when appropriate. Unfortunately there are only a small number of registered nurse behavioural therapists and this is one of the limitations in trying to address issues raised in this study. In view of the use of behavioural psychotherapy as one of the treatment modalities for PTSD this training could be encouraged for nurses working in this area.

In another study looking at the extended role of the psychiatric mental health nurse, Regel and Davies[13] explored the role of psychiatric mental health nurses in community liaison psychiatry. The study sample were British nurses and the study outlined the current role the nurse has in this area, examined the ideal model for a clinical nurse specialist in community liaison psychiatry and then looked at the current level of education for nurses in this role. The authors were critical of the lack of literature exploring this nursing role and stated the need for such literature to form a consensus on the role the psychiatric mental health nurse is to play in liaison psychiatry. It concluded by stating that the authors believe the nurse has a valuable role as a part of the multidisciplinary team in community mental health but should not be seen as a replacement for other health professionals in the area instead they should be viewed as offering a complimentary role to theirs. This view is one that could be expressed in relation to PTSD treatment programs where a number of health professionals form the treatment team and it is through their collaboration that formalised treatment programs are conducted.

McCabe and Grover s[14] study examined the role of the psychiatric mental health nurse practitioner comparing it to the clinical nurse specialist. In their paper the authors present opposing views, one supporting the role of the traditional clinical nurse specialist, the other the role of the nurse practitioner in psychiatric mental health nursing. They examined the historical perspective of these two positions and what each position represents. The role of the clinical nurse specialist they state has been a changing one but one that has seen the expansion of psychiatric mental health nursing into different settings from a hospital based origin. This differs to the nurse practitioner role in psychiatric mental health nursing, a role that started within the community and has continued to evolve in this setting. They also looked at the level of experience and education they believe nurses would need to successfully fill these positions and to now take on a new role of the advanced practice psychiatric mental health nurse. The education level for this new role they perceive is a combination of the traditional knowledge base of the clinical nurse specialist and the nurse practitioner. In concluding they both acknowledged the need for a structured role for the nurse practitioner that will encompass some of the traditional clinical nurse specialist role. They stated the need for the new role of the advanced practice nurse to be developed with the assistance of both clinicians and academics and hoped for a new position that will have the necessary educational qualification available to support it.

Each of the studies addressing the issue of advance practice psychiatric nursing highlighted the need to develop criteria and guidelines for what this role may encompass. It is evident that consensus on what an advance practice nurse is and agreement on where such skills could be utilised needs to be reached. For nurses specialising in caring for those with PTSD the possibility to develop this role is apparent as it is a specialist area within psychiatric nursing and as such requires additional knowledge to that of the general psychiatric mental health nurse.

Education for Advance Practice

If nurses are to have an advance practice role when part of the PTSD treatment team appropriate education is essential to enable the nurse to function effectively. A number of studies have looked at education for advance practice nurses in psychiatric mental health nursing one of these studies was conducted by Pasacreta, Minarik, Cataldo, Muller and Scahill[15] and examined role diversification in the education of advance practice nurses. This study looked at the historical perspective and evolution of the advance practice psychiatric mental health nurse. Discussed within it is the challenge for nurse educators to offer the best educational preparation for such a position. They reviewed the curriculum of proposed programs, one for the psychiatric mental health nurse practitioner, another for the psychiatric mental health clinical nurse specialist, and a third program for the postmaster s certificate. They then defined what was expected of these nurses and why each program has been structured in this way. They envisaged the three courses producing nurses whose skills would complement each other. It is also highlighted that the courses reviewed here were from only one university and that there is not a national standard of practice for each of these positions within America. They were hopeful that similar education packages would be made available throughout the country for nurses interested in developing skills as psychiatric mental health nurses. They believed that by offering this level of education for psychiatric mental health nurses it might increase the number of nurses interested in this specialty. The authors emphasised the evolution of psychiatric mental health nursing and the position in which it currently stands. Recognition is given that this specialty within nursing is poised to be further developed and the authors urged that nurses take up this challenge to develop a specialty that offers them career advancement and opportunities to work in many different settings.

The discussion about the educational requirements for the advance practice role in psychiatric mental health nursing also surfaced in an editorial by Krauss.[16] In this the merits of introducing a psychiatric nurse practitioner exam, sponsored by the American Nurses Credentialing Centre, is discussed. The author argued that it is too soon to be looking at this and although it is important to move ahead with the other nursing specialties, there is still more debate required before this new exam should be implemented. A further argument put forward for discussion by Krauss was whether

there is actually a distinct role for the psychiatric nurse practitioner or whether the academics are trying to create such a position to attract more students.

In looking at PTSD as a sub-specialty within psychiatric nursing the importance of education for those working in this area cannot be under-estimated. Not only will it provide the knowledge base to perform their role appropriately it will also provide the foundation to establish the advance practice nursing position in this area.

The Nurse in PTSD Programs

In the PTSD specific literature, the nurse is rarely mentioned while most other health professionals and their roles are discussed. This includes occupational therapists, diversional therapists, psychologists, psychiatrists and the G.P. This dearth of literature on the nurses role may be related to this specific disorder evolving as a sub-specialty from general psychiatric nursing and the assumption that the nursing remains the same.

In some of the articles on PTSD written by nurses the illness is explained, treatments described and different strategies for management of PTSD discussed but the role of the nurse is not discussed. Ashmore[17] reviewed the symptoms, treatment and prevention of PTSD, giving a basic introduction to the illness and its management for inexperienced nurses. Symes [18] looked at PTSD analysing its evolution through the available literature and defining it as a concept. By providing this information she was hopeful that it would give nurses the ability to recognize the symptoms in themselves and patients, and could help in early treatment to prevent chronic health issues. Stuhlmiller[19] explored the evolution of PTSD as well as another disorder, Seasonal Affective Disorder (SAD) and warned against nurses viewing patient s through their diagnosis rather than seeing the person within. Edward s[20] article provided a description of a PTSD program designed specifically for the older war veteran.

For each of these articles, the author was writing as a nurse for nurses. Each article is descriptive but none gave an insight into what nurses caring for those with PTSD do. Brown s study[21] examined what nurses do routinely to patients and the effect that this

has on patients suffering with PTSD. Her study focused upon personal space intrusion and the effect this has on PTSD patients. She looked at how nurses routinely invade a patient s personal space, particularly to take a blood pressure or pulse, without hesitating. To see the effect this intrusion had on the PTSD sufferer she conducted a descriptive study using a participant-observer approach. The patient s pulse rate over a 24-hour period was monitored the patient s and the patient s level of anxiety measured on the Speilberger State Trait Anxiety Index. There were two groups of participants; one consisted of 60 PTSD clients and the other 60 non-PTSD clients (control group). The results showed an increase in pulse rate and anxiety following personal space intrusion in the PTSD clients. The author hoped that by highlighting this, nurses will have a heightened awareness of personal space and perhaps give more thought to how certain nursing procedures may be undertaken without making the patient more anxious.

One study looking at the role of the nurse caring for PTSD patients was a study by Evans and Marad.[22] In this study the researchers looked at how a nurse works as the co-facilitator of a veterans therapy group. The treatment that the nurse is facilitating is group psychotherapy as part of an outpatient treatment program. The study focused on typical scenarios that occur during these group sessions and how the nurse responded to these. It showed the nurse in a role not always associated with nurses and highlighted how nursing skills are used in this setting especially triage skills in trying to successfully conduct the group session while focusing on individual needs.

Another study that described one of the roles of nursing was undertaken by a nurse, working in a psychiatric hospital, on a unit where many of the patients suffered from PTSD. Her study related to the treatment plans designed by the nurses. In her article, Elizabeth Benham (p30)[23] discussed how the nursing staff within this unit developed many creative and practical interventions that helped their clients cope with their illness. She outlines why the different interventions were implemented and what behaviours they sought to help clients control and better recognise. She also stressed the point that all behavioural programs take time and results are not immediate but rather appear gradually. This role in which the nurses have developed and then implemented a behavioural program highlights the positive input the nursing staff can have upon a client s treatment program.

This article from a nurse s perspective is a rare insight into how nurses work with PTSD sufferers and the techniques that they employ. It described nurses as being in a collaborative partnership with the client while they are teaching them coping strategies. This descriptive paper of what appears to be exemplary nursing practice begs the question whether other nurses in units that share a similar philosophy replicate or are even aware of this work.

Summary

In reviewing the literature the scarcity of PTSD specific studies that have a nursing focus raises the question of whether there is nurse involvement in treating those with PTSD and what this involvement may be. Nurses should examine whether the area of PTSD is a specialty area for nurses, an area that requires specific skills that need to be learned by those who are to work in this specialty.

The mental health nurse is described as a specialist within an area of nursing. Much debate is centred on the extended roles of the clinical nurse specialist, advance practice nurse and nurse practitioner and the level of education required for the mental health nurse to perform these various roles adequately. A small amount of the literature has examined the role some nurses have within a PTSD programs but these studies have only looked at one aspect of this role in each of the programs discussed.

The specific roles that the nurse has within PTSD programs is not clearly defined nor are the skills, training and education required by these nurses to perform these roles outlined. While the general literature on psychiatric mental health nursing may be able to provide some insight it is not clear if this can be generalised in the sub-specialties of psychiatric mental health nursing.

Research Method

The Research:

The aim of this study was to define the current role of the nurse within the accredited PTSD programs throughout Australia. The need to define this role has come from the lack of literature available on nurses working within PTSD treatment programs and what it is that they do as part of the treatment team.

Research Design:

A descriptive research design was used for this study. A descriptive design is used when the researcher wants to identify a phenomenon of interest, to identify variables within the phenomenon, to develop the concept, to describe variables, and to operationalise the definition of variables.[24]

The descriptive study design is suitable when seeking information about the characteristics of particular subjects, groups, situations, institutions, or about the occurrence or frequency of a phenomenon and is particularly helpful when researching a little known phenomenon.[25] It can be used to identify relationships between variables and describe features of sample groups as well as to provide an accurate picture and to discover new meaning through the particular individual, event, or group in the real life.[24] The use of a descriptive design for the nurses survey was chosen to achieve the study s aim of describing the role the nurse has in this setting. In this study the particular descriptive design adopted was that of a survey. The data collection tool used was a questionnaire. The questions asked were a combination of short-answer and open-ended questions.

The use of both short-answer and open-ended questions allows for the collection of a greater variety of data. The open-ended questions allowed the respondents the opportunity to provide more detailed responses whereas the short-answer questions required specific responses.

Data was collected using two questionnaires distributed to those that met the inclusion criteria. One of the questionnaires gathered data relating to the demographics of the unit, such as staffing, client population, and length of treatment, with the second questionnaire focussing specifically on the nurses working in these units.

The advantages of using a questionnaire to collect this data included:

- enabling large amounts of information to be collected from the target sample
- as the replies are anonymous respondents are more likely to answer candidly
- allows responses to be collected from a target group that may not be easily accessed otherwise
- the development of statistical tests have made questionnaire data relatively easy to test for validity and reliability (p155).[26]

The disadvantages of using a questionnaire as the tool to collect this type of data included:

- problems with return rates
- misunderstanding or misinterpretation of questions that cannot be clarified
- the structure of the questionnaire may not allow for all issues to be addressed (p156). [26]

Sampling procedure and recruitment:

A purposive sampling technique was used because this type of sampling is easy to utilise and includes subjects who agree to participate in the study. The purposive sampling technique allows the researcher to target particular subjects who may be in the best position to provide the information required in answering the research questions. For this study the use of purposive sampling was appropriate as the research question allowed for only the accredited PTSD programs to be included so therefore only the nursing staff working for these programs met the inclusion criteria.

To access these nurses the list of accredited programs provided by the National Centre for Posttraumatic Mental Health was used. Each unit where a program is conducted

was phoned and contact was made through either the program coordinator or one on their nominated staff members. Permission to send the nurses associated with these PTSD programs questionnaires was sought from this person prior to sending the questionnaires.

Ethical considerations:

Ethics approval for this study was gained through the Royal Adelaide Hospital Research Ethics Committee (see appendix 1).

Consent for the study was implied by the participants with the return of their questionnaire. All responses were treated confidentially with completed questionnaires safely stored and accessed as necessary in compiling the data. Anonymity was assured with responses grouped and no identification asked for on the questionnaire.

Setting and Study Population:

This study focused on the role of the nurse in PTSD programs throughout Australia. Participants for this study were nurses working in the 15 PTSD programs that are accredited through the Australian Centre for Posttraumatic Mental Health. Only the programs accredited through the National Centre were chosen, as these have already been required to meet a certain standard to gain accreditation in the provision of PTSD specific programs.

The research inclusion and exclusion criteria were:

    Setting: The 15 accredited PTSD programs throughout Australia.

    Sample: Registered Nurses who work in these PTSD programs.

Exclusion criteria: Nurses who work in the PTSD units but not specifically as part of the PTSD program and nurses who did not return the questionnaires.

Validity and Reliability:

The validity of a study is variable and dependent on many factors. The use of a particular tool to measure particular phenomena within one group may not be valid when used to measure the same phenomena within a different group. Therefore whenever a tool is used the validity of the tool for the particular study population needs to be established. Sources that provide evidence of validity include content, convergence, divergence, discriminant analysis, prediction of future events, predicting concurrent events and successive verification of validity. (p262).[27]

Validity is often discussed as being internal or external. For a study to have external validity it is said that the findings can be generalized or applied to the population. (p81)[26], which indicates that if a similar study was conducted using a different group of people from the same population similar results would be expected. If a study were to claim internal validity it would have measured what it was supposed to measure. This study conducted with a specific group may not have external validity as there is no population it can be generalized to. Alternatively one might take the view that as it is the role of specialist nurses that is being studied the findings may have applicability to other specialist nursing roles.

For a study to be valid it needs to measure what it claims to measure. (p81). [26] To be reliable the concern is with ..how consistently the measurement technique measures the concept of interest. (p258). [27] In this study reliability and internal validity were tested during the piloting of the questionnaire prior to distribution. Each of the questionnaires was sent to the nursing staff at two separate PTSD programs. Their responses were reviewed to ensure that they clearly answered the questions asked. Each program was also contacted with one member of the nursing staff given the opportunity to provide verbal feedback as to whether they found the questions suitable to capture the necessary data and whether the questions were clearly understood. The feedback provided indicated that the questions were appropriate to gather the required information.

Data Collection:

Questionnaires

The use of questionnaires in this study to obtain the required information was the most appropriate form of data collection due to study participants coming from different areas throughout Australia. It was not possible to visit them individually to conduct interviews and phone interviews would also have been difficult due to the shift work requirements of some of the participants. The use of the questionnaire ensured each participant was asked the same questions and that each was able to answer these at their own pace and if they did not want to participate they simply did not return the questionnaire.

Development of the questionnaire:

The questionnaire as a tool for gathering information needs to be user-friendly to encourage as many participants as possible to respond. It has been well documented that

> All too often, survey questions fail to work as they are intended to. Although the use of editing rules may reduce the number of problematic questions that are used, their use should not be seen as a guarantee that all potential problems will be avoided.(p188).[28]

Two questionnaires were developed for this study, one that elicited information about the PTSD units and a second questionnaire that was sent to nursing staff working in these PTSD units. To gain insight into each of the programs offered in Australia a demographic data sheet (appendix 2) was designed for one person at each program/unit to complete. The purpose of this information was to provide an overview of the programs offered and how they compared or differed from each other as this may have an impact on the role the nurse has in the unit. The questionnaire was designed to gather information on length of programs, number of participants per program, whether the program was conducted as an outpatient or inpatient program or a combination of both, the type of clientele they attract, the cost of the program, if any funding is provided and by whom, the number of nursing staff who work in the program and what other health professionals are involved in the program. Rather than

have each staff member completing these same details and increasing the length of their surveys it was decided to collect this data once for each program/unit.

To collect the data required from each nurse working within each program, another questionnaire was developed (appendix 3). This was distributed to each of the nurses through the program coordinator. The inclusion criterion was any Registered Nurse working within the program. Questionnaires were mailed to the contact person at each program with a return envelope and individual envelopes for each questionnaire. Along with the questionnaires was a letter of introduction from the researcher explaining the study. This questionnaire was designed to gather data relating to the nurses level of nursing experience, PTSD specific experience, level of education, role in the programs they work for, what they believe is successful in treating PTSD and ways in which they believe treatment could be improved.

The responses to the questions were compared to give an overall picture of what is occurring within the PTSD programs from the nurses perspective.

