FINAL REPORT
'IDENTIFICATION OF CHARACTERISTICS AND PATTERNS OF MALE DOMESTIC PARTNER ABUSERS'

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Executive Summary

- One hundred men identified as domestic partner abusers were recruited for assessment from four community agencies in regional Victoria.
- Before participating in a Men's Behaviour Change Program, these men were assessed on measures pertaining to a range of physiological, psychopathological, personality, and cognitive variables.
- The 100 men were partitioned into two types based on the direction of their heart rate responses when participating in an analogue domestic conflict situation. Type 1 men were more assaultive, verbally aggressive and held stronger sexist attitudes than Type 2 men. They were more impulsive and more disinhibited than Type 2 men, and so resembled a sociopathic profile.
- The men were also partitioned into three groups based upon not only heart rate responses but also blood pressures and oxygen saturations (a measure of general arousal). The second group consisting of 44 men appeared to demonstrate some sociopathic tendencies.
- Thirty of the 100 men were re-assessed after participation in a Men's Behaviour Change Program, and 14 of these at six months' follow-up. Participation was associated with reductions in levels of anger, and apparent reductions in assaultiveness, and indirect and verbal aggression. However, the men identified in the previous analyses as initially exhibiting sociopathic-like characteristics evidenced more cynical hostility and stronger sexist attitudes after participation in the psycho-educational program.
- Fourteen women provided interviews to the researchers after their partners had participated in the Men's Behaviour Change Program. Six were also interviewed 6 months later. Although the number of women interviewed was small, their responses confirmed the questionnaire results that participation in the Men's Behaviour Change Program produced variable results, and did not have universal beneficial effects.
- We concluded that the Men's Behaviour Change Program was useful for many male domestic partner abusers, but that other options need also to be considered/developed for men with the characteristics identified above.

Background to Partner Abuse

Nature of Partner Abuse

In the most general sense, partner abuse has been defined as behaviour intended to control the victim, which results in physical, sexual, and/or psychological damage, forced isolation or economic deprivation, or behaviour that leaves the victim living in fear (National Crime Prevention: NCP, 1999). In nearly all definitions, it is assumed that partner abuse means abuse of the female by the male, though it is recognised that the reverse, albeit uncommon, also occurs (Gondolf, 1997; NCP, 1999).

According to McCue (1995), physical abuse has been regarded as abuse that results in physical injury, including pain. This is the most visible and agreed upon type of abuse. Although abusers often deny, excuse or minimise their behaviour to their partners, with physical abuse this is less easy to do (Gondolf, 1997, 1999). Emotional abuse relates to abuse that undermines the emotional well-being of the abused, including behaviour that leads to feelings of depression, anxiety, and unworthiness. To date, many believe that this form of abuse is one of the least easily recognised (Renzetti, Edleson & Bergen, 2001). Finally, McCue describes sexual abuse as particular types of sexual activity that causes distress to the victim within an ongoing dyadic relationship. This type of abuse may involve acts such as bribery, coercion, deprivation, may extend to marital rape, and is primarily motivated to exert power and maintain control in the relationship (NCP, 1999).

In relation to physical abuse, Holtzworth-Munroe and Stuart (1994) described three ways in which such abusive behaviours had been commonly classified: the severity of abuse; the potential lethality of the abuse, and the target of the abuse: inside or outside the family. Clearly, these categorisations focused on the acts of the abusers rather than characteristics of the abusers themselves. However, the NCP (1999) has suggested that the development of a well-defined abuser typology requires priority. In particular, they recommended the development of a comprehensive typology of male partner abuse to facilitate effective planning, funding, and targeted intervention in the area. In concert with these recommendations from the NCP,

several recent studies have also proposed that research into male partner abuse needs to direct more attention toward classifying specific types of abusers so that specific interventions can be targeted toward well-defined types of abusers (Gondolf, 1997; Gottman et al, 1995, 2001; Walker, 1995).

Classification of Abusers by Psychophysiology

Some recent research has classified abusers in terms of psycho-physiological processes that are associated with their abusive behaviour (Walker, 1995). Variables attracting interest include heart rate and pulse reactivity. This approach aims to extend previous systems of abuser typology by including a number of characteristics important to nosology, including psycho-physiological, behavioural, cognitive and personality variables. On the basis of heart rate reactivity, two distinct types have been identified to date: **Type 1** and **Type 2** abusers (Gottman et al., 1995; Jacobson, Gottman, & Short, 1995; Ornduff, Kelsey & O'Leary, 1995; Walker, 1995).

According to Gottman et al. (1995), Type 1 characteristics refer to a cluster of responses related to the abuser's under arousal in response to escalating conflict with his partner. Due to the suppression of sympathetic nervous system reactivity, under arousal results in lowered heart rate reactivity (HRR) that is particularly manifest in reductions in pulse rate, and increases in hypervigilance. In contrast to Type 1 abusers, Type 2 abusers show a set of responses related to over arousal in the face of escalating conflict, including an elevation of HRR. Complementary psychological responses include increases in emotional involvement, affectivity, and especially overt anger.

Subsequent to Gottman et al.'s (1995) results, a number of studies have produced similar findings, showing a reduction in the sympathetic nervous system reactivity of Type 1 abusers in the face of escalating marital conflict (Berns, Jacobson, Gottman, 1999; Coan, Gottman, Babcock & Jacobson, 1997). Behavioural characteristics associated with this type of abuser include diminished socialization, frequent unemployment, the use of aggression to control others, the rejection of partner influence with associated belligerence, and generalised episodes of violence in and outside the home. Jacobson et al. (1995) also found that in addition to hypo-reactivity, the Type 1 profile was associated with formal psychopathology consistent

with antisocial personality disorder such as committing criminal acts and generalised episodes of violence across a variety of settings.

Gottman et al. (1995) proposed that activation of the vagal nervous system may begin to explain the disposition of the Type 1 abuser, such as the characteristic deceleration of the abuser's HRR in response to marital conflict. In particular, they recognised that the activation of the vagal system has been associated with increased focus of attention accompanied by a heart rate reduction that seems to be parasympathetically driven. This vagal activation inhibits arousal, and in turn, increases the abuser's ability to shut out extraneous stimuli, focus on the task at hand, increase environmental awareness, and increase the abuser's control over the abused.

Jacobson et al. (1995) contended that Type 1 abusers engage in more severe violence than Type 2 abusers, and also inflict greater emotional abuse upon their partners. They are also more belligerent and contemptuous than Type 2 abusers. By contrast, the Type 2 abuser uses less alcohol, tends to be more intelligent, be better socialized, have a better work record, and usually lacks a criminal background, when compared with the Type 1 abuser (Gleason, 1997). Additional research from Tweed and Dutton (1998) also acknowledged two distinct types of abusers along psychophysiological lines. They contended that Type 2 abusers, in comparison to Type 1 abusers, tend to manifest violence exclusively within their intimate relationships, and also tend to experience a more volatile range of affectivity, including dysphoria, during conflict. They also suggested that Type 2 abusers have a greater propensity for emotional instability with self-reports of borderline personality disorganization, indicating higher levels of chronic anger and fearful attachment for this type of abuser.

Hostility, Anger and Partner Abuse

Several studies have observed hostility to be linked to high HRR in the context of domestically abusive behaviour. For instance, Brown and Smith (1992) examined the effects of exerting social influence or control on the cardiovascular responses of abusers in 45 married couples. Compared with husbands rationally discussing a problem with their wives, husbands employing verbally abusive behaviors displayed larger increases in systolic blood pressure, and associated increases in HRR during the

interaction. Furthermore, these physiological effects were accompanied by increases in anger and hostility. Similar results were found by Smith and Brown (1991) in an earlier study with 45 couples who engaged in discussion tasks, either with or without an incentive to exert control over their partner. They found that cynical hostility was associated with greater heart rate reactivity in husbands in both conditions; and with greater systolic blood pressure reactivity in husbands attempting to influence their wives. These results underscore an association between hostility and HRR, and suggest hostility may be higher in Type 2 abusers.

Dutton (1988) reported a number of hostility parameters that were more closely associated with abusive men than non-abusive men. He found cynicism and aggressive responding to be associated with abusive men. Nevertheless, according to a review by Seigman and Smith (1988), research into the linkage between HRR and hostility still requires clarification. They claimed that this research has lacked direction, and has failed to identify the basic questions that need further elucidation. Seigman and Smith (1994) were also concerned about the number of varied methodologies, perspectives and divergent findings regarding research investigating the links between hostility and HRR.

As with hostility research, some studies have observed anger to be linked with high heart rate reactivity (HRR), in the context of domestically abusive behaviour. In particular, Meehan and Holtzworth (2001) re-examined the results of 3 studies that measured heart rate reactivity (HRR) in male abusers. Their results lent some support to Gottman et al.'s proposition that HHR, hostility, anger and partner abuse may be linked although further research needs to be conducted to more clearly delineate these relationships.

Need for a Typology of Abusers

In summary, despite the limited interest shown in abuser typology research when compared to the entire effort given to research into partner abuse generally, it appears that a number of types of abusers may exist. Furthermore, some types of abuser may be distinguished on such basic grounds as physiological reactivity, and these may tend to manifest quite different profiles of abuse (Ornduff, Kelsey, & O'Leary, 1995). These authors claimed that much of the disquiet around the treatment, and other services that people in abusive relationships receive, stems

mainly from a failure to identify the different types of men in such relationships. Therefore, as a result of inadequate classification, treatment may be at times less than optimal. More effort needs to be devoted to the classification of subtypes of abusers, especially to the segment of this population that does not benefit from widely used psycho-educational interventions. In particular the relationships between variables such as heart reactivity, psychopathology, anger and hostility needs to be further investigated.

Treatment of Partner Abuse

Treatment for men involved in domestic partner abuse has generally involved approaches based on learning theory, psychodynamic theory, and social control (Davidovich, 1990; Walker, 1995). Nevertheless, in the domestic violence literature, the validity of the mechanisms underpinning these approaches, that is, that behaviour is learned or due to unresolved unconscious conflicts, is not well researched (Gottman et al. 1995). It is not surprising then, that Walker (1995) claimed that treatment approaches have generally been applied in ways that do not address the specific background or characteristics of the abuser.

Of the early interventions for partner abuse, those based on learning theory such as anger management were popular. This form of intervention typically provided information by which the abuser could develop new skills. Role-play and dialogue was often used in conjunction with relaxation techniques, and stress reduction strategies. The abuser was encouraged to practice non-abusive responses to challenging and potentially violent situations.

As with approaches based on learning theory, psychodynamic techniques were also popular in the treatment of partner abuse. The focus of therapeutic endeavour was to identify and resolve unconscious conflicts thought to be underpinning abusive behaviours. Nevertheless, despite the early popularity of psychotherapy, this primarily one to one approach was eventually found to be less effective than the emerging group approaches, such as those presented on psycho-educational lines.

