

# Using the Behaviour Change Wheel to Design an Intervention for Partner Abusive Men in Drug and Alcohol Treatment

Elizabeth Allison Gilchrist (✉ [liz.gilchrist@ed.ac.uk](mailto:liz.gilchrist@ed.ac.uk))

The University of Edinburgh <https://orcid.org/0000-0002-6724-1613>

**Amy Johnson**

University of Edinburgh

**Mary McMurrin**

Independent

**Danielle Stephens-Lewis**

University of Gloucestershire

**Sara Kirkpatrick**

Independent

**Benjamin Gardner**

King's College London

**Caroline Easton**

Rochester Institute of Technology

**Gail Gilchrist**

Kings College London

---

## Research

**Keywords:** substance use, intimate partner abuse, COM-B, group intervention, feasibility, intervention development

**DOI:** <https://doi.org/10.21203/rs.3.rs-136363/v1>

**License:**   This work is licensed under a Creative Commons Attribution 4.0 International License. [Read Full License](#)

---

# Abstract

**Background:** We aimed to establish what core elements were required in a group therapy programme for men who disclose perpetrating intimate partner abuse in a substance use setting and develop, and test the feasibility of delivering an intervention in this setting.

**Methods:** We describe the theoretical development and feasibility testing of an integrated substance use and intimate partner abuse intervention (“ADVANCE”) for delivery in substance use services. We employed a comprehensive eight stage process to guide this development applying the ‘COM-B’ model for intervention design which specifies: 1) define the problem, 2) select the target behaviour, 3) specify the target behaviour, 4) identify what needs to change, 5) identify intervention functions, 6) identify policy categories, 7) select behaviour change techniques, and 8) design a mode of delivery. The development was informed by primary research conducted by the authors, consulting with organisation steering groups and by those with personal experiences. A feasibility study (ISRCTN 79435190) involving 104 men, 27 female partners and 30 staff at three different locations across the UK was conducted to assess the feasibility and acceptability of the intervention and to refine the content and approach to delivery.

**Results:** Our final intervention, the ADVANCE intervention consisted of a group intervention comprising of up to four pre-group individual interviews, followed by 12 x 2-hour group sessions supported by integrated safety work for victim/survivors, and risk and safety support and integrity support for the professionals. The main targets for change were personal goal planning, self-regulation and attitudes and beliefs supporting intimate partner abuse. The intervention was regarded as very acceptable to both staff and clients in substance use services, with group attendees reported positive behavior changes and development of new skills, that facilitators noted were ‘life-changing’ for some.

**Conclusion:** We have demonstrated the ability to employ a structured eight-step process to develop an integrated intervention to address substance use related intimate partner abuse that is acceptable to staff and clients in substance use services.

## Introduction

### 1.1 Background

Intimate partner abuse (IPA) or violence (IPV) refers to any behaviour within an intimate relationship that causes physical, psychological or sexual harm, and includes not only physical violence but also emotional and psychological abuse and controlling behaviours (World Health Organization, 2013). IPA is a prevalent global public health problem with severe consequences for victims and family members exposed to the violence and abuse (Trevillion et al., 2012). Victims experience physical and mental health problems and family members, particularly children, experience adverse health, social and developmental effects. While men can be victims, IPA disproportionately affects women, with 30% globally reporting lifetime IPA victimisation (World Health Organization, 2013). Interventions to reduce IPA include prevention, identification, victim support and safeguarding, and perpetrator programmes (Vigurs et al., 2017). These approaches can effectively occur together, but the focus here is specifically on interventions for male perpetrators of IPA against women.

Evidence suggests that perpetrator programmes can be effective in reducing IPA (Karakurt et al., 2019; Miller et al., 2013) and that a lack of good quality between-group comparisons, means that no single approach can be definitively supported (Akoensi et al., 2013; Miller et al., 2013; Stephens-Lewis et al., 2019). There is conflicting evidence about whether feminist-based Duluth model group treatments are effective. Miller et al. (2013) found Duluth based treatments to be ineffective in reducing domestic violence, while in their review of criminal justice perpetrator programmes, Vigurs et al. (2017) found little difference in effectiveness between cognitive-behavioural and feminist-based interventions.

However, there has been general consensus that motivational interviewing has had some positive impact on engagement and short term recidivism rates (Stephens-Lewis et al., 2019).

Research indicates that IPA risks can be attributable to individual characteristics, including long-term traits such as personality and transient states such as depression (McKinney et al., 2009; Weldon & Gilchrist, 2012), cultural (Schnurr & Lohman, 2008) and relationship factors (Cui et al., 2010), such as the status of the relationship, marital or not, co-habiting or not and transient features such as relationship conflict, parenting disagreements and general stressors linked to features such as money, housing and employment. Furthermore, historical risk factors experienced in childhood, such as witnessing violence between parents or experiencing physical violence from parents (Cafferky et al., 2018), are associated with adult IPA perpetration (Holtzworth-Munroe & Stuart, 1994; Ward & Beech, 2006).

Historically, IPA has been viewed as gendered violence, perpetuated by systems of patriarchal power (Dobash & Dobash, 2004; Morgan & Björkert, 2006) and, within this, substance use was largely viewed by perpetrators, victims and some professionals and academics as an excuse for IPA perpetration (Galvani, 2006). Recently, however, there has been increasing acknowledgement of the role of substance use as an aggravating factor (Lessard et al., 2020) or a risk factor for IPA (McMurran & Gilchrist, 2008). Meta-analyses have shown significant reductions in violence for men in substance use treatment services (Karakurt et al., 2019; Miller et al., 2013) and subgroup analysis has indicated that treating substance use and trauma in perpetrator programmes potentially enhances outcomes (Karakurt et al., 2019).

Recent research has increased the awareness of the association between substance use and the risk of IPA incidence and level of injury (Cafferky et al., 2018; Canfield et al., 2019; Leonard & Quigley, 2017; Yu et al., 2019). In addition to higher rates of substance use among women who have experienced IPA victimisation (Carbone-López et al., 2006; Ellsberg et al., 2008; T.O. et al., 2012), IPA perpetration is more prevalent among men in substance use treatment when compared with the general population (El-Bassel et al., 2007; G. Gilchrist et al., 2017). Despite this, few men attending substance use treatment who indicate IPA perpetration report having ever received support for their violent and controlling behaviour (Bowen et al., 2005; Hashimoto et al., 2018).

The ADVANCE intervention, funded by the UK National Institute for Health Research, aimed to develop and evaluate an integrated substance use and IPA perpetrator programme specifically for men in substance use treatment services whose substance use and IPA are associated and interconnected. This paper sets out how the ADVANCE intervention was developed from the evidence base and literature. The development of the intervention was guided by an eight-stage intervention design process. Hoddinott (2015) noted the importance of intervention development studies, namely studies that describe “the rationale, decision making processes, methods and findings which occur between the idea or inception of an intervention until it is ready for formal feasibility, pilot or efficacy testing prior to a full trial or evaluation” (p. 1). O’Cathain et al. (2019) have identified a range of approaches to intervention development. A theory and evidence-based approach was the principal method used in ADVANCE, using the Behaviour Change Wheel and the Theoretical Domains Framework.

