



ACCEPTANCE AND COMMITMENT THERAPY ON GIVE-UP MOTIVATION, RESILIENCY, CONSUMPTION CARVING'S WOMEN SMOKER

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ABSTRACT

Purpose: the purpose of this practical study is to analyze the effectiveness of a treatment based on acceptance and commitment on give-up motivation as well as resiliency and consumption carving among women smokers.

Method: during a semi-empirical research plan (semi-experimental) using available sampling, 30 individuals, who had research criteria, were picked up from among women smokers who were referring to the give-up clinics in district 1 of Mashhad municipality. To begin with, pre-test of Shiffman' nicotine dependence scale over the preferred sample was done, and then subjects were randomly placed in two groups of Test and control. Test group, consisted of 15 attendees got started its work leading by a research fellow aiming to do treatment interferences (8 weekly group meetings – each meeting took 90 minutes), while the control group was also in waiting list. The analysis of research data was done by multivariate covariance using SPSS 21 software.

Findings: the results coming from comparing pot-test and pre-test control showed that the motivation to give up and its sustainability, has risen considerably after attending in treatment meetings based on acceptance and commitment compared to the proof group, ($p < 0.05$); additionally, the willing to smoke has reduced dramatically among women (examination group).

Conclusion: investigators believe in increasing the effectiveness of treatments using some methods like acceptance and rationale commitment, and something that lies in this method including acceptance, increase of awareness, being at the moment, seeing without judgment, and abstaining from empirical avoidance. Therefore, increasing psychological flexibility in the acceptance-based treatment can heighten the patient's ability upon getting along temptations and give-up symptoms as the chief parameter for resuming smoking.

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Introduction

Nowadays tending to smoking and its undesirable outcomes is considered as one essential public health problem across the world. Tobacco-dependent diseases is accounting for 6% to 14% of personal problems and expenditures in all over the world (1). In terms of smoking tendency causation, there have been expressed several theories; however none of them cannot be justifying the matter individually. In many cases, there are a collection of factors which playing role in smoking, but in various personal-social cultural circumstances, some factor's role comes with a great deal of importance (2). According to (3), from one side, consuming opiate is educated by means of imitating and adopting role model's lifestyle in the area of impersonal relationships, and on the other side, it is placed as person's knowledge and belief influenced by personal factors and self-effectiveness; he believes drug consuming behaviors is related on the one's role models especially his parents, friends and peers on one side, and on the other side, it 's depended on his role model's positive attitudes and beliefs about perceiving the ability to use or avoid drug. From(4) point of view, using drug as an educated behavior is as a result of personal and impersonal interactions; sighting his hypothesis, whenever a teenager carrying features like low resiliency and

self-esteem feels like separated from his family, outside control resource, positive attitudes towards drug when interacting those people who are encouraging him to use drug, are more vulnerable to consume drug; thus using drug as a retroactive behavior is interpreted as a result of personal and impersonal factors.

Resiliency is kind of well-known mechanism which impacts on drug-consuming tendency and dependency on it; the purpose of resiliency is a process of successfully adapting with challenges or threats (5). Resiliency can be described as the ability to come out arduous situations or balancing them. Indeed, resiliency is the capacity of individuals to remain healthy as well as standing against difficult and dangerous situations in which the person not only defeats the circumstance, but he gets stronger by doing so (6). During an investigation, (7) showed that resiliency is regarded to positive emotions and perform a protective role against drug using.

Today, many people see drug using as a chronic, recurrent disorder accompanied by incessant slippages; which the cure of it, to a certain extent, has been turned as a big deal. As investigative reports show, many abusers after detoxification and entering to rehabilitation periods restart to use drug anew during 90 days (8). According to pre-clinical and clinical studies, drug craving is accounted for one of major recurrent factors (9); which is known as the therapy success index, because it may be a sign of imminent reflex (10, 11). Carving about drug using is the main driving force in drug consumption disorder which it can be modulated effectively by lowering consumption and favorable consequences (12); it seems that cigarette carving is controlled by means of automated or non-automated cognitive- emotional processes, so that carving theories generally affirming that urges in individuals are connected with activation of emotions and drug-seeking motivations (13).