Psycho-educational techniques became prominent early in partner abuse treatment, and remain ubiquitous today. Psycho-educational programs typically include educational instruction around power and control issues, gender role attitude restructuring and anger management. Participants also learn how to manage hostility and aggressive impulses (Arias & O'Leary, 1988). In current psycho-educational programs, the focus is on altering the attitudes of abusers by teaching new options, strategies and skills. Abusers are also expected to become responsible for their abuse, anger and violent behaviour. Finally, it is desirable within the psycho-educational framework that changes in the cognitions of abusers will be far-reaching. In particular, it is hoped that men will be transformed in a way that will lead to them, not only away from their previous abusiveness, but in addition, towards becoming active advocates for non-abusiveness.

Consistent with the expectations connected with psycho-educational treatments, these approaches have been found to be effective (Gondolf, 1997; NCP, 1999). In particular, Gondolf (1997) believed that the use of a psycho-educational approach helped guide men, in a structured way, through six successive stages including denial, behavioural change, and personal transformation. These stages embodied the development necessary for a process in which the men were able to progressively shed ties with their abusive behaviour. Gondolf believed that movement through all these stages was necessary if the abusers were to acquire permanent behaviour change, rather than receiving only short-term deterrence or requiring return to further counselling. Nevertheless, as with other early treatment approaches, such as the psychodynamic and learning approaches, the psycho-educational approach does not overtly consider the relationship between treatment and abuser typology, that is, it does not tailor intervention to individual abuser characteristics (NCP, 1999)

Recently, Hamburger (1997) reported that cognitive behaviour therapy (CBT), like psycho-educational intervention, is well suited to treating men who abuse their partners (NCP, 1999). Philosophically, CBT places behavioural responsibility for partner abuse, and its cessation, with the abuser. CBT approaches also provide systematic, empirically based methods to facilitate specific behaviour change and

cognitive re-structuring. Recent reviews also attest to the effectiveness of CBT techniques in the treatment of partner abuse (Hamburger, 1997; NCP, 1999). But again, the issues of typology are rarely addressed in CBT for partner abuse (Hamburger, 1997).

Specific Treatment of Abusers: Interventions Addressing Typology

As mentioned, little research has been conducted into the relationships of specific treatments to the typology of abusers (Gondolf, 1997; Gottman, 1995, 2001; Walker, 1995). However, Huss (2001) investigated the proposition that domestic violence perpetrators from a community sample would divide into 2 groups. The first group consisted of abusers who exhibited sociopathic characteristics. The second group comprised non-sociopathic abusers. Despite the presence of the antisocial subgroup, there was not a consistent distinction in outcome for sociopathic and non-sociopathic groups. Nonetheless, the antisocial group were particularly difficult to treat thus suggesting a link between typology and the treatment for partner abusers.

Further evidence for a link between typology and treatment was demonstrated by Gondolf (1997) who found that sociopathic and antisocial abusers were difficult to treat. Dutton and Starzomski (1993) and Gottman et al. (1995, 1983) corroborated concerns about the efficacy of psychotherapy outcomes for sociopathic abusers, especially when using psycho-educational interventions (Dutton & Starzomski, 1993; Gottman et al. 1995, 1983). According to Gottman et al. (1995) this may be particularly salient if psycho-educational interventions include impulse control training. Gottman et al. (1995) posited that Type 1 abusers are aggressive in the context of vagal activation and tend to be generally under-aroused during conflict. Therefore, Gottman et al. claimed that the teaching of impulse control for Type I abusers would probably represent a complete mismatch. Type 1 abusers are already predisposed to a type of pathological hyper-vigilance, underpinned by under-arousal that seems to promote unhealthy dominating behaviour. In short, potentially some forms of intervention may actually encourage Type 1 abusers to abuse. Consequently, Gottman et al. (1995) and others (Walker, 1995; Gondolf, 1997) claimed that Type 1 abusers may be better suited to longer-term psychotherapy, aimed at promoting enduring cognitive and behavioural change. Only further research can provide

answers about potential underlying mechanisms and also specific intervention approaches for the Type 1 abuser.

Several studies have demonstrated that abusers without significant antisocial psychopathology, those similar to Type 2 abusers, are more likely to have better treatment outcomes than abusers with antisocial psychopathology, that is, abusers related to a Type 1 profile (Dutton, 1988; Gottman, 1995; Gottman el al., 1995). In particular, Dutton (1988) claimed that about 60% of all men who presented for treatment for wife abuse engaged in abuse specific to their intimate relationships. These abusers were more related to the Type 2 abuser and had more positive treatment outcomes expectations than abusers who were more like the Type 1 abuser.

A review by Walker (1995) also indicated that non-sociopathic abusers seem to respond favourably to treatment. Nevertheless, evidence is emerging to suggest that this classification may not be unitary in that it may represent at least two sub-categories: those with psychopathology and those without. For example, Saunders (1992) identified two subtypes of this type of abuser, namely, family only aggressors (FOAs: non-sociopathic abusers without psychopathology), and emotionally volatile aggressors (EVAs: non-sociopathic abusers with psychopathology). FOAs reported lower levels of anger, depression, psychopathology, and jealousy and also reported being the least psychologically abusive and most satisfied in their relationships, when compared to EVAs. Saunders (1992) recommended that FOAs were much better suited to a psycho-educational approach when compared to EVAs, and that the FOAs were also much more likely to finish the program. In fact, Saunders claimed the EVAs may not be suited to a psycho-educational approach at all, but rather, they were probably better suited to long term individual or group psychotherapy.

Summary and Overview

Although there seems to be emerging evidence for the distinction between Type 1 and 2 abusers, more research still seems needed to confirm this classification. Furthermore, recent research pointing to a Type 2 subdivision, comprising those either with or without psychopathology, requires clarification, especially regarding the potential for differential responses to treatment. Similarly, while evidence seems to be growing for the contention that Type 1 and Type 2 abusers may benefit from

specific treatment approaches, it seems that only more research will clarify this (Walker, 1995). The importance of personality variables, especially in that they may assist in both the understanding and classification of abusive behaviours, also needs to be clarified. The emerging usefulness of anger and hostility towards helping to clarify a typology of abuse remains unresolved. To address these gaps in knowledge, the following research consists of two phases; the first aimed at identifying types of abusers, especially investigating the Type 1 / Type 2 distinction; the second aimed at identifying the relationships between typology and outcomes through participation in Men's Behaviour Change Programs conducted by community agencies in regional Victoria.

Study 1: An Investigation into Abuser Typology

Aims and Hypotheses

Study 1 was designed to investigate the typologies of domestic partner abusers. Fundamentally, it was intended to explore links between physiological variables and personality, cognitive, affective and behavioural variables. The aim was to investigate whether previous findings, such as the relationship between Type 1 typology and antisocial psychopathology, and the relationship between Type 2 typology and borderline personality disorder psychopathology, could be replicated. It was also intended to extend previous research by further clarifying the relationships between a range of personality, affective, cognitive and behavioural variables and the Type 1 and 2 classifications.

We predicted that psychopathology, particularly antisocial and borderline personality disorders, would distinguish between Type 1 and 2 abusers. Secondly, we predicted that measures of hostility, anger, sexist attitudes, tactics used in partner conflict and measures relating to frequency and severity of violence, would also distinguish between Type 1 and 2 abusers.

Participants

One hundred self-referred men, aged from 19 to 68 years (M = 45.2, SD = 7.2) participated in this study. Seventy-three men were currently employed, 17 were unemployed and 2 were between jobs. Of the 100 participants, 97 were Caucasian and 3 were Koori. Although all men had current contact with their partner, that is, contact within the last month, not all men were living with the partners. Sixty-three men were living with their partners and 37 were not. Men were recruited over 20 months through four organizations adhering to the 'No to Violence' guidelines. Specifically, from the Ballarat region 44 men aged from 19 to 56 years (M = 42.5, SD = 7.7) were recruited from Child and Family Services, Ballarat (CAFS); 15 men aged from 22 to 58 years (M = 43.1, SD = 8.8) were recruited from Ballarat Community Health Services (BCHC), and 30 men aged 21 to 59 (M = 39.1, SD = 8.2) were recruited from Uniting Care Outreach, Ballarat (UCOC). In addition, from the Melton region 11 men aged 24 to 55 (M = 37.7, SD = 10.1) were recruited from Djerriwarrh Health Services (DHS). That is, in total, 89 men were recruited from the

Ballarat region and 11 from the Melton region. Men were invited to take part in the research after they were identified as current partner abusers during the initial assessment interviews conducted by these organizations. Men who were deemed not to be currently in relationships and/or men who did not participate voluntarily were excluded from the study, for example, court mandated clients. Participation was therefore by informed consent.

Questionnaire Measures

Millon Clinical Multiaxial Inventory-3 (MCMI-3; Millon, 1994). The MCMI-3 is a 175 item true-false, self-report inventory. It is a reliable measure of clinical disorders and psychopathology. It is based on clinical samples and normed on individuals who have been diagnosed with clinical disorders. This widely used instrument has 22 clinical scales that measure clinical syndromes such as anxiety, somatoform, bipolar-manic, dysthymic and mood disorders, and also alcohol and drug abuse and dependence. It also measures personality disorders such as schizoid, avoidant, dependent, histrionic, narcissistic, anti-social, aggressive-sadistic, compulsive, passive-aggressive, self-defeating, schizotypal, borderline, and paranoid personality disorders.

State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). This is a standardized questionnaire that measures the experience and expression of anger. It measures state and trait anger, the latter of which has been demonstrated to consist of angry temperament (the temperamental disposition to experience and express anger without specific provocation) and angry reaction (the propensity to react with anger when treated unfairly, criticized, or frustrated). Four 8-item scales also measure anger-in: the tendency to suppress angry feelings; anger-out: the tendency to express anger outwardly toward other people or objects in the environment; anger control-in: the tendency to constructively manage suppressed anger; anger control-out: the ability to constructively manage outward expressions of anger; and a composite score, anger expression, that can be computed on the basis of these four scores, which is a measure of the total anger expressed, irrespective of direction.

The Macho Scale (MS; Villemez & Touhey, 1977). This scale has 28 items measuring individual differences in sex-role stereotypical beliefs. Each item is scored on a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). This gives a range of possible scores from 0 to 112. High scores on the Macho Scale indicate

more sexist beliefs about gender appropriate behaviour. High correlations have been found with other sex-typed scales (Andersen, 1978). Mazer and Percival (1989) found that the Macho Scale was strongly and positively related to their scores on the Sexual Harassment Attitude Scale.

Conflicts Tactics Scale (CTS, Schwartz; 1998). This scale is a widely used instrument in the field of spousal violence research. It is a standardized scale designed to measure the frequency and severity of 19 tactics used in relationships to resolve conflict, and is a well accepted measure of inter-partner violence. These tactics are grouped into 3 subscales that assess the use of reasoning, verbal abuse, and physical violence.

Cook Medley Hostility Scale (Ho; Cook & Medley, 1954). This questionnaire of 50 items is the most widely used measure of hostility. It is a self-administered true-false test in which high scores suggest attitudes and behaviours indicative of resentment, bitterness, cynicism, and mistrust of others. Five coherent subscales have been identified in this scale: Cynicism, Hostile Attribution, Hostile Affect, Aggressive Responding, and Social Avoidance. Nevertheless, it primarily measures the cognitive component of hostility.