## **1.2 Behaviour Change Wheel (BCW)**

The BCW was developed to identify the type of intervention that would be the most appropriate to effect the desired change in a particular domain (Michie et al., 2011). The key elements of this approach are captured in the COM-B model, which stands for capability (C), opportunity (O) and motivation (M) and the behavioural outcome (B) (see Fig. 1). This concentric model identifies a number of domains that influence behaviour, integrates and maps out the drivers of behaviour and links these with intervention functions and policy strategies. The model is a helpful tool for the development of rigorously designed interventions prior to controlled trials (Michie et al., 2008).

## **1.3 Theoretical Domains Framework (TDF)**

The TDF identifies 14 domains that drive behaviour (Cowdell & Dyson, 2019). Behaviour change techniques include education, persuasion, incentivisation, coercion, training, restriction, environmental restructuring, modelling, and enablement. Taken together, the TDF and the BCW (including COM-B) set out a comprehensive eight stage process for intervention design: 1) define the problem, 2) select the target behaviour, 3) specify the target behaviour, 4) identify what needs to change, 5) identify intervention functions, 6) identify policy categories, 7) select behaviour change techniques, and 8) design a mode of delivery.

The current paper describes the theoretical and practical development and some feasibility testing of an integrated IPA and substance use intervention for male IPA perpetrators who use substances. Specifically, this paper will present and discuss the explicit process through which the intervention was developed with the aim of supporting others in applying the same model to develop interventions for similar issues; it will not discuss the feasibility study in detail which is outwith the scope of the current paper.

## Materials And Methods

### 2.1 Aim, Design and Setting

This study reports the rationale, decision-making processes, methods and findings which were used to develop a theory and evidence-based intervention for perpetrators of IPA attending substance use treatment; ADVANCE intervention.

### 2.2 Materials and Processes

Our approach was based on intervention mapping, a six-step systematic framework for intervention development [21].

- Step 1: “needs assessment” to identify targets for change.
- Step 2: building matrices to “map” change objectives against determinants of the desired changes.
- Step 3: selection of appropriate behaviour change techniques and strategies to address each determinant identified in step 2.
- Step 4: production of detailed intervention and training materials.
- Step 5: anticipating adoption and implementation of the intervention.
- Step 6: plans for evaluation of processes and effects.

We based the development of the ADVANCE intervention on existing research and systematic reviews conducted by the authors including a systematic review of IPA interventions for perpetrators who used substances (Stephens-Lewis et al., 2019), a meta-ethnography of qualitative studies investigating the role of substance use and IPA (G. Gilchrist et al., 2019), and interviews with couple dyads (i.e., perpetrators and victims of IPA) (Gadd et al., 2019; Radcliffe & Gilchrist, 2016).

In order to translate the current evidence related to both IPA and substance use into an integrated approach and guide the intervention design, a multi-disciplinary group came together and followed the steps of the BCW (Michie et al., 2008). The team members came from psychology, addictions, public health, and behaviour change backgrounds. The design team and key stakeholders developed materials collaboratively over several months. Additionally, Learning Alliance groups (consisting of professionals and academics) and a Public and Patient Involvement Group (PPI) were constituted and consulted about its development at key points, their continued feedback informed the process.

In accord with the TDF and the BCW (including COM-B), we followed an eight stage process for intervention design: 1) define the problem, 2) select the target behaviour, 3) specify the target behaviour, 4) identify what needs to change, 5)

identify intervention functions, 6) identify policy categories, 7) select behaviour change techniques, and 8) design a mode of delivery. The results section describes these steps.

## Results

Each of the steps of intervention development is described below.

### 3.1.1 Step 1: Define the problem

There is a lack of targeted effective interventions to reduce or stop IPA among male perpetrators receiving treatment for substance use. Perpetrator interventions do not address the complex role that substance use plays in IPA perpetration. The target population was men attending community services for drug and/or alcohol use in England.

Stephens-Lewis et al. (2019) conducted a systematic review and meta-analysis of the effectiveness of perpetrator programmes for men who use substances. The review identified few trials (n=9) and, of these, the five trials of integrated IPA and substance use programmes. The meta-analysis within this review, showed no difference in substance use (three trials) or IPA outcomes (four trials) compared to substance use treatment as usual. However, the small number of studies along with the heterogeneity of these mean that it is premature to conclude that integrated interventions do not work. These trials results do prompt further questions though including: (1) the theory, content, mode of delivery, and duration and intensity of interventions; (2) the characteristics of the individuals requiring treatment, including the types of substances used, the type of abuse perpetrated, and the nature of the relationship between substance use and IPA perpetration; and (3) what outcomes are assessed, where information is sourced, and the duration of follow-up.

Gilchrist et al. (2019) conducted a meta-ethnography of qualitative studies to explore how substance use features in survivors' and perpetrators' accounts of IPA. The themes identified related to the complex interplay between substance use and IPA in the context of intoxication, withdrawal and addiction, the impact on relationships, wider dynamics of power and control, and psychological vulnerabilities. Survivors were more likely to see substance-related IPA as part of a pattern of abusive behaviour, whereas perpetrators tended to describe a causal relationship between intoxication and discrete incidents of IPA perpetration. Irritability and frustration during withdrawal from or craving alcohol, heroin and stimulants, and/or a partner's refusal or failure to obtain money for substances increased the likelihood of violence. Survivors were more likely to identify abuse being related to substance use, and to focus on how substances impacted their relationship and dynamics of power and control. The conclusion was that behaviour change interventions must address the meanings behind divergent narratives about IPA perpetration and substance use.

Building on this, interviews were conducted with intimate partner (current and/or ex) dyads, where men were receiving treatment for substance use and who reported IPA perpetration (Gadd et al., 2019; Radcliffe & Gilchrist, 2016). They concluded that withdrawal and substance acquisition are key contexts in which controlling behaviours proliferate, conflicts escalate, and seemingly erratic behaviours are commonplace, sometimes anticipating the perpetration of potentially lethal acts of IPA. More specifically, substances can be independently implicated in the perpetration of coercive control, in that perpetrators may control their partners by increasing their substance dependency and restricting access to substances. This may continue to entrap women within an abusive relationship. Hence, there is a complex relationship between substance use and IPA, with an interplay between intoxication, acquiring substances, craving, withdrawal, gender power relations, and control, all of which should be considered when designing perpetrator programmes.

