Field Report

Studying the effectiveness of motivational group therapy in heroin addicts in Kabul

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Abstract

Afghanistan has one of the highest rates of substance use in the world, yet existing treatment focuses on detoxification, residential rehabilitation and with very low intensity aftercare. Current available treatment should be changed to more evidence-based modalities, such as structured psychosocial interventions. In addition, the main role of affect in development, maintenance and abstinence of substance use disorders should be also taken into account. Many therapy models can assist in substance use disorders recovery, such as the trans-theoretical model of change, which is a motivational programme that facilitates change by (1) increasing awareness and self re-evaluation; (2) understanding the necessity for change; (3) increasing motivation; and (4) maintaining change and preventing relapse. This field report describes using group therapy for those who are not sufficiently motivated to drug cessation, components of group therapy, as well as results, challenges and suggestions for future studies.

Keywords: Affect, craving, group therapy, trans-theoretical model of change

Introduction

Afghanistan has one of the highest rates of substance use in the world. Generally, the number of substance users is estimated to be 1.9 to 2.4 million adults (United Nations Office on Drugs and Crime, 2015). Studies show that available treatments in Afghanistan focus mainly on detoxification and residential rehabilitation. These therapies pay very little attention to aftercare periods in which cravings will occur and need to be managed, either by substitute treatment methods (such as prescribing methadone) or psychosocial and psychotherapeutic interventions (United Nations Office on Drugs and Crime, 2010).

In recent years, many substance users were compulsorily taken into custody by the Ministry of Public Health (MOPH) and Ministry of Counter Narcotics from under bridges and other abandoned places. They were quickly involved in detoxification programmes. As substance users, they had not attended to be in these centres by choice, as they often did not have enough motivation to be treated.

In the past, motivation was known as a quality, which was unchangeable. Treatment programmes were, therefore, 'action-based', meaning that they were designed for people who were ready for change, and not for those that were unprepared to change. Those people who were not there voluntarily were not accepted.

Studies show that motivation and readiness to change are important dimensions to address in treatment programmes. In addition, motivation for change may increase through experiential and behavioural process as an engine for change. These processes may help people to follow the steps described in detail below (pre-contemplation, contemplation, preparation, action, maintenance and relapse) (Velasquez, Crouch, Stephen, & DiClemente, 2016) and may include increased attendance of therapy sessions, reduced cravings, maintaining abstinence, affect regulation, as well as treatment outcomes (Serafini, Shipley, Stewart, 2015; Ram & Khalique, 2014).

The trans-theoretical model (TTM) that was proposed by Prochaska and DiCementa in 1970s [Migneault, Adams, & Reads (2005)] emphasises two structures; decision-making ability and self-efficacy that are the main factors of abstinence and ability to maintain abstinence. Decision-making is built on an experiential process of change (increasing

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awareness, re-evaluation) (Prochaska, DiClimente, & Norcross, 1992). Self-efficacy also refers to individual's conviction that he or she is capable of implementing actions and produce a given outcome (Badr & Moody, 2005). It is more related to therapy results and usually evaluated by combining the rate of craving and the client's self-efficacy used to avoid risky behaviours and trigger situations (Velasquez *et al.*, 2016). Naar-king *et al.* (2006) found that self-efficacy can mediate the relationship between stages of change and substance use.

In addition, the main assumption in TTM is that people do not change behaviours quickly nor decisively. Change occurs continuously through six stages: pre-contemplation, contemplation, preparation, action, maintenance and relapse. Different intervention strategies can be used for each stage of change (De Biaze Vilela, Flávia Serebrenic, Laranjeira, & Callaghan, 2009).

Pre-contemplation

At this stage, there is no intention of changing behaviour. If an individual asks or participates in treatment, it is because of external pressure. The main task at this stage is to become aware of the existence of a problem and the need to change it.