For studies such as these that rely on those involved to answer a questionnaire mailed to them, the possibility of a low response rate is an issue. In conducting this study there was an awareness of this with strategies developed to minimise this problem. By having a contact person within each program the process of encouraging nurses to complete the questionnaire was assisted. Follow-up telephone calls once the programs had received the questionnaires; a short time frame for completion and a return envelope maximised the chance of the majority of questionnaires being returned.

Data Analysis:

According to Burns and Grove[27] there are several stages to work through when undertaking data analysis. These stages are:
- preparation of the data for analysis
- description of the sample
- testing the reliability of the measurement
- exploratory analysis of the data

- confirmatory analyses guided by the hypotheses, questions or objectives
- post-hoc analyses (p315)[27]

In this study not all of the outlined steps were implemented, as not all were appropriate in the analysis of the data collected for this study.

To begin the data analysis the information provided by the two sets of questionnaires was entered on to two separate Excel spreadsheets for statistical analysis. The data collected for both questionnaires was predominantly nominal data. This level of data can be organized into categories of a defined property, but the categories cannot be compared. (p256).[27] Descriptive statistics were used for analysis with the nominal data represented as percentages and for some questions these results are illustrated on graphs and tables. The beauty of a percentage is that it allows comparisons of groups. (p287).[26] In this study although the number of participants is small the use of percentages provides the reader with easily recognisable figures.

The responses to the open-ended questions are reported in tables these are the most common tools used by researchers when analysing data. (p289).[26] This allows these responses to be summarised and grouped together.

The final section of the nurses questionnaire asked for a list of treatments to be ranked in the priority order that the nurse believed them to be the most appropriate for inclusion in a PTSD program. The results of this question are shown in a table format and include the range, mean and mode for each of the treatments.

The mean and mode are measures of central tendency. These are statistics that let us identify the most common scores in a group, (p291)[26] whereas the range is a measure of variability and is indicative of the spread of the scores. For this study the number of participants is small so the ability to identify mean, mode and range can in some instances provide the reader with a greater understanding of the figures presented. However, with such a small database minor variations in data can dramatically alter the results.

Limitations:

Limitations are restrictions in a study that may decrease credibility and generalisability of the findings. (p33).[27] This study has a number of limitations including time frame, the focus of the research and the size of the research population.

The time frame available for this research was limited due to constraints of candidature timelines so data collection needed to be completed within a specific period. Time was allowed for following-up units that had not returned questionnaires by the initial date with a new date set but there was no time for further follow-up to check if the few outstanding questionnaires would be returned.

The focus of this research was very specific, looking at only the accredited PTSD programs being conducted throughout Australia. This was a limitation as there are only 15 programs accredited thus only a small pool from which to collect data.

The study population was also limited due to the small number of accredited programs. This increased the need to collect as many completed questionnaires as possible, as the study population is small the absence of a few responses may be enough to distort the overall results.

Summary:

In this section an overview of the research design, data collection and analysis of this study were presented, and the limitations of this research were discussed. In the next section the results obtained from the questionnaires will be discussed. The findings will be presented in graphs and table format as well as discussed in the text.

Results

Introduction

In this section the results of the surveys are discussed and presented in graphs, tables and in the text.

Fifteen demographic data sheets were distributed with ten of these returned, a response rate of 67%. The nurses questionnaire was distributed to 33 nurses from the 15 programs with 23 questionnaires, a response rate of 70% returned from 12 (80%) of the programs.

The data obtained from these questionnaires was analysed using descriptive statistics. Data from the two questionnaires is reported upon separately.

Analysis of Questionnaire 1: Demographic Data about the accredited PTSD units in Australia

Responses

Questionnaires were distributed to the 15 accredited PTSD programs in Australia with a 67% (n=10) response rate. The states from which the responses were received are shown in figure 1.

Number of Responses by State
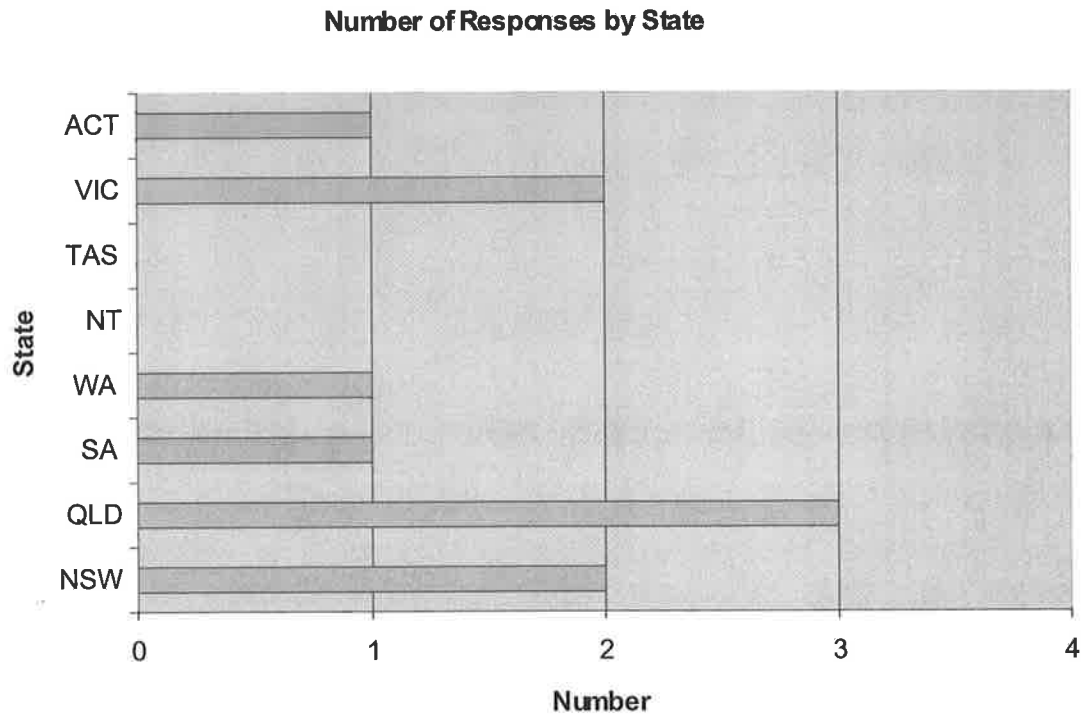
Figure 1: Number of demographic data responses from each state.

Program s setting.

The setting for each of the programs differs. Seventy percent (n=7) of the programs occur in PTSD specific units with the remaining 30% (n=3) occurring within mixed units.

Funding

The funding for each of the programs comes predominantly from the Department of Veterans Affairs (DVA) with all programs stating they received assistance from this source. Other means of funding for 20% (n=2) of the programs came from workers compensation and 40% (n=4) received funding from private companies (e.g. health

funds) or through payment by individuals for treatment provided. This is shown in figure 2.

How are the programs funded?
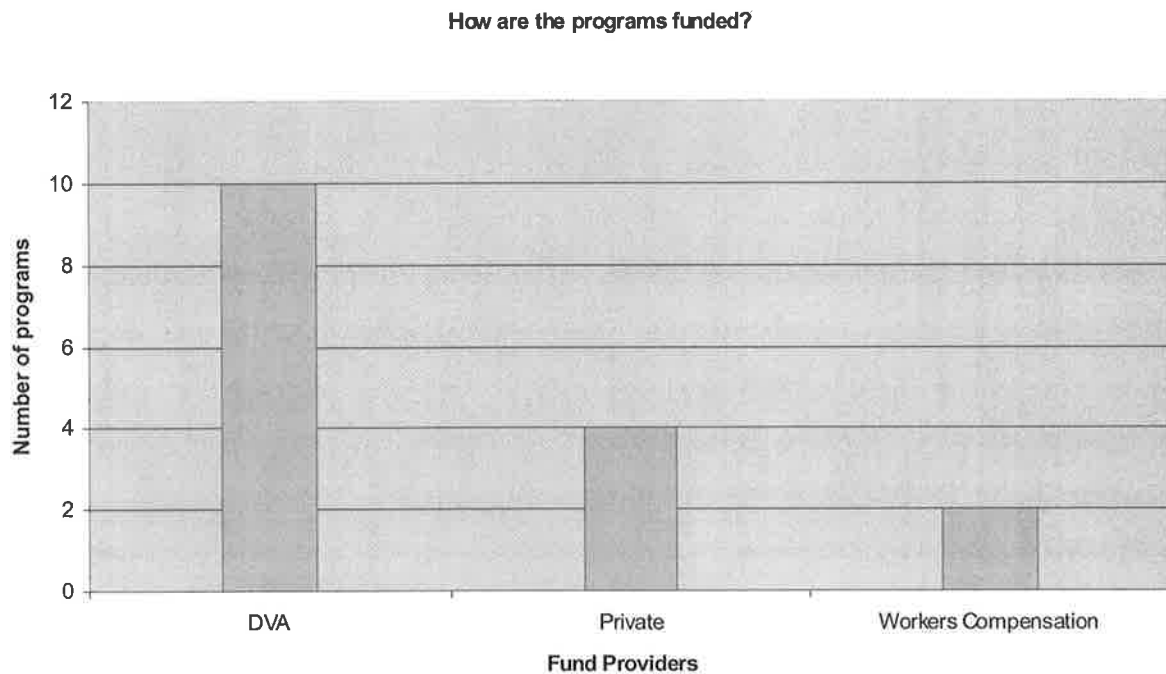
Figure 2: Funding providers for the PTSD programs.

Program Content

Only four of the programs responded with details of their programs content. Anxiety, depression and anger management were key areas that each program concentrated upon. Cognitive behaviour therapy was used as a mode of treatment within two of the programs, along with psychotherapy in one of the programs.

Management of alcohol abuse is another key area which two of the programs incorporated into their treatment regime. A focus upon lifestyle changes, relationships and social skills is also included in two of the programs while one looks at the individual s spirituality as part of the treatment process.

The other six programs did not detail the elements of their programs. Two stated that they conducted programs aimed specifically at the older person.

Number of Participants

The number of participants expected for each program differs. Three of the programs ran only outpatient programs, one conducted an inpatient program only, and the other six conducted a combination of both.

The number of participants in the programs ranged from 2-30 for the inpatient program and 6-10 for the outpatient programs. The number of participants for programs throughout the year varied. Only 80% (n=8) of the respondents answered this question, of these only two of the programs (25%) had female participants, 15 and 6 respectively for the year. The number of male participants overall was 272, an average of 34 participants per unit each year, with a range of 10-60.

Means of Referral

Ninety percent (n=9) of the programs accepted participants referred by their GP the DVA 70% (n=7) or their psychiatrist 90% (n=9), with 50% (n=5) stating they accepted participants who self-referred or were referred by other health facilities.

Cause of PTSD

Information from the programs indicated that the cause of the PTSD that they were treating was combat-related.

Program Length

The length of each program was also variable. For the inpatient programs treatment time ranged from a 4 - 8 week program, with most then attending outpatient follow-up. The outpatient programs ranged between 8-16 weeks and varied with their attendance patterns in the number of days each week the participant was required to attend.

Cost

The cost of each program was provided by 3 of the programs (30%) and was $7000 per participant for each program. One of these was an inpatient program, while the other two were conducted as outpatient programs.

Number of Nursing Staff

The number of nursing staff working within each of the programs did not vary greatly between units with 60% (n=6) using a combination of full-time and permanent part-time staff, 10% (n=1) full-time staff only and 30% (n=3) using permanent part-time staff only. The range for 9 of the programs was between 0-3 full-time nurses, with a mean of 1.3, and for permanent part-time staff the range was 0-2, with a mean of 1.4 nurses. Not included in these numbers was the response from one that gave figures for the nursing staff, 18 of them, working within all programs conducted by this unit. To include this response would have skewed the staffing profiles in PTSD units in Australia.

Other health professionals involved in the program.

Working alongside the nursing staff in these programs were many other health professionals. These included psychologists and psychiatrists in all of the programs, social workers in 9 of the programs, occupational therapists as staff in 5 of the programs, a physiotherapist and a diversional therapist in one program, with a drug and alcohol counsellor also involved in one of the programs.

Summary of Analysis of Questionnaire 1

Responses to the first questionnaire provided a snapshot of the areas in which the programs are similar and in the ways in which they differ. Similarities can be seen in the source of funding, the number of nursing staff working within each program, the other health professionals employed in each program and the cause of the participants PTSD. Differences in the programs were apparent in the areas of

program length, number of participants per program, and whether programs were conducted as inpatient, outpatient or a combination of both. Some insight was provided with an overview of different components that make up each of the programs. Unfortunately details of this were only provided for four of the programs so a generalisation regarding content across the programs is not possible.

The demographic data provided by the units establishes the environment where the nurses work and has highlighted similarities and differences between programs. Knowledge of this may help to achieve a greater understanding of what nurses in this specialty are confronted with in their daily practice.

Analysis of Questionnaire 2: Survey of Nurses Working in Accredited PTSD Units

Twenty-three registered nurses from 12 different programs responded to the survey. The aim of this survey was to find out what role, if any, the nurse plays within accredited PTSD programs throughout Australia.

On receiving the completed questionnaires responses were coded and entered into an Excel spreadsheet. Data were analysed using descriptive statistics with results shown graphically or in tables.

Nursing Experience

Analysis of the demographic data shows that the participants had been nursing for a mean of 22.1 years, with a range of 3-36 years, with 78% (n=18) of the respondents having 20 years or more experience. The responses to this are shown graphically in figure 3, which indicates a multi-modal distribution of responses which is appropriate given the age distribution of respondents.
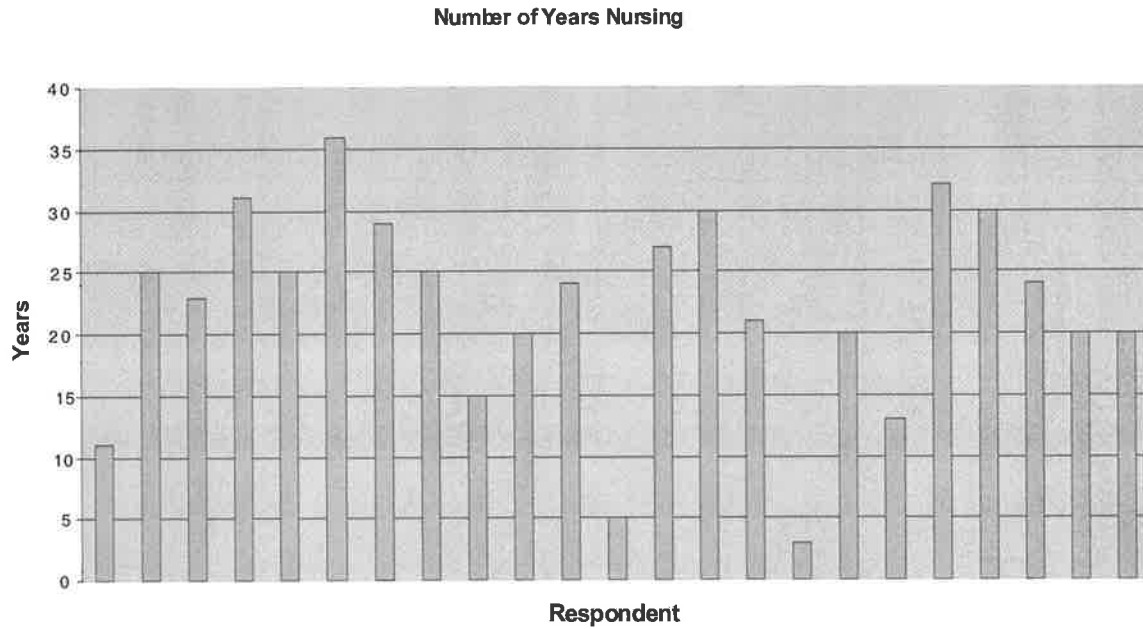
Figure 3: Number of years nursing.