Buss-Durkee Hostility Inventory (BDHI; Buss & Durkee, 1957). This inventory comprises 73 items. It is a commonly used measure of hostility that is a self-administered true-false test in which high scores suggest attitudes and behaviours indicative of suspicion, anger, cynicism, and negativity with respect to others. The BDHI is comprised of seven subscales designed to tap different manifestations of hostility. The suspicion subscale represents the cognitive component. Irritability and resentment subscales measure aspects of the affective component. Finally, four subscales assessed the behavioural component: assault, indirect hostility, verbal hostility and negativity.

Procedures

Counsellors at CAFS, BCHC, UCOC, and DHS recruited the 100 men for the study at their initial assessment sessions. These men had current relationships in which they admitted to, at a minimum, participating in non-physical controlling

behaviours, such as 'put downs', financial coercion. At these assessments, these men were given information about the research study and were also given a phone number to ring to initiate their involvement in the research. Participants were paid up to $75 for their involvement, that is, $25 for their initial assessment for phase 1 prior to their involvement in an intervention program (typology evaluation); $25 for a second assessment at the end of participating in a Men's Behaviour Change Program (MBCP) for 12 weeks (phase 2); and $25 when they presented for an assessment at six month follow-up after the MBCP. Not all men were eligible for testing in both studies. Only men referred via CAFS, BCHC, and DHS were eligible to be tested on all 3 occasions. Men referred from UCOC were not eligible for study 2 because its programs differed markedly from the other programs. In particular, though partner abusers accessed its programs and its material incorporated material to help partner abusers, its primary focus was on anger management. In contrast, the other programs specifically targeted partner abuse.

Participants were therefore tested once for Study 1. Men were asked to fill out a consent form, six questionnaires, and then baseline physiological measures were taken using the multi-parameter pulse-oximeter that involved non-invasive measures of heart rate, blood oxygen saturations, and blood pressure.

The six questionnaires completed were the MCMI-3, STAXI-2, MS, CTS, Ho, and the BDHI, as described above. The sequence of these tests was counterbalanced to control for any order effects. Participants were told to correct errors by crossing neatly through the wrong answer and then marking the correct answer. Participants with English skill or other difficulties that impeded questionnaire completion were given support by the research officer to facilitate test completion. The questionnaires took about 50 minutes to complete.

The men were then linked to the multi-parameter pulse-oximeter to assess their physiological responses to pre-recorded, simulated conflict situations. Upon commencement, after the quality of the signal was verified, the men were asked to sit quietly with their eyes closed for 2 minutes while baseline measures were taken. Once these were taken, the audiotape was started which featured three hypothetical conflict situations, recorded successively on a single tape. Each scenario was of 4 minutes duration. There was a neutral scenario, and two further scenarios designed to

engender jealousy and anger respectively. The men's physiological observations were taken at the end of each scenario, that is, at the 4, 8 and 12 minute marks of the tape. The men were encouraged to vividly imagine that they were involved in each scenario. On the tape, instructions were given about what role the men were hypothetically undertaking. The men were asked to continually monitor their thoughts and were given an opportunity to speak these into a second Panasonic tape recorder connected to a Seaview microphone (these data still have to be analysed). A tone, which sounded each 30 seconds and at the end of each scenario (eight segments per scenario), indicated to each man that he was free to express how felt or would have reacted in such a situation. The men were encouraged to say as much as they felt like, even if they felt it made little sense to them. The men, consistent with Eckhardt's design (1998), were given 20 seconds following the tone to express their reactions to the tape. Further, they were told to talk beyond the allotted time following the tone, if necessary. In practice, this was not necessary. However, few men did record anything on the tape.

Physiological measures were taken while the men listened to the tape. In a study similar to this one, Gottman et al. (1995) used a number of heart rate measures as estimates of autonomic and central nervous system arousal. Nevertheless, the critical 'physiological marker' they identified was basic heart rate (the pulse rate) measured by the electromyocardiogram (ECG), which measured successive R-wave spikes. The present study extended Gottman et al's physiological assessment, by including other estimates of central and autonomic nervous system and arousal, that is, blood oxygen saturations, and systolic and diastolic blood pressures.

The measure of heart rate (heart beats per minute) was derived by placing a finger clamp, which passes a cool red light through body tissue, on the non-dominant index finger of the participant's hand. In this case the light passed through the index finger and measured amplitudes of blood volume: the heart rate. The photoplethysmograph finger clamp was a variation on Gottman et al's (1995) procedure. It was considered to be an equally accurate measure of heart rate, with the added advantage of being less confronting, more comfortable, and somewhat more ecologically sound than connecting a set of ECG chest leads to the participant.

Blood oxygen saturations, a threshold measure of the red blood cells' ability to carry oxygenated blood around the body, were also derived using the finger clamp. The degree to which the blood is oxygenated affects the passage of the cool red light through the index finger. Decreases and increases in the passage of light results in decreases and increases in the oxygenation of the blood respectively, which allows an estimate of blood oxygen saturations to be made.

Finally, systolic and diastolic blood pressure were measured using a regulation blood pressure cuff (integral to the multi-parameter pulse oximeter) attached to the participant's dominant arm. Systolic blood pressure is when the pressure in the arteries is maximal: just following the constriction of the ventricles. This is effectively measured as the cuff is deflating, that is, the multi-parameter pulse oximeter registers the pressure at which systolic pressure overcomes the pressure applied to the arm by the cuff. The diastolic blood pressure is when the cardiovascular system is at rest: prior to the myocardial contraction cycle. Effectively, this is when the cuff deflates to a point at which the underlying pressure of the cardiovascular system it detected.

A multi-parameter pulse-oximeter was used to take these non-invasive physiological measures. This is a standard device used routinely in intensive care units and emergency departments of hospitals. It is specifically designed to safely measure a range of physiological variables. This instrument is also routinely used in research, especially in studies similar to this one. For all measures, the participant was asked to sit in a comfortable, upright position, and asked not to move excessively. However, it was explained that reasonable movements to maintain comfort would have no effect on the equipment readings.

The research officer who was a nurse was present as an additional precaution to assist in the event of any unlikely discomfort. In practice, there were no events requiring this intervention. As an added precaution, following testing, men were debriefed for 15 to 30 minutes (Eckhardt, 1998). The debriefing process was designed to explore any potential affective elements that may have arisen from the process. The men were also given an opportunity to discuss any concerns with one of the counsellors employed by Child and Family Services (CAFS) or Ballarat

Community Health Centre (BCHC). A counsellor at the University of Ballarat was also made available to the men in case they believed that the above counsellors were too well known to them, and/or that such a choice may influence their work in the 'abusive men's programs'. None of the men required such counselling support.

Men were also asked if they wished to participate in follow-up testing, that is, after they completed the 12 week program, and then again at follow-up six months after that. On these two testing occasions, the above testing was re-administrated except for the MCMI-3 because personality traits are considered to be stable overtime. The men were paid $25 on each follow-up testing session in which they participated.

Men were also asked for their permission to have their partner contribute to our knowledge about patterns of abusiveness. The men were told that their partners would be asked to fill out the CTS (that monitored levels of abusiveness in relationships in this study) and also asked to participate in an interview. Only the participant's partner and University of Ballarat research staff knew the time and place of the confidential interview. This security measure was undertaken to prevent any additional abuse being directed at the women because they chose to become involved in the research. The men were also told that any information about them, including whether or not they were prepared for their partners to be involved in the research, would not be made available to the staff at CAFS, BCHC or DHS. In particular, the men were informed that any decision they made about their partner's involvement did not influence any decisions made about them and their involvement in the program.

Finally, the men were thanked for choosing to be involved in this study and were reminded that they were both free to withdraw consent and free to discontinue participation in the study at any time. The men were reminded of the importance of their contribution, in that they were helping to advance understanding of the nature of men's partner abuse.

Data Analyses

Data were analysed using SPSS for Windows. Measures included the physiological variables of heart rate, oxygen saturations, and blood pressures; the psychological variables of anger (encompassing state and trait anger, anger-in, anger-

out, and anger-control), and hostility (including the dimensions of cynicism, hostile attribution, hostile affect, aggressive responding, social avoidance, suspicion, irritability, resentment, assault, indirect hostility, verbal hostility and negativism); personality variables relating to schizoid, avoidant, dependent, histrionic, narcissistic, anti-social, aggressive-sadistic, compulsive, passive-aggressive, self-defeating, schizotypal, borderline, and paranoid personality disorders; the existence of clinical syndromes; and the behavioural variable of aggression (from the Conflict Tactics Scale, including the dimensions of reasoning, verbal aggression, and physical aggression); and sexist attitudes. The assumptions of normality, linearity, multicollinearity and singularity were satisfied for all variables.

Results

Discriminant Function Analyses to determine measures distinguishing between Type 1 and Type 2 abusers

The Type 1 group consisted of 47 men, and the Type 2, 53 men. A set of six separate discriminant function analyses were performed in order to determine which physiological and psychological measures distinguished between these two groups.

In the first discriminant analysis, the physiological variables (heart-rate, blood pressures and oxygen) jointly distinguished significantly between Type 1 and 2 abusers, $\chi^2\,(14) = 30.19, p < .01$. The loading matrix of correlations between predictors and discriminate functions suggested that the best variables for distinguishing between Type 1 and Type 2 abusers were heart-rate during the control (or neutral) scenario, where it was higher for Type 1 abusers (as it was during the baseline measure), and diastolic blood pressure associated with the anger scenario, where it was higher for the Type 2 abusers. That is, in comparison to Type 2 men, Type 1 men had higher heart rates both before listening to any scenarios and during the neutral scenario, but during the anger scenario, their heart rates fell in comparison to those of the Type 2 men which rose (this differential pattern of heart rate response from baseline to the anger scenario was how the men were originally partitioned into Type 1 and 2 abusers). By contrast, during the anger scenario, the diastolic blood pressures of the Type 2 men were higher than those of the Type 1 men.

A second discriminant function analysis determined if the hostility measures (from the Cook Medley Hostility Scale and the Buss Durkee Hostility Inventory)

distinguished between the Type 1 and 2 men. For this analysis one discriminant function was calculated which was significant, χ^2 (14) = 25.62, $p < .05$, thereby suggesting that these variables overall discriminated between the two groups. The best predictors for distinguishing between these types of abusers were assaultiveness, verbal aggression and endorsement of aggression as a legitimate problem solving strategy. The Type 1 men scored more highly on the first two variables but the Type 2 men had higher scores on the third variable.

The third discriminant function analysis found that sexist attitudes distinguished between the Type 1 and 2 men. The discriminate function was significant, χ^2 (1) = 4.4, $p < .05$, showing that men who scored higher on sexism were significantly discriminated as Type 1 rather than Type 2 abusers.

The next three discriminant function analyses investigated whether self-reports of conflict tactics with partners, measures of anger and more general measures of psychopathology distinguished between the groups. None of the three discriminant functions were statistically significant. That is, the Type 1 and 2 abusive men could not be differentiated on the tactics they said they employed when engaged in conflict with their partners, nor on their self-reports of angry affect and behaviours more generally. There appeared to be no differences between the groups on the degree of psychopathology they experienced – this included Axis 1 clinical disorders, as well as Axis 2 personality disorders. Nevertheless, the mean group scores suggested that Type 1 men may have displayed more hypomanic or disinhibited behaviours, but this was only a trend.