The motivation to quit drug use is also embedded in the parameters which have distinguished impacts on resuming or giving up smoking. The word of motivation has various definitions in psychology; readiness or potentially intrinsic tendency to respond any status or special outside stimuli among other situations and triggers can be called as motivation (14). Rapoport describes motivation as intrinsic status of organism through which the one's behavior and thought is resulted from (11). Investigating on give-up motivation has become one basic concern among researchers who are studying on quit smoking for a long time (15). The main reasons for having such worries are: lack of stable and clear application and feature in psychology for supporting give-up motivation and current problems for evaluation; however, there is a consensus on what is important and significance in the life. In fact, the motivation is being targeted for all judgments that are done upon human, and it reflects the man's perceptions, his judgments and common ethical ideals between human being (16).

Social learning theory says that a system of ill-beliefs causes to maintain addictive behavior and thus it is necessary to use cognitive recovery in order to intervention (17). In third wave of psychotherapy, known as postmodern psychotherapy, it has believed that cognitions and emotions should be taken into account of concept texture of phenomena. In this way, here, the patient is taught to accept his emotions and takes advantage of "here and now" living rather than addressing some approaches like cognitive-behavioral therapy which amend wrong knowledge and inefficient beliefs. For this reason, during this therapy, traditional cognitive-behavioral techniques are combined by mindfulness (18). Acceptance and commitment therapy (ACT) consists of two sections of mindfulness and action or experience at the moment, and individuals are taught that by accepting emotions and sentiments as well as refraining from experimental avoidance, to live here and now and confront their drug-using temptations in a better way (19). In the other words, a treatment based on acceptance and commitment to help people live life more desirably, despite the existence of unsatisfactory thoughts, emotions and feelings, is emphasized (20). Indicated the effect of this type of therapy on carving rate and emotional modulating among "Meth" consumers (21).

Consultation based on acceptance and commitment constitutes a new generation of cognitive-behavioral therapies which escalates people's psychological flexibility. Despite the importance of this consultation on improvement of many respondents personally and within the family, especially in the field of opiate dependency which encompasses a large number of our youth, there have been a handful studies in terms of its efficiency.

Drug consuming within low-income countries is rocketing up quickly. In a situation where, the number of people targeted by opiate industry is increasing as the population rate rises up continuously and millions of people are being addicted to use opiate every year; surging the number of addicted women in overcrowded countries is one of the major inevitable factors for this prevalence, however in many countries, respecting to the ruling tradition, women do not consume tobacco so that its consumption rate among women is almost a quarter of those of men. While tobacco industry by targeting this potential group tries to open up a new market for selling its products, and considering that the addiction of women to cigarette and opiate hit the family and society deeper, we decided to assess the effectiveness of a therapy based on acceptance and commitment to quit, resiliency and consumption carving among smoking women. Aiming to reach out this goal, one principle hypothesis and three subsidiary theories is represented as following:

Major hypothesis: a treatment based on acceptance and commitment to give-up motivation, resiliency and consumption carving is efficient among smoking women.

Subsidiary theories:

- 1) The treatment based on acceptance and commitment on give-up motivation is effective for smoking women
- 2) The treatment based on acceptance and commitment on resiliency is effective for smoking women
- 3) The treatment based on acceptance and commitment on consumption carving is effective for smoking women

Method

Current research is practical in terms of purpose, and is semi-experimental in terms of method which is performed using pre-test pot-test by control group. The research initiated by choosing randomly 30 available smoking women who were referring to give-up clinics of district 1 of Mashhad and carrying entrance criteria for research (15 people in control group and 15 people in experiment group). Entrance criteria of research were following: a true sense of cooperation, minimum age 18 and maximum 40 year-old, holding at least diploma degree.

Data collection tools

In this study, in order to reach out required information, five questionnaire were used: 1) questionnaire about Shiffman's nicotine dependence scale (the shiffman tobacco withdrawal scale): this scale has been prepared by (22) regarding to dependency syndrome criteria, and includes 19 question related to nicotine dependency. The reliability of this questionnaire is reported 0.84 for total score; in Iran, at the study of Zahrani et al (2014) the context validity of this questionnaire was analyzed by clinical experts and was ranked in an acceptable level. Agreement coefficient obtained based on calculation of Kendall coefficient agreement was equal to 0.5 and based on Pearson correlation coefficient was gained 0.61, both were in acceptable level ($p < 0.05$). Intrinsic homology calculated equal to 0.80 and intrinsic stability for stimuli factors (0.81), priority (0.71), endurance (0.75), continuity (0.72) and format behavior (0.68) were acceptable.