Contemplation

Thinking about a solution, yet without committing to action. At this stage, an individual knows that he or she has a problem and begins to think about a possible solution. Hence, intervention strategies must assist the individual to examine the reasons for his or her current behaviour and to change the behaviour. Suggested techniques are value clarification, decision-making and role clarification. Le Berre *et al.* (2012) suggested that a set of cognitive abilities can help to achieve awareness and resolve ambivalence, which is important for activating a desire to change behaviour.

Preparation

Commitment to change. At this stage, most activities focus on strengthening the commitment and establishing an action plan based on individual context. Suggested techniques are goals setting, framing and problem solving.

Action

At this stage, people most overtly modify their behaviour and need to increase commitment and energy expended. Key processes that help an individual to move forward are self-efficacy, self-liberation, stimulus control, counterconditioning and reinforcement management. Suggested techniques are relaxation, reinforcement, role-play and relapse prevention planning.

Maintenance

At this stage, people have sustained their behavioural change and intend to maintain their behaviour. Often, change is not yet completely established. Particularly, when the environment is filled with cues that can trigger problematic behaviour. So, the main issue is relapse prevention. Key processes that help people to maintain change is counterconditioning, reinforcement management, helping relationships and social liberation.

Relapse

Prochaska *et al.* (1992) defined relapse as a stage of change. Indeed, relapse is an expected part of the process of change and indicates that people can cycle and recycle through the stages. Most interventions in this stage emphasise a return to the previous plan (Velasquez *et al.*, 2016).

In addition to the contributing factors of low motivation and lack of readiness to change, people use drugs to change their mood. They do that for two reasons: because they want to increase positive feelings (recreational use), or they want to decrease negative feelings (such as feelings of depression or anxiety). In addition, drug-taking might start as a form of self-medication for symptoms of posttraumatic stress disorder or depression. In such cases, substance users modify negative feeling that they could not manage without substance use. Removing such negative feelings by taking drugs means that drug-taking behaviour is followed by negative reinforcement, and thus becomes more likely to be repeated (Baker, Piper, McCarthy, Majeskie, & Fiore, 2004).

After a period of abstinence by people who have become addicted, these people may experience mixed feelings: positive feelings (like relief), as well as negative feelings such as hopelessness, sadness, fear and guilt that may have contributed to drug-taking behaviour in the first place. These negative feelings may result in cravings: an extremely powerful desire to use the drug again, despite the negative consequences (National Institute on Drug Abuse, 2018). Cravings could also be seen as an extremely strong negative feeling, accompanied by the belief that one cannot do anything else except take the drug once more. Cravings could be further defined as a combination of negative affect with a self-defeating thought. The main goal of therapy for former drug addicts might be to support them in dealing with the sensations of cravings: both the feelings and the unwholesome cognitions.

In this field report, we describe our experience of a group therapy based on the 'TTM of change' to help people to increase motivation to change and decrease cravings, negative affect and increase positive affect.

Materials and Methods

Design

A pretest and post-test experimental design with a control group was used to study the effectiveness of 10 weeks' group therapy based on TTM, using positive and negative affect regulation and heroin craving. This study was implemented in the rehabilitation ward of the Nejat Centre for addiction treatment.

Participation

The Nejat Centre is an Afghan addiction treatment centre in Kabul. This centre offers a residential drug-treatment that is complemented by pre-treatment, detoxification,

aftercare and follow-up, rehabilitation, reintegration and referral services to vocational training. The residential programme lasts 45 to 60 days and can host up to 60 patients at any given time. In addition, they provide night shelters for drug users (Nejat Centre, 2018). Medical doctors, paraprofessionals and some recovered drug users make-up the Nejat's staff. Forty men who met the following inclusion criteria were selected:

(1) Aged between 18 and 45
(2) Should not suffer any psychotic disorders, major physical illnesses (TB, malaria, HIV) or disabilities
(3) Should have at least a sixth grade education
(4) Interested in participating in group therapy

As detoxification was the most important strategy to treatment of Substance Use Disorders (SUDs) in Nejat, individuals were taking medicine based on their withdrawal symptoms. They did not receive any psychosocial or psychotherapeutic interventions or relapse prevention in the rehabilitation phase. After spending 45 to 60 days in the centre, they were discharged. Some followed an aftercare programme, but most could not continue abstinence and returned to Nejat when they relapsed.