Principal Component and Cluster Analyses to identify groups based on all physiological variables

A PCA was performed to investigate groupings of physiological measures. The analysis revealed a four component (rotated) solution. The first factor consisted of the heart rate measures at baseline, and during the neutral, jealousy and anger scenarios. The second consisted of systolic blood pressure measures at these times, the third, diastolic blood pressure and the fourth component consisted of measures of blood oxygenation during these four periods. This 4-component solution explained 78% of the variance.

The next step involved determining whether distinct groupings of participants could be identified based upon their factor scores. Factor scores calculated from the PCA were used in a subsequent hierarchical cluster analysis followed by K-Means cluster analysis. This produced a three-cluster solution, that is, with three subgroups identified. Thirteen men in Physiological Group 1 (PG1) were characterised by being primarily heart rate responders – they were identified as a group by consistency in heart rate responding but not by consistency in systolic blood pressure nor in measures of oxygenation. However, there was consistency in their diastolic blood pressure responding to some extent. Consistency in heart rate, systolic blood pressure and blood oxygenation responding identified the 44 men in Physiological Group 2 (PG2) but they were not consistent diastolic blood pressure responders. The 43 men in Physiological Group 3 (PG3) were characterised almost exclusively by consistency in diastolic blood pressure responses while listening to the various scenarios.

Discriminant Function Analyses to investigate measures distinguishing between PG1, PG2 and PG3

Separate discriminant function analyses were conducted to determine whether the psychological and psychopathological variables distinguished between these three physiology groups.

Non-significant results from discriminant function analyses showed that the three groups could not be distinguished from each other on self-reports of the tactics they used in conflicts with their partners, nor on sexist attitudes, nor on self-reports of angry affects and behaviours (although there was a non-significant trend for those in group 3 to report that they were better at managing suppressed anger). Measures of hostility also did not discriminate between the three groups.

Discriminant function analyses were also conducted to determine whether the measures of psychopathology distinguished between the three groups. On Axis 2 variables, that is, measures of personality disorder, the three groups could not be differentiated. Significance was obtained however, when scores on measures of Axis 1 variables, that is measuring clinical disorders, were analysed, χ^2 (20) = 36.41, $p <$ .05. The results indicated that PG2 differed from PG1 and PG3. PG2 was more likely

to abuse drugs, more likely to exhibit excitable, disinhibited behaviours, but less likely to be consistently depressed or dysphoric.

Summary

Support was found for the Type 1 and Type 2 abuser distinction. The men could be clearly discriminated as one type or the other based upon their heart rates in the anger conflict scenario in comparison to their baseline heart rates. Moreover, the Type 1 abusers had higher lower diastolic blood pressures than the Type 2 men in the anger scenario. As expected, the Type 1 men had higher levels of assaultiveness and higher levels of sex-role stereotypical attitudes, but lower levels of verbal aggression than Type 2 men. Contrary to expectations, Type 1 men were less likely than Type 2 men to endorse aggression as a problem-solving strategy.

We conducted a second set of analyses to determine whether this cohort of men could be more clearly partitioned into groups if all physiological variables were considered. We did indeed identify three clear groups based upon all physiological variables, but almost none of the various psychological measures used in this study discriminated between them. The only exception was that the second group (PG2) appeared more likely to abuse drugs, to exhibit excitable, disinhibited behaviours and to be less prone to dysphoric moods than those in PG1 and PG3. With such characteristics, these men may not be very responsive to psycho-educational programs such as the Men's Behaviour Change Program.

Phase 2: Responses to Men's Behaviour Change Program

Aims and Hypotheses

This phase of the research investigated whether the different subgroupings of male abusers identified in Phase 1 responded differently to the Men's Behaviour Change Program (MBCP). We initially compared the responses of Types 1 and 2 men, and then compared the responses of the three subgroups that were based on all physiological measures (PG1, PG2 and PG3). Change was assessed on measures of anger, aggression, hostility, conflict tactics with partner and sexist beliefs.

We predicted that Type 1 men would be less responsive to the MBCP than Type 2 men; and that men in Physiological Group 2 would be less responsive to the MBCP than men in Physiological Groups 1 and 3, because the former were more likely to abuse drugs and to exhibit excitable, disinhibited behaviours.

Participants

At the end of their initial assessment session (phase 1), men were asked if they were willing to be contacted again at 12 weeks after they had completed the intervention program, and then again 6 months after they had completed it. Contact was made by phone to those who consented.

Of the 100 men who completed the initial testing for study 1, 30 participated in the assessment at the end of their 12-week intervention. The age range of these 30 men was 19 to 58 (M = 43.8, SD = 8.4) and all were Caucasian. Twenty-one of these men were living with their partners and 9 were not. More specifically, from the Ballarat region 16 men aged from 19 to 55 years (M = 40.5, SD = 10.6) were recruited from Child and Family Services Ballarat (CAFS), and 8 men aged from 24 to 51 years (M = 41.1, SD = 11.8) were recruited from Ballarat Community Health Services (BCHC). In addition, from the Melton region 6 men aged 22 to 54 (M = 39.8, SD = 12.2) were recruited from Djerriwarrh Health Services (DHS). In total therefore, 24 men were recruited from the Ballarat region and 6 from the Melton region.

At the 6-month follow-up this study pool was further reduced to14 men. The age range of these 14 Caucasian men was from 23 to 51 (M = 38.2, SD = 12.1). Nine of these men were living with their partners and 5 were not. More specifically, from the Ballarat region 7 men aged from 23 to 51 years (M = 38.5, SD = 13.6) were recruited from Child and Family Services Ballarat (CAFS) and 4 men aged from 24 to 49 years (M = 39.6, SD = 14.8) were recruited from Ballarat Community Health Services (BCHC). In addition, from the Melton region 3 men aged 25 to 46 (M = 39.8, SD = 14.2) were recruited from Djerriwarrh Health Services (DHS). In total therefore, 11 men were recruited from the Ballarat region and 3 from the Melton region. Data from these 14 men have been included in the tables so that follow-up trends may be observed but have not been statistically analysed because of the low numbers. For example, at the follow-up assessment, there were 8 men in the Type 1 group and only 6 in the Type 2; and there were 11 in PG3, 2 in PG2 and one in PG1.

Men were also asked for permission for us to contact their domestic partners after they had completed the MBCP. All the men who took part in the major study were approached but only a small proportion gave permission for their partners to be invited to participate in this project.

Fourteen women subsequently participated in an initial interview with a female research officer who was a social worker with many years' experience working with women and children who had experienced violence at home. The women who participated in this project were all partners of men involved in the Men's Behaviour Change Program (MBCP) at Child and Family Services, Ballarat (CAFS) or Ballarat Community Health Centre. Eight of these were partners of Type 1 abusers, and the remaining 6, partners of Type 2 abusers. Eight of the 14 were living with their partner at the time of this interview (i.e. immediately after he had completed the Men's Behaviour Change Program). Most of the women were in paid employment outside the home, generally on a part-time basis although a few worked full-time. A few were fulltime mothers and one was a full-time carer. Six women agreed to be interviewed again 6 months after their partner had completed the Men's Behaviour Change Program, that is, at 6-months' follow-up.

Procedure

Male abusers. Thirty men were re-assessed after they finished the 12-week men's program, that is, 12 weeks after the initial assessment performed in phase 1. At 6-month follow-up, the 14 men remaining in the research program were again tested. The remaining 16 either could not be contacted or were not willing to be reassessed. At both assessments all the testing procedures undertaken in study 1 were repeated, except for the MCMI-3, which primarily investigates personality disorders, considered to be relatively stable.

At the end of the second assessment, the men were thanked for their involvement in this study and asked about their participation at the 6-month follow-up. Men were paid $25 for each of these two assessment sessions that they completed.

Partners of abusive men. As stated, to provide a more comprehensive measurement of the levels of partner abuse and to contribute to a greater understanding of partner abuse generally, the partners of men who gave consent were invited to participate in the study. This invitation involved sending a letter to the partners at the end of the men's 12-week program, which included a consent form and a CTS scale. If, after 2 weeks, there was no response from the women, then the female research officer, assigned to interview the partners, phoned them to see if they had received the letter and/or wanted to be involved in the research. For those women who chose to return the consent form and CTS scale, an appointment time for an interview was made with the interviewer. Participation in the interview included the exploration of qualitative themes relating to abuse. Of particular interest were themes related to changes made by the abuser over the 12-week program and the women's views of their partners' behaviour generally.

Similar to the above process, a second letter was sent out to the women at a six-month follow-up. The letter invited them to participate in their second interview. The women sent back a completed CTS scale with their acceptance for the second interview. Both interviews took between 40 and 60 minutes each.

The women were informed that the information provided by them was confidential and would not be disclosed to the men participating in the research or to the staff at CAFS or at BCHC. All information they provided had a codename

attached to it, not their own name. To minimise any potential pressure that may have been placed on the women, partners of the women were not informed where nor when the interviews took place. At any time, the women were able to contact the researcher, or the counsellors at CAFS and BCHC to discuss any questions or concerns that may have arisen for them. The women were also reminded that they were free to withdraw consent and to discontinue participation in the study at any time.

Extensive field notes were taken during the interviews. Anonymity was protected by the following measures: the chief research held the master copy of names, addresses, etc. The research assistant had access only to the first names and telephone numbers of the women. The notes of interviews were numbered in code, and the code sheet was stored separately to the interview notes. Names mentioned during the discussions were not recorded.

Similar to the debriefing process for the men, and again to promote participant comfort, the women were debriefed for 15 to 30 minutes. The debriefing process was designed to allow the women to explore any affective elements or any concerns that may have arisen from the research. The women were also informed how a counselling session, if necessary, could be arranged for them to discuss any questions or concerns with one of the counsellors employed by Child and Family Services (CAFS) or Ballarat Community Health Centre (BCHC). A counsellor at the University of Ballarat was also made available to the women in case they believed that the above counsellors were too well known to them or their partners. None of the women required such counselling support. Finally, in recognition of their time, they were paid $20 for each interview session in which they participated.

Quantitative Data Analysis

SPSS for windows was used to analyze the quantitative data. Independent variables were group membership and testing occasion which corresponded to assessment results before and after treatment. The principal aim of these analyses was to investigate relationships that may have existed between typologies and program outcome. A series of within and between subjects MANOVAs were used to assess the effects of the Men's Behaviour Change Program in relation to the psychological and behavioural variables. Testing of assumptions of multivariate normality,

homogeneity of variance-covariance matrices, linearity, multicollinearity and singularity, and homogeneity of regression were conducted and were satisfied.