To summarise, the research resulted in several factors and inferences. There is limited evidence of effective interventions targeting substance using men who perpetrate IPA. There is also a need to recognise a number of factors that correlate

with substance use and IPA (such as negative childhood experiences and poor mental health, suggesting a trauma-informed approach might be beneficial). There is a need for tailored interventions that address the complex ways that substance use and IPA perpetration intersect in relation to social, psychological, and environmental factors. While power and control are implicit in understanding IPA perpetration, interventions for those men within substance use treatment should also address key risk areas, including intoxication, anger, trauma, grief and dependency (Gadd et al., 2019) and the presence of mental health issues such as anxiety and depression (Leonard & Quigley, 2017). Interventions need to focus on individuals' specificities. An approach that seeks to personalise goals may facilitate application for individuals. Although some trials report short-term improvement in outcomes, this is not replicated when follow up assessment of ongoing change are undertaken. As such, there is a need to consider mechanism to maintain treatment gains. While motivational interviewing and cognitive behavioural therapy seem promising, recent research identifies gender and control as important variables. Approaches should be blended to address the range of needs and engage participants. Interventions need to address the intricate interdependencies within substance using relationships and include not only intoxication but also craving, withdrawal, acquisition and the substance using lifestyle, the gendered power dynamics underpinning substance use and IPA, and individual need.

### **3.1.2 Step 2: Select the target behaviour**

Many factors are associated with the perpetration of IPA (Fulu et al., 2013) with consensus that there is no single factor that explains why some men may perpetrate IPA and not others. These factors impact at individual, community, and systemic levels (Smith Slep et al., 2014). Table 1 provides a summary.

Substance use alone, however, cannot explain all IPA and it is clear that some perpetrators will perpetrate with or without substance use (Fernández-Montalvo et al., 2012). One helpful approach in understanding this heterogeneity comes from the multiple thresholds model (Gilchrist et al., 2014). This model suggests that while for some substance use has no bearing on the occurrence of IPA, for others IPA will only occur in the presence of substance use. It goes on to suggest a further group where substance use may affect the type of behaviour, and nature of risk including the level of violence and severity of injury and imminence, including predicting when abuse would occur, but that it is not the sole causal factor. A multiple thresholds model suggests that abuse occurs when the instigation to abuse outweighs the inhibition from abuse, and posits that drugs or alcohol could affect both (Leonard & Quigley, 2017).

A review of cognitions associated with IPA, indicated that this group is characterised by skewed thinking, with a number of studies highlighting the prevalence of offence supportive beliefs in IPA offenders (Gilchrist, 2009). The types of implicit theories found in IPA populations include: general violence supportive beliefs, a sense of entitlement to control women, jealousy, a need to police women's sexuality, a right to have one's needs met, that violence is normal and necessary, and that women are untrustworthy or in need of monitoring (Weldon & Gilchrist, 2012). These beliefs militate against the formation and maintenance of respectful, egalitarian relationships.

Many studies have identified that men who perpetrate abuse have poor emotional regulation, poor stress-coping, avoidant coping, and poor conflict resolution (Hardesty & Ogolsky, 2020). The primary research undertaken within this programme of work indicated an inability in the men interviewed to deal effectively with raised emotions, set and achieve clear positive goals in relation to personal, relationship and domestic issues (e.g., enacting a healthy lifestyle, maintaining positive familial relationships, managing finances, employment and housing) or to manage stressors or conflict without recourse to substances. Stabilising mood and emotions are likely to reduce the likelihood of aggression and violence and improve relationship satisfaction which is protective against IPA (Halmos et al., 2018).

Our research identified a lack of understanding by perpetrators of the range of ways that substance use could impact on their behaviour, and a reluctance to acknowledge the impact of their poor behaviour on others. Our research also

identified that there was a simplistic understanding of the impact of substances on them, often linked to simple intoxication and discussion of pharmacological effects rather than an acknowledgement of the impact of lifestyle, withdrawal, need or intoxication and beliefs around the right to control partners (Gadd et al., 2019; Radcliffe & Gilchrist, 2016). Therefore, reducing, or quitting substance use is important, but in pursuit of this conveying a nuanced understanding of the complex role of substance use on IPA is vital. Participants in the intervention require a fuller understanding of the rationale for changing substance use and the positive impact on their relationship of doing so, consequently their motivation to change will be enhanced. Positive impacts on other aspects of life are likely from reducing substance use, including improved physical and mental health, financial benefits, and fewer life crises.

In summary, ADVANCE targets the following three areas for men in substance use treatment who perpetrate IPA: 1) promote respectful egalitarian behaviours, 2) promote alternatives to violent and aggressive behaviour, 3) reduce substance use.

### **3.1.3 Step 3: Specify the target behaviour**

In specifying the target behaviour, the BCW guidebook recommends consideration of who, what, when, where, and with whom. We would add 'why' as also being necessary as by understanding the function of the behaviour it becomes easier to understand how to change it. The target behaviour therefore would be for male substance users who have perpetrated IPA (who), to cease IPA (what), at all times (when), in all relationship settings, (where) against intimate partners (whom) in the context of substance use (why). Subsequently the three main target areas to address all issues were identified as being:

#### (1) Promote respectful egalitarian behaviours

- a. Identify the function of abusive behaviours within relationships
- b. Identify alternative goals and methods of achieving them for each man
- c. Focus on control of self, not control of others

#### (2) Promote alternatives to violent and aggressive behaviour

- a. Increase distress tolerance: in crisis and generally
- b. Increase recognition of negative mood and internal triggers
- c. Promote emotional self-regulation

#### (3) Reducing substance use

- a. Increase awareness of personal function of substance use
- b. Increase awareness of the relationship between substance use and IPA
- c. Plan to avoid IPA risk related to substance: acquisition, intoxication, withdrawal

### **3.1.4 Step 4: Identify what needs to change**

In the COM-B model, behaviour change depends upon capability (physical and/or psychological), opportunity (environmental and/or social), and motivation (reflective and/or automatic). The ADVANCE intervention is based upon enhancing reflective motivation, by identifying the functions of aggression, violence, and control in relationships,

challenging sexist and patriarchal beliefs and attitudes, and understanding the complex role of substance use in IPA perpetration. The purpose is to elucidate the need for change. While motivation is addressed through the intervention, other components increase participants' capabilities, first by recognising areas that need to change and second by introducing skills for change. ADVANCE aims to identify the risks for IPA, including substance use, poor emotion regulation and poor stress-coping, and teach people how to reduce risks through promoting self-regulation, and goal setting.

Self-regulation refers to an individual's ability to alter a response or override a thought, feeling, or impulse (Baumeister, 2014; Baumeister et al., 1998; Baumeister & Heatherton, 1996). Self-regulation has demonstrated promise in promoting abstinence from the hazardous use of substances (Muraven et al., 2005). In terms of IPA, a lack of self-regulation has been indicative of perpetration (Finkel et al., 2009). Also, the ability to inhibit an impulse towards abusive behaviour in the context of intimate partner abuse is affected by substances, as highlighted in the multiple thresholds model. This model posits that substances changes the balance between 'instigating and inhibiting' factors. People affected by substances focus more on cues that instigate abuse and are less able to inhibit abuse (Leonard & Quigley, 2017). Strengthening the ability to read environmental cues accurately, avoid misreading natural cues as aggressive and managing the impulse to abuse, even when affected by substances, is indicated.