In addition, some people were chosen who had spent a few days (3–7 days) in detoxification, as well as meeting inclusion criteria. They were randomly divided into two groups of 20 heroin addicts: the intervention group received motivational group therapy and no medication. The control group received the Nejat's routine programme, which was medication only.

Before finalising the sample groups, all volunteers participated in an introduction session about the programme, its duration (10 weeks of 90-min sessions) and expectations. In addition, a clinical interview[1] was performed by therapists to assess suitability. Informed consent was presented (participation is voluntary and they could leave the programme at any time) and confidentiality was guaranteed. The study was approved by the mental health department in MOPH and Shiraz University.

Procedure

All participants were informed about the aims of research. They were divided into two groups, based on criteria outlined above. One group received 10 weekly sessions of group therapy. The participants in the control group were treated with routine medications and did not receive motivational interventions. Before starting group therapy, all participants filled in the Positive and Negative Affect Scale[2] and the Heroin Craving Questionnaire[3] as a pretest.

It is unusual that therapists were able to obtain any information about participant's expectations. Most clients choose to complain about their families and not speak about their expectations directly: *'if they had not abandoned me, I could stop drugs'*, *'please convince my family to visit me'* or *'they have brought me here, and I am not addict'*. Or the lack of information about the disadvantages of drugs: *'I think that drugs are a good thing!'*, *'addiction is a sickness that doesn't have a treatment'*, *'using drug is not difficult, temptation is more difficult'*, *'I want to go back to my work'*. Therapists listen carefully and have given feedback with empathy and respect. Then, therapists extracted participants' expectations from the complaints. Finally, the therapists designed 10 sessions of group therapy based on participants' expectations.

After 10 weeks, all participants again filled in the positive and negative affect scale and the Heroin Craving Questionnaire as a post-test. They could then participate in Nejat's aftercare programe and will be tracked for six months up to one year after ending group therapy sessions. All data were analysed by analysis of co-variance (ANCOVA) in SPSS version 16.

Components of group therapy

Week 1: Orientation, rapport building, change of stages

The first session includes a programme overview, activities, sharing hope and expectations, determine a list of rules for the group therapy, discuss change cycles and help clients to find their stage in the change cycle (pre-contemplation, contemplation, preparation, action, maintenance).

Week 2: Awareness of the amount of substance use and the reason for using substances

This session includes these activities: 'a day of my life' and 'my expectation of using substances'. Participant share 'a day of life' to increase awareness of the amount of substances they were using and the times they used substances differently (more or less), such as on holidays or wedding etc. The activity 'expectation of drug use' leads to a discovery of the main reasons for substance use and lead to increased motivation to change. Finally, awareness of advantages and disadvantages lead to making a decision to decrease use or to move to abstinence.

Week 3: Concerns clarification (who is concerned about your substance use?)

This session includes provoking participants to think about 'who is concerned?' 'Concerns clarification' increases awareness about problems due to substance use and methods that people used to express concerns. Thereafter, participants discuss their concerns about substance use.

Week 4: Values clarification

This session includes 'my important values in life'. Each person has important things in his/her life (such as family, job, success in education etc.). Identifying and expressing personal values are the main important issues. Then, participants will think about 'how substance use has been hampered by this value?'. Understanding inconsistent behaviour and values may lead to an increase in motivation to change. Finally, participants make a list of advantages and disadvantages of substance use. This activity helps to create a decisional balance.

Week 5: Roles clarification

This session includes a journey back in time to 5 years ago (when they did not use drugs) through relaxation, thinking about roles, listing roles and then asking these questions: 'how has substance use affected these roles? What roles have been removed? What roles are they unable to perform after substance use?'. Finally, we asked them: *'how can you prevent these problems in the future?'*.