Results

Type 1 and Type 2 abusers

There were 15 Type 1 and 15 Type 2 men assessed after intervention. A multivariate analysis of variance was performed on the three STAXI-2 anger composite measures: state anger, trait anger and anger index (a measure of total anger expressed) with the between-subjects variable being Type 1 and Type 2 abusers. The within-subjects variable was occasion with two levels (pre-test and post-test). No data were missing, nor were there univariate or multivariate outliers at $\alpha = .01$. Cell means and standard deviations for the variables by group and occasion are presented in Table 1. There was a significant multivariate effect for occasion on the three anger variables together (state, trait and overall anger expressed), $F\ (3, 26) = 5.86$, $p < .01$, $\eta^2 = .40$. Univariate tests showed that trait anger, $F\ (1, 28) = 13.78$, $p < .001$, $\eta^2 = .33$ significantly decreased from pre-test to post-test, for both groups together. The two groups did not differ in their rate of change on this measure. Trait anger is composed of angry temperament and angry reaction, both of which individually showed significant decreases for both groups of men in the following data analysis, although the multivariate effect was not significant.

A multivariate analysis of variance was performed on the nine separate STAXI-2 anger measures: state anger (feelings, verbal and physical); trait anger (temperament and reaction); anger (out and in) and anger control (out and in). No data were missing, nor were there univariate of multivariate outliers at $\alpha = .01$. Cell means and standard deviations for these measures by group and occasion are in Table 2. There were no significant main effects for group or occasion nor was the interaction of group by occasion significant, although there were nonsignificant trends as mentioned above.

Multivariate analyses of variance were performed on self-reports of tactics when experiencing conflict with one's partner (Conflict Tactics Scale; Table 3) and on measures of hostility from the Buss Durkee Hostility Inventory (Table 4). There were no significant effects on any of these analyses showing that the two groups did

not change on these measures as a result of treatment. Nevertheless, some non-significant trends were observed for the Buss-Durkee measures. Subsequent to intervention, both groups tended to show decreases on measures of assaultiveness, indirect aggression and negativity.

A multivariate analysis of variance was performed on the Cook Medley Hostility Scale measures: cynicism, hostile attribution, hostile feelings, aggressive responding, and social avoidance. No data were missing, nor were there univariate or multivariate outliers at $\alpha = .01$. Cell means and standard deviations for all variables by group and occasion are in Table 5. There were non-significant trends for the group by occasion multivariate interaction to be significant, $F\ (6, 23) = 2.26$, $p = .07$, $\eta^2 = .37$. No significant main effects were observed. Univariate analyses and inspection of the means shows that subsequent to treatment, cynicism scores for Type 1 abusers increased while those for Type 2 abusers decreased, $F\ (1, 28) = 4.07$, $p < .05$, $= .13$.

A univariate analysis of variance was performed on sexist beliefs, from the Macho Scale. No data were missing, nor were there univariate or multivariate outliers at $\alpha = .01$. Cell means and standard deviations for the variables by group and occasion are in Table 6. The group by occasion interaction was not significant. There was however, a non-significant trend for a main effect for occasion, $F\ (1, 28) = 3.4$, $p = .07$, $\eta^2 = .11$. In conjunction with the means, it appeared that sexist attitudes for both Type 1 and Type 2 abusers tended to increase over treatment.

PG1, PG2 and PG3

Five men from PG1, 11 from PG2 and 14 from PG3 were re-assessed after the MBCP. A multivariate analysis of variance was performed on three composite measures of anger: state, trait, and total anger experienced (Table 7). No data were missing, nor were there univariate of multivariate outliers at $\alpha = .01$. The group by occasion interaction was not statistically significant. However, the main effect for occasion was significant, $F\ (3, 25) = 5.89$, $p < .01$, $\eta^2 = .41$. Univariate tests, in conjunction with the means showed that both state anger, $F\ (1,27) = 5.91$, $p < .05$, $\eta^2 = .18$ and trait anger, $F\ (1,27) = 13.72$, $p < .001$, $\eta^2 = .33$, significantly decreased from pre-test to post-test for all three groups together.

A multivariate analysis of variance was also performed on the nine separate STAXI-2 anger measures: state anger (feelings, verbal and physical); trait anger (angry temperament and angry reaction); anger (out and in) and anger control (out and in). Again there were no significant group by occasion interactions or main effects. However, there was again a non-significant main effect for occasion, F (2, 22) = 2.41, p = .07, η^2 = .50. Univariate tests, in conjunction with the means (Table 8) indicated that angry temperament, F (1,27) = 8.42, $p < .01$, η^2 = .23, angry reaction, F (1,27) = 6.75, $p < .05$, η^2 = .20, and anger control-in, F (1,27) = 6.95, $p < .05$, η^2 = .20, all decreased over treatment for the groups as a whole.

A multivariate analysis of variance was also performed on the six measures of partner conflict. No data were missing, nor were there univariate or multivariate outliers at α = .01. Cell means and standard deviations for the measures by group and occasion are in Table 9. There were no significant group by occasion interaction effect or main effects. However, there was a non-significant main effect for occasion, F (2, 22) = 2.11, p = .09, η^2 = .36. Univariate tests, in conjunction with the means indicated that the self-reported use of verbal aggression in conflict with partners, F (1,27) = 5.91, $p < .05$, η^2 = .18, decreased from pre-test to post-test for the abusive men.

Multivariate analyses of variance were each performed on the Buss Durkee (Table 10) and Cook Medley (Table 11) hostility measures. There were no significant group by occasion interactions or main effects. No trends we detected.

A univariate analysis of variance was performed on the measures of sexist attitudes. No data were missing, nor were there univariate or multivariate outliers at α = .01. Cell means and standard deviations for the variables by group and occasion are in Table 12. The group by occasion interaction was statistically significant, F (2, 27) = 3.61, $p < .05$, η^2 = .211. The group means show the interaction effect clearly. Over treatment, sexist attitudes for men in group 2 increased markedly while scores for those in groups 1 and 3 remained stable.

Summary

In summary then, for the cohort of 30 men who agreed to be assessed a second time, participation in the MBCP was associated with decreases in levels of angry affect, and probably both a reduction in angry temperament and angry reaction. That is, the men reported they became less hot headed and less likely to react with anger when criticised or when they perceived they were dealt with unfairly. It appeared that overall they were experiencing less anger after involvement in the MBCP. There were also trends for them to report lower levels of assaultiveness, negativity, and verbal aggression.

There were however, some undesirable effects of participation in MBCP for some men. Type 1 abusers increased in cynicism (as one component of hostility) over the course of the MBCP whereas for Type 2 men this measure of hostility decreased. Furthermore, the men in PG2 (more likely to abuse drugs, more excitable and disinhibited) had stronger sexist attitudes after treatment whereas there was very little change for men in the other two groups. As predicted therefore, subtypes of male abusers appear to respond differently, at least on some variables, to the standard MBCP.

The women's responses – first interviews

These are the results of the interviews with the first cohort of 14 women. They were conducted after the men had completed the MBCP or while they were in the process of doing so.

Her issues: Comments by many women reflected changes that their partner's participation in the MBCP had wrought in the women themselves, as well as their belief that the changes in the men's behaviour were directly attributable to the MBCP (*His doing the program has made me stronger*) They reported feeling more relaxed, more able to let their partner take responsibility for his behaviour, and supported by the contacts the women had with the therapeutic team from CAFS. Women said that the contact they had with other women whose partners were involved with MBCP was useful. Some women talked about the effort they have expended (*It's tiring being his support though… it can't go on forever*). Some women commented that their

expectations of the program had been met, with qualifying remarks by some which indicated their expectations had been low, and those low expectations had been affirmed. Some spoke of hoping that their partner's attitudes would be challenged and changed, but sometimes this had unexpected results (*Things started going downhill when the leader criticized him and he felt picked on*).

Other women spoke of noticing a general change in the demeanor of the men (*I didn't notice his road rage was bad before, but it's much better now*). Others were disappointed that the hopes they had entertained had been dashed, even commenting that their partner's behaviour had deteriorated further since contact with MBCP, and that the program had not been completed. Others spoke of initial elation at positive changes in their partner's behaviour, but then of growing apprehension that it may only be temporary. Some women commented that they did not expect much improvement as their partner was not committed to change and only participated in the MBCP to please others (*He did it to please me and his family so he could have contact with his children*).

Some women talked about having experienced violence in previous intimate relationships, and described violence in their families of origin (*I always said I'm not going to marry someone like Dad*). Women described how they loved their partners because the men had '*rescued*' them from previous violent relationships. Some of the women said that their partner blamed them for his behaviour (H*e says: you made me do it*). Others said they felt responsible for their partner's behaviour, blaming themselves and their behaviour for the men's violence and aggression towards them.

Some women mentioned that, since he commenced participation in the MBCP, they were coming to realize that he owned the problem, and that his behaviour was not their fault. A number of women talked about how they had always placed the responsibility for his behaviour firmly at the feet of their partner. Women also spoke of what they saw as their own contribution to violent episodes, for example, assaulting their partner, verbal abuse (*I'm the psycho one – I hit him, he's never hit me; I had fixed ideas about things around the house and thought if it wasn't done, his anger was my fault*). Some women minimized the violence they had experienced (*It was only verbal violence; he never hit me; he only hit me once*).

The women talked about having been separated, often more than once, during their current relationships. The person initiating the separation was sometimes the woman, (*I left when he threatened me with a gun*); sometimes the man. Responsibility for reconciliation had also been shared – sometimes the women made the first move, sometimes the men (*He usually makes the first move, crying, pleading, promising*). Other women had not experienced separation during the course of their current relationship. Of those separated from their partners, some women had no intention of reconciliation, others expressed clear conditions under which this could occur, and others were happily anticipating being a couple with their partner again.

Women spoke of their love and affection for their partners, with some clarifying this (*I love him, I just want him to stop hitting me; I love him because he's caring, thoughtful and compassionate*). Some, however, talked of having loved him once, but not now, with no intention of reconciliation. Others spoke of not being interested in men any more, just in getting themselves *'sorted out'*.
Some women spoke of their own recreational drug use, mentioning that that behaviour had diminished as their partner's behaviour improved (*I've been clean now for more than a month*).

Her perception of his issues*:* Some women talked about their partners manifesting positive behaviour changes since their involvement with the MBCP (*The course helped him to work out what he was doing wrong; He's realizing what he's doing – he used to think the way he carried on was normal; his binge drinking has stopped*). They spoke about the men using strategies they had learned during the program to deal with their episodes of anger (*He's learning how to behave, how to react to things; He takes time out, comes back and talks about what happened; Now he stops himself expressing his anger and talks about it instead*). Other women considered the MBCP too *'negative……..they don't understand how the men got there….',* commenting that the program pointed out the problems, said how it should be, but then offered no way of getting there.

Women talked also about the reasons they believe were behind their partner's violent behaviour. These included medical diagnoses (including depression, cancer, illness of a family member), violence in the man's family of origin, alcohol abuse,

perceived rejection of the man by his family of origin or birth family, the recreational use of illicit drugs, problems in previous relationships (for example, his trust having been betrayed). Some women commented on the value of their partner taking prescribed antidepressant medication, others talked about the improvement when he ceased recreational drug use, or binge drinking.

Some women commented that a promising, early change in his behaviour had preceded an escalation of violence, more intense than they had previously experienced (*He initially stopped punching the walls and yelling and then got worse again. Hit me for the first time three days ago; At first there was improvement, then he backslid badly which has led to it being worse than before*). Others spoke of sustained improvement, and optimism for the future.