Personal goal planning using SMART goal setting (i.e., specific, measurable, achievable, relevant, and time-limited) (Locke & Latham, 2002) is used in the ADVANCE model to enhance task completion by making all goals personal, explicit and specific. These goals address reduction in substance use as well as building positive relationships and healthy lifestyles. Personal goals that are SMART, along with self-regulation enhance engagement and self-efficacy.

### **3.1.5 Step 5: Identify intervention functions**

Derived from the analysis of risk factors (Table 1) and potential intervention targets, Table 2 outlines the intervention functions for men in substance use treatment who perpetrate IPA. The nine interventions functions are described here as being : education (knowledge), persuasion (increasing desire), incentivisation (rewarding), coercion (increasing potential negative consequences), training (skills), restriction (rules/laws to prohibit undesired behaviour or promote desired behaviour), environmental restructuring (physical changes to facilitate desired behaviour), modelling (demonstrating), and enablement (removing barriers to facilitate positive behaviours).

The APEASE criteria of Affordability, Practicability, Effectiveness and cost-effectiveness, Acceptability, Side effects/safety and Equity considerations (Michie et al., 2014) were used in making context-based decisions on the content of interventions. Thus, we selected the intervention functions that were possible to implement, linked with the evidence from previous empirical studies, and linked with clinical knowledge about what has been found to be effective with IPA and SU populations.

From our research, education in IPA, substance use and the interaction between these criteria and studies was key. Training and modelling would provide alternative strategies to interpret environmental cues, whilst enhancing self-regulation and distress tolerance and reducing the need for control within intimate relationships. Incentivisation, through offering a £5 voucher for every session attendance. Men would accumulate these vouchers over the duration of the intervention for use in a pro social activity they chose (such as cinema tickets or restaurant vouchers). Vouchers are provided at session 6 and session 12. Persuasion to attend were identified as being helpful in promoting reflexive and automatic motivation (Lussier et al., 2006). Enablement was envisaged as being delivered at a more structural level in terms of setting the intervention within a multi-disciplinary framework to work with the perpetrator to manage risk and to remove barriers to help seeking and promoting safety management for partners of the perpetrating men.

Based on the 'what works' body of knowledge from forensic psychology, the intervention was delivered in line with best practice for enhancing motivation and responsivity, and was culturally competent, used active learning methods, visual and auditory materials. The intervention was manualised to maximise the integrity of the intervention. In line with the best practice guidelines of RESPECT, the UK domestic violence organisation, it was designed as a groupwork intervention to facilitate peer challenge and maximise positive learning based on the zone of proximal learning; and reflecting the goal of enablement.

### **3.1.6 Step 6: Identify policy categories**

Whilst the ADVANCE intervention focused mostly at the individual change level, it was delivered alongside proactive support, case management and information sharing to manage risk and promote safety with partners and ex-partners of men in the group and was fully embedded within the justice, social services and child protection systems structures to allow risk management and referral. This inclusion fits with best practice models for IPA intervention developed from Duluth onwards and supported by RESPECT, and is in line with UK government policies, and reflects the outer ring of the BCW of using legislation, regulation, service provision and guidelines to promote desired goals.

### **3.1.7 Step 7: Select behaviour change techniques**

Table 2 shows the specific behaviour change techniques (BCTs) linked to our formulation of the key elements underpinning change. BCTs are mapped to address each intervention function. Much of the theoretical thinking is based on in-depth interviews with 47 men receiving treatment for substance use who had a history of IPA perpetration (Gadd et al., 2019; Radcliffe & Gilchrist, 2016). Michie et al. (2008) developed a taxonomy of 93 distinct BCTs that are catalogued and described in detail. Providing a comprehensive resource for intervention development, the authors identified those BCTs considered as most applicable and encouraging in promoting behaviour change in men in substance use treatment who perpetrate IPA. In summary, for ADVANCE, we aimed to improve capability by the strategies described in Figure 2.

### **3.1.8 Step 8: Modes of delivery**

Applying best practice from the 'what works' literature and RESPECT, the intervention was primarily face-to-face structured group work. Prior to group work, individual sessions assessed the client's IPA, substance use, and motivation to change. Within groups, a range of modes was used: illustrative handouts of basic concepts, individual worksheets, exercises conducted in pairs and small groups, role plays, between-session assignments, groups discussion, presentations and skills practice. A major innovation was the inclusion of video scenarios which were enactments of interactions derived from an amalgamation of individual stories within the dyad research (Radcliffe & Gilchrist, 2016) used as a focus for group discussion.

### **3.1.9 ADVANCE model**

The ADVANCE intervention consisted of up to four pre-group individual sessions to assess and motivate participants, followed by 12 x 2-hour group sessions (see Table 3). The intervention was delivered by substance use service workers trained in its delivery. Key workers contacted participants by telephone between sessions to deal with problems and motivate individuals to attend the next session. Integrated Support Services (ISS) workers provided support to participants' current/ex partner's at least three times across the intervention period on their current/ex-partner's attendance and progression, with the consent of the participants. ISS workers attended case management meetings with

the group facilitators and substance use workers (approximately five times across the duration of the research) to ensure good communication and to manage any risk.

## Discussion

The ADVANCE intervention accessed various theoretical models and frameworks to inform the content and approach. It used the BCW, based on the COM-B model, to translate this theoretical knowledge into specific targets for change and specific intervention approaches. In describing the approach and the resultant ADVANCE intervention, we have satisfied Hoddinott's (2015) call for studies that describe the rationale, processes, and methods used in developing an intervention. Thus, the ADVANCE intervention can claim to have been developed using a rigorous methodology, in particular the use of an explicit statement of the theory-based targets for change and of the appropriate mechanisms by which change should be supported. The systematic application of the BCW meant that the specific methods used were selected with reference to the type of change desired, namely improved capability, opportunity, or motivation.

This approach resulted in an intervention that met its key aim of addressing both IPA and substance use in an integrated fashion rather than addressing them as two separate problems. The intervention differed from other perpetrator programmes by offering specific knowledge and related skills that addressed both IPA and substance use in each session. While also incorporating other mainstream factors involved in IPA, namely masculine power, control, beliefs and attitudes, and aggression emanating from emotion dysregulation. It also explicitly used a multifaceted model of the range of links between the various aspects of substance use namely: intoxication, withdrawal and physiological discomfort, drug seeking and acquisition, substance using lifestyle, and a gendered view of substance use.