Week 6: Determining goals, planning

This session includes reviewing inconsistent values and substance use, determining a goal about substance use and planning and drawing a map to achieve this specific goal.

Week 7: Self-confidence and temptation (identify triggers)

This session includes two activities: temptation times and level of confidence. In the first activity, participants fill in a form that includes different triggers (negative affect, physical problems, social pressures and personal desire). Then, participants identify their level of confidence. They are asked this question: *'how confident are you that you would not use a substance in this situation?'*. The aim of this activity is to identify triggers and to learn how a person can avoid or cope with them.

Week 8: Cravings management

This session includes discussions about experiences of cravings, success in cravings management and a focus on how much they attempt to manage cravings instead of failures in management of cravings. They share successful strategies in cravings management, conclusion and list strategies. Participants can then use this list when they face triggers.

Week 9: Stress management through relaxation, contingency management

This session includes identifying some triggers where they cannot avoid using substances (e.g. positive affect and negative affect). They need to learn relaxation techniques to respond to this stress. In addition, many people have difficulty identifying small changes and always discuss negative aspects and obstacles, so therapists help participants to identify the last success and self-reward, because rewarding small behavioural changes lead to maintaining them and increases the positive affect.

Week 10: Finding new methods to enjoy life and termination of sessions

This session includes identifying activities that help them to enjoy life instead of using substances (such as spending time with friends, watching TV, listening to music). Finally, group therapy will end by asking these questions: 'tell us about two things that you have learnt from the group therapy, and how has this group impacted your life?' Finally, participants are asked to name one positive thing about each person in group.

Results

Data were analysed by ANCOVA in SPSS version 16. Descriptive analysis showed that the average age of participants was 29.75 years. Information on educational level showed that 46.9% of participants had been educated in religious schools (Madrasa), 50% had completed 6 to 9 grade of secondary school and 3.1% had completed high school (9–12 grade). In addition, 59.4% only used heroin, 9.4% only used opium and 31.3% used opium, cannabis and heroin. Most of participants used substances through sniffing, 6.3% injections and 3.1% through sniffing and injections. Sixty-five per cent were homeless and refugees (their families were living abroad), 15% came from other provinces and had relatives in Kabul and 20% were living in Kabul.

However, interviews with personnel (doctors, nurses and social workers) were not part of the programme design in research methodology. However, we did receive some comments about the effects of therapy and decided to have a few sessions with them during group therapy sessions. They reported some behavioural changes in participants since starting group therapy. They mentioned that *'we are feeling comfortable and are working easily since group therapy started. Most of clients did not follow treatment orders and left the centre after a few days of detoxification, sometimes they created a controversy to get out of the centre. Now, they pay more attention to self-care, helping each other and appreciate our efforts. They did not discuss a long list of reasons to be discharged and some clients talk to each other about group therapy activities and current concerns.'* Although this programme was a pilot psychosocial programme, we received many requests to conduct more group therapy and family counselling programmes at the Nejat Centre.

This programme started with 20 participants in each group. Three persons from group therapy and five persons from the control group left the programme during the primary sessions.

Finally, the data were collected from 17 persons from group therapy and 15 persons from the control group. The data are summarised in Table 1. It indicates mean and standard deviation in pretest and post-test scores.

General outcome

Covariance was analysed to compare the pretest and post-test scores. As Tables 2 to 4 indicate significant reduction

Table 1: Descriptive statistics on cravings and positive and negative affects

Variable	Group	Pretest		Post-test	
		Mean	SD	Mean	SD
Craving	Group therapy	216.64	7.69	112.84	7.44
	Control	174.00	8.42	147.00	6.72
Positive affect	Group therapy	33.23	1.58	37.23	1.34
	Control	31.13	1.34	32.53	1.44
Negative affect	Group therapy	34.11	1.70	25.80	1.12
	Control	34.33	1.58	32.00	1.50

Table 2: Dependent variable (craving)