Current Position

Of the 23 respondents the current positions they hold in the programs are varied and are shown in figure 4. The position held by the greater number of respondents is that of Registered Nurse (30%, n=7), with the job titles of Clinical Nurse Consultant and Mental Health Nurse held by 22% (n=5) and 17% (n=4) respectively. The other positions held by nurses working within these program are Nurse Unit Manager, Group Facilitator, Program Co-ordinator, Public Servant, Generic Mental Health Worker and Therapist, however only one or in the case of the coordinator two of the respondents held these positions.
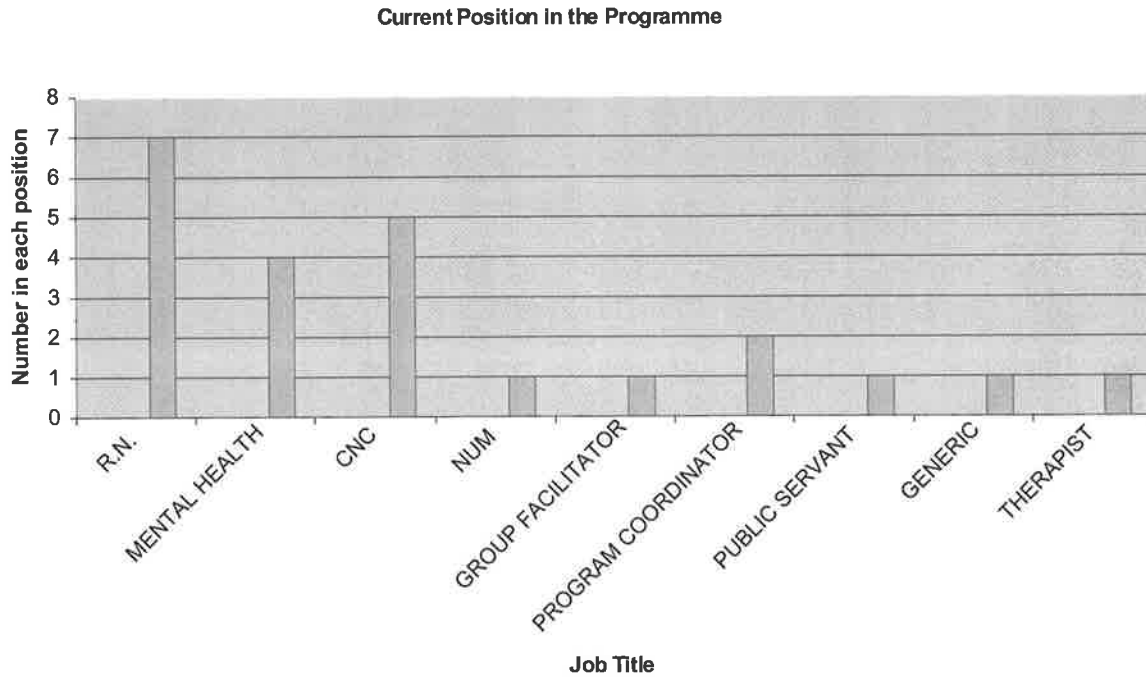
Figure 4: Nurses Current Positions in the PTSD Programs

Gender

Ninety one percent (n=21) of the respondents were female.

Specialised Education

Only one respondent stated they did not have specialised education in a specific area of nursing. For the others the main areas of specialised education, as shown in figure 5, were in mental health and psychiatric nursing, with two having specialised in counselling, one in drug and alcohol rehabilitation, and another in gerontology. As the respondents had made the distinction between psychiatric and mental health nursing these responses were grouped separately.
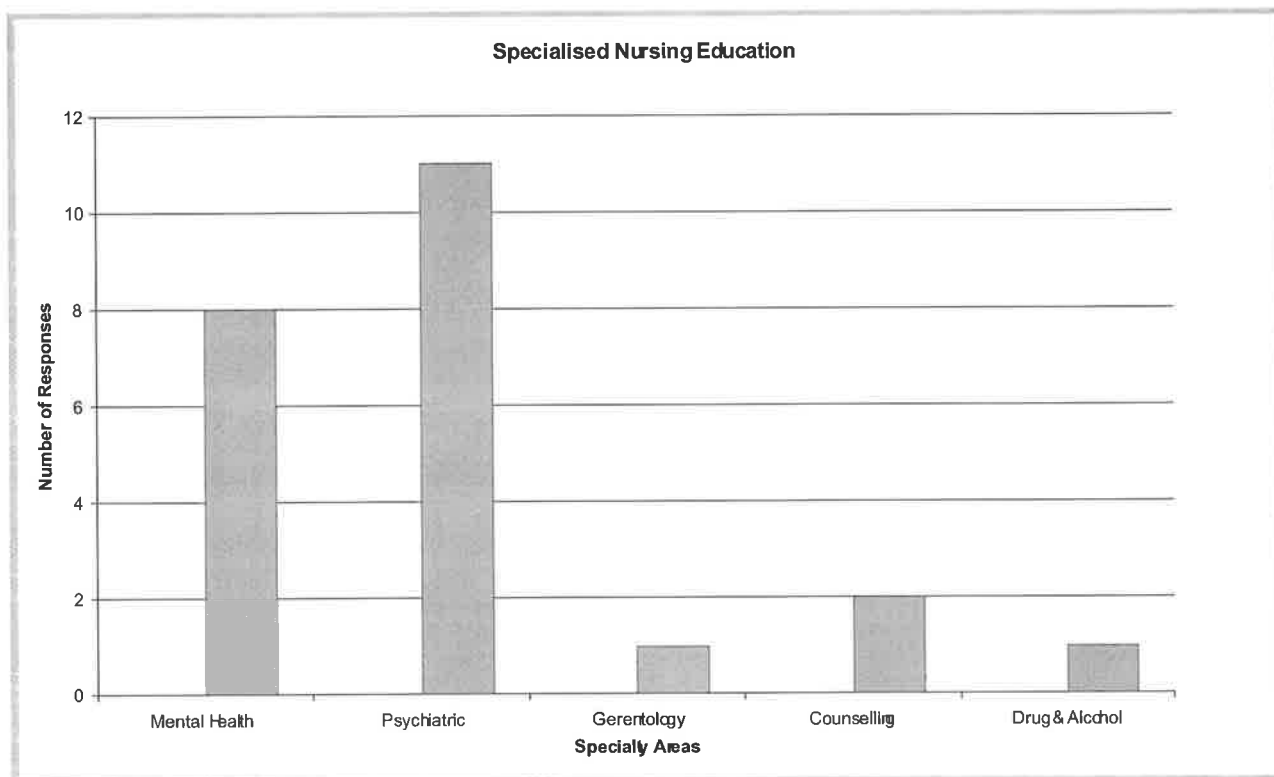
Figure 5: Areas of Specialised Education

PTSD Specific Experience and Training

Prior to working within these specialised programs only 43% (n=10) of the nurses had experience with clients suffering with PTSD, and only 30% (n=7) had specific training within this area. The areas in which this training had been received are shown in table 1.

Type of Training	Percentage with this level of training (n=)
lectures	11 (1)
videos	11 (1)
PTSD workshops	22 (2)
Dream work studies	11 (1)
certificate in trauma counselling	11 (1)
master of counselling with a unit on PTSD	11 (1)
Cognitive Behaviour Therapy (C.B.T.)	11 (1)
Psychoanalysis	11 (1)

Table 1: Prior PTSD Training

For the nurses working within these programs 91% (n=21) said that they are offered and encouraged to attend ongoing education provided by their employer, 65% (n=15) were then able to detail what was offered to meet this need. The form this education took, as detailed by the respondents, and the number that reported this is shown in table 2.

Source of Ongoing Education	Percentage (n=)
- Inservice	30 (10)
- seminars & conferences	30 (10)
- short course workshops	13 (4)
- self-initiated learning	10 (3)
- specific training in anger management, grief & loss through trauma	3 (1)
- study days	3 (1)
- provision of appropriate journals	7 (2)
- CBT training	3 (1)

Table 2: Source of Ongoing Education

Nurse s Role

Each of the respondents was asked to describe the role they had in the PTSD program. This is illustrated in table 3, beside their official title. The number of nurses within each group is indicated, as is the number who gave each response. In some cases when describing their role the nurses have given multiple responses. In the positions where only one nurse responded the role description is from that individual.

Position	Description of Role
Registered Nurse N=7	Individual Counseling (1), Co-therapist in group sessions (2) Provide psych-education (1), Work as directed by nurse unit manager (2), Team member (2)
Mental Health Nurse N=4	Evening supervisor, PTSD nightmare therapy work (2) Senior nurse, offers counselling to patients (2) Group co-ordinator/facilitator (2), Co-therapist (1) Assessments (1)
Clinical Nurse Consultant N=5	Program co-ordinator (1), Charge nurse (1) Co-therapist & individual therapist (3), CBT co-ordinator (1) Co-lead anger management & occupational concepts (1) Assessments (1), Liaison with other staff (1)
Nurse Unit Manager N=1	Liaison with other PTSD programs, the DVA, G.P.s, veteran community. Budget control, staff allocation, rosters
Group Facilitator N=1	Individual counselling, Group facilitating
Program Co-ordinator N=2	Co-ordinate the PTSD treatment team, timetables and resources. (2)
Public Servant N=1	Veteran mental health professional — community outreach Liaison
Generic Mental Health Worker, N=1	Team member, Liaison with ward staff, Individual & group work assessment
Therapist N=1	Conduct psychotherapy group, Individual stress management Social skills

Table 3: Role in the PTSD Treatment Program.

Nurse s Involvement in the Treatment Program

The level of involvement that the nurses have with the patients treatment was quite varied. Each nurse s description of their involvement is detailed in table 4. As with table 1 the number of nurses in each position is indicated as are the number who gave each response where there is only the single respondent in a position the response is attributable to them.

Position	Nurses Involvement in Treatment
Registered Nurse N=7	Monitoring of patient s progress (2),Participate in unit team meetings (1) Liaison with M.O. (1) Liaison with family (2) Supportive counselling/ telephone counselling (5) Arrange appointments/follow-up as required (2) Co-therapist in-group sessions (4) Conduct relaxation/life skills groups (2) Stress & anger management (2) Conduct C.B.T. (2) Administer medications (3)
Mental Health Nurse N=4	No involvement in group work (1) Conduct a relaxation group (2) Involved in all areas of treatment program (1) Assist in patients desensitisation (1)
Clinical Nurse Consultant N=5	Assessment planning (3) Individual/Group therapy (3) Co-therapist with psychologist in alcohol & drug psycho-education, relaxation & relapse prevention (1) Follow-up group for day program (1)
Nurse Unit Manager	Day-day planning of treatment program

N=1	Participate as group therapist
Group Facilitator N=1	Facilitate group sessions
Program Co-ordinator N=2	Co-facilitate a number of sessions (2) Individual counselling (1) Discharge summaries/planning (2) Assessments (1) Referrals (1)
Public Servant N=1	Partner s groups Issues relating to men s health
Generic Mental Health Worker N=1	Liaison with staff Individual/Group therapy Assessment
Therapist N=1	Conduct programs — psychotherapy, stress management, social skills

Table 4: Nurse s involvement in the PTSD Treatment Program

This table shows how the nurse sees their involvement vary depending on the position they hold. The nurses holding the position of Registered Nurse have listed more specific areas in which they are involved than the nurses working in other positions, whereas when describing their role (table 3) the registered nurses, mental health nurses and clinical nurse consultants each detailed a number of different roles that they performed.

What did the nurses enjoy about this work, what could be improved, how?

The responses to what each of the nurse s enjoyed about their work were reviewed and grouped into the areas from which the main themes had emerged. These areas were:
- interaction with patients
- opportunity to do therapy work with them
- observing positive outcomes
- variety of work available within the programs
- teamwork, with other health professionals and patients
- autonomy

When asked what could be improved 69.6% (n=16) of participants responded. These responses included:
- The need for program participants to be physically well before commencing treatment to minimise missing parts of the program for other medical appointments.

- Nothing; program already involves a multidisciplinary team which functions well.
- More sporting/physical activities
- More staff at times
- Opportunity for nursing students to gain experience in this area
- Facilities e.g. paintwork, extra room, office equipment, maintenance
- Communication between management, staff & patients
- Increase nurses involvement in group work
- Nurses career structure within this area
- Team cohesiveness, increased flexibility
- Statement of realistic outcomes
- Longer program

Although 69.6% (n=16) responded to the above question when asked how such improvements might be achieved only 43.5% (n=10) participants responded. Their suggestions were:

- Medical checks for all participants prior to commencing treatment, only treatment for emergency conditions during the treatment program.
- Increased funding.
- Encourage administrators to recognise the value of allowing nursing students to gain experience from the program.
- Educate all staff in communication skills, greater use of modern technology (e-mails) to assist in communication.
- Set out levels of competency for nurses performing the different roles within programs.
- More PTSD training for staff.
- Uncertain as to how to implement improvements.

Are these nurses currently studying?

Of the respondents 30.4% (n=7) are currently undertaking further studies. Two of the respondents are completing a degree course, 1 a masters degree, 1 is working towards a Ph.D. while 3 others are completing further education specific to particular therapies.

Treatment Program Designs

If they were able to design their own treatment program the responses indicated that 47% (n= 11) of the respondents believed a combination of inpatient and outpatient treatment is the best program design, 16% (n= 4) considered inpatient treatment as the most appropriate, while 37% (n= 9) believed treatment should be offered purely as an outpatient.

What treatments should be included in a PTSD program?

The final section on the questionnaire requested that participants rank 9 treatments in the order they believed them to be most important for inclusion in a PTSD program to the least important and then asked if there were any other things that should be included.

The 9 treatments were: EMDR (eye movement desensitisation and reprocessing)

        Relaxation

        Anger Management

        Behavioural Therapy

        Imaginal Flooding

        Exposure Therapy

        Family Therapy

        Group Therapy

        Fitness Program

From the 23 respondents, 21 answered this question but not all included all 9 treatments in their rankings, these rankings in order are shown in table 5. Fifteen respondents provided additional treatments that they believed were important to be included in a treatment program.

Treatments in order of ranking	Range	Mean	Mode
Group Therapy	1 - 6	1.9	1
Anger Management	1 — 6	3	2,3
Relaxation	1 - 8	4.3	4
Family Therapy	1 - 7	4.5	4,5,7
Behavioural Therapy	1 — 8	4.6	5
Exposure Therapy	1 - 9	4.8	4
Fitness Program	2 - 9	5.3	6
Imaginal Flooding	5 - 9	7.6	8
EMDR	3 - 9	8.3	9

Table 5: Treatments in ranked order.

The additional treatments that the respondents would like to include are:

- Dream therapy
- Drug & alcohol counselling/education
- Medication overview
- PTSD Education / Psycho-educational
- Individual Counseling
- Treatment of anxiety & depression
- Individual Activities
- Time management
- Understanding grief, loss & guilt
- Remedial Therapy
- Increase self-esteem
- Occupational concepts
- Health Care Issues
- Communication skills
- Spirituality
- Incorporate into treatment some work to increase patient s awareness of physical, emotional & cognitive experiences.

Summary

The responses to questionnaire 2 indicate that the nurses working within the PTSD programs are predominantly from a psychiatric mental health nursing background (83%, n= 19), and had many years nursing experience (mean 22.1 years) but less than half had previous experience in this specialty area.

The nurses are employed in many different positions and the description of their roles illustrates the variety of work they are involved in within these programs. They were able to provide suggestions for improvements to the program that they are involved in, as well as how this may be achieved. They also have an awareness of what they believe should be included in a PTSD program and were able to rank certain key elements in order of inclusion plus offer further suggestions for other treatment ideas.

The responses to the questionnaires indicate that the role of participants within these specialised programs is varied, as is their level of experience and their nursing backgrounds. Although responses have been obtained from a majority of nurses working within a majority of these programs the sample size is still small so the generalisability of these results outside this setting would be inappropriate.

In the next section a discussion of the findings is provided. Recommendations based on the findings of this study will be made and direction for further studies will be provided.

Discussion

Introduction

The aim of this study was to define and describe the role of the Registered Nurse working in accredited PTSD programs throughout Australia. Using a survey design, responses provided an overview of the programs and the differing roles the nurse plays within them.

Australian accredited PTSD Units: an overview

The demographic data from the surveys provided an insight into the configuration of each of the accredited PTSD programs, how the programs compared to each other and in what ways they differed. Responses were received from all states with an accredited PTSD program with the exception of Northern Territory, where there is no accredited program, and Tasmania where no response was received from the single program there.

The client base focused on war-related PTSD, with all programs stating that this was their primary focus. Participants were predominantly male with only 2 of the programs having female participants in the previous year. The majority of programs are conducted within PTSD specific units (70%, n= 7), and all receive funding from the Department of Veteran Affairs. Funding was also received from other sources, for 20% (n= 2) of the programs some funding was through workers compensation, for 40% (n= 4) some of the funding was through private companies (e.g. health funds), and 40% (n= 4) received some funding from the individual seeking the treatment. The cost of the program was only provided by 3 of the units and was $7000 per participant. If funding was not available such cost could be prohibitive to certain people seeking treatment, as many of the treatment programs are conducted within private units.

The major difference between units/programs is in how the PTSD program is conducted. Programs vary between outpatient programs, inpatient programs and a combination of both. The length of each of these programs and the number of participants accepted for each of the programs are the other main differences.