The utility of applying the BCW model was the specificity and clarity brought to the model. Previous intervention development studies using the COM-B model state that the use of a 'comprehensive supra-theory model' (Barker et al., 2016) allowed the developers to access multi-factor models and more than one theory of change. For example including use of incentives to encourage behaviour change based on behavioural principles alongside self-regulation such as effort regulation and attentional focus based on psychological principles to develop the intervention. The challenges of applying this model were that it constrained the focus of the intervention to something that could be explicitly stated and potentially constrained the intervention developers from including more holistic targets for example improvement on more global but less specific measures of well-being, life satisfaction or self-love as intervention goals. Also, it may have artificially restricted the intervention to only focus on the three goals of capability, motivation and opportunity which reflect only one theoretical model of behaviour change. It is possible that there are additional targets with the TDF that are key to facilitating behaviour change particularly in IPA. For example, it is unclear where cultural influences and legal and historical contexts such as the difference between collectivist or individualist cultures, or overtly religious versus secular cultures and countries with equality enshrined in law and countries where gender inequity still exists, and differences between areas with historical tolerance of general violence; of rigid gender roles or of economic inequality might explicitly fit within this model.

## Strengths And Limitations

This study strengthens the theoretical foundations on which to develop integrated interventions for IPA and substance. There has long been a call for integrated aggression and substance use interventions, yet true integration has been rare in interventions for general aggression (McMurran & Cusens, 2003) and for IPA (Stephens-Lewis et al., 2019). One of the limitations is the difficulty in capturing each level of factor that can contribute to IPA by its very nature a programme focussing on individuals will over emphasise the role of individual factors so there is a danger of losing focus on societal and structural factors which is problematic. Also, it is very difficult to know to what extent the observed factors associated with IPA contribute to different types of IPA (for instance physical violence versus coercive control) in

different groups of perpetrators (for instance those of different ethnicity and different sexual orientation) in different contexts. Across this process, these issues have been addressed by taking common features and common pathways to identify possible routes and motives for IPA that should address the main features for a majority of substance using men within a UK context: it will not cover all needs and pathways and it is unlikely to address the needs of those from different cultures and contexts.

## **4.2 Implications**

The original intervention was refined following the feasibility trial, and the content of sessions honed and the delivery and training refined to produce a better more polished version of the original, but still in line with the BCW principles. A feasibility randomised controlled trial (RCT) among 104 male perpetrators attending substance use treatment in England who were randomly allocated to receive the ADVANCE intervention plus substance use treatment as usual (TAU) compared to substance use TAU only found it was possible for trained substance use staff to deliver the ADVANCE intervention in substance use treatment services and that men who attended and staff who delivered the intervention evaluated it highly. Preliminary findings showed there was a larger reduction in IPA perpetration, anxiety and depression symptoms among the intervention participants compared with control group participants (Gilchrist et al., in preparation). A full-scale, multi-site RCT is planned to compare the effectiveness of the ADVANCE intervention plus substance use TAU to substance use TAU only, and a nested process evaluation will explore the 'what works and how and for whom'. This will in turn help develop the theoretical understanding of what features are necessary and sufficient for IPA to occur in substance using men in a UK context.

## **Conclusion**

IPA in substance use populations is high. Traditional interventions are not effective overall, and additionally those who are substance users are often screened out of generic interventions due to the need to address their substance use first. Using the BCW and TDF it was possible to systematically develop an integrated intervention based on the what is known about IPA and substance use and making use of theoretically informed behaviour change mechanisms. A feasibility trial has identified that it is possible to train substance use workers to deliver this structured intervention and to recruit men from substance use services to attend the intervention without harm. Initial qualitative results indicate the intervention is positively evaluated by participants and facilitators. Later trials will assess the impact of the intervention, which will contribute to our knowledge about what is effective in reducing the damage caused by IPA in our society.

## **Declarations**

### **Ethics**

This study was granted ethical approval by the NHS Health Research Authority Yorkshire & The Humber - South Yorkshire Research Ethics Committee and the research was conducted in accordance with research ethics principles set out in the Declaration of Helsinki.

### **Consent for Publication**

All respondents gave explicit informed consent prior to participation. All authors gave consent for publication.

### **Availability of data and material**

The data will be held in accordance with NIHR guidance and available for secondary analysis as agreed under the NIHR guidance and that of KCL, SLAM and in accordance with the ethical approval presented.

# Competing interests/Declarations of interest

None declared

## Funding

This manuscript summarises independent research funded by the National Institute for Health Research (NIHR) under its Programme Grants for Applied Research programme (RP-PG-1214-20009). The views expressed in this publication are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care. The funding body had no role in the study design, collection, analysis and interpretation of data, nor the writing of this article and the decision to submit it for publication.

## CRedit authorship contribution statement

**Elizabeth Gilchrist:** Conceptualization, Methodology, Writing- Original draft preparation, Writing Reviewing and Editing  
**Amy Johnson.** Data curation, Writing- Reviewing and Editing preparation **Mary McMurrin.** Methodology, Writing- Reviewing and Editing. **Danielle Stephens-Lewis** Data curation, **Writing Reviewing and Editing.** **Sara Kirkpatrick** **Conceptualisation and** Methodology **Benjamin Gardener** *Methodology, Writing Review.* **Caroline Easton** **Visualisation and** **Conceptualisation** **Gail Gilchrist** Visualization, Investigation Writing- Reviewing and Editing, Project Administration.

## Acknowledgements

The named authors submit this publication on behalf of all the ADVANCE research programme investigators.

## References

1. Akoensi TD, Koehler JA, Lösel F, Humphreys DK. Domestic violence perpetrator programs in Europe, part ii: A systematic review of the state of evidence. *International Journal of Offender Therapy Comparative Criminology*. 2013. <https://doi.org/10.1177/0306624X12468110>.
2. Barker F, Atkins L, de Lusignan S. Applying the COM-B behaviour model and behaviour change wheel to develop an intervention to improve hearing-aid use in adult auditory rehabilitation. *International Journal of Audiology*. 2016. <https://doi.org/10.3109/14992027.2015.1120894>.
3. Baumeister RF. Self-regulation, ego depletion, and inhibition. *Neuropsychologia*. 2014. <https://doi.org/10.1016/j.neuropsychologia.2014.08.012>.
4. Baumeister RF, Bratslavsky E, Muraven M, Tice DM. Ego depletion: Is the active self a limited resource? *J Pers Soc Psychol*. 1998. <https://doi.org/10.1037/0022-3514.74.5.1252>.
5. Baumeister RF, Heatherton TF. Self-Regulation Failure: An Overview. *Psychol Inq*. 1996. [https://doi.org/10.1207/s15327965pli0701\\_1](https://doi.org/10.1207/s15327965pli0701_1).
6. Bowen E, Gilchrist EA, Beech AR. (2005). An examination of the impact of community-based rehabilitation on the offending behaviour of male domestic violence offenders and the characteristics associated with recidivism. In *Legal and Criminological Psychology*. <https://doi.org/10.1348/135532505X36778>.
7. Cafferky BM, Mendez M, Anderson JR, Stith SM. Substance use and intimate partner violence: A meta-analytic review. *Psychology of Violence*. 2018. <https://doi.org/10.1037/vio0000074>.