Source	Type III sum of squares	df	Mean square	*F*	Sig.	Partial eta-squared
Group	20,838.354	1	20,838.354	38.353	0.000	0.569
Error	15,756.521	29	543.328	Error		
Total	569,435.000	32				

Table 3: Dependent variable (positive affect)

Source	Type III sum of squares	df	Mean square	*F*	Sig.	Partial eta-squared
Group	76.985	1	76.985	6.226	0.019	0.177
Error	358.598	29	12.365			
Total	40,375.000	32				

Table 4: Dependent variable (negative affect)

Source	Type III sum of squares	df	Mean square	*F*	Sig.	Partial eta-squared
Group	284.875	1	284.875	29.247	0.000	0.502
Error	282.465	29	9.740			
Total	27,568.000	32				

in cravings ($F = 38.353$, $P < 0.05$) and negative affect scores ($F = 29.247$, $P < 0.05$) in individuals who had received group therapy. In addition, there is a significant improvement in positive affect ($F = 6.226$, $P < 0.05$). In the waiting list, control group no significant changes were identified.

Contribution of therapy

Partial eta-square show that 0.56 of cravings, 0.17 of positive affect and 0.50 of negative affect sores variance are related to group therapy.

All participants need to follow the routine aftercare program in Nejat. We did not conduct follow up and measure cravings, positive affect and negative affect after group therapy sessions, but we checked participations status in the Nejat Centre registration system at 6 months and 1 year after group therapy termination.

Group therapy: 59% of clients (10 persons) did not relapse after 1 year and four persons were working as volunteers to help other clients in the Nejat Centre. Twenty-nine percent (5 persons) relapsed and started detoxification and individual psychotherapy again. There is no information about 11.5% (two persons).

Control group: A total of 53.3% (eight persons) relapsed; there is no information about the remaining 46.7% (seven persons).

Discussion

The objective of this study was to evaluate the efficacy of motivational group therapy among heroin addicts. The results showed significant reduction in cravings and negative affects scores and significant improvement in positive affects scores of those who received motivational group therapy. As a result, this study can contribute to evidence for the utility of the TTM for Afghan substance users. The findings in this study support previous research that showed promoting self-efficacy, decision-making, solving ambivalence and emotion regulation reduce craving and relapse (Ham & Yoo, 2009; Naar-king *et al.*, 2006; Marlatt & Donovan, 2005; Callaghan *et al.*, 2005; Share, McCrady, & Epstein, 2004; Niaura, 2000).As Prochaska *et al.* (1992) suggested, self-efficacy and decision-making are two main factors in abstinence and maintaining abstinence. In this study, therapists provided group therapy sessions to promote these two abilities. Craving scores were evaluated as abstinence self-efficacy; meaning participants with low scores in cravings have a belief that they are capable of coping with triggers and manage cravings. This ability can mediate relationship between decisional balance and behavioural process (stimulus control, counter conditioning and supportive relationship), promote motivation to change and lead participants to next change stages (Ham & Yoo, 2009; Naar-king *et al.*, 2006). If individuals can use coping strategies in risky situations successfully (cues, positive and negative affects), the level of self-efficacy will increase and the likelihood of relapse will decrease (Marlatt & Donovan, 2005; Niaura, 2000).

Awareness of the possible negative consequences, benefit and cost of change, expectations about the effects of an increase or decrease in use, all help participants to solve ambivalence, make decisions and move onto an action stage. This is consistent with Share *et al.*'s (2004) finding; individuals classified as being in the action stage perceived more benefits, as compared to the cost of change.

In addition to self-efficacy and decision-making, group therapy sessions included re-evaluation activities like values, role and concerns clarification, and goal setting. As Folkman and Lasarous (Reeve, 2005) believe, changing in evaluation leads to changes in emotions through incorporating personal motivations (values, plans and goals).