Women whose partners did not complete the MBCP had different experiences, as did other women whose partners were still involved in the MBCP at the time of the interview: some had noticed improvement which had been sustained; some had noticed initial improvement but then a return to previous behaviour; some commented that things remained the same as ever; others reported an escalation in their partner's violent behaviour. Some of these women commented that although the men had not completed the program, they did benefit from a short involvement (*He didn't think it was helping but he did see that he had a problem*).

Some women talked about what they perceived as their partners *'anger problems'*, with some commenting on the fact that the men were nice people who had quick tempers *('hair trigger')*, and between episodes, that things were pretty good (*He was always happy go lucky but with an explosive temper*). Others described childlike tantrums – with behaviours such as feet stamping, shouting, physical assault, and property damage. Other women spoke of their partners having few violent outbursts, but talking about feeling angry all the time, with some women saying that their partners tried to control the women's feelings (*I wasn't allowed to get angry*). Some women commented that they had delivered an ultimatum (*Either you do something about yourself, or the kids and me walk*).

Some women talked about their partners denying the fact that they had a problem with anger, trying to place the blame for their own behaviour on the women. Other women spoke of hoping that he would acknowledge his problem, but doubting that that amount of insight was likely (*I hoped that he would come to see he had a problem, but I didn't think really that it would*).

***Their relationship and parenting issues**:* Women commented on the lengths of their current relationships, with the range being from four months to sixteen years. Within this range, there were some who were currently living together, some who had never been separated, some who were separated, and others who had experienced multiple separations during the course of these relationships. Some estranged women had intentions of reconciliation, others had no such intent. Some women who were living with their partners were committed to staying, others were seriously considering their options. Other women refused to consider living with their partner (O*urs is a monogamous relationship but I will never live with him – I value my independence too much*).

Some of those women who were currently separated had a number of reasons for contact with their partners. These contacts included in person, by telephone, messages through friends or family, notes and letters. Reasons for contact included deliberate contact (for example, contact for the children with their fathers, sexual activity), and incidental contact (for example, at the homes of mutual friends, family, in the street). Women spoke of spending a night or two a week together with their partner, but reserving their right to change these arrangements depending on his behaviour.

Women talked about the lengths to which they would go to maintain their current relationships, and the difficulties they experience with persevering (*I would like to be able to change the way I respond to him; …before I'd pick on things, now I don't…; I let some things go now, rather than making an issue of it…; I make excuses for him*). There was also some mention of the reasons for this perseverance (*My father wasn't around and I want it to be different for my baby; …after our baby died he was never the same…; …its not my problem but I'll help him sort it out; He's a loving,*

caring, sensitive person; I think he's punishing me for having that affair…; He's more passive now, more willing to sort it out).

Women also talked about making allowances (not excuses) for their partners' violent behaviour by considering where the man had come from: his personality, life experience, and issues in his family of origin. Other women commented about being disappointed, and feeling as though they have failed (*I'm angry with him because he's not like I want him to be; I wanted to have fun, have a husband I could talk to, have a laugh with…*).

Some women spoke of the stress of parenting and the impact of the arrival of children on family relationships. They talked of the need to protect generational boundaries by not arguing or fighting in front of the children. Women also talked about their concerns for their children (*I feel I must protect the children from him; I want to have a baby, but he has to change first; I'm pretty overprotective of the kids – we normally leave when he gets cranky*). Other women talked about improvements in their family lives since the men participated in the MBCP (*Even the kids are calmer…; I can relax at work now, knowing he's not causing problems at home*).

Many women talked about their self esteem and how it affects their parenting, and the way that as their self esteem continues to suffer, they feel they lose their authority with their children (*I don't believe in or trust myself – can't go on my instincts anymore*).

The women's responses – second interviews

At the time of the initial interview, permission was sought for the researcher to contact them again in six months for a follow-up interview. All women gave their consent. Six months after the initial interview, a letter was sent inviting them to a second session. The 14 women were contacted by the researcher for follow-up: 6 were unable to be contacted, 2 declined, and 6 participated in second interviews. The interviews again were informal and semi structured, each lasting between 30 and 40 minutes.

Her issues: Some women spoke of consistent sustained improvement in their partner's behaviour in the six months between interviews, talking of improved communication, more conversation with their partner and of feeling valued (*My messages were always the same, but now they come in normal conversation; before they'd come out in an argument*). Women spoke of the benefits of their support networks – be they formal support groups through health and welfare agencies, or the more informal support of friends and family. These women talked of their improved self esteem, assertiveness and determination that violent behaviour by their partners will not be tolerated (*I feel good about myself…I won't go back there again; I want what I want…if I can't have that I won't have anything*).

Some women spoke also of deterioration in their partner's behaviour with increased violence and aggression. Some blamed themselves (*Must be my fault – I've had two violent men – can't pick them; I have learned that I'm too nice and I give in too easily*). Others were clear that his behaviour was his responsibility, but were no longer able to tolerate such a relationship (*I've put up with this for years – you can only take so much*). Some remained separated from their partners; others had separated during the past six months.

Women talked about feeling unable to trust anyone, but especially men, as a result of having experienced violence in their intimate relationships. They also expressed hope for their futures (*I'm going back to school; I have to get on with my life and raise my child; …now I know where my limits are – once more and the kids and I are out for good*). Others spoke of no longer having the energy to try and make the relationship work (*I used to hope we'd get back together, but now I couldn't be bothered*).

Her perception of his issues*:* The women were divided as to the usefulness of the MBCP. Some interpreted changes as a direct result of his involvement, some saw no change, others saw changes initially but these did not last six months (*MBCP helped him to understand himself; He's acknowledged stuff from his past…; He's more open to hearing what I say*). Some women commented on partners having been ordered by the Courts to participate in the MBCP sometimes for a second time (*…he doesn't want to do it, but he doesn't want to go to jail*).

Women talked about the behaviour of their partner during the past six months, some noticing that things had improved and describing their strategies for dealing with violent and aggressive behaviour (W*hen he's cranky I just stay out of his way; …he knows now what things stress him out…; He's still controlling and manipulative, its just his nature; When he's upset I need to let him know I'm there for him*).
Their relationship and parenting issues: For the women who were separated from their partner at the time of the follow up interviews, reconciliation would be effected only under certain conditions that they had devised (*I need guaranteed safety for me and my child and I don't trust him with that – not yet*). Some had ruled out getting back together as they no longer wished to be involved with their partners, but acknowledged the issues for their children (*I don't want him around but the children need to see him; He's good with the kids and sees them every day after school*). Others of the separated women intended reconciling, but were taking it one day at a time (*We are sorting things out as they happen; '…he needs to be a father not another child…; I'm not ready because I don't trust him yet and I won't go back to feeling vulnerable*).

Women who were not separated talked about the differences which have marked their relationships during the past six months. Again the comments mostly involved improved communication and deeper conversations, even if things were not yet perfect (*We talk more than we used to but there's still a way to go; …when we have little disagreements, we take time out to cool down and then sit down and talk it out*). Some women also talked about the usual life stresses that they had experienced during the intervening six months and commented that the changes in the men's behaviour had been sustained generally in spite of those pressures.

Women spoke of dealing with the distress of their children (… *they're torn between us*…). Also mentioned was the women's concern for their adolescent sons who behave protectively towards their mothers, and antagonistically towards their fathers.

Summary

It was clear that on the basis of their partners' responses, the men responded in diverse ways to the MBCP. Clearly, involvement helped some men but did not assist

others. In some cases, the men's behaviour clearly deteriorated. In others, early gains were not maintained. These results serve to re-emphasise the point that the MBCP clearly is beneficial for some male abusers, but not all. In this, they therefore support the general direction of the results from the quantitative data.

These results must be accepted with some caution however, because they are based on a very small sample of women. Only 14 participated in the first interview, and only 6 in the second. Many of the men did not give permission for their partners to be interviewed (we were required to obtain this permission by our Human Research Ethics Committee). Because of these low numbers, differentiation of the women's responses into those coming from women partnered with the various subtypes of abusive men was not meaningful. Further research needs to investigate this.

Of interest however in relation to the quantitative results, is the frequency with which the women mentioned their partner's anger. Because the MBCP appeared to have significant effects on the men's anger levels, it may have had rather pervasive effects on the relationships of many of these men with their partners that were not detected in the present research. This needs further study.

Conclusions and Implications for Policy

In summary then, we were able to replicate earlier research that male domestic partner abusers partition into Types 1 and 2 based upon the direction of their heart rate responses when exposed to conflict with their partner – although, in this study we used analogue conflict. Furthermore, the Type 1 abusers scored higher on measures of assaultiveness and sexist attitudes than Type 2 abusers. These latter men somewhat surprisingly, more strongly endorsed aggression as a problem-solving technique than did the Type 1 men. Our expectations about Type 1 men being more likely to exhibit sociopathic tendencies than Type 2 men did not find support in this study, although the former were somewhat more likely to exhibit disinhibited and impulsive behaviours. This may be considered as partial, but certainly not strong, support for this hypothesis. Contrary to expectation, we did not find that the Type 2 men exhibited more psychopathology (such as borderline personality disorder) than the Type 1 men.

The MBCP appeared to effect reductions in trait anger and its components for both types of men, and there were also trends for reductions in assaultiveness, indirect aggression and negativity for both. However, the Type 1 men showed an increase in cynical hostility following the MBCP, whereas the Type 2 men showed decreases. Also rather worryingly, sexist attitudes in both groups appeared to strengthen following participation in the MBCP, but the partitioning of the men into three groups (PG1, PG2 and PG3) showed that this occurred only for group 2.

The men were able to be clearly partitioned into three groups based on their total physiological responses. It appeared that PG2 more closely exhibited some sociopathic characteristics than men in the other two groups – they were more likely to abuse drugs, more likely to demonstrate disinhibited and impulsive behaviours, and less likely to experience dysphoric moods about their behaviours. As mentioned, these men reported a strengthening in their sexist attitudes following participation in the MBCP, whereas men in the other two groups reported no change. Again though, for all men together, angry affect and its components decreased after intervention, and there were trends for verbal aggression to decrease as well. It looked as if for many

there were further decreases at follow-up but the numbers of men participating are small and so this conclusion should be accepted with caution.

The interviews with a sample of the men's partners reinforced these results that the MBCP was beneficial for some men but not others. However, many men refused to allow their partners to participate so these responses are not representative of the sample as a whole and should be accepted with caution. Particularly at 6 month's follow-up, the number of interviews is very small.

Although the MBCP did seem to achieve beneficial results for many men, there were certainly indications that for some men, there were also undesirable effects particularly in relation to cognitions. These men appeared to approximate the sociopathic type of abuser identified in previous research. The results suggest that psycho-educational programs such as MBCP are not necessarily the best type of intervention for all male abusers, and that other forms of intervention also need to be developed and/or considered.