8. Canfield M, Radcliffe P, D'Oliveira AFPL, Gilchrist G. Factors associated with the severity of IPV perpetrated by substance using men towards current partner. *Advances in Dual Diagnosis*. 2019. <https://doi.org/10.1108/ADD-04-2019-0003>.
9. Carbone-López K, Kruttschnitt C, Macmillan R. Patterns of intimate partner violence and their associations with physical health, psychological distress, and substance use. *Public Health Rep*. 2006. <https://doi.org/10.1177/003335490612100406>.
10. Cowdell F, Dyson J. How is the theoretical domains framework applied to developing health behaviour interventions? A systematic search and narrative synthesis. *BMC Public Health*. 2019. <https://doi.org/10.1186/s12889-019-7442-5>.
11. Cui M, Durtschi JA, Donnellan MB, Lorenz FO, Conger RD. Intergenerational Transmission of Relationship Aggression: A Prospective Longitudinal Study. *J Fam Psychol*. 2010. <https://doi.org/10.1037/a0021675>.
12. Dobash RP, Dobash RE. Women's violence to men in intimate relationships: Working on a puzzle. *Br J Criminol*. 2004. <https://doi.org/10.1093/bjc/azh026>.
13. El-Bassel N, Gilbert L, Wu E, Chang M, Fontdevila J. Perpetration of intimate partner violence among men in methadone treatment programs in New York City. *Am J Public Health*. 2007. <https://doi.org/10.2105/AJPH.2006.090712>.
14. Ellsberg M, Jansen HA, Heise L, Watts CH, Garcia-Moreno C. Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. *The Lancet*. 2008. [https://doi.org/10.1016/S0140-6736\(08\)60522-X](https://doi.org/10.1016/S0140-6736(08)60522-X).
15. Fernández-Montalvo J, López-Goñi JJ, Arteaga A. Violent behaviors in drug addiction: Differential profiles of Drug-addicted patients with and without violence problems. *Journal of Interpersonal Violence*. 2012. <https://doi.org/10.1177/0886260511416475>.
16. Finkel EJ, DeWall CN, Slotter EB, Oaten M, Foshee VA. Self-Regulatory Failure and Intimate Partner Violence Perpetration. *J Pers Soc Psychol*. 2009. <https://doi.org/10.1037/a0015433>.
17. Fulu E, Warner X, Miedema S, Jewkes R, Roselli T, Lang J. (2013). Why do some men use violence against women and how can we prevent it. In *on Men and Violence in ...* .
18. Gadd D, Henderson J, Radcliffe P, Stephens-Lewis D, Johnson A, Gilchrist G. The dynamics of domestic abuse and drug and alcohol dependency. *Br J Criminol*. 2019. <https://doi.org/10.1093/bjc/azz011>.
19. Galvani S. Alcohol and domestic violence: Womens views. *Violence Against Women*. 2006. <https://doi.org/10.1177/1077801206290238>.
20. Gilchrist E. Implicit thinking about implicit theories in intimate partner violence. *Psychology Crime Law*. 2009. <https://doi.org/10.1080/10683160802190863>.
21. Gilchrist E, Ireland L, Forsyth A, Laxton T, Godwin J, Proctor K, Wiseman K, Troy V. (2014). Roles of Alcohol in Intimate Partner Abuse. *Alcohol Research UK*.
22. Gilchrist G, Dennis F, Radcliffe P, Henderson J, Howard LM, Gadd D. The interplay between substance use and intimate partner violence perpetration: A meta-ethnography. *Int J Drug Policy*. 2019. <https://doi.org/10.1016/j.drugpo.2018.12.009>.
23. Gilchrist G, Radcliffe P, Noto AR, d'Oliveira AFPL. The prevalence and factors associated with ever perpetrating intimate partner violence by men receiving substance use treatment in Brazil and England: A cross-cultural comparison. *Drug Alcohol Rev*. 2017. <https://doi.org/10.1111/dar.12436>.
24. Halmos MB, Leone RM, Parrott DJ, Eckhardt CI. Relationship Dissatisfaction, Emotion Regulation, and Physical Intimate Partner Aggression in Heavy-Drinking, Conflict-Prone Couples: A Dyadic Analysis. *Journal of Interpersonal Violence*. 2018. <https://doi.org/10.1177/0886260518801019>.

25. Hardesty JL, Ogolsky BG. A Socioecological Perspective on Intimate Partner Violence Research: A Decade in Review. *Journal of Marriage Family*. 2020. <https://doi.org/10.1111/jomf.12652>.
26. Hashimoto N, Radcliffe P, Gilchrist G. Help-Seeking Behaviors for Intimate Partner Violence Perpetration by Men Receiving Substance Use Treatment: A Mixed-Methods Secondary Analysis. *Journal of Interpersonal Violence*. 2018. <https://doi.org/10.1177/0886260518770645>.
27. Hoddinott P. (2015). A new era for intervention development studies. In *Pilot and Feasibility Studies*. <https://doi.org/10.1186/s40814-015-0032-0>.
28. Holtzworth-Munroe A, Stuart GL. Typologies of male batterers: Three subtypes and the differences among them. *Psychol Bull*. 1994. <https://doi.org/10.1037/0033-2909.116.3.476>.
29. Karakurt G, Koç E, Çetinsaya EE, Ayluçtarhan Z, Bolen S. (2019). Meta-analysis and systematic review for the treatment of perpetrators of intimate partner violence. In *Neuroscience and Biobehavioral Reviews*. <https://doi.org/10.1016/j.neubiorev.2019.08.006>.
30. Leonard KE, Quigley BM. (2017). Thirty years of research show alcohol to be a cause of intimate partner violence: Future research needs to identify who to treat and how to treat them. In *Drug and Alcohol Review*. <https://doi.org/10.1111/dar.12434>.
31. Lessard G, Lévesque S, Lavergne C, Dumont A, Alvarez-Lizotte P, Meunier V, Bisson SM. How Adolescents, Mothers, and Fathers Qualitatively Describe Their Experiences of Co-Occurrent Problems: Intimate Partner Violence, Mental Health, and Substance Use. *Journal of Interpersonal Violence*. 2020. <https://doi.org/10.1177/0886260519900968>.
32. Locke EA, Latham GP. Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *Am Psychol*. 2002. <https://doi.org/10.1037/0003-066X.57.9.705>.
33. Lussier JP, Heil SH, Mongeon JA, Badger GJ, Higgins ST. (2006). A meta-analysis of voucher-based reinforcement therapy for substance use disorders. In *Addiction*.
34. McKinney CM, Caetano R, Ramisetty-Mikler S, Nelson S. Childhood Family Violence and Perpetration and Victimization of Intimate Partner Violence: Findings From a National Population-Based Study of Couples. *Ann Epidemiol*. 2009. <https://doi.org/10.1016/j.annepidem.2008.08.008>.
35. McMurrin M, Cusens B. Controlling alcohol-related violence: A treatment programme. *Criminal Behaviour Mental Health*. 2003. <https://doi.org/10.1002/cbm.531>.
36. McMurrin M, Gilchrist E. Anger control and alcohol use: Appropriate interventions for perpetrators of domestic violence? *Psychology Crime Law*. 2008. <https://doi.org/10.1080/10683160701483435>.
37. Michie S, Atkins L, West R. (2014). The Behaviour Change Wheel: A Guide to Designing Interventions. In *The Behavior Change Wheel: Book Launch Event*.
38. Michie S, Johnston M, Francis J, Hardeman W, Eccles M. From Theory to Intervention: Mapping Theoretically Derived Behavioural Determinants to Behaviour Change Techniques. *Appl Psychol*. 2008. <https://doi.org/10.1111/j.1464-0597.2008.00341.x>.
39. Michie S, van Stralen MM, West R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*. 2011. <https://doi.org/10.1186/1748-5908-6-42>.
40. Miller M, Drake E, Nafziger M. (2013). *What Works to Reduce Recidivism by Domestic Violence Offenders?* <http://www.ncjrs.gov/App/publications/abstract.aspx?ID=264947>.
41. Morgan K, Björkert ST. "I'd rather you'd lay me on the floor and start kicking me": Understanding symbolic violence in everyday life. *Women's Studies International Forum*. 2006. <https://doi.org/10.1016/j.wsif.2006.07.002>.
42. Muraven M, Collins RL, Morsheimer ET, Shiffman S, Paty JA. The morning after: Limit violations and the self-regulation of alcohol consumption. *Psychol Addict Behav*. 2005. <https://doi.org/10.1037/0893-164X.19.3.253>.