2) Due diligence questionnaire (DDQ): this questionnaire with consumption carving orientation as a motivational mood (for the time being) offered by Franken (2003) including 13 questions which measures three momentary factors: intention and tendency of consumption, negative enforcement and comprehended control. This questionnaire is a division of the questionnaire related to tendency upon alcohol which is applied for heroin-dependents. But, since after, due to being able to totally measure the materials, it has been used in consumption carving of other materials. This questionnaire is designed based on Likert 7 scale (absolutely agree to absolutely disagree); Franken (2003) has reported total credibility of this questionnaire, using the method of Alpha Cronbach equal to (0.85) and for its sub scales equal to 0.77, 0.80 and 0.75 respectively. In Iran during a research done by (23), total Alpha Cronbach was 0.82 and its sub scales were equal to 0.70, 0.82 and 0.70 respectively. 3) Questionnaire of Obsessive compulsive drug use scale (OCDUS): this questionnaire was also designed by (24) showing the carving of consumption within a period of time, last week, for example. This questionnaire has 6 questions that measures three principals of carving i.e. the thoughts involved in drug use, intending to use and control of drug use, and resistance against thoughts and decisions to use drug. The answers are in a form of five options and marked moving from 0 to 5 according to questions. Intrinsic stability and reliability of this tool has been validated by (25) in which intrinsic stability using Alpha Cronbach for three elements including thoughts, tendency and resistance in test and retest of questionnaire calculated 0.83, 0.79 and 0.68 respectively.

4) Intrinsic motivation inventory (IMI) questionnaire: IMI questionnaire, Ryan self-catering (1982) was applied to measure amount of motivation to leave smoking, which addresses to evaluate intrinsic motivation of actions with regards to the targets of subjects, including 42 questions measuring by seven-points linkert scale (absolutely agree – absolutely disagree). Alpha Cronbach coefficient is used to measure reliability of the questionnaire and its results emerged as 0.73 and 0.67.

5) Conner-Davidson resiliency scale questionnaire: this scale has been provided by Conner and (26) aiming to resist against pressure and threat and includes 25 questions. Validity (using the analysis of factors and convergent and divergent method) and reliability (using retest method and Alpha Cronbach) have been established by test designers in several groups (normal and in danger). (27) during a research has assessed its validity and reliability of this scale in Iranian culture, and using factor analysis, has approved its validity. Alpha Cronbach coefficient was also reported equal to 0.73.

According to the methodology, after passing the plan at the research committee of Azad Islamic University (Neishabour science and research branch), appointment was arranged to refer to give-up clinics of Mashhad's first region, necessary explanations about research plan were rendered to eligible visitors aiming to attract their satisfaction, samples were selected and questionnaires were fulfilled by self-catering method. Then, samples were appointed randomly in two groups entitled experiment and control; in this section, experiment group including 15 attendees initiated by a researcher for treatment interventions (8 weekly meetings –each meeting 90 minutes relied on acceptance and commitment), and control group was also in waiting list. After finishing therapy meetings, research tests were also performed on both groups again.

For preserving moral considerations, questionnaires were fulfilled anonymously and attendee's answers were analyzed all together, in a situation where privacy principles to be preserved. In this regards, some essential statements were expressed for attendees to be assured.

Data was extracted, and then entered into spassv21 software to be analyzed using descriptive statistics and covariance analysis tests and multivariate covariance analysis. $p < 0.05$ was significance .

Results

Information of 30 individuals was evaluated. Descriptive findings showed that many respondents (63.35%) were holding diploma and their average age was 32.89. The results of research analysis is providing in the following:

Major hypothesis: a treatment based on acceptance and commitment to give-up motivation, resiliency and consumption carving is efficient among smoking women.