We found that it was difficult to engage potential participants in this research. Many offered participation did not become involved, and of those who did, many did not re-attend for subsequent assessments. Willingness to re-assessed however did not seem to be a function of type of abuser. Although it is difficult to recruit male abusers into this type of research, more studies such as this one with larger numbers are needed to investigate our findings further. We have conducted one of the few studies into how different types of male abusers respond to a generic psycho-educational intervention, but clearly further research is required to replicate and confirm our results. The main policy implication flowing from our results however, is that although the MBCP is an effective intervention for many men, it appears not be optimal for all male abusers. Other forms of intervention also need to be considered.

TABLE I: STAXI ANGER COMPOSITE VARIABLES FOR GROUPS T1 & T2

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
STATE ANGER	T1	18.1 (4.5)	16.6 (2.8)	16.3 (1.8)
	T2	17.6 (5.5)	17.1 (3.9)	15.3 (0.5)
	Total	17.9 (5.0)	16.9 (3.3)	15.9 (1.5)
TRAIT ANGER	T1	23.4 (7.5)	21.0 (7.7)	17.5 (6.0)
	T2	19.5 (5.2)	15.8 (3.8)	15.3 (3.3)
	Total	21.4 (6.7)	18.4 (6.5)	16.6 (5.0)
TOTAL ANGER EXPRESSED	T1	46.2 (16.4)	45.5 (15.1)	41.3 (15.4)
	T2	43.7 (18.0)	35.7 (14.2)	24.2 (16.4)
	Total	44.9 (17.0)	40.6 (15.2)	33.9 (17.5)

TABLE II: STAXI ANGER COMPONENT VARIABLES FOR GROUPS T1 & T2

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
ANGRY FEELINGS	T1	6.2 (2.7)	6.0 (1.6)	5.3 (0.7)
	T2	6.0 (2.1)	6.2 (1.9)	5.3 (0.5)
	Total	6.1 (2.4)	6.1 (1.7)	5.3 (0.6)
VERBAL ANGER	T1	5.9 (1.7)	5.6 (1.4)	5.8 (1.2)
	T2	5.8 (2.0)	5.4 (1.4)	5.0 (0.0)
	Total	5.8 (1.8)	5.5 (1.3)	5.4 (0.9)
PHYSICAL ANGER	T1	5.2 (0.6)	5.1 (0.3)	5.3 (0.5)
	T2	5.8 (1.8)	5.6 (1.2)	5.0 (0.0)
	Total	5.5 (1.3)	5.3 (0.9)	5.1 (0.4)
ANGRY TEMPERAMENT	T1	10.0 (3.5)	7.8 (2.7)	6.4 (2.0)
	T2	7.5 (2.6)	6.4 (1.5)	5.3 (1.5)
	Total	8.8 (3.3)	7.1 (2.3)	5.9 (1.8)
ANGRY REACTION	T1	9.3 (3.0)	7.9 (2.9)	7.4 (3.0)
	T2	8.3 (2.4)	6.9 (1.9)	7.2 (1.9)
	Total	8.8 (2.7)	7.4 (2.5)	7.3 (2.5)
ANGER OUT	T1	19.2 (6.8)	16.7 (4.5)	16.0 (3.6)
	T2	16.6 (6.5)	14.9 (3.9)	12.0 (2.2)
	Total	17.9 (6.7)	15.8 (4.3)	14.3 (3.6)
ANGER IN	T1	18.1 (4.6)	17.8 (4.2)	17.6 (5.5)
	T2	18.0 (5.5)	16.0 (3.5)	17.5 (4.6)
	Total	18.0 (5.0)	16.9 (3.9)	17.6 (4.9)
ANGER CONTROL-OUT	T1	17.8 (5.0)	19.1 (5.6)	20.8 (4.9)
	T2	19.1 (6.5)	21.3 (6.5)	27.8 (6.0)
	Total	18.5 (5.8)	20.2 (6.0)	23.8 (6.3)
ANGER CONTROL -IN	T1	16.9 (5.7)	18.6 (5.5)	19.6 (4.2)
	T2	19.8 (5.6)	22.7 (6.4)	27.0 (6.7)
	Total	18.3 (5.7)	20.7 (6.2)	22.8 (6.4)

TABLE III: CONFLICT TACTICS VARIABLES FOR GROUPS T1 & T2

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
YOUR PARTNER'S REASONING	T1	8.6 (3.9)	8.6 (3.8)	7.4 (4.5)
	T2	9.7 (2.6)	8.2 (2.9)	8.7 (4.3)
	Total	9.2 (3.3)	8.4 (3.3)	7.9 (4.3)
YOUR PARTNER'S VERBAL AGGRESSION	T1	12.7 (7.5)	13.9 (7.3)	13.9 (7.5)
	T2	12.2 (7.7)	9.3 (4.9)	11.0 (10.3)
	Total	12.5 (7.4)	11.6 (6.5)	12.6 (8.6)
YOUR PARTNER'S VIOLENCE	T1	3.5 (5.4)	2.7 (4.5)	1.6 (1.9)
	T2	5.1 (6.9)	3.3 (4.4)	2.3 (5.2)
	Total	4.3 (6.2)	2.9 (4.4)	1.9 (3.6)
YOUR REASONING	T1	7.9 (2.5)	7.9 (3.9)	7.6 (4.4)
	T2	8.1 (3.3)	7.3 (2.8)	8.2 (2.2)
	Total	8.0 (2.9)	7.6 (3.3)	7.9 (3.5)
YOUR VERBAL AGGRESSION	T1	14.5 (7.8)	13.1 (8.2)	10.5 (4.7)
	T2	12.5 (7.8)	8.3 (5.7)	4.7 (4.3)
	Total	13.5 (7.7)	10.7 (7.3)	8.0 (5.3)
YOUR VIOLENCE	T1	3.7 (6.0)	3.3 (7.2)	1.4 (2.1)
	T2	3.3 (5.5)	2.6 (3.8)	0.2 (0.4)
	Total	3.5 (5.7)	2.9 (5.7)	0.9 (1.7)

TABLE IV: BUSS-DURKEE HOSTILITY VARIABLES FOR GROUPS T1 & T2

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
ASSAULTIVENESS	T1	5.7 (2.4)	4.8 (2.4)	4.3 (2.6)
	T2	3.9 (2.6)	2.8 (2.6)	2.2 (1.3)
	Total	4.8 (2.6)	3.8 (2.7)	3.4 (2.3)
INDIRECT AGGRESSION	T1	6.0 (1.9)	5.1 (1.8)	4.4 (2.2)
	T2	5.2 (1.5)	3.9 (2.1)	3.5 (2.1)
	Total	5.6 (1.7)	4.5 (2.0)	4.0 (2.1)
IRRITABILITY	T1	5.9 (3.1)	5.7 (2.6)	4.4 (3.6)
	T2	5.4 (3.6)	5.1(2.9)	5.5 (2.3)
	Total	5.7 (3.3)	5.4 (2.7)	4.9 (3.1)
NEGATIVITY	T1	2.7 (1.6)	2.4 (1.8)	2.0 (1.8)
	T2	2.9 (2.5)	1.3 (0.9)	1.0 (0.6)
	Total	2.8 (2.0)	1.8 (1.5)	1.6 (1.5)
RESENTMENT	T1	3.6 (2.2)	3.1 (2.1)	2.9 (2.0)
	T2	2.9 (2.5)	2.2 (1.5)	2.5 (0.5)
	Total	3.3 (2.4)	2.6 (1.8)	2.7 (1.5)
SUSPICIOUS	T1	4.3 (2.7)	3.7 (2.9)	3.5 (2.9)
	T2	4.2 (3.0)	3.9 (2.5)	4.5 (1.9)
	Total	4.2 (2.8)	3.8 (2.6)	3.9 (2.5)
VERBAL HOSTILITY	T1	8.3 (2.8)	6.6 (2.6)	5.5 (2.7)
	T2	5.5 (3.8)	5.3 (2.7)	4.3 (1.6)
	Total	6.9 (3.5)	6.0 (2.7)	5.0 (2.3)

TABLE V: COOK-MEDLEY HOSTILITY VARIABLES FOR GROUPS T1 & T2

	HR GROUP	OCCASION PRE	OCCASION POST	FOLLOW-UP
CYNICISM	T1	6.8 (3.4)	7.5 (2.7)	5.3 (3.9)
	T2	6.2 (3.9)	5.0 (3.2)	5.5 (4.2)
	Total	6.5 (3.6)	6.2 (3.2)	5.4 (3.9)
HOSTILE ATTRIBUTION	T1	5.5 (2.6)	4.8 (2.1)	4.5 (2.9)
	T2	5.2 (3.4)	5.1 (3.2)	4.8 (3.2)
	Total	5.3 (3.0)	4.9 (2.6)	4.6 (2.9)
HOSTILE AFFECT	T1	2.9 (1.7)	2.5 (1.5)	1.8 (1.3)
	T2	2.5 (1.4)	2.2 (1.4)	2.2 (1.8)
	Total	2.7 (1.5)	2.3 (1.4)	1.9 (1.5)
AGGRESSIVE RESPONDING	T1	3.8 (2.0)	3.1 (1.8)	3.5 (1.8)
	T2	3.7 (2.1)	3.1 (2.0)	2.2 (1.5)
	Total	3.8 (2.0)	3.1 (1.8)	2.9 (1.7)
SOCIAL AVOIDANCE	T1	2.1 (1.0)	1.8 (1.1)	1.5 (1.3)
	T2	2.1 (1.5)	1.4 (1.1)	1.3 (1.2)
	Total	2.1 (1.3)	1.6 (1.1)	1.4 (1.2)

TABLE VI: SEXIST BELIEFS FOR GROUPS T1 & T2

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
SEXIST ATTITUDES	T1	65.8(11.3)	68.1 (12.5)	61.8 (11.6)
	T2	63.1 (10.7)	66.1 (8.4)	66.3 (10.4)
	Total	64.5 (10.9)	67.1 (10.5)	63.7 (10.9)

TABLE VII: STAXI ANGER COMPOSITE VARIABLES FOR GROUPS PG1, PG2 & PG3

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
STATE ANGER	PG 1	22.4 (5.2)	18.6 (3.8)	16.0 (N/A)
	PG 2	17.5 (5.8)	16.9 (4.1)	15.0 ((0.0)
	PG 3	16.6 (3.3)	16.2 (2.4)	16.0 (1.6)
	Total	17.9 (5.0)	16.9 (3.3)	15.9 (1.5)
TRAIT ANGER	PG 1	27.6 (9.2)	24.2 (10.2)	14.0 (N/A)
	PG 2	21.8 (5.8)	17.1 (6.3)	16.0 (8.5)
	PG 3	18.9 (5.0)	17.4 (4.2)	16.9 (4.9)
	Total	21.4 (6.7)	18.4 (6.5)	16.6 (5.0)
TOTAL ANGER EXPRESSED	PG 1	57.2 (14.1)	50.0 (15.1)	33.0 (N/A)
	PG 2	50.5 (14.9)	38.0 (16.6)	43.0 (22.6)
	PG 3	36.2 (15.8)	39.4(13.9)	32.4 (18.1)
	Total	44.9 (17.0)	40.6 (15.2)	33.9 (17.5)