43. O’Cathain A, Croot L, Sworn K, Duncan E, Rousseau N, Turner K, Yardley L, Hoddinott P. (2019). Taxonomy of approaches to developing interventions to improve health: A systematic methods overview. In *Pilot and Feasibility Studies*. <https://doi.org/10.1186/s40814-019-0425-6>.
44. Radcliffe P, Gilchrist G. “You can never work with addictions in isolation”: Addressing intimate partner violence perpetration by men in substance misuse treatment. *Int J Drug Policy*. 2016. <https://doi.org/10.1016/j.drugpo.2016.03.010>.
45. Schnurr MP, Lohman BJ. How much does school matter? An examination of adolescent dating violence perpetration. *J Youth Adolesc*. 2008. <https://doi.org/10.1007/s10964-007-9246-7>.
46. Smith Slep AM, Foran HM, Heyman RE, Foster RE, Linkh DJ, Travis WJ, Whitworth JD. An ecological model of intimate partner violence perpetration at different levels of severity. *J Fam Psychol*. 2014. <https://doi.org/10.1037/a0037316>.
47. Stephens-Lewis D, Johnson A, Huntley A, Gilchrist E, McMurrin M, Henderson J, Feder G, Howard LM, Gilchrist G. (2019). Interventions to Reduce Intimate Partner Violence Perpetration by Men Who Use Substances: A Systematic Review and Meta-Analysis of Efficacy. *Trauma, Violence, and Abuse*. <https://doi.org/10.1177/1524838019882357>.
48. T.O., A., C.A., H., G.J.G., A., & J., S. (2012). Victimization and perpetration of intimate partner violence and substance use disorders in a nationally representative sample. In *Journal of Nervous and Mental Disease*.
49. Trevillion K, Oram S, Feder G, Howard LM. Experiences of Domestic Violence and Mental Disorders: A Systematic Review and Meta-Analysis. *PLoS ONE*. 2012. <https://doi.org/10.1371/journal.pone.0051740>.
50. Vigurs C, Schucan-Bird K, Quy K, Gough D. (2017). *A systematic review of motivational approaches as a pre-treatment intervention for domestic violence perpetrator programmes*. [https://whatworks.college.police.uk/Research/Systematic\\_Review\\_Series/Documents/Motivational\\_interviewing.pdf](https://whatworks.college.police.uk/Research/Systematic_Review_Series/Documents/Motivational_interviewing.pdf).
51. Ward T, Beech A. (2006). An integrated theory of sexual offending. In *Aggression and Violent Behavior*. <https://doi.org/10.1016/j.avb.2005.05.002>.
52. Weldon S, Gilchrist E. Implicit Theories in Intimate Partner Violence Offenders. *Journal of Family Violence*. 2012. <https://doi.org/10.1007/s10896-012-9465-x>.
53. World Health Organization. (2013). Global and regional estimates of violence against women Prevalence and health effects of intimate partner violence and non-partner sexual violence. 2013.
54. Yu R, Nevado-Holgado AJ, Molero Y, D’Onofrio BM, Larsson H, Howard LM, Fazel S. Mental disorders and intimate partner violence perpetrated by men towards women: A Swedish population-based longitudinal study. *PLoS Medicine*. 2019. <https://doi.org/10.1371/journal.pmed.1002995>.

## Tables

Table 1: Factors affecting likelihood of IPA perpetration

Level of Influence	Factors increasing IPA
Cultural	<ul style="list-style-type: none"> <li>Patriarchy</li> <li>Economic Inequalities</li> <li>Honour Culture</li> </ul>
Demographic	<ul style="list-style-type: none"> <li>Young Age</li> <li>Male sex</li> <li>Low socioeconomic status</li> <li>Challenges of Acculturation (competing cultures)</li> </ul>
Neighbourhood/community	<ul style="list-style-type: none"> <li>Collective efficacy</li> <li>Low social cohesion/control</li> <li>Neighbourhood disorder/disadvantage</li> <li>Alcohol outlet density</li> <li>Involvement in drinking/drug taking subculture</li> </ul>
Family	<ul style="list-style-type: none"> <li>Experience of child abuse and neglect</li> <li>IPA exposure in childhood</li> </ul>
Peer Association/influence	<ul style="list-style-type: none"> <li>Negative /antisocial/substance using peers</li> <li>Lack of social support</li> <li>Lack of emotional support</li> </ul>
Relationship	<ul style="list-style-type: none"> <li>Unstable/unequal relationship status</li> <li>Satisfaction</li> <li>Relationship conflict</li> <li>Jealousy</li> </ul>
Psychological/behavioural	<ul style="list-style-type: none"> <li>Insecure/dismissive Attachment</li> <li>Negative emotionality</li> <li>Anger</li> <li>Impulsivity</li> <li>Low mood</li> <li>Anxiety</li> <li>Substance use</li> <li>Personality disorder(s): antisocial/borderline</li> <li>Low self-esteem</li> <li>Suicidality</li> </ul>
Cognitive	<ul style="list-style-type: none"> <li>Hostile beliefs</li> <li>Hostile attitudes</li> </ul>