Table 1. The results of multivariate covariance analysis over the average of variables: give-up motivation, consumption carving, and resiliency in two group of experiment and control

Experiment type	amount	Degree of freedom of hypothesis	Degree of freedom of error	F-value	P-value
Pillais' Trace	0.87	2.00	25.0	90.196 _a	0.00
Wilks' Lambda	0.12	2.00	25.0	90.196 _a	0.00
Hotellings' Trace	7.21	2.00	25.0	90.196 _a	0.00
Roy's largest root	7.21	2.00	25.0	90.196 _a	0.00

The experiment's significance criteria of multivariate test i.e. Wilks' Lambda, Hotellings' Trace, Roy's largest root and Pillais' Trace (F=90.196, p<0.0005), approved that there is a significant difference at least among one dependent variable between control and experiment group, therefore the major hypothesis of current research is confirmed.

4) The first subsidiary theory: The treatment based on acceptance and commitment on give-up motivation is effective for smoking women

Table 2. the result of unilateral covariance analysis over MANOVA Roy pot-test average of scores of increase give-up motivation

Change resources	Variables	Degree of freedom	F	Significance value (p)	Effect coefficient	Statistical power
Pre-test	Give-up motivation	1	134.59	0.000	0.83	1.00
Group		1	21.00	0.000	0.43	0.993
Error		27				
Total		30				

As can be seen from table 2, there is a significant difference between experiment group and control group in terms of give-up motivation by pre-test controlling. Therefore subsidiary theory number one is approved (F_(1,27)=21, p<0.0005).

Second subsidiary theory: the treatment based on acceptance and commitment on resiliency is effective for smoking women

Table 3. the result of unilateral covariance analysis over MANOVA Roy pot-test average of scores of increase resiliency

Change resources	Variables	Degree of freedom	F	Significance value (p)	Effect coefficient	Statistical power
Pre-test	Resiliency	1	81.89	0.000	0.75	1.00
Group		1	83.89	0.000	0.75	1.00
Error		27				
Total		30				

As table 3 indicates by pre-test controlling, a significant difference between two groups in terms of resiliency is seen. Therefore, the second subsidiary theory is also approved ($F_{(1,27)}=83.89$, $p<0.0005$).

The third hypothesis: The treatment based on acceptance and commitment on consumption carving is effective for smoking women

Table 4. comparison of pot-test scores of consumption carving in two groups by pre-test controlling

Change resources	Variables	Degree of freedom	F	Significance value (p)	Effect coefficient	Statistical power
Pre-test	DDQ	1	43.1	0.000	0.62	1.00
	OSDU	1	23.7	0.000	0.47	0.99
Group	DDQ	1	89.4	0.000	0.77	1.0
	OSDU	1	60.8	0.000	0.701	1.0
Error		26				
Total		30				

As table 4 reveals, the results from the variables of DDQ and OSDUS pot-test in two groups of control and experiment by pre-test controlling indicate that after attending in therapy meetings based on acceptance and commitment, momentary and periodic carving on smoking have been diminished considerably compared with those who were in experiment group ($p<0.0005$).

Discussion

Current study was performed aiming to assess the effectiveness of treatment based on acceptance and commitment on leaving, resiliency and consumption carving among women smokers. This work's findings unveiled the effectiveness of this consultation in a way that effectiveness of consultation relied on acceptance and commitment caused to increase the pot-test average in experiment group. It can be interpreted from this consultation that the capacity of smoking women on cognition of their own emotions or others has been raised as well as creating motivation to leave smoking by heightening their resistance to reduce the passion about smoking. This study's result fits the results turned out by (28) and (29). During a research, investigated the effectiveness of the cure relied on acceptance and commitment on reduction of drug using dependence; their outcomes showed that passing a period of cure time based on acceptance and commitment caused to decrease enticement, temptation and using opiate (28). Research results showed that the cure based on acceptance and commitment led to reduce in cigarette consumption and the most powerful factor in decrease cigarette dependency within this cure was to create designated values as well as committing to do fill out them (29). In the therapy based on acceptance and commitment, the concept of fusion of diffusion is amount of effect which one thought (e.g. intending to use drug) has over behavior; the behavior affiliated to texture and the behavior affiliated to thought are placed in combined connection between fusion and diffusion and when the person deals with his thoughts he cannot distinguish his subjective judgment of the fact from the fact itself (28). As a result, during this cure by training acting in present time, the impact of physiologic and emotional sensitivities due to smoking is revealed, then adjusting by the relationships of person with these experiences. So in this cure, cigarette consumers are trained to accept their experience, thereby they will be able to action independently as much as they can accept and endure these experiences.