TABLE VIII: STAXI ANGER COMPONENT VARIABLES FOR GROUPS PG1 PG2& PG3

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
ANGRY FEELINGS	PG 1	7.4 (4.3)	7.0 (2.0)	6.0 (N/A)
	PG 2	5.6 (1.6)	6.0 (1.8)	5.0 (0.0)
	PG 3	6.0 (2.0)	5.9 (1.5)	5.3 (0.6)
	Total	6.1 (2.4)	6.1 (1.7)	5.3 (0.6)
VERBAL ANGER	PG 1	7.0 (2.3)	6.0 (2.3)	5.0 (N/A)
	PG 2	6.0 (2.3)	5.5 (1.5)	5.0 (0.0)
	PG 3	5.3 (0.8)	5.3 (0.6)	5.5 (1.0)
	Total	5.8 (1.8)	5.5 (1.3)	5.4 (0.9)
PHYSICAL ANGER	PG 1	5.4 (0.9)	5.4 (0.5)	5.0 (N/A)
	PG 2	5.8 (1.9)	5.5 (1.2)	5.0 (0.0)
	PG 3	5.3 (0.8)	5.2 (0.8)	5.2 (0.4)
	Total	5.5 (1.3)	5.3 (0.9)	5.1 (0.4)
ANGRY TEMPERAMENT	PG 1	10.6 (4.3)	8.2 (2.9)	4.0 (N/A)
	PG 2	9.2 (3.0)	6.8 (2.5)	5.0 (1.4)
	PG 3	7.8 (3.0)	6.9 (1.9)	6.3 (1.8)
	Total	8.8 (3.3)	7.1 (2.3)	5.9 (1.8)
ANGRY REACTION	PG 1	10.8 (3.3)	8.6 (2.8)	7.0 (N/A)
	PG 2	8.5 (2.3)	6.8 (2.8)	7.0 (4.2)
	PG 3	8.3 (2.6)	7.4 (2.2)	7.4 (2.5)
	Total	8.8 (2.7)	7.4 (2.5)	7.3 (2.5)
ANGER OUT	PG 1	21.0 (8.6)	19.4 (5.2)	13.0 (N/A)
	PG 2	19.7 (6.2)	15.5 (3.5)	16.0 (4.2)
	PG 3	15.4 (5.8)	14.9 (4.1)	14.1 (3.8)
	Total	17.9 (6.7)	15.8 (4.3)	14.3 (3.6)
ANGER IN	PG 1	20.4 (4.5)	19.8 (4.8)	19.0 (N/A)
	PG 2	17.5 (5.1)	15.3 (3.1)	15.0 (7.0)
	PG 3	17.6 (5.2)	17.1 (3.7)	17.9 (5.0)
	Total	18.0 (5.0)	16.9 (3.9)	17.6 (5.0)
ANGER CONTROL-OUT	PG 1	16.4 (2.1)	17.6 (3.4)	28.0 (N/A)
	PG 2	16.3 (3.9)	20.4 (6.3)	19.5 (6.4)
	PG 3	20.9 (7.0)	20.9 (6.6)	24.2 (6.5)
	Total	18.5 (5.8)	20.2 (6.0)	23.8 (6.3)
ANGER CONTROL-IN	PG 1	13.8 (5.3)	18.0 (4.5)	19.0 (N/A)
	PG 2	17.5 (5.0)	20.4 (6.5)	16.5 (4.9)
	PG 3	20.6 (5.6)	21.9 (6.6)	24.3 (6.3)
	Total	18.3 (5.7)	20.7 (6.2)	22.8 (6.4)

TABLE IX: CONFLICT TACTICS VARIABLES FOR GROUPS PG1, PG2 AND PG3

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
YOUR PARTNER'S REASONING	PG 1	10.0 (4.3)	11.0 (3.5)	16.0 (N/A)
	PG 2	9.7 (3.8)	8.0 (3.8)	11.0 (5.7)
	PG 3	8.4 (2.6)	7.7 (2.5)	6.6 (3.2)
	Total	9.2 (3.3)	8.4 (3.3)	7.9 (4.3)
YOUR PARTNER'S VERBAL AGGRESSION	PG 1	12.6 (9.9)	14.4 (9.8)	14.0 (N/A)
	PG 2	14.0 (8.7)	11.7 (5.6)	10.0 (5.7)
	PG 3	11.2 (5.6)	10.6 (6.2)	13.0 (9.5)
	Total	12.5 (7.4)	11.6 (6.5)	12.6 (8.6)
YOUR PARTNER'S VIOLENCE	PG 1	7.2 (9.1)	4.6 (5.0)	13.0 (N/A)
	PG 2	5.7 (6.7)	3.3 (4.7)	1.5 (0.7)
	PG 3	2.1 (3.7)	2.1 (4.1)	1.0 (1.8)
	Total	4.3 (6.2)	3.0 (4.4)	1.9 (3.6)
YOUR REASONING	PG 1	9.6 (3.9)	10.6 (3.1)	12.0 (N/A)
	PG 2	7.5 (2.7)	6.5 (2.1)	8.0 (2.8)
	PG 3	7.8 (2.7)	7.4 (3.7)	7.5 (3.6)
	Total	8.0 (2.9)	7.6 (3.3)	7.9 (3.5)
YOUR VERBAL AGGRESSION	PG 1	13.8 (10.4)	12.2 (10.8)	5.0 (N/A)
	PG 2	15.6 (7.7)	11.0 (7.5)	10.0 (2.8)
	PG 3	11.7 (6.9)	9.9 (6.2)	7.9 (5.8)
	Total	13.5 (7.7)	10.7 (7.3)	8.0 (5.3)
YOUR VIOLENCE	PG 1	3.4 (7.6)	4.4 (8.8)	0.0 (N/A)
	PG 2	5.5 (7.2)	4.8 (6.8)	1.5 (2.1)
	PG 3	2.0 (2.9)	1.0 (2.0)	0.8 (1.8)
	Total	3.5 (5.7)	3.0 (5.7)	0.9 (1.7)

TABLE X : BUSS-DURKEE HOSTILITY VARIABLES FOR GROUPS PG1, PG2 & PG3

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
ASSAULTIVENESS	PG 1	4.8 (1.9)	4.2 (2.6)	4.0 (N/A)
	PG 2	6.1 (2.5)	4.6 (2.6)	6.0 (4.2)
	PG 3	3.8 (2.5)	3.0 (2.7)	2.8 (1.9)
	Total	4.8 (2.6)	3.8 (2.7)	3.4 (2.3)
INDIRECT AGGRESSION	PG 1	5.8 (1.6)	5.0 (1.0)	3.0 (N/A)
	PG 2	5.5 (2.3)	3.4 (2.0)	3.0 (0.0)
	PG 3	5.6 (1.4)	5.3 (1.9)	4.3 (2.3)
	Total	5.6 (1.7)	4.5 (2.0)	4.0 (2.1)
IRRITABILITY	PG 1	6.2 (3.0)	6.0 (1.0)	6.0 (N/A)
	PG 2	6.3 (4.0)	5.6 (2.7)	6.0 (4.2)
	PG 3	5.0 (2.9)	4.9 (3.2)	4.5 (3.1)
	Total	5.7 (3.3)	5.4 (2.7)	4.9 (3.1)
NEGATIVITY	PG 1	2.8 (1.8)	2.8 (2.0)	1.0 (N/A)
	PG 2	4.3 (2.2)	2.1 (1.6)	4.0 (1.4)
	PG 3	1.6 (1.2)	1.3 (1.1)	1.2 (1.1)
	Total	2.8 (2.0)	1.8 (1.5)	1.6 (1.5)
RESENTMENT	PG 1	3.8 (2.8)	3.8 (2.8)	2.0 (N/A)
	PG 2	4.0 (2.8)	2.8 (1.3)	4.0 (0.0)
	PG 3	2.5 (1.7)	2.1 (1.6)	2.5 (1.6)
	Total	3.3 (2.4)	2.6 (1.8)	2.7 (1.5)
SUSPICIOUS	PG 1	5.0 (3.1)	4.2 (3.0)	2.0 (N/A)
	PG 2	4.5 (3.2)	4.4 (2.8)	5.0 (4.2)
	PG 3	3.8 (2.4)	3.2 (2.5)	3.9 (2.3)
	Total	4.3 (2.8)	3.8 (2.6)	3.9 (2.5)
VERBAL HOSTILITY	PG 1	7.2 (2.9)	7.2 (2.4)	3.0 (N/A)
	PG 2	6.7 (3.9)	5.8 (2.9)	6.5 (3.5)
	PG 3	6.9 (3.7)	5.6 (2.7)	4.9 (2.2)
	Total	6.9 (3.5)	6.0 (2.7)	5.0 (2.3)

TABLE XI: COOK-MEDLEY HOSTILITY VARIABLES FOR GROUPS PG1, PG2 & PG3

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
CYNICISM	PG 1	7.4 (4.8)	6.6 (4.0)	1.0 (N/A)
	PG 2	7.2 (4.0)	6.9 (3.5)	6.5 (7.8)
	PG 3	5.6 (2.9)	5.6 (2.7)	5.5 (3.4)
	Total	6.5 (3.6)	6.2 (3.2)	5.4 (3.9)
HOSTILE ATTRIBUTION	PG 1	6.2 (3.6)	4.8 (2.3)	2.0 (N/A)
	PG 2	5.9 (3.3)	5.4 (3.2)	4.5 (4.9)
	PG 3	4.6 (2.5)	4.6 (2.4)	4.9 (2.8)
	Total	5.3 (3.0)	4.9 (2.6)	4.6 (2.9)
HOSTILE AFFECT	PG 1	3.4 (1.9)	3.0 (1.6)	1.0 (N/A)
	PG 2	2.8 (1.8)	2.5 (1.4)	3.0 (1.4)
	PG 3	2.4 (1.2)	1.9 (1.3)	1.8 (1.5)
	Total	2.7 (1.5)	2.3 (1.4)	1.9 (1.5)
AGGRESSIVE RESPONDING	PG 1	4.0 (2.1)	3.0 (2.3)	0.0 (N/A)
	PG 2	4.8 (2.2)	4.3 (1.7)	4.5 (2.1)
	PG 3	2.9 (1.4)	2.3 (1.3)	2.9 (1.4)
	Total	3.8 (2.0)	3.1 (1.8)	2.9 (1.7)
SOCIAL AVOIDANCE	PG 1	1.6 (1.5)	2.0 (1.6)	0.0 (N/A)
	PG 2	2.6 (1.5)	1.8 (1.3)	2.5 (2.1)
	PG 3	1.8 (0.8)	1.3 (0.7)	1.3 (1.0)
	Total	2.1 (1.3)	1.6 (1.1)	1.4 (1.2)

TABLE XII: SEXIST BELIEFS FOR GROUPS PG1, PG2 & PG3

	HR GROUP	OCCASION PRE	POST	FOLLOW-UP
SEXIST ATTITUDES	PG 1	65.2 (9.4)	66.6 (12.1)	52.0 (N/A)
	PG 2	65.0 (13.5)	72.1 (10.7)	73.5 (3.5)
	PG 3	63.8 (9.8)	63.4 (8.8)	63.0 (11.0)
	Total	64.5 (10.9)	67.1 (10.5)	63.7 (10.9)

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