Participants who received motivational group therapy reported significantly lower levels of negative affect and higher levels of positive affect. Negative affect predicts increased approach inclinations (desire to use), positive affect predicts increased avoidance inclinations (desire to not use) (Schlauch, Gwynn-Shapiro, Stasiewicz, Molnar, & Lang, 2013), and combined positive and negative affect consistent with ambivalence construct. Our study shows that group therapy sessions help participants to solve ambivalence and experience low levels of negative affect and high level of positive affect. So, affective state can moderate response to substance cues and individual with higher level of positive affect may be capable to manage craving.

Conclusion

In Afghanistan, many substance users enter treatment through coercion from families, addicts collecting campaigns and/or employers. They do not have enough motivation to cease drug use, so they receive detoxification as the main phase of addiction treatment and their addiction history is full of relapse and detoxification. The findings of our study suggest that Afghan treatment programmes need to provide programmes that help individuals to become ready for change and to be able to maintain the change.

Furthermore, using group therapy is not just about saving time and energy, or decreasing costs for a few people, group therapy (due to its nature) facilitates circumstances for members to participate in each other's treatment and reveal special factors, such as hope, altruism, corrective experiences and a change in feelings. All of which increases a client's motivation. In addition, group therapy provides additional social support for substance users that are homeless.

Limitations and suggestions

(1) Time limitation for the study in Afghanistan meant that the follow-up stage was not implemented. Therefore, the lasting effects of (group) therapy were not measured. Participants were tracked in the Nejat Centre registration system in 6 months and 1 year periods after termination of group therapy.

(2) Most participants had low levels of education and could not do subjective activities easily. Therefore, therapists suggested breaking activities or simplifying them and changing subjective activities to objective activities. For example, therapists used emotion cards to present who is concerned about my substance use and how does he or she present this concern. Using a scale pan for finding pros and cons of substance use, using different pictures of who is ambivalent, who is ready to start and . . . to show stages of change, charts, drawing map, male and female stickers to show 'how substance use have affected roles? What roles have been removed'. All of the pictures and charts were made with simple and colourful papers and markers.

(3) As all participants were males and the investigator was a woman, all sessions were conducted with a female therapist and a male co-therapist to respect cultural and religious parameters of sexuality and increase therapeutic relationship.

(4) In the first session of group therapy, the stage of change was indicated for every participant. As most participants were in either the precontemplation or contemplation stage of change, we allocated more time to work on awareness of the amount of substance used, concerns, contradictions between substance use and client's roles and values. These sessions helped them to make decisions and solve avoidance approach conflicts. In addition, 90 min was not enough for most sessions, because of the level of education and their enthusiasm to speak on each participant. Therapists extended this time to 120 min and divided it into three: first 55 min, 10 min refreshment, second 55 min.

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Conflicts of interest

There are no conflicts of interest.

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[1]This checklist was provided according to (DSM-IV_TR) criteria that includes 130 symptoms of mental disorders, symptoms of diagnostic mood, anxiety, psychotic, psychosomatic, epilepsy, lag, mental retardation and brain organic disorders. These symptoms were given with yes and no method. The ranking of symptoms was according to scale of slight, medium and intense that each interviewee checked, according to the influence of disease on his individual, career, education and/or family and social performance.

[2]Positive affect and negative affect scale: this questionnaire was provided by Watson, Clark, & Tellegen (1988). There are 20 categories which reveal sensations (10 positive and 10 negative) that are mentioned in words, context and observation in a five-scale ranking, from rarely to always.

[3]The Heroin Cravings Measurement Questionnaire which was prepared by Tiffany *et al.* (1993) was used in this research. This questionnaire consists of 45 questions and five subscales; (a) desire to use heroin; (b) intension and plan to use heroin; (c) anticipation of positive outcome; (d) relief from withdrawal or dysphoria; and (e) lack of control over use. Each question is ranked and numbered according to seven scales (strongly agree to strongly disagree). In order to study these tools on 206 substance users in Kabul, the researcher used confirmative/operative analysis and Cronbach alpha. Results showed that the four factor pattern, is the most graceful pattern, and the Cronbach's alpha coefficient in this questionnaire was 0/86.