Additionally, the results of this study based on efficiency of consultation relied on acceptance and commitment on give-up motivation is in tune with the findings of (28) and (30); in order to explain this finding, it is necessary to mention the cure action mechanism leaning on acceptance and commitment as well as its influence on the way of facing with daily routines which are connected with smoking. Various investigations has shown that some decisive beliefs such as beliefs about negative intentions of people with a vague behavioral symptoms (e.g. offering cigarette) is related to their insistence upon decisions made in order to leave cigarette (31). In fact, these wrong beliefs are contributing in creation of non-adaptive behaviors connected with cigarette give-up like cutting off communication with smoking people, taking consumers for the task of cigarette and paying excessively attention to healthcare. As a consequence, the purpose of the cure based on acceptance and commitment on improving the motivation to leave smoking is that by shifting value structure and committing on novel beliefs in person, his attitude get developed when it comes to quit smoking (29).

Current study results indicated that the application of treatment based on acceptance and commitment on increasing resiliency of smoking women was significantly different in experiment group from control group. This finding is compatible with the results of (32, 33, 28) and (29) which mentioned affirmative effects of the cure according to acceptance and commitment. In explanation of healing effects of acceptance and commitment over resiliency, it is important to figure out the action mechanism of this treatment on reference's avoidances and the way he deals with stresses and anxieties. For people with low resiliency, refraining from fear experience is a main-spring factor in keeping drug consumption (Barlow,

2008). Avoiding from experience is also called experience control and means to try to control or exchange the form, frequency or status sensitivity of internal experiences (e.g. thoughts, emotions, physical upheavals or memorabilia) (28). People with low resiliency possess decisive beliefs about the necessity of escaping from experiencing stressful situations, and do not relinquish these beliefs easily. They think the only way of relieving from their painful psychopathology symptoms is to adhere to these inefficient decisive beliefs, showing an extreme resistance to lay them away. Putting aside the experience of stressful situations which leads to re-smoking and acceptance of them give it rise to reduce person's sensitivity to these experiences and consequently he sees more resiliencies in such experiences. As a matter of fact, one is propelled to accept stressful situations of life rather than running away (Twohig, 2007).

The thing should be borne in mind regarding to the effectiveness of the cure relied on acceptance and commitment on reduction of consumption passion to re-smoking is to take into account those psychological healthcare effects of people who left smoking over restarting to smoke. (29) showed individuals who are on cigarette quitting track, when come across psychopathological symptoms, intend to re-smoke. Therefore, those cures that promote people's psychological healthcare play a crucial role in descending consumption carving to smoke. It is lucrative here to address how psychopathological symptoms, which pave the way of re-smoking or drug using, is forming through the perspective of the therapy which is based on acceptance and commitment. Regarding to this approach, not only thought content is important to ascertain the nature of psychological disorder, but the way of dealing with thoughts and emotions is also another essential matter which is beneficial in improving and preserving psychological disorder. (28) have linked the appearance of psychopathological symptoms and the way of dealing ones with their thoughts or emotions together. Considering the interpretation that the cure approach based on acceptance and commitment in terms of forming psychological disorders on re-smoking, this treatment aims to change the people's attitudes when facing emotions and thoughts in order to erase psychopathological symptoms (34).

Conclusion

The results of this study showed that the treatment leaned on acceptance and commitment causes to increase give-up motivation as well as resiliency, and decrease smoking carving. Outcomes of this study and former investigations support all interventions and healing methods based on acceptance and commitment in line with escalating give-up motivation and resiliency associated with deescalating the passion of drug and tobacco use. Researcher believe that applying some methods like therapy using acceptance and commitment can increase the effectiveness of cures due to presenting some invisible processes like acceptance, increase of awareness, presence at the moment, observing without judgment and refraining from experimental avoidance. Thereby, increase in psychological flexibility in the therapy of acceptance and commitment can strengthen patient's ability when getting along temptations and quitting symptoms as the principle factor of consumption continuity.

Attending few number of respondents, lack of comparison with the groups under drug use, using one expert in clinic and impossibility of comparison between this method and other interferences all are limiting factors of this study. Moreover, this study was only implemented on one district of the city (give-up clinics of district 1, Mashhad), thus it face restrictions to be generalized into larger communities; which it is suggested to apply other approaches and other drug consumer's groups compared to current new treatment approach in future studies.

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