The length of programs varied between 4-8 weeks as an inpatient with up to 16 weeks follow-up. This follow-up differed between programs and the needs of the individual, with most programs offering participant s one day each week follow-up on completion of the inpatient program. The outpatient programs also varied in length; initially they were conducted as a daily program over a number of weeks, with this

reducing to a weekly follow-up. The outpatient programs were conducted over a period of 8-16 weeks.

Although the programs are accredited as PTSD specific, some take place within a multiple therapy setting, where the purpose of the unit is multi-faceted with only one of its programs being the treatment of PTSD. This did not appear to make a difference with the data gathered except in one instance where the number of nursing staff were given for the whole unit rather than just those involved in the PTSD program. By running multiple programs within the one unit staff gained experience in different areas and opportunities to develop a number of skills. In addition to this there is a continuing workload whereas with some of the PTSD specific programs there is a break between each program.

While each program is PTSD specific the treatment sessions offered within them do differ. Only four of the programs offered an insight into their treatment focus with each of them having some common content such as anger management, management of anxiety and depression. Two of the programs included cognitive behaviour therapy as one of the treatment modalities with one of these programs also including psychotherapy. Management of alcohol and substance abuse was also addressed by two of the programs, along with a focus on lifestyle changes, relationships and social skills. One of the programs also included sessions on individual spirituality. Ashmore[17] noted that a number of different treatment approaches have been reported in the literature and that authors are now advocating an integrated treatment approach depending on client symptoms. The different interventions included:

- processing of traumatic events
- cognitive therapy
- relaxation
- desensitisation (p22)[17]

The number of nursing staff involved in each of the programs was similar when comparing the different programs with three or less nursing staff working within each of them. There was some difference with each program in their usage of full-time or permanent part-time staff but overall the number remained low, with the variation

between the programs indicating that 10% (n= 1) used full-time staff only, 30% (n= 3) used permanent part-time staff only with the remainder using a combination of both.

Working with the nurses in these programs were a number of health professionals from a variety of disciplines. Barker and Walker[5] in their study attempted to develop a composite portrait of multidisciplinary teamwork in acute settings. They found that these teams exist but are yet to reach their full potential, in that not all members of the team are always utilized in all situations. In the PTSD programs included in this study psychologists and psychiatrists are part of the multidisciplinary team, and all PTSD programs except one, employed social workers. Half of the programs included occupational therapists to assist in the treatment, while in one program a physiotherapist was involved, in another a diversional therapist and in one other a drug and alcohol counsellor. The number of these health professionals within each program was not provided but the nucleus of each of the program s teams from the responses would appear to be the psychologist, psychiatrist and nurse, the 3 constants throughout all programs.

Nurses working in Australian accredited PTSD Units: an overview

The nurses responses gave an insight into their backgrounds, levels of experience, and the role they play within these programs. Their responses showed that most of the nurses working within the PTSD programs were experienced, with 78% (n= 18) having nursed for more than 20 years, mainly female (91%, n= 21) and that all but one of the respondents had additional specialised education in an area of nursing. The most common area of specialisation being psychiatric mental health nursing (83%, n= 19). This would appear to be consistent with the specialty area in which they work as PTSD is considered a mental health issue.

Prior to working in these programs only 43% of the nurses had experience with clients suffering with PTSD, and only 30% had specific training in this area. So although as a group these nurses had many years of nursing experience this had not been in this specialty area. The main reason for this could be the late acknowledgement of PTSD as a psychiatric illness. PTSD was only officially recognised in the DSM III in 1981 and it was following this that specialist programs to treat this then evolved.

Given that less than half the respondents had training in this specialty area it is promising that 91% (n= 21) of respondents stated that their employer offered or encouraged then to attend education sessions relating to this area. These sessions did vary between programs with the majority receiving information through in-services, seminars and conferences. These education sessions would hopefully help to broaden the knowledge base of these nurses as only 30% (n= 7) of the respondents were undertaking further studies outside of the workplace.

The nurses who responded to this study have many years of experience and while not all employed in an advance practice role the need to provide them with relevant education is important. This is in part due to this specialty area within psychiatric mental health nursing being relatively new and still evolving. The challenge to provide appropriate education to the advanced practice psychiatric nurse is acknowledged in a study by Pasacreta, Minarik, Cataldo, Muller and Scahill[15]. They reviewed the structure of one school of nursing and the way in which they were meeting the educational requirements of advance practice psychiatric nurses. They discussed the need for a national standard and their belief that the creation of the right course will attract new students who will be the future of the specialty of psychiatric mental health nursing.

The description of the role each nurse played and the involvement in the program for each position also differed between respondents. The largest group within the respondents were those that held a position of Registered Nurse within the PTSD programs. These nurses described their role as ranging from being an individual counsellor to working as a co-therapist, group member and in any area as directed by the nurse unit manager. When asked to describe their involvement with patients treatment this group of respondents gave the most in depth information of how they assist with patient treatment and programs.

The respondents holding the position of Registered Nurse within the programs listed their involvement in treatment to include monitoring of patient s progress, participation in team meetings, liaison with doctors and families, counselling, arranging appointments, co-therapist in group sessions, conducting stress and anger

management sessions, CBT, and finally administration of medications. This information demonstrates that these nurses are involved in a diverse range of areas and when compared to the details provided by those holding other positions within these programs the position of registered nurse is the most comprehensive. There may be a number of factors that contribute to this including the nurse wanting to undertake an extended role, a lack of a clear role definition or job description and a requirement to be multiskilled within a multidisciplinary team.

The nurses holding the position of Registered Nurse were, with only one exception, trained psychiatric mental health nurses but did not state that they were holding a position of mental health nurse. This distinction between Registered Nurse and Mental Health Nurse was apparent in the roles that each listed and their treatment involvement.

The role of the expert psychiatric nurse is one that Cutcliffe[10] discusses, along with attitudes and philosophy, knowledge and skills, as the elements that combine in expert psychiatric nursing practice. The role the expert psychiatric nurse occupies is a fluid one, in that the expert nurse is able to move between different roles whilst remaining aware of their role regarding accountability and professional conduct. Defining a specific role for this nurse is not easy as what they do encompasses many differing tasks. This multifaceted role is apparent in the responses from those involved in this study where a number of nurses hold the same job title but their descriptions of what each position involves is varied.

The Mental Health Nurses listed their role as encompassing senior nurse, evening supervisor, counsellor, therapist, group coordinator and they are involved in patient assessments. Their level of involvement in the patient s treatment ranged from being involved in all areas of the treatment program, to no involvement in group work, conducting relaxation programs and assisting in patients desensitisation. In describing their role and their involvement in the treatment program their position is a more focused one than that of the registered nurse. This focus and ability to clearly articulate their role is in contrast to the general description given by the registered nurses. This may indicate that the mental health nurse has a more defined role, as well

as demonstrating that as a group of specialist nurses they have an awareness as to where they fit within the organisational or program structure.

In examining the role of the psychiatric mental health nurse in the literature, Barker, Jackson and Stevenson[1] questioned what role psychiatric nurses could play within a multidisciplinary health service. Their answer was a complex one, acknowledging that the psychiatric mental health nurse represents different things to different people. They also cautioned however that within the multidisciplinary team nurses needed to clarify what role they fill that is not already met by another member of the team thus ensuring the continued necessity in involving them in this area of health care.

Nurses filled the position of Clinical Nurse Consultant with a background in either psychiatric mental health nursing or counselling. Their role was that of program co-ordinator, charge nurse, therapist, patient assessments and a liaison person with other staff. The level of involvement in the program that they describe is one of assessment planning, conducting therapy sessions and co-ordinating follow-up groups.

The other positions that nurses working within these programs held were Nurse Unit Manager, Group Facilitator, Programme Co-ordinator, Public Servant, Generic Mental Health Worker, and Therapist. The role described by each nurse in these positions was clearly outlined. Their involvement in treatment was highly focussed rather than the variations seen with the mental health nurse, clinical nurse consultants and registered nurses. Discussions on the roles of the advanced nurse practitioner[9] and the practicalities of the nurse practitioner in psychiatric nursing versus the clinical nurse specialist[14] may take some direction from the descriptions of each of the roles and the different responsibilities that the registered nurses have. It may add to the discussion in that it highlights the difficulties in trying to define the role of the psychiatric mental health nurse to fit within one particular framework and perhaps reinforces the flexibility of the psychiatric mental health nurse in that they are able to fulfil such varied responsibilities in caring for one specific group within the area of mental health.

The descriptions of the varied psychiatric mental health nurses roles within the accredited PTSD programs differed in the amount of information offered on each

position. Reasons for this in this study may be due to the small number of respondents, with single respondents providing data on some of the positions. Rather than being able to compare and contrast the data provided, in the areas for which a single response was obtained only that individuals opinion could be used when gaining an insight into their particular position and the level of involvement they have within the program.

The level of involvement in patients treatment as reported in this study showed that although the nursing staff may be working in positions with different titles they are expected to provide similar input into treatment albeit from a slightly differing perspective. For some of the nurses this level of involvement is directed by another nurse, for others it is in collaboration with others in the multidisciplinary team and for others, such as the program co-ordinator, it is their responsibility to direct members of the program team as well as being involved in aspects of the program.

The role of the psychiatric mental health nurse as part of a multidisciplinary team is discussed in a number of studies, [5,6,13] as is the nurses ability to conduct certain therapies as an independent practitioner.[11,12,22] The nurses that responded in this study demonstrate that in treating clients with PTSD they are both members of the multidisciplinary team as well as being independent practitioners for certain elements of their work.

The respondents were asked to articulate what it was about their job they enjoyed, the responses revolved around the patients and their work. They stated that patient interaction, observing positive patient outcomes and the opportunity to be involved in therapy work with the patients were all enjoyable parts of the job. The other areas that they highlighted were the variety of work they could do within the program, teamwork with other health professionals and patients and finally the autonomy the nurses believed they had working in this area.

Although respondents were able to list these areas of the job that they found enjoyable, when asked what could be improved within their program only 69.6% (n= 16) responded. None of these responses focussed on patient interaction, rather they were more concerned with staff interaction, staffing levels, the nurses role, the

program design and the facilities they had to conduct the program from. The responses relating specifically to nursing issues were the need for a nursing career structure within this area, increased nurse involvement in group work, improved health care team cohesiveness, improvement of communication between management and staff, and the opportunity for nursing students to gain experience in this area.

These nursing specific suggestions for improvement were in some cases (43.5%, n= 10) supported with suggestions for how these improvements may be achieved. This included encouraging administrators to recognise the value of allowing nursing students to gain experience in these programs, an increase in funding, educate all staff in communication skills, and set out competency levels for nurses performing different roles within the program.

While each of the recognised areas for improvement and suggestions to achieve these have merit, as the number of nurses within each program is small it may be difficult for them to gain the necessary support to attain these changes. The suggestion for setting competencies may be one that would be best achieved by all programs setting a standard rather than each individual program writing their own. This theme of setting a professional standard is one that is often discussed in the literature.[1,3,4,7,9] The need to have consistency across the profession and to be able to clearly articulate what it is that the psychiatric mental health nurse is expected to do, both in a general sense and within specialty areas, is something that is a recognised necessity. This study has outlined what it is that nurses within the specialty PTSD programs within Australia do and the role they see themselves fulfilling.

The respondents were able to provide insight into what they believed should be included in a PTSD treatment program and the form that such a program should take. While this did not directly define the role of the nurse within this setting it gave an insight into the PTSD program from a nursing perspective as to what they believed was successful treatment and improvements that could be made. It gave the nurse the opportunity to reflect on what they were offering as part of the treatment team and the benefits of this treatment. In responding to how a PTSD program should be conducted 47% (n= 11) believed that a combination of inpatient and outpatient treatment is the best, with 37 % (n= 9) believing an outpatient treatment program alone is the ideal.

In considering different elements to be included in a program, group therapy and anger management were considered the most valuable elements with EMDR and imaginal flooding the least valuable. The other components when ranked all fell within a similar range. This may indicate that in employing these elements as part of a PTSD program each needs to be given a similar emphasis, these elements being relaxation, family therapy, behavioural therapy, exposure therapy and a fitness program.

Other options to be considered in developing a treatment program were offered by 65% (n= 15) of the respondents and included different therapies, counselling, education, concentrating on individual s specific needs, health care issues, occupational issues and spirituality.

Each of the additional treatments suggested could be incorporated within the 9 treatments that had been ranked in order of inclusion for a PTSD treatment program but for some their inclusion may be dependent on the overall focus on the treatment program, available funds and suitably trained staff to conduct different treatments. In looking at this issue Tolchard[11] discussed the requirement for nurses to have the suitable training in the area of psychotherapy so as a greater level of multidisciplinary health services may be offered to those who need this treatment. This was discussed in the context of treatment for problem gambling but demonstrates the point of needing the nurse to be able to perform many functions within the multidisciplinary team. The benefits of this to patients, their families and the health services in many areas are highlighted but specifically the financial considerations in having a nurse who is suitably trained to ease the pressure on psychologists, psychiatrists and decrease the waiting times for those needing this treatment is discussed.

Recommendations

Recommendations for further areas of study following this research include undertaking a larger study looking at a similar group of nurses but involving international PTSD programs. This would increase the number of participants in the

study and enable trends in the role the nurses play, the positions they hold and the number of nurses working with different programs to become apparent. This could provide enough data so as the nurses roles within these programs receive suitable exposure and recognition both within nursing, from other members of the multidisciplinary team and in the wider community.

A comparative study between the accredited and other PTSD programs within Australia could also provide further data looking at the nurse s role and could also examine any differences in approaches to treatment that different organisations have. A more in depth examination of the same group of nurses involved in this study could occur with an interview process or participant/observer data gathered so as the role of the nurses is further defined. This may also be more representative of the number of nurses involved in this area.

The philosophy of each program could be examined particularly with regard to the positions the nurses within each program hold. This may shed some light on why there are a number of different job titles each held by a registered nurse and whether these positions are dedicated nursing positions or could other health professionals perform them. It is important for the nurses to recognise what they do so as if the issue of using other health professionals in the positions that are currently held by nurses they have the necessary data to defend their role.

Another area of further research is in the differences between the outpatient and inpatient programs and the roles of the staff within these programs, this could also involve a greater number of programs than the current study by looking at international programs or including the non-accredited programs within Australia.

Conclusion

The purpose of this study was to define and describe the role of the nurse within accredited Australian PTSD treatment programs. The findings have shown that the nursing role is a diverse one and that it is not possible to define a single role for this

specialty area but rather recognition needs to be given to the diversity of positions that the nurse holds within the PTSD programs.

The adaptability of the nurse to undertake these various positions including administrative duties and involvement with patients treatment indicates a broad role rather than a clearly defined one. Even within each position the respondents gave varying descriptions of their role depending on the program they were involved in. This is reflective of PTSD as an illness, as it is still evolving[18] so are the treatment regimes and the specialty area focussing on this.

In each of the PTSD programs involved in this study the nurse, psychiatrist and psychologist, were the health professionals common to each program. Although the nurse does not have the same role in each of the programs they are shown to be a common element within all of the programs.

The findings also highlighted that a majority of the nurses working in these programs are from a psychiatric mental health background and it is through this specialty training that these nurses have proceeded into this sub-specialty.

ROYAL ADELAIDE HOSPITAL
Medical & Eastern Mental Health Services

8222 4139

29 January 2001

Ms Amanda Garlick
C/- DEPT OF CLINICAL NURSING
UNIVERSITY OF ADELAIDE

Dear Ms Garlick,

Re: "The role of the nurse in Post Traumatic Stress Disorder (PTSD) treatment programmes within Australia."   RAH Protocol No: 010103

I am writing to advise that ethical approval has been given to the above project. Please note that the approval is ethical only, and does not imply an approval for funding of the project.

Human Ethics Committee deliberations are guided by the Declaration of Helsinki and N.H. and M.R.C. Guidelines on Human Experimentation. Copies of these can be forwarded at your request.

Adequate record-keeping is important and you should retain at least the completed consent forms which relate to this project and a list of all those participating in the project, to enable contact with them if necessary, in the future. The Committee will seek a progress report on this project at regular intervals and would like a brief report upon its conclusion.

If the results of your project are to be published, an appropriate acknowledgment of the Hospital should be contained in the article.

Yours sincerely,

DR M JAMES
CHAIRMAN
RESEARCH ETHICS COMMITTEE

Appendix 2

PTSD Unit Overview

Demographic Data

The responses from this section will be used to develop an overview of the units throughout the country, the services they provide, level of funding and the clients they cater for. It will also provide a comprehensive view of the staffing for these units and will give an indication of the number of nurses questionnaires that I should have returned. It would be helpful if one member of staff on this unit complete this form.