Hostile attributions

Entitlement

Rigid sex roles

## Table 2: intervention components

Factors underpinning IPA in substance using men	COM-B	TDF	Intervention Function	BCTs	Translation of BCTs within ADVANCE
1. Respect					
See selves as the victim	Reflexive Motivation	Social Role/Identity	Persuasion	Acknowledge backgrounds	Information on intergenerational IPA links
See selves as unable to make positive changes		Belief about capability	Education	Promote positive images	Boost positive models non-abusing male
Believe they will lose male identity if change		Intentions	Enablement	Promote self-efficacy	Work with clients' strengths
Not believe they have choices		Goals	Modelling Incentivisation	Reward positive choices	Reward positive engagement/attendance: attend as you can
		Optimism		Reward attendance	Pay incentives rewarding attendance – tied to positive non-abusing goals
Lack understanding of the impact of their behaviour on partner	Reflexive Motivation	Belief about consequences	Education	Demonstrate positive and negative interactions on film	Film demonstrating impact of substance led or controlling ('protective') behaviour on partners
			Modelling		
Goal to have positive family Life	Automatic Motivation	Reinforcement	Incentivisation	Reward and restate positives	Offer incentives for attendance
Desire to be good parent					Revise messages in out of session work
Desire to avoid being like own parents					Revise messages at check in
2. Self-regulation					
Poor behaviour management	Physical capability	Behavioural Regulation	Enablement	Introduce self-management	Films demonstrating how to do it differently
Poor self-regulation			Modelling	Manage Emotions	Demonstrate distress tolerance
			Incentivisation	SMART goals	Incentives for Attendance
3. Substance use					
See substances as controlling their behaviour	Physical Capability	Physical Skills	Education	Feedback on substances and	Provide input on range of influences of substances on behaviours:
			Enablement		

Fail to inhibit controlling or abusive behaviours				behavioural choice Promote behaviour management Distress tolerance	acquisition, intoxication, withdrawal, lifestyle Introduce behavioural strategies to reduce abusive and controlling behaviours
Lack understanding of range of impact of substance use on their thinking and behaviour	Psychological Capability	Knowledge	Education	Provide information on impact of substances on behaviours	Films demonstrating impact of substances via acquisition, intoxication, withdrawal, lifestyle and entitlement on behaviours
Poor ability to challenge Negative automatic thoughts (NATs)  Poor perspective taking	Psychological Capability	Memory, attention and decision	Enablement	Advice on cues for conflict Elicit client input	Increase awareness of triggers/cues to relationship conflict Increase self-awareness
	Psychological Capability	Emotion	Persuasion Enablement	Show positive images Work 'with' clients' motivation Highlight strengths	Film of masculinities to challenge Films of doing it differently to enhance motivation Focus on personal goals Develop skills to plan and enact positive relationship behaviours
	Physical opportunity	Context Resources	Enablement Education	Support non abusing partner Identify opportunities to practice	Proactive contact and information and support for non-abusing partner to minimise opportunity for ongoing abuse Value out of session work Provide additional telephone calls to encourage 'try it out' Teach positive relationship skills: perspective taking and communication
	Social opportunity	Social influences	Modelling	Demonstrate respectful communication	Show respectful positive communication between facilitators

Respectful challenge  
between facilitators and  
group members

Respect and ground  
rules in group

Table 3. ADVANCE sessions

Session Title	Session Objectives
1. Introduction	<ol style="list-style-type: none"> <li>1. Get to know fellow group members</li> <li>2. Understand the aims of the group</li> <li>3. Understand what IPA is and how substance use can affect such behaviours</li> <li>4. Learn new skills that can help in times of distress</li> </ol>
2. Managing Myself	<ol style="list-style-type: none"> <li>1. Shift focus from managing your relationship to managing yourself</li> <li>2. Understand how substance use affects self-regulation</li> <li>3. Be able to identify self-regulation and monitoring skills</li> </ol>
3. Being a Man	<ol style="list-style-type: none"> <li>1. Examine costs and pay-offs when being abusive</li> <li>2. Identify triggering situations</li> <li>3. Have improved self-awareness</li> <li>4. Practice behavioural analysis</li> </ol>
4. Impact of Intimate Partner Abuse	<ol style="list-style-type: none"> <li>1. Understand the key aspects of IPA behaviours and how substance use affects them</li> <li>2. Understand the impact of IPA on women</li> <li>3. Continue to practise behaviour analysis</li> </ol>
5. Children and Parenting	<ol style="list-style-type: none"> <li>1. Recognise the impact of childhood experiences</li> <li>2. Be able to identify the impact of witnessing IPA on children</li> <li>3. Be able to identify the impact of parental substance use on children</li> <li>4. Accept the past, build resilience, and learn from mistakes</li> <li>5. Identify the strategies that lead to repeat or not repeat</li> </ol>
6. Relating	<ol style="list-style-type: none"> <li>1. Promote respectful and equal behaviours in ongoing relationships</li> <li>2. Give up controlling behaviours within a relationship</li> <li>3. Be able to recognise and challenge relationship jealousy</li> <li>4. Become aware of unhelpful automatic thoughts and core beliefs</li> </ol>
7. Improving Communication	<ol style="list-style-type: none"> <li>1. Recognise challenges to communication in relationships and when using substances</li> <li>2. Reduce abusive communication and increase respectful egalitarian communication</li> <li>3. Develop a staying safe plan</li> </ol>
8. Dealing with Distress	<ol style="list-style-type: none"> <li>1. Understand what distress is</li> <li>2. Learn to manage mood and emotions</li> <li>3. Understand how substance use affects distress</li> <li>4. Understand thinking errors and their impact</li> </ol>
9. Planning to be Better	<ol style="list-style-type: none"> <li>1. Identify high risk situations for IPA</li> <li>2. Develop plans to manage high risk situations</li> <li>3. Increase skills for staying safe</li> </ol>

<p>10. Positive Relationships</p>	<ol style="list-style-type: none"> <li>1. Understand the impact of behaviours in different relationships: substance using relationship, non-substance using partners, substance use discordant relationships</li> <li>2. Be able to identify features and benefits of equal relationships</li> <li>3. Be motivated and capable of using respectful behaviours in relationships</li> </ol>
<p>11. New Future, People's Plans, Positive Activities</p>	<ol style="list-style-type: none"> <li>1. Create and engage with positive social networks</li> <li>2. Identify meaningful activities and positive behaviours</li> <li>3. Select realistic positive goals</li> <li>4. Identify explicit positive life goals</li> </ol>
<p>12. Recap 'What Have We Learned'</p>	<ol style="list-style-type: none"> <li>1. Describe new skills, identify strengths and progress</li> <li>2. Identify positive resources to help maintain change</li> <li>3. Identify further referrals</li> <li>4. Understand where to reach help, support, follow up and to say goodbye</li> </ol>