1. What state is your unit in?　　NSW　ACT　SA　VIC　NT　WA　QLD　TAS
   (Please circle)

2. Is it a PTSD specific unit? _____

3. How is the unit funded? _____

4. What programs does this unit conduct

   _____

   _____

   _____

   _____

5. How many people are expected for each program?

   Inpatient programs:

   Outpatient programs:

6. How are people referred to this unit?

7. What is the main cause of PTSD amongst program participants?

8. During the past year (2000), approximately how many participants in the PTSD programs were male and how many females?

             Male:

             Female:

             Don t know:

9. What is the length of the programs? _____

10. What is the cost for each participant of the programs offered? _____

11. How many nursing staff work within this unit?

             Full-time:

             Permanent Part-time:

             Casual:

12. What other health professionals work in the unit?

_____

_____

_____

Appendix 3

Nurses PTSD Unit Survey

The aim of this survey is to establish what role if any the nurse plays in the treatment of PTSD sufferers and if any specific training is required. Please circle appropriate responses as required otherwise answer in the space provided.

- How long have you been nursing_____ __

- What is your current position?

- Gender   ❑ M   ❑ F

- Do you have specialised education in any area of nursing?   ❑ Yes ❑ No

- If you have which area?_____

Prior to working in this unit did you have experience in managing PTSD patients?
                                                             ❑ Yes ❑ No

- Did you have any specific training in this area?   ❑ Yes ❑ No

- If so, what was the training?_____

- Does your unit offer or encourage ongoing education for the nursing staff?
                                                             ❑ Yes ❑ No

- If yes what sort of education is offered?_____

- What is your role in this unit?_____

_____

_____

_____

- How are you involved in the patients treatment program?_____

  _____

  _____

  _____

  _____

- What do you enjoy about your work?_____

  _____

  _____

- What could be improved?

  _____

  _____

  _____

- How?

  _____

  _____

  _____

  _____

  _____

- Are you currently undertaking any post-graduate studies?   ❐ Yes ❐ No

- If so in what area?

  _____

  _____

  _____

  _____

  _____

- If you could design a program to treat/manage PTSD sufferers what would you include?_____

  _____

  _____

  _____

  _____

- Inpatient or outpatient treatment or a combination, and how long?_____

  _____

  _____

  _____

- Could you prioritise the following treatments, in the order that you would include them in a program:

EMDR	☐
Relaxation	☐
Anger Management	☐
Behavioral Therapy	☐
Imaginal Flooding	☐
Exposure Therapy	☐
Family Therapy	☐
Group Therapy	☐
Fitness Program	☐

- What else would you include?

_____

_____

_____

Thank you for your time in completing this questionnaire, your responses will be kept confidential.

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Study Three

A study of the perceived effectiveness of treatment for Post Traumatic Stress Disorder (PTSD)

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Background

One of the recommendations from the systematic review presented as study one in this portfolio was to explore with study participants the perceived effectiveness of their treatment as many reported study outcomes were reliant on psychological testing scales. By viewing treatment effectiveness through the results obtained from testing scales the perceptions of the individual are not captured. While the testing scales give an indication of how different symptoms have responded to the treatment they do not provide insight into how the participant feels about the outcomes they have achieved and how they have achieved them, that is, how they feel about their PTSD treatment.

To better understand what it is that those receiving treatment require, interviewing some of the people who have been through the process can provide us with some insight regarding treatment as perceived by the patient. To get a broader view of treatment perceptions a number of occupational groups will be approached to recruit participants for this study.

A study such as this allows those who have received treatment to have a voice in regards to this treatment. It provides an opportunity for the consumer of health care to express their thoughts and feelings regarding this and personalises the treatment outcomes.

Literature Review

A systematic review of the non-pharmacological treatment of combat-related post traumatic stress disorder revealed that most of the literature was written by psychologists (Garlick 2002). While they reported the clinical findings of treatment outcomes this was always done through assessment scales and not by discussing with the patient their perception or feelings of the treatment itself (Carlson, Chemtob, Rusnak, Hedlund and Muraoka,1998, Keane, Fairbank, Caddell and Zimering,1989 and Gerlock, 1991). This has the effect of reducing the personal experiences of these people to aggregated information. Much of the literature is diagnostic in the way it describes how treatment regimes are conducted and how the testing scales are used on patients prior to, during, and after they had finished the set regimen as a means of

measure success. This is also demonstrated in a study by Carlson et al (1998) along with many other similar studies in which the results of the psychometric tests undertaken by participants are represented graphically, then these graphs and the results are discussed rather than those individuals undergoing the treatment. Studies by Keane et al (1989), Chemtob, Novaco, Hamada and Gross (1997) and Pitman, Orr, Altman, Longpre, Poire and Macklin (1996) are also examples of this. In many ways the patient does not have a voice but rather becomes a set of statistics that can be obtained from the myriad of testing scales used. The literature suggests only a gradual improvement in PTSD from the variety of treatments analysed using statistical methods to determine significance. In this way success is determined by statistical significance rather than clinical significance as articulated by the individual or health professional involved in the treatment.

The literature described many different types of therapy, family therapy, cognitive behavioural therapy, group therapy, art therapy and many other treatment plans where therapies are used to complement each other or as the stand-alone intervention for the condition of PTSD. The reported research discussed the participant before treatment, during treatment and post-treatment through their scores on different psychological rating scales. These scales were used as the indicator for change and is the way of measuring a treatment program s success, however the reliability of these scales is dependent upon the way they are administered.

One of the earlier studies examining a specialised inpatient PTSD program was by Hammarberg and Silver (1994). Their study was conducted in 1988, and investigated treatment outcomes. To achieve this they used 5 different psychometric testing scales, which were completed by participants during treatment and at discharge. In the discussion reference is made to the informal reporting of the study s participants in relation to their perception of life post-treatment but as this was not explicitly measured on an assessment scale these views were not included in the results.

Carlson et al (1998) reported the findings from a study in which 8 different testing scales were used on three different cohorts. One aspect of an intervention involved discussion with the patient on their experience during treatment; these discussions were not included in the results. In the study the treatments being reviewed were eye

movement desensitisation and reprocessing (EMDR), and biofeedback-assisted relaxation. Both these treatment groups were compared to a control group. Each group was administered a number of psychometric tests pre and post treatment, and again at a 3-month follow-up. The results are reported in a number of tables with discussion relating to each of these. No report is made on the discussions or themes of the discussions that the authors refer to in the study.

Johnson and Lubin (1997) followed-up 65 patients immediately following a 4-month inpatient treatment program for combat-related PTSD, 4 months after they finished this program and again 12 months after completion. This study concentrated on combat-related PTSD sufferers and was aided by a survey of veterans of their treatment preferences. They asked the participants to complete a questionnaire related to 35 different treatment components that they had experienced during the program. The results showed an alteration in their perceptions of the treatment at each follow-up however the reliability of self-reporting is questioned by the authors of this study.

Another study examining individual treatment components within a PTSD program and their effects on the participant was reported by Johnson, Lubin, James and Hale (1997). This study, unlike the previous study did not ask for feedback on the program as a whole but only on the specific interventions within the program. To gain this information self-reporting was used in a written format. According to the authors

> the results of this study suggest that the relative efficacy of rehabilitation-oriented programs based on modalities such as occupational therapy, community service, and the creative arts therapies, versus psychotherapeutic programs based on verbal and introspective group therapies, deserves to be empirically tested. (1997, p389).

While the aim of the study was to rate the effects of each of the treatment modalities individually, the way in which this data was collected was by the use of specifically designed assessment tools and did not ask for any further input from participants other than completing the assessments.

Assessing the outcome of intensive inpatient treatment for combat-related PTSD, Johnson, Rosenheck, Lubin, Charney and Southwick (1996), conducted a study that

followed participants from initial assessment, during treatment, then 6,12 and 18-months following discharge. To establish the effectiveness of the particular treatment program they also looked at how participants scored on a number of testing scales along with a self-evaluation assessment that was completed at discharge and at follow-up. This self-evaluation looked at participants symptoms and their ability to function and was assessed using a rating scale. The results of this were discussed indicating a positive impact on morale and interpersonal ability. The data were obtained from structured assessment tools and within the discussion of this study possible explanations are offered for the results that have been obtained by this method but no discussion with study participants is included.

In a description of a treatment program designed to assist Vietnam veterans to handle PTSD, Attarian and Gault (1992) suggest that while they believe positive outcomes have been observed from the adventure-based treatment program they were assessing in this study, they admit that the measures of effectiveness are anecdotal. While they believe this type of program has many benefits and are able to list a number of these, their only assessment of how participants have responded to this has been through observation although some reference is made to the participants description of positive experiences relating to this program.

An examination of a similar treatment program by Ragsdale, Cox, Finn and Eisler (1996) looked at the role of adventure-based counselling and psychodrama, as a component of an effective short-term specialised inpatient treatment program. To assess this they also used standardised assessment scales, although in the discussion of the study there is reference to the feelings of the veterans, that they have reported certain things back to the researchers and program staff. This data is not captured in the testing scales but was included by the researchers in the discussion relating to this study.

Fontana and Rosenheck (1997) in their study discuss the effectiveness and cost of inpatient PTSD programs by comparing 3 different programs. In this comparison they also use different psychometric testing scales to support their findings. They discuss the perceptions of those being treated, however these have also been obtained through completion of a scale by the study participants and do not ask for further elaboration.

A similar study that offered a comparison of treatment regimes was conducted by Watson, Tuorila, Vickers, Gearhart and Mendez (1997). In this study the findings were supported not only with psychometric testing scales but also with biofeedback data obtained during the different treatment sessions but again the participants views on these treatments was not discussed within the study.

Hyer, Woods, Bruno and Boudewyns (1989), performed a study to assess the treatment outcomes for Vietnam veterans with PTSD, along with the consistency of the Millon Clinical Multiaxial Inventory (MCMI) as an assessment tool in this setting. This study is relevant in that it examines the use of one of the assessment tools used to assess the PTSD patient. As standardised assessment tools are common to many of the studies relating to PTSD treatment outcomes it is important to address the issue of the tools reliability.

In a study by Johnson, Rosenheck and Fontana (1997), a questionnaire was used to elicit the participants personal perceptions of the treatment program. To elicit this information the questionnaire design called for participants to answer 100 questions as true or false, so while it was designed to measure their perceptions, the perceptions that were measured were only those that were captured by the questionnaire.

In each of these studies we see an attempt to use the patient s response to the treatment to influence better practices in the future. These responses either relied on written self-reporting, psychometric tests, or as in one study biofeedback to measure the effectiveness of treatments. The studies did not allow the patient to freely discuss their treatment but rather provided a specific framework to capture their responses. By interviewing people who have undergone treatment for PTSD it is hoped that some of the data that is missed by using specific measures will be highlighted and it will allow the participants the freedom to discuss all aspects of their treatment not just those targeted by the testing scales. This will provide greater depth and insight regarding their treatment and a richness of information not able to be obtained through having participants complete written testing scales and questionnaires.

Research Method

Purpose

The purpose of this study was to explore the treatment experiences of individuals with work-related PTSD to gain insight into their thoughts on the benefits or otherwise of the treatments they received, whether there were aspects of the treatment that they would change and whether employer support was provided during and on completion of treatment.

Aim

To gain some insight into patient perceptions of:
- the treatment they received
- what they believe was effective or ineffective within the treatment program
- how they were treated in the workplace during their treatment phase and on return to work
- what support was given by the employer during the treatment phase and on return to work.

Study Design

This study used an interpretive inquiry approach collecting qualitative data from participants during one to one interviews. The technique of one to one interviews was used to gain insight into the treatment perceptions of people who had received treatment for PTSD and how they felt they were treated in the workplace during and after treatment. The interviews were transcribed verbatim and then analysed using the technique of thematic analysis.

According to Streubert and Carpenter (1995), certain characteristics are found within research that uses an interpretive approach. These include a belief in multiple realities,

a belief in their approach to their research, a preparedness to express the participant s viewpoint and a way of presenting the findings so that the participant s voice is heard.

Research within the interpretive paradigm differs from studies situated in the post positivist paradigm in a number of ways. Characteristics of interpretive inquiry, as listed by Burns and Grove (1995, p394), are:

- soft science
- focus : complex and broad
- holistic
- subjective
- reasoning: dialectic, inductive
- basis of knowing: meaning, discovery
- develops theory
- shared interpretation
- communication and observation
- basic element of analysis: words
- individual interpretation
- uniqueness

These elements are drawn upon in conducting this study to facilitate an accurate representation of the participants beliefs.

Research may be undertaken using a number of different approaches within an interpretive paradigm. These include but are not limited to phenomenology, ethnography, grounded theory and historical research. While research can be undertaken using any one of these methodologies this study adopted the technique of thematic analysis rather than a specific philosophical approach. The use of thematic analysis as a technique allows the exploration of each of the interviews undertaken seeking to identify the themes within each of them, how they relate and commonalities that are apparent between them.

Sampling

For this study purposive sampling was used. This type of sampling was the most appropriate given the aim of this research, with participants required to meet certain criteria for inclusion. The participants required for this study were already determined by the research question that identified the group from which participants could be sought. The use of purposive sampling is such that participants are chosen for their knowledge on the research topic, their experience in relation to the research topic or their insight of the topic. They are included in the study for their ability to be able to provide the researcher with information about the topic of interest.

Inclusion criteria:

The participant will have been diagnosed and treated for PTSD. Their G.P., psychiatrist or clinical psychologist will have made the diagnosis. The PTSD is directly related to a trauma experienced while they were at work. The participant will have returned to work.

These criteria provided the framework for purposive sampling selection. It is necessary that the participants have been diagnosed and have received treatment as the study focuses on their perceptions of this treatment. The requirement for them to have returned to work is necessary so that the employer response to them can be determined and included in the findings.

Exclusion criteria:

Individuals diagnosed and treated for a work-related PTSD but who have not returned to work and those with a work-related PTSD who have not undergone treatment and those who have not formally been diagnosed with PTSD.

Ethical issues

Ethical approval for this study was obtained from the Royal Adelaide Hospital Research Ethics Committee (appendix 1). To access participants for the study, health professionals treating those that suffer from work-related PTSD were approached. Each of these was sent an information package outlining the study and what would be required of participants. They then made contact with people that met the inclusion criteria to ask if they would be interested in participating in the study and if they were the health professional contacted the researcher providing the necessary contact information to link the researcher and participant.

Consent for this study was obtained from participants in writing prior to their interview (appendix 2). Consent forms have been kept separately in a secure location. Each participant s interview remains confidential with any distinguishing features deleted in the final transcript to maintain anonymity.

Due to the sensitive nature of the collected data the requirement to ensure the confidentiality and anonymity of participants is paramount. In approaching participants for the study assurance was given that the information they provided was to be used solely for the purpose of this research and that any identifying features that are apparent in their interview would be deleted. This assurance is necessary to ensure participants feel comfortable to divulge all information without fear of repercussions. The protection of participants identities is furthered assured with the safe storage of data and access to the raw data available only to the researcher.

Recruitment

Setting and study population

Health professionals working with particular occupational groups were approached in an attempt to recruit participants for this study. A number of health professionals were contacted and then followed-up in the hope of finding willing participants. Many of the health professionals indicated that they would be unable to help in locating participants or did not believe it in their client s best interest to participate. The

occupational groups included emergency workers, police, fire and ambulance officers, correctional service employees, defence employees, bank tellers, transport workers, (bus and train drivers), teachers and nurses. It is from these groups that participants were recruited into the study.

The health professionals were contacted by phone and given a brief explanation of the study. They were then offered the opportunity to have the information pack (appendices 3,4,6) mailed to them. Initial contact with many of the health professionals was extremely difficult with few returning calls or prepared to accept an information package. Those that agreed to being sent an information package were then followed-up with further phone calls, however few were prepared to allow access to their clients that met the inclusion criteria.

Eventually a number of individuals who had been diagnosed with PTSD and had treatment for this were invited to participate in the study. Three of the participants were accessed through psychologists and 2 through nurses. In each case the information package was supplied and the participant provided a contact number through the health professional so that an interview could be arranged. Those health professionals that assisted in providing participants for the study expressed a belief in supporting research and the need to find more information on PTSD treatment. The nature of the participants PTSD was due to a work-related incident. Final numbers of participants in the study (n= 5) were guided by the accessibility to appropriate participants. Each participant completed a consent form (appendix 2) indicating that they understood the purpose of this study and that their anonymity would be maintained. Study participants were also given an information sheet explaining the purpose of the study and whom they should contact if they have any questions (appendix 3).

Rigour

Rigour is used to describe the way in which a study has been conducted and the steps taken throughout the research process. Burns and Grove (1995, p397) described rigour as being associated with openness, scrupulous adherence to a philosophical

perspective, thoroughness in collecting data and consideration of all the data in the subjective theory development phase.

By maintaining rigour within this study the data that has been collected is an accurate account of the participants perceptions and feelings with due consideration given to each participant s views. There are a number of terms that help to describe the rigour of a study. These terms include credibility, dependability, confirmability and transferability, and are used to demonstrate the trustworthiness of a study. According to Holloway and Wheeler (1996, p164) each of these terms establish this in the following ways:

- Credibility- is established by the researcher s ability to identify and describe participants accurately.

- Dependability- this relies on the researcher establishing credibility, as a credible study will also be dependable, it is demonstrated when the research process that is taken is shown to follow the acceptable standard when it is checked.

- Confirmability- is the linking of data to their source so that the reader is able to see that the conclusions and interpretations presented in the study are taken directly from the data.

- Transferability- this relates to how findings from a study may be generalised from a representative sample of a population to the whole group.

By meeting these criteria to demonstrate the trustworthiness of the study it should enable the reader to follow the steps taken for the study to reach its conclusion.

Data Collection

Interviews are the most commonly used qualitative technique in health care settings. (Britten, 1999,p1). Each participant in this study was interviewed individually for approximately one hour, following a semi structured interview format with certain issues addressed. Issues discussed included the treatment that the

participant received, their perception of this treatment and the support given to them at this time and on return to work.

It has been shown that The interview allows entrance into another person s world and is an excellent source of data. (Streubert & Carpenter, 1995, p43). Interviewing also allows the interviewer to explore the participant s responses in greater depth by being able to continue with a thread until the participant has fully explained himself or herself. In using personal interviews to gather information the researcher must be aware of the time that this may take and also the possible cost involved in locating and travelling to meet those that have agreed to be interviewed. However the advantages of using this approach, according to Polit and Hungler (1999, p200) is the quality of the information that can be obtained and that few people refuse to be interviewed in person.

The structure of the interview can take a number of forms this includes an unstructured form, semi-structured form, and a structured or standardised form. The choice of the structure that an interview will take is dependent on the type of information the interviewer is trying to obtain. According to Holloway and Wheeler (1996, p55) researchers usually use the unstructured or semi-structured interview in trying to collect sufficient data. The unstructured interview allows the flexibility for the interviewer to explore the direction taken by those that they are interviewing. This limits the direction and control the interviewer has over the process and may lead to diverse data being collected from each of the participants that may be more difficult to collate. The semi-structured interview gives the interviewer the opportunity to explore certain directions but then they are able to bring it back to the areas, which they specifically want addressed. The structured interview is a planned interview with the same questions asked of each of the participants, while this allows easy collation of the data it does not leave room to explore different participant s experiences.

The purpose of each of the semi-structured interviews used in this study was to ask the participant to share their experiences/feelings relating to their treatment and outcomes. A semi structured interview technique was used; this was to give the interview the direction that it needed to achieve the objectives of this study. Some questions were asked but only to start the interview allowing participants responses

to provide some guidance as to the direction further questioning should take. To keep the interview flowing the structured questions were minimal and used only to provide cues for the participant. These included questions on:

- The treatment they received for PTSD
- Their perceptions of this treatment
- Improvements they believe could be made to the treatment they received
- How they perceive they now function in the work place compared to prior to developing PTSD
- The amount of support they received from their employer throughout their illness and on returning to work

A list of possible questions used to elicit information is detailed in appendix 4.

Data Analysis

The theoretical underpinning informing this study is situated within the interpretive paradigm. However it is not within the scope of this portfolio to discuss the specific methodological issues of this paradigm. The technique of thematic analysis underpinned by an interpretive approach is however described in detail.

Thematic analysis, as discussed by Roberts (1998, p312), is a method for identifying themes, essences, or patterns within the text. In conducting such an analysis an awareness of the themes that are being looked for is essential. Roberts also describes the need to be able to distinguish between implicit and explicit themes, and the ability to remain focussed and not become distracted by other issues that may come out of the text. She also stresses the need to view statements contextually and to be able to understand implied meanings. To be able to do this successfully a good understanding of the subject is important, as are good listening and analytical skills. While the transcript makes reviewing the text of the interview easier it is also important to listen to the interview as *how* things are said can be as important as *what* is being said. A thematic analysis needs to be conducted in a systematic way so nothing is overlooked within each transcript.

Polit and Hungler (1999, p580) describe the search for themes as not only the discovery of commonalities across subjects but also a search for natural variation in

the data. They suggest that the researcher needs to be sensitive for relationships within the data and the need to look for patterns that may develop across the data. Some of the suggested strategies for collating this data includes the development of flow charts, summary tables and presenting preliminary analysis to participants in the study to receive feedback on whether the findings are representative of their views.

In this study each interview was transcribed verbatim. In analysing the results the framework detailed by Pope and Mays (1999) was used as a guideline. The framework encompasses:

- Familiarisation: immersion in the raw data by listening to tapes, reading transcripts, studying notes and so on, in order to list key ideas and recurrent themes.
- Identifying a thematic framework: identifying all key issues, concepts and themes by which the data can be examined and referenced.
- Indexing: applying the thematic framework or index systematically to all the data in contextual form by annotating the transcripts with numerical codes from the index.
- Charting: rearranging the data according to the appropriate part of the thematic framework to which they relate and forming charts.
- Mapping and interpretation: using the charts to define concepts, map the range and nature of the phenomena, create typologies and find associations between themes with a view to providing explanations for the findings.

By using this framework as a guide it encourages an ordered approach to sorting through the collected data.

Limitations

The main limitation of this study was in gaining access to people that met the inclusion criteria. Although ethics approval had been given for this study many of the health professionals approached were hesitant to allow access to any of their patients who met the inclusion criteria, as they were concerned that discussing the treatment process may upset their patients.

Other limitations of this study included the narrow aim that specifically asked that the participant had returned to work following their work-related trauma and that they had received treatment specific to their PTSD. Many potential participants had not returned to work with the same employer, or not returned to work at all and some potential participants while they had received some counselling had not received treatment specifically for PTSD.

These limitations had the effect of decreasing the number of potential participants thus making it more difficult to recruit people for this study. Further limitations included the need for the participant to be English speaking, and the time-constraints imposed due to candidature.

While these limitations are recognised the data gathered from those who participated was able to provide insight as to how those undergoing treatment for PTSD feel and what they gained through the different treatment regimes.

Results

The themes that have emerged from this study have been developed from the data collected during five interviews that occurred with participants who met the inclusion criteria. Each of the participants shared their perceptions of the treatment they had received for PTSD, what they believed was helpful in that treatment, areas where some improvements may be made and how their employer related to them while they were undergoing treatment and upon returning to work.

The five participants were from different areas of industry and hence had experienced different traumas that led to their PTSD diagnosis. The positions they held were:

Bank teller

Fire fighter

Defence worker

Smelter worker

Heavy machinery operator (cranes, cherry-pickers, forklifts)

Of the participants four were male and one was female. Each had returned to work following treatment for PTSD, and each was still working for the same employer, although some had changed positions within their organisation. Four of the interviews took place in person while one was conducted as a phone interview.

An overview of each participant situates the participant within the context of the study and provides some background about each of them; the names used here are pseudonyms to protect the participants privacy.

The Participants

Sue is a bank teller whose traumatic event occurred 4 years ago while working in a local branch of a bank in which she was the focus of an armed hold-up. She has been receiving treatment since then, initially through workplace services and now she has accessed her own health providers. A single woman in her late 20 s, she only recently started to feel comfortable with herself again.

John is a fire fighter and he could not describe one event that particularly triggered his illness but believes it to be an accumulation of many years as a firefighter and the unique stressors the job presents. His PTSD was diagnosed 18 months ago and he is still undergoing regular treatment as an outpatient, but has returned to work in an office position. He has been a firefighter for more than 20 years, divorced, lives alone but spends time staying with his parents when he needs support.

Mike is a defence worker who has been exposed to a number of traumatic events 7 years ago when deployed on peacekeeping operations overseas but this was only triggered 2 years ago. He sought help initially through defence health services, then was referred to a civilian specialist. He is married with 1 child and now works as a contractor for defence.

Andrew a smelter worker suffered a traumatic injury at work 10 years ago in which he was burnt. He was treated for physical problems but not the psychological impact. He managed until about 18 months ago when things became increasingly difficult to cope

with had a personality change and his wife encouraged him to seek treatment. He is currently on long-service leave from his company but is due to return to work shortly.

Henry a heavy machine operator suffered his traumatic injury early last year in which he received burns from boiling water and steam. Initially he was treated for physical problems then encouraged to see someone for psychological trauma. He lives at home with his wife and pets. Henry has returned to work with the same company but has not had to return to the worksite where the injury occurred.

All of the participants received treatment for PTSD as outpatients from private health practitioners who they were referred to by either their workplace or through their local doctor.

Themes

The interviews provided a considerable amount of data from which were developed a number of themes. Each interview was transcribed with all identifying features removed or altered to maintain the participants anonymity. In quoting from the transcriptions participants are identified by the pseudonym, with the paragraph (p) and line (l) from the interview where the quote was taken identified.

The themes that emerged from the interviews are discussed taking into account how the participants perceptions of their treatment, their perceptions of what treatment was most helpful, what changes they believe could be made to improve the treatment and finally their perceptions relating to how they were treated by their employer during their treatment phase and once the treatment was completed.

From the 5 interviews a number of themes emerged. Some were common to all the participants while others were only apparent in some or one of the interviews, Polit and Hungler (1999, p580) described this search for themes in looking not only for commonalities between data but also variations. The themes appeared to reflect the participants feelings and moods, and can be divided into 2 groups: those that appeared to have a positive impact on the participant and those that appeared to have a negative effect.

The themes that were identified are discussed in relation to the participant s treatment perceptions. Those that could be grouped as having a negative or positive effect on the participants are presented in table 1. Following outlining and discussing these themes and sub-themes further discussion on the other areas identified within the interviews will be highlighted. These areas are treatment perceptions, workplace issues, physical problems, and the concept of support versus lack of support as perceived by each of the participants.

Sub-themes	Themes	Impact
Hopefulness Planning for the future Self-belief Self-confidence	Aspirations	Positive
Anxiety Frustration Confusion Self-doubt Stress Disappointment Discrimination/victimisation	Anger	Negative

Table 1: Themes and Sub-themes

Aspirations

 Aspirations is representative of the ability of the participants to overcome their illness and look towards the future. In considering sub-themes that promote a positive outlook each of these while looking towards the future described the dreams of the participants, their hopes and desires. They indicted where they aspired to be once they had overcome their illness.

The PTSD sufferer is often portrayed with a focus on the negative aspects of the illness. Seldom are positive implications arising from this illness discussed or even alluded to. The sub-themes identified through the interviews that are of a positive nature will be discussed with examples of each highlighted.

Hopefulness

The expression of hope by some of the participants in regards to their future indicates a belief that they can recover from PTSD and reclaim their lives. For Mike this hope was shown in his preparedness to fight the decision of his employer to discharge him. He was able to formulate an appeal through the necessary channels, to have the decision reconsidered and even although the reconsideration was not favourable he was able to see beyond that and work towards another goal. This perseverance led him to maintaining the same job but now as a civilian employee.

Sue also displayed hope when discussing her banking position. She described the difficulties she was having in the branch environment following the hold-up, including the support network disappearing but she was able to continue with her job and then accept the opportunity to move out of branch banking into another area. So while she had doubts when she initially became unwell she remained hopeful that her career was not finished and eventually a new position was offered to her within the organization.

For Andrew and John the area in which they expressed most hopefulness is related to the rehabilitation provider, Workcover, accepting their claims. Both have had a long standing claim submitted related to their PTSD and both of them are fighting to have this recognised.

When interviewing Sue she had discussed leaving the bank. In talking about this her voice became quieter and she started to fiddle with the rings on her fingers, but when she spoke of her new position within the bank she became more confident, her voice became louder and she became more animated.

In Mike s interview when discussing his hopes, at first in relation to returning to work and his appeal and then when considering his future options he also became more animated vocally and with his hand gestures.

No single line from the participant interviews represents these hopes. This sub-theme came from the way participants expressed themselves, tone of voice and body

language. While the sub-theme of hope was not openly expressed but rather implied each participant was asked where they saw themselves in the future and these responses are discussed within the next sub-theme.

Planning for the Future

In planning for the future the participants are showing a positive outlook in that they have overcome the depression that is often associated with PTSD and is one of the contributing factors to the chronicity of the illness. Each participant spoke of their future and believed they would remain in their current job but did not discount the possibility of reviewing this decision if the opportunity was offered.

John believes he still has something to offer as a firefighter and it would be premature for him to leave now.

> *I'm no spring chicken, and who else would have me? I've been here half my life, this is my family and I think I still have something to contribute, so I would like to stick around until retirement. (John,p25, 11-3).*

Mike, while happy with his job is considering upgrading his skills through a university course to broaden his options. He already has the paperwork and is ready to submit it with his only concern the time he has been away from study and his ability to start learning again.

> *I am better off to stay in nursing and upgrade my skills. I am considering nursing registration through uni. Cause there is so much work if I get my registration- you can go anywhere. (Mike, p48, 17-9).*

Henry when asked about his future said he had not thought of taking up a different job as this is what he had been doing all his life.

> *Yeh, well you see I'm a crane operator and I can sit and operate a crane all right. (Henry, p103, 11).*

Andrew also saw his future as continuing to be in the workplace he had been in all his life. He did not consider changing his career as an option. Although he has had

problems at work trying to get compensation for his PTSD he still sees the smelter as his future.

> *The whole point of it in the smelters is that you can look for another job, but you look for another job in the smelters .Stay there until you retire. (Andrew, p100, l1-3).*

In discussing the future Sue stated she had thoughts of leaving the bank a few times but that she felt more comfortable now. She didn t discuss any other plans in relation to this.

The belief shown by each of the participants that they had a future is an indication that they do not see the effects of PTSD as dominating their lives. This is in part a demonstration of self-belief another one of the sub-themes that was apparent from the interviews.

Self-belief

The self-belief displayed by the participants in their interviews showed that this group have a determination to be well again. Each has been able to continue at work following their incident and although needing treatment their sick leave has been minimal. John expressed this self-belief in stating that he still has something to contribute to the fire service and he therefore wants to continue in his role there.

> *I think I still have something to contribute, so I would like to stick around until retirement. (John, p25, l2-3).*

Sue showed self-belief in seeking alternative treatments to help her manage her symptoms. She was prepared to consult a naturopath and Chinese herbalist for assistance as she had previously used alternative medicines for positive results and wanted to try them again. She was also able to recognise that the psychologist she was seeing initially, who was contracted through her employer, was not providing the help she needed so she found another psychologist who she believed met her needs.

Sue also had insight into the effect her therapies had in treating her condition and how they complimented each other.

> *Emotionally the psychologist worked really really well just purely the relationship I had with her. So from a mental health perspective, the counselling with that particular psychologist was good. For general health and well-being, the naturopath and Chinese herbalist worked really well, as well. (Sue, p34, l1-4).*

John and Sue each demonstrated a self-belief in different areas of their lives. John held the belief of his self-worth and what he had to offer others, while Sue was able to use her strength in making the decision to seek treatment outside of what she had been offered to attain her optimal level of wellness.

In demonstrating self-belief through their words and actions John and Sue also showed self-confidence. Other participants demonstrated this sub-theme as well when discussing their journey through PTSD treatment.

Self-confidence

An illness such as PTSD but in particular one related to the workplace can affect the confidence of the participants in their ability to do their job. Mike spoke of this decrease in self-confidence as one of the initial symptoms.

> *I found that things were happening to me my confidence in my job plunged. (Mike, p4, l7-8)*

Sue discussed the difficulty she had each day leaving home for work.

> *the problems I had the anxiety attacks and when to go out anywhere. (Sue, p20, l2-3).*

Henry gave the example on returning to work and being placed in a difficult situation that really made him question his ability.

> *the boss sent me up these stairs underneath this tank, to rattle up bolts. Now that is the big rattle gun — brr, brr,brr- and I lasted about two minutes . Now why the hell did he do that? (Henry, p30, l2-5).*

While each of these examples has illustrated how the participants had their confidence dented they have also been able to illustrate how their confidence has been restored as they have each successfully returned to work.

Self-confidence rather than being specifically addressed in the interviews was evident in each of the participant s stories and could be heard as their voices and body language changed when speaking at first about the illness and then about how they were now coping and what the future holds.

Summary

The positive sub-themes that came from the interview are grouped under aspirations and were in most parts expressed through how things were said rather than what was said. Whilst this could lead to misinterpretation of what is being shared by the participant it was evident throughout each of the interviews through different mannerisms and expressions when the participant was referring to a positive aspect of their story or conveying negative feelings. Each of the interviews did conclude with a positive feeling coming from the participant and although each of them had discussed a difficult part of their lives, this was not dwelled upon.

Within each of the interviews however there were times when the expression of negative feelings with regards to the treatment process was obvious. These feelings were expressed in a number of ways with anger the predominant feeling.

Anger

The theme of anger is one which represents the number of sub-themes that have emerged from the participants descriptions of events that have occurred during their illness that they perceive as impacting negatively on their lives. Anger itself was evidenced in many ways, from direct statements, implied, or through tone of voice and body language. The anger was directed at many different areas but common to all participants was anger directed towards the rehabilitation provider.

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While anger was a major theme there are a number of sub-themes that supported this. Each of these will be discussed individually with examples from the participants included to highlight how they had expressed these sub-themes.

Anxiety

Anxiety is a common symptom of PTSD. Each of the participants either openly described experiencing periods of anxiety or implied this in the way in which they recounted the history of their illness.

For Henry his anxiety was most pronounced when he returned to work although the work location was not where his accident had occurred however similar sounds reminded him of the traumatic event.

> *Pipes all screaming and all that, keeps me on edge a lot. (Henry, p37, 11)*

Mike describes his anxiety as being one of the things he recognised prior to receiving treatment and which was a catalyst for him seeking professional help.

> *So I became really anxious with people and that sort of led to depression. (Mike, p4, 17)*
> *I became really, really uptight and anxious and I ended up in the Clinic for a few days (Mike, p6, 17-8).*

While Mike and Henry described their anxiety as occurring at specific times for Sue anxiety attacks started to affect all aspects of her life and management of this PTSD symptom became one of the focuses of her treatment.

> *the anxiety attacks and when to go out anywhere, having a hard time being back in the branch environment (Sue, p20, 12-3).*
> *She (the psychologist) started working with coping mechanisms for anxiety and did a bit of desensitisation as well. (Sue, p28, 11-2).*

Anxiety is a common symptom experienced by PTSD sufferers and can impact on all aspects of their lives. For the participants the experiences they have recounted are from both the workplace and outside of the workplace.

The next identified sub-theme of frustration can follow on from anxiety as often PTSD sufferers do not know why they have their anxiety attacks in situations removed from the original trauma and this can lead to them becoming frustrated at the loss of control and changes within themselves.

Frustration

Through all the interviews there was a sense of frustration expressed by the participants. This was directed at a number of areas, including work, home-life and towards themselves with a feeling that they were no longer the person they used to be.

John s frustration was expressed predominantly when discussing the process of claiming through Workcover for his PTSD. He describes a long battle in which he believes things were made more difficult than they needed to be.

> *I put in another claim so they say the process has to start again but that s crap,   (John, p17, l1)*

John s frustrations are evident not only in the text but through the tone of his voice and the agitated state he was in when recounting this part of his story. Andrew s frustrations are similar, he is also having difficulties with having his claim recognised through the workplace and the rehabilitation provider.

> *They will accept a payment, stating that they will pay my medical expenses and any in the future and will not accept the title — they won t accept that. That is on condition that I resign. (Andrew, p10, l14-16)*

While Andrew s and John s frustrations are related to their battle to have their illness recognised by the rehabilitation provider for Henry his frustration is due to finally returning to work but only being on light duties when he would prefer and feels as if he could manage more.

> *Yeh, well you see I m a crane operator and I can sit and operate a crane all right, but they ve still got me on light duties for another month. (Henry, p103, l1-2).*

The frustration experienced by the participants was related to outside influences and the effect these influences had on their lives. Mingled with the frustration and the anxiety is the next sub-theme of confusion. Many PTSD sufferers are uncertain what is happening to them, why they are behaving in a certain way and why they have changed.

Confusion

Only Henry and Mike expressed a sense of confusion. For both of them the confusion was related to work and they believed uncertainty by those around them as to what they could do. Henry was surprised at his supervisor s direction with work tasks while Mike found the indecision over his continuing employment confusing.

> *and I went back and Tim had to hold my arms up — and the other bloke he sent down the bottom painting pipes. Now why the hell did he do that, when I am on light duties? (Henry, p30, 14-6).*

> *I am back there doing a job and they can t say I can t do it if I am doing it, and they came back and said no thanks for your appeal we don t want to hang onto you. (Mike, p28, 120-22).*

Confusion, as expressed by Mike and Henry, was in relation to workplace incidents. They were both uncertain as to why things had occurred the way they had and they had some difficulty in understanding what had occurred.

Such confusion may lead to other concerns as are related in the next sub-theme of self-doubt.

Self-doubt

The self-doubt as expressed by the participants was directed at both their ability to work and how they now perceived themselves as a person. The effect of suffering from PTSD had altered the participants self-perception with many suffering from a period in which they lacked confidence not only in their work-life but in other areas of their lives as well.

I don t go out anymore, stay at home, or Mum and Dad s, don t like being in the house on my own much.   (John, p19, l2-4).

my confidence in my job plunged and as a result confidence in myself socially plunged. (Mike, p4, l6-7).

Both Mike and John displayed self-doubt. John had doubts about being on his own, he expressed concern about this relating not only to loneliness but also with his ability to remain sober without support. Previously he had used alcohol to help him cope with his PTSD symptoms.

For Mike the self-doubt was expressed through a loss of confidence in his job, which in turn affected him socially and he became withdrawn from his previous support network.

Henry expressed self-doubt by his ability to return to controlling a cherry picker, the job he was doing when the accident occurred. He had returned to operating cranes but was uncertain he could get back in the picker.

I mean I could go down and walk around the cherry picker and that, I mean if the cherry picker put me up in the air, you would feel like you right thing to say?   (Henry, p87, l5-7).

Self-doubt may occur in the PTSD sufferer due to this illness impacting so greatly on their perception of themselves as a person. Where as once they were able to manage certain tasks without any hesitation now that same task is threatening to them.

This altered self-perception may also impact on their levels of anxiety, increase their confusion and cause them to become frustrated. Another effect that these changes have is in causing increased stress for the person with the illness and often those around them.

Stress

Not all participants referred to the stress related to their condition and its treatment, those that did however discuss the stress related to work and the stress that their illness placed on their relationships.

> *I still have restless nights. But, that sort of, I think, that if a lot of stress from this case had been taken out of it, I think I would have been well and truly well by now, (Andrew, p35, l2-3).*

> *the Chinese herbalist gave me Chinese herbs for balance - .Because the stress triggered what she considered a bodily stress function (Sue, p26, l3-6).*

Andrew and Sue were the only participants that directly mentioned stress in their interviews. The other participants did not use the word stress in their dialogue but in describing the effects PTSD had had on them, they were describing a stressful situation. For John and Andrew this was when describing gaining recognition for their illness, while for Mike it was in explaining how he had appealed the original decision of the medical board. The ability to cope with stress is different for each individual so how they describe stress will also differ.

Following this sub-theme, is that of disappointment. This may incorporate elements of the other sub-themes but is a sub-theme on its own due to the way participants verbalised this feeling.

Disappointment

The disappointment experienced by some of the participants was directed towards the treatment they received from those in their workplace. Each of the participants has worked for the same employer for a number of years so there was an expectation that when they became unwell due to a work-related incident their employer and work colleagues would be supportive. This did not occur for all of the participants, all of the time. Whilst they could each speak of different people who had been supportive,

each of them was also able to describe incidents where things did not go as they expected.

For Sue her disappointment was in the way in which the psychologist appointed for her by the bank managed her and in the way her colleagues treated her over time. When she initially returned to work everyone was supportive but after this when she was still having difficulties people were less understanding.

> *The psychologist that I first saw was male and I didn t particularly like his style so I went to a female in the same firm and she was very good, but then I found her to be focussing on other issues (Sue, p18, ll-3)*

> *if you were not showing signs of stress or distress, people make the assumption that she was doing okay so slowly, slowly the support people just vanished. (Sue, p50, ll-4)*

The disappointment for Andrew was also felt in a number of areas, most keenly he expressed the disappointment of spending a life-time with the one employer, for whom he believes he has always given his best, and now he is not receiving the same goodwill in return.

> *28 years, and some of the stuff I ve done for them — pioneered the job safety procedures, lockout procedures, been involved in all of that being loyal to the company and setting it up the company s way from everybody s point of view .But now, they don t want to know me (Andrew, p92, ll-10).*

The disappointment felt by both Andrew and Sue may have in both cases been due to their expectations of how they should have been managed and a belief that their employers would look after them to a certain level. While both have expressed disappointment at how they were managed, further to this Andrew also expressed a feeling of discrimination in the workplace.

Discrimination/victimisation

The feelings of being discriminated against and victimised in the workplace are very subjective concepts. Only one participant discussed these concepts and was able to provide concrete examples of when this had occurred.

Andrew described his experiences from going from a trusted employee who had been given a number of responsibilities and career enhancement opportunities, to being overlooked for a position that the company had specifically trained him for. The position was given to a workmate who then had to do the courses they had previously sent Andrew to do.

> *They also sent me away for a fortnight and got me a Diploma in Safety and I never used it. So they just wasted their money there. (Andrew, p100, l5-6).*

The other participants did not indicate that what had occurred to them was discrimination. While they described situations that were not ideal they did not express as strongly as Andrew a feeling that they were being discriminated against.

Summary

The sub-themes that contributed to the major theme of anger all demonstrate the effects that PTSD has on the participants work-life and their personal lives. Each sub-theme contributes to the participants feelings of anger and as such has a negative impact on the PTSD sufferer.

The sub-themes also impact on each other and it is the way in which they integrate that leads the sufferer to experience feelings of anger. It can be seen that they have a cumulative effect, as each one builds the individual s coping mechanisms decrease and they have less ability to cope with the stressor so their eventual outlet is often expressed through anger.

Other Areas

Outside the two main themes that emerged from the interviews discussion also focussed upon treatment, the workplace, physical problems and the support or lack of it that each participant received. Each of these themes is important and provides further insight into the treatment of this group of individuals. Within these four areas participants offered mixed responses in how they were effected .

Treatment

As one focus of this study was to examine the treatment perceptions of the participants the responses received in relation to this are important. All of the participants were treated for their PTSD as outpatients. One did spend some time in a private hospital but continued to access his psychiatrist as an outpatient.

The treatments received ranged from counselling sessions with psychologists to the use of alternative therapies. All participants had on-going counselling with psychologists, one saw a psychiatrist at regular intervals while the other four had an assessment with a psychiatrist but no treatment. Three of the participants had some aspects of their treatment managed by their local doctor, particularly their medication management with four of the participants still on medication to manage some of their symptoms.

All of the participants when asked what they had found most useful about their treatment stated that being able to talk to their therapist was the most valuable thing.

> *Just talking. Basically talking about the job or basically right through what had been happening.   (Henry, p7, ll-3).*

> *it was mostly just talking about your symptoms and possible things you could do to make life better for yourself. (Mike, p12, ll-3).*

I found it really nice to have somebody that wasn t instructing me. They were just trying to guide me and encourage and support (Sue, p32, ll-3).

mainly just talking. A way to bring myself out or things like that. But mainly just talking. (Andrew, p72, ll-2)

went to a psychologist for some therapy talking mostly and some more testing. (John, p9, l2-3).

While each described the positive aspects of talking as therapy and had highlighted this as the most effective part of their treatment, for Sue and Mike there were also some concerns that they had with this at different points in their treatment. For Sue it related to the suitability of the therapist while Mike questioned the long-term benefit of continuing to talk to the therapist.

The psychologist that I first saw was male and I didn t particularly like his style so I went to a female in the same firm, and she was very good, sympathetic, but I found her to be focussing on other issues (Sue, p18, ll-4).

I found that after a while we were talking about the same things and there wasn t a lot of talk about trying to fix it. (Mike, p24, l2-4).

As Sue demonstrated she was prepared to change health professionals, until she received treatment that she felt was helpful to her. She was the only participant that sought treatment from alternative sources, consulting with both a Chinese herbalist and naturopath. She believed that her PTSD needed to be treated in a number of ways and looked towards the alternative therapies as treating the bodily stressors that she was experiencing.

Emotionally the psychologist worked really, really well for general health and well-being, the naturopath and Chinese herbalist worked really well. (Sue, p34, ll-4).

While Sue described finding the combination of therapies useful, three of the other participants also described utilising medications to help them cope with their symptoms along with the sessions with the therapist. They all remain on medication but did not place an importance on the use of this and only provided the information when asked directly if they were using medication or had during their treatment.

The participants that were still on the medication are all on anti-depressants. They described there use as being to help them sleep at night, or to cope with being a bit edgy.

> *Efexor 75mg, just one at night, and if I m a bit edgy during the day sometimes take a 35mg one. Was on serzone but not anymore, (John, p21, ll-3).*

> *Efexor, that s a double dose to help sleep. I still have restless nights. (Andrew, p35, ll-2).*

> *Oh yes, probably from the initial consult he put me on medication. Anti-depressants, tried a few actually. He tried arapax initially and the efexor and that didn t work so he put me onto aurorix and for a while there he was giving me an anti-psychotic thing. It was very helpful in relieving anxiety in pre-depressive people. I used it for a while but I didn t find it terribly helpful. (Mike, p18, ll-8).*

All of the participants received counselling with a therapist and four of them were also using other means, medication or natural therapies, to treat some of their PTSD symptomatology. Three of the participants described being taught other management techniques for certain PTSD symptoms.

John describes being taught to work through his panic attacks and learning to manage his anger. Sue was taught techniques to manage her anxiety, while Mike learnt assertiveness techniques as suffering with this illness had decreased his confidence.

> *used to get panic attacks and really angry easy, but have worked with (psychologist) to get through this. (John, p21, l3-4).*

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She (the psychologist) started working with coping mechanisms for anxiety and a bit of desensitisation as well. (Sue, p28, 11-2).

they (outpatient clinic) have a number of courses, the one I went on was focussing on using assertive techniques. (Mike, p14, 11-3).

The treatment received by the participants was varied. While it was all undertaken as outpatients with private practitioners, the treatment modalities that the participants were exposed to varied as did the benefit they received from them. Henry managed his PTSD symptoms through talking with his therapists, while the other participants saw the therapist as central to their recovery but had each complimented this with other therapies.

The Workplace

The participants involved in this study came from varied occupational groups and had varied experiences in their workplaces while trying to manage their illness and recover. They expressed positive feelings towards their acceptance at work however each described negative incidents that had occurred.

Many of these incidences were discussed when describing the theme of anger. For Andrew and John most of their issues lay with the workplace rehabilitation provider, while for Sue, Mike and Henry they could provide a specific example of a negative incident in their workplace. Henry described his experience with the superior giving him the job of rattling up bolts, which he couldn t manage, Mike the lack of support for his appeal against his medical discharge and Sue how the support within the branch slowly dwindled when she was no longer showing outward signs of stress.

It is unfortunate that when asked to describe incidents in the workplace that more description is given of the few negative incidents rather than the many positive incidents. The examples of positive comments relating to the workplace are brief.

my colleagues were pretty supportive. They don t force you to go up and do something if you can t do it. (Henry, p32, 12-3).

part of what the bank did was that I asked specifically to be taken out of the branch because I was having extreme anxiety attacks when I was getting ready for work, so they appointed me an external rehab provider and he was really, really good and he made the recommendation to OHS. (Sue, p56, 14-8).

the fire service has been great the guys have always given me support. (John, p23, 13-4).

These descriptions of the positive incidents indicate that support was received in the workplace however through the previous negative descriptions it is apparent that this support is not universal. While each of the participants have been confronted with negative incidents they have each continued to function within their workplace.

Physical Problems

The physical problems experienced by the participants were in two areas. For Henry and Andrew their traumas had caused physical injuries, in both cases burns, and it was this that they described when discussing physical issues. Sue however described the physical effects that the stress had caused her body and how the natural therapies helped to correct this.

the stress triggered what she (the Chinese herbalist) considered a bodily stress function because my liver wasn t functioning properly and a few other things, I developed irritable bowel. (Sue, p26, 14-7).

While the others did not describe any physical problems in detail, in discussing their medications both John and Andrew mentioned that these were taken at night to help them sleep.

Support

The concept of support or lack of it was highlighted by the participants. This was expressed directly by John and indirectly by the other participants when describing the journey they had taken from the onset of their symptoms until now.

Mum and Dad are great and have helped me heaps, they also understand (John, p35, 11-2).

The lack of support was described when relating the negative workplace issues previously discussed while the provision of support was received from colleagues and from their health professionals especially when offering the participant the chance to talk.

The information provided by the participants through these interviews gives an insight into the treatment progression for these PTSD sufferers. A number of themes have been highlighted as have issues surrounding the workplace, treatment perceptions, physical problems and support.

The aim of this study was to explore the treatment experiences of individuals with work-related PTSD, and while it is acknowledged that different occupational groups are confronted with different stressors, it was the perception of how the individual found their treatment for PTSD that was the focus.

The current literature available rarely explored the individual s perception of treatment, with the few studies that did, obtaining results from written self-reporting and questionnaires. Johnson and Lubin s 1997 study collected data on participants perceptions of different treatment components immediately following the treatment program and 12 months later. They used a questionnaire to gather the information which was completed by program participants but they questioned the reliability of self-reporting.

Similarly a 1996 study by Johnson, Lubin, Charney and Southwick, used a self-evaluation assessment to establish the effectiveness of different treatment programs. While the use of written evaluation tools is less time-consuming than individual interviews for the researchers it can limit the data collected and from whom it is collected. Different people experience difficulties expressing themselves when asked to write down the experience, others may find the structure of the reporting tool too limiting and it does not allow for elaboration or clarification of responses.

In interviewing the 5 participants for this study, a semi-structured interview was used to allow for the participants to explore different issues rather than narrowing the direction the interview was to take. It provided the option for the participant to have some control as to where the interview went rather than having a rigid framework for these interviews.

In providing this flexibility within the interview structure a number of themes were identified. As discussed within the results many of these themes were able to be grouped under 2 main headings, aspirations and anger, and described with respect to the positive or negative impact they had had on the participant. The more general themes of treatment perceptions, workplace problems, physical problems and support were discussed separately.

While for the purpose of discussion and analysing the participants responses the interviews were broken down into common themes and grouped accordingly, to view each theme in isolation does not allow a full understanding of each participant s treatment journey. For all of the participants there were both positive and negative aspects to how they had perceived their treatment although as is apparent from the analysis different themes were highlighted by each participant.

The number of positive sub-themes that were identified provide some direction for planning future PTSD treatment programs and also should provide others experiencing this treatment journey encouragement that there is a way to successfully negotiate this illness.

Similarly the negative themes identified should also provide others experiencing this illness the reinforcement that what they are feeling is not unusual in regards to their illness. The negative themes could also be used constructively when developing treatment programs as the ability to be able to express these feelings is an important part of the therapeutic process.

Recommendations

While this study was only able to recruit a small number of participants the insight they provided with regards to treatment was extensive however to capture more of this data a similar study with a larger number of participants from a wider range of occupational groups could be undertaken. An addition for future studies could include interviewing a person within the workplace management team to gain an understanding of their perception of their management of employees with this illness and if they believe any improvements could be made to the system.

A separate study could be conducted in relation to Workcover and other rehabilitation providers, not only in the area of PTSD but perhaps a broader study that would investigate concerns raised by some employees that have tried to access this system.

Further studies could investigate the use of alternative therapies as a treatment option when managing people with PTSD or could examine treatment modalities comparing responses between patients and nurses to provide data to enhance treatment options.

The data gathered in this study could be used as an education tool for nurses who facilitate treatment programs for PTSD sufferers, providing them with a greater understanding of the clients needs and offering the opportunity to plan treatment accordingly.

Conclusion

To gain an understanding of PTSD treatment and how those with this illness are managed in the workplace it was necessary to interview those that have experienced this. The data provided during the interviews could not have been obtained through another form as the response to each question was not only based on what the answer was but how the answer was given, in what context, the body language, the tone of voice. While the text is a rich source of information it is incomplete if these other aspects are not considered.

For the participants suffering with a work-related PTSD while altering their life, they have not allowed this to control their life. Much of the literature focuses on PTSD as a chronic illness and the repercussions it has on all aspects of a person s life but these participants have indicated that while they have needed lengthy treatment they have each been able to continue to function in their previous roles. It is uncertain if they are functioning to the same level as this data could only have been gained from their supervisor s but each of them perceives that they are still working well.

In discussing treatment perceptions each of the participants has highlighted the importance of having someone to talk to, to listen to them and to provide them with tools to manage their symptoms. None of the participants received inpatient treatment for their PTSD but were managed as outpatients by private health practitioners.

With regard to their management each of the participants indicated that they had at some stage during their illness been taking prescribed medications. This ranged from medications to help them sleep to others that helped reduce anxiety. Sue also used natural therapies provided by her naturopath and Chinese herbalist.

Each of the participants continues to receive some level of treatment, for most this is an occasional visit to their psychologist if they feel they are having any difficulties. Each has been taught management techniques particularly for anxiety and anger management.

The participants perceptions of their treatment in the workplace varied. For John and Andrew this could have been tainted by their ongoing battle with Workcover but only Andrew expressed overall problems in his workplace. For John the battle with the rehabilitation provider had been kept separate from his employer.

The other participants expressed varying levels of support from the employer and for varying lengths of time. This was most evident in Mike s case with his immediate supervisor prepared to offer him flexible work hours and a continuing position whereas the people managing him medically and administratively supported his discharge.

Overall the conclusion on the question of employer support is variable, with a number of factors to be considered, including the organisations ability to handle or manage people with PTSD and the concept of who is responsible in the employee being exposed to the initial stressor.

The aim of this study was to determine the perceived effectiveness of treatment for those who have suffered PTSD as a result of a workplace related incident. It also looked at the interaction with the workplace that the participants had following their incident and any ongoing issues while they underwent treatment. Generally the participants expressed positive thoughts regarding the treatments they had received, however the workplace attitudes were varied although each participant was able to distinguish between those that were supportive and those that were not rather than describing everyone similarly.

This study has provided each of the participants the opportunity to voice their feelings regarding all aspects of their treatment for PTSD. While for all of the participants there was a mixture of positive and negative perceptions regarding this treatment it is essential that all aspects are presented to provide a balanced view of this process.

ROYAL ADELAIDE HOSPITAL
Medical Administration & Services

8222 4139

4 May 2001

Ms A Garlick
DEPT OF CLINICAL NURSING
ADELAIDE UNIVERSITY

Dear Ms Garlick,

Re: "A study exploring the experiences of individuals who have undergone treatment for Post Traumatic Stress Disorder (PTSD) related to their occupation."
RAH Protocol No: 010505

I am writing to advise that ethical approval has been given to the above project. Please note that the approval is ethical only, and does not imply an approval for funding of the project.

Human Ethics Committee deliberations are guided by the Declaration of Helsinki and N.H. and M.R.C. Guidelines on Human Experimentation. Copies of these can be forwarded at your request.

Adequate record-keeping is important and you should retain at least the completed consent forms which relate to this project and a list of all those participating in the project, to enable contact with them if necessary, in the future. The Committee will seek a progress report on this project at regular intervals and would like a brief report upon its conclusion.

If the results of your project are to be published, an appropriate acknowledgment of the Hospital should be contained in the article.

Yours sincerely,

Dr M James
Chairman
RESEARCH ETHICS COMMITTEE

Appendix 2

Consent Form

Experiences of Individuals who have undergone treatment for work-related PTSD.

Investigator: Amanda Garlick RN

1.   The nature and purpose of the research project has been explained to me. I understand it, and agree to take part.

2.   I understand that, while information gained during the study may be published, I will not be identified and my personal results will remain confidential.

3.   I understand that I can withdraw from this study at any time.

Name of Subject: _____

Signed: _____

Dated: _____

I certify that I have explained the study to the participant and consider that he/she understands what is involved.

Signed: _____

(Investigator)

Appendix 3

Information Sheet

Welcome,

Thank you for agreeing to participate in this study. I am currently a student at the University of Adelaide and am undertaking studies towards a Doctor of Nursing. My focus is post traumatic stress disorder (PTSD). In particular I started looking at combat-related PTSD and am now focusing on work place related PTSD.

For this study I am hoping to examine the way those who have suffered from work place related PTSD have viewed their treatment, and if they believe anything could have been done differently. The results of this may then help shape future treatment programmes.

To achieve this I will interview a number of people about their experience, these interviews will then be transcribed with each person s confidentiality maintained by removing any identifying remarks. If you indicate that you would like a copy of the results I will forward these to you on completion of the study.

Participation in this study is voluntary, you may withdraw from the study at any stage without adversely affecting any future treatment.

If at any times you have questions arising from this study I can be contacted on (08) 8303 6289. For any questions regarding ethical issues related to this study you may contact the chairman of the Research Ethics Committee, Royal Adelaide Hospital, on 8222 4139.

Thank you for your time,

Amanda Garlick

Appendix 4

Call for Volunteers

(A letter to health professionals)

Dear   ,

I am a Doctor of Nursing student at the University of Adelaide and am currently undertaking studies relating to Post Traumatic Stress Disorder. The current research I am doing is focused on PTSD sufferers who have experienced a work-related trauma, have been treated for this and have returned to the workplace. I am investigating their perceptions of this treatment, any areas they believe could be improved and how they integrated back into the workplace.

I am seeking volunteers who have experienced this and would be willing to be interviewed by me on this subject for the maximum of 1 hour. If you know of anyone who might meet these criteria and would be interested in sharing this experience could you provide them with an information sheet explaining this study and if they would like to participate could you contact me on (08) 8303 6289 or (08) 8260 5115.

Thank you,

Amanda Garlick

Appendix 5

Sample Interview Questions

1. Could you describe the treatment you received for PTSD?

2. What was the length of this treatment?

3. Did you receive this treatment as an inpatient/outpatient/ a combination of both?

4. What part of the treatment did you find most helpful?

5. What part of the treatment did you find least helpful?

6. Are there any improvements that you believe could be made to the treatment programme that would have made it more beneficial for you?

7. Since completing the treatment and returning to work, have you found your employer and colleagues to be supportive?

8. If so in what way?

9. If not, how has this been demonstrated?

10. Do you feel comfortable at work?

11. Would you like to have a career change?

Appendix 6

Letter to Participants

Dear   ,

I have been contacted by Amanda Garlick, a Doctor of Nursing student at the University of Adelaide. She is currently doing research in the area of Post Traumatic Stress Disorder and is looking for participants for her latest study.

This will involve being interviewed by her for the maximum of 1 hour. The main area of interest will be how you felt about the treatment you have had for PTSD, if this could be improved and how you were supported by your employer during your treatment and upon return to work.

I have provided you with an information sheet explaining all of this that Amanda sent to me. If you have any queries regarding this I can contact Amanda for you and have her answer your questions.

Thank you,

(Health Professional)

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The Road Ahead

The three studies in this portfolio provide insight into PTSD, each from a different perspective. Study 1, a systematic review exploring the effectiveness of non-pharmacological interventions in the treatment of combat-related PTSD provided an overview of the current literature available on this topic and the varying quality of these studies. The recommendations from this systematic review included the need for further research in the area involving larger studies, standardisation of the testing scales used, the researchers to actually seek study participants opinion through interviews or questionnaires rather than relying solely on the testing scales and for more studies to be conducted by allied health professionals, other than psychiatrists and psychologists, to add to the scope of the current literature and body of knowledge.

In the second study the role of the nurse working in PTSD treatment programs throughout Australia was examined. The outcome of this study found that the nurses working within these programs do not have a definitive role but rather perform a number of functions and are employed in diverse positions. In each of the programs the nurse functions as part of a multidisciplinary team, with the nurse, psychologist and psychiatrist the three groups of health professionals common to all the accredited programs. While the number of nurses involved in these programs is only small the data they provided suggested a wealth of experience in the area of psychiatric mental health nursing and provided some insight into the areas of treatment they perceive as most successful in producing positive outcomes for the patient.

The third study concentrated on the treatment perceptions of 5 individuals who had been diagnosed and treated for a work-related PTSD and had returned to work. Rather than relying on testing scales to assess the effectiveness of each person s treatment, the participants were interviewed and given the opportunity to express what they perceived to be the positive outcomes of their treatment, and any areas they didn t particularly like or believed could have been done differently. The overwhelming positive aspect of treatment, as expressed by each of the participants, was the opportunity to have someone to talk to that they knew would listen and be able to offer them some guidance. For some to achieve this had necessitated a change of

therapist but others had been comfortable with their initial contact and all still maintained a therapeutic relationship with their therapist. All had workplace issues, relating mainly to management and each had negative experiences with rehabilitation providers. This study highlighted the treatment perceptions of the participants and also provided information on those participants who remain in the workplace following a traumatic event, a group of people who are adequately represented in the available literature. The participants in this study came from different occupational groups, this provided an opportunity to understand how those in different industries manage their staff with PTSD.

The three studies offer a different focus and provide further insight into PTSD and add to the currently available literature. The impetus for the second and third study came from the recommendations from a rigorous systematic review of the current available literature.

In reflecting on the elements of this portfolio not only must the findings and recommendations be taken into consideration but also the mechanisms used to reach these conclusions. In understanding both of these and appreciating how they impact on each other only then can a road ahead be hesitatingly mapped out.

PTSD is still a relatively new illness, a new name for a group of symptoms that were previously diagnosed in isolation. As such the research surrounding this is also only young so the road ahead may not be as influenced by the past as other areas of research can be. In this the opportunities for exploring, examining and documenting PTSD, the treatment of it and its impact are plentiful.

The future for PTSD research is multi-faceted with the need for greater collaboration between research centers and disciplines. Currently the focus for war-related PTSD is on Vietnam Veterans, a highly researched group, and for those with a non-war related PTSD much of the literature focuses on the aftermath of rape or sexual abuse, holocaust and disasters. While these two distinct groups provide the research opportunities those that suffer PTSD from causes other than these also need to be studied to see if there are any variations in outcomes and responses to treatments.

The other issue focused upon in the Vietnam Veterans literature is the chronicity of this illness and many of the treatment programs described include life-skills courses. Study 3 focused on those that had been treated for PTSD but had managed to continue in their workplace. The literature in this area provides little information on individuals who are in treatment programs and still engaged in formal employment.

Currently most of the current literature suggests that initial improvement regresses when treatment stops. However there is a need to represent in the literature the positive treatment outcomes for those with PTSD.

The lack of representation in the literature of the allied health professionals working within this area is disappointing. It is to be expected that as PTSD is a psychiatric illness that psychiatrists and psychologists would feature in the research but it is important that the other health professionals are able to offer their perspectives on what they contribute in this area and how their contribution impacts on positive patient outcomes.

In looking towards the future for the treatment of this illness there needs to be a broader focus when seeking study participants as the causes of PTSD are also broad. The involvement of health professionals other than the psychiatrists and psychologists needs to be highlighted with research from the perspective of these allied health professionals important to provide a balanced view of PTSD. However an important area of focus needs to be those that suffer from PTSD, the cause of their trauma, the assistance they receive and the outcomes they achieve both short and long-term.

While it is easier to measure immediate results prior it is the long-term effectiveness of the treatment that needs to be thoroughly assessed. This should be the goal of any future research into treatments for PTSD, not only to look at the client immediately post-treatment but to follow-up each client at regular intervals in subsequent years.

The future for PTSD research is full of possibilities as are the treatment options. Different treatments have been tried with varying levels of success and only through accurate documentation and research can each of these treatments be properly assessed. While one group of researchers grapples with viability of differing

treatments there is another group whose focus is on trying to unravel the physiology behind this to provide greater understanding as to why some are more susceptible than others.

For the nurse the future in this specialty area will be dependent on the trends in psychiatric mental health nursing. Already the nurses that provided information for study 2 indicated that their roles are varied, this may leave nurses in this area at a disadvantage and encourage management to use generic mental health workers in these positions rather than being nurse-specific. This shift is currently occurring in community based mental health teams across Australia. It is essential therefore that the nurses in these specialty areas, practicing within the specialty of psychiatric mental health nursing, establish themselves and the role of nurses as an integral part of the team that is not interchangeable with another health professional.

The impact that these studies may have on the Australian Defence Force is in the use and recruitment of psychiatric mental health nurses, recognized for their specialty skills, who may provide the necessary foundation for multidisciplinary mental health teams throughout the ADF and in deployable areas. Their skills could be used both in direct patient care and through a teaching role for other ADF health workers.

The recognition that people can return to work following treatment for PTSD is something that the ADF is currently considering. There are a number of issues involved in this but successful treatment outcomes are the motivating factor behind retaining members in the services.

Many theories regarding susceptibility have been discussed with many different tools used to try and screen out those more at risk than others but until a full understanding of the mechanisms that contribute to this stress response is available there is no guaranteed predictor for those who will suffer. So while we wait for the key to this illness to be found a concentration of efforts to providing successful treatment would be the most appropriate use of resources.