

## **Evaluation of the Effectiveness of Chemical Dependency Counseling Course Based on Patrick and Partners**

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### **Abstract**

**Background:** The twelve step program is one of the programs that are administered for overcoming abuse of drugs. In this study, the effectiveness of chemical dependency counseling course was investigated using a hybrid model.

**Methods:** In a survey with sample size of 243, participants were selected using stratified random sampling method. A questionnaire was used for collecting data and one sample t-test employed for data analysis.

**Findings:** Chemical dependency counseling courses was effective from the point of view of graduates, chiefs of rehabilitation centers, rescuers and their families and ultimately managers of rebirth society, but it was not effective from the point of view of professors and lecturers. The last group evaluated the effectiveness of chemical dependency counseling courses only in performance level.

**Conclusion:** It seems that the chemical dependency counseling courses had appropriate effectiveness and led to change in attitudes, increase awareness, knowledge and experience combination and ultimately increased the efficiency of counseling.

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**Keywords:** Effectiveness, Chemical dependency counseling course, Patrick and Partners pattern.

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## Introduction

Today in definition of addiction more emphasis is on the social and psychological aspects. For example, in definition of addiction it is said that "addiction is a mental, social and economic illness that arises from use of the unnatural and illegal substances such as alcohol, opium, hashish, etc. and leads to physiological dependence of the person (addicted) to these materials and have adverse effects on physical, psychological and social performance of person".<sup>1</sup>

Following the emphasis on social aspects of addiction, the role of peer groups is considered to be important. Peer group is an initial and informal group of people who share a similar status, or have interaction within the social group and its member have similar interests, links and background and link together with a joint assumption.<sup>2</sup> One of the programs based on the importance and role of peer groups is twelve step program that links between anonymous addicts and their sponsors in order to overcome the abuse of drugs.<sup>3</sup> In the process of support, the addict who continuously participates in some addiction programs and has good progress, helps other addicts to achieve their maintenance and improvement.<sup>4</sup>

Empowerment of members of the peer group guides individuals and peer communities to a position for personal, social and relationship change.<sup>5</sup> Considering the importance of peer group role and also its social, mental and cultural dimensions and parallel to macro policy in the areas of prevention, treatment and demand reduction and using the potential of peer group in Iran, Charitable Society of Rebirth held chemical dependency counseling course in Tehran and some other cities using the basics of twelve step program and scientific principles. In other words, the Charitable Society of Rebirth in an innovative and executive course, educated more than 400 addiction rehabilitation counselor and family counselor with cooperation of Pierce College and University of Social Welfare and Rehabilitation Sciences of Iran, parallel to realization of national strategies to reduce demand and help to make change in drug control.

Chemical dependency counseling course is a one year course (two semesters) for two groups of improving persons and their families and also experts in the field of behavioral sciences

and related fields of addiction. This course has been recorded in Technical and Vocational Training Organization of Iran as two employment and training standards named "addiction rehabilitation counselor" and "addict family counselor". In these courses, students learn the scientific basis for treatment and consultation. After the completion of the course, they can work as an adjuvant in residential centers, clinics and other related facilities. Curriculum of this course for improved group contains 45 theoretical and practical units and for family group contains 41 curriculum units. The content of this course are: individual counseling, time dependency, addictive disorders, intervention for withdrawal, group therapy skills, addiction and family, understanding medications, adjuvant principles, addiction alternative methods etc.

The main objectives of adjuvant training include:

1. Entrepreneurship and employment creation in areas of treatment and addiction harm reduction, particularly for socially disadvantaged and improved drug.
2. Training addiction counselors and using the capacity of peer groups.
3. Helping the people who do not have scientific evidence, but can help addicts' community as a counselor.
4. Introducing twelve-step philosophy to scientific community and helping physicians and psychiatrists to introduce and utilize philosophical principals of the twelve-step.

**Addiction adjuvant:** By passing the educational course, this person can do some tasks like individual counseling in drug addiction treatment and prevention, helping addicts to support and care systems, awareness about risk behaviors and the prevention of viral diseases such as hepatitis, advising people addicted to chemicals and drugs, counseling to those who are quitting addiction in the short-term residential centers and other drug treatment centers and drop in centers (DIC).<sup>6</sup>

**Counselor of addict's family:** By passing the educational course, this person can do some tasks like being counseling, guidance and counseling to family members taking or recovery in addiction counseling centers and provide individual counseling to addicts'

families in preventing and treating drug, how to deal with an addicted family member, knowledge of medications and counseling to family members.<sup>7</sup>

**Educational effectiveness:** the origin of the word effectiveness in the Latin root is "effectivus" which means creative, productive and used effectively.<sup>8</sup> Peter Drucker states that effectiveness relates to getting the right things done.<sup>9</sup> It can be said that the effectiveness, the ability to produce the desired result, is when something is considered effective meaning that the intended or expected has been realized.<sup>10</sup> When talking about the effectiveness of instructional effectiveness in education it is the "knowledge of compliance with the expectations of scholars, desires, goals, doing something right, the skills, knowledge and attitudes acquired in training".<sup>11</sup>

Developing short-term residential centers and educating and training counselor in addition to the center activities and also obligation of Welfare Organization for having drug adjuvant to take Licensure, and paying attention to the role and importance of social factors and peer groups, evaluating the effectiveness of chemical dependency counseling course are necessary to correct weaknesses and reinforce strengths.

Therefore, we aimed to know that the process of chemical dependency counseling course, from the point of view of beneficiaries (professors and lecturers, managers and supervisors of rehabilitation centers, recovered drug users and their families, and ultimately senior managers of forum and graduates) was effective or not.

## Methods

Since each stage of training contains needs assessment, goal setting, planning, implementation and evaluation and also has some beneficiaries, in this research all these steps were evaluated from the view of chemical dependency counseling course beneficiaries.

There are several models in the evaluation of training courses, but there is no version of the evaluation set. According to most models of evaluation, having specific goals, process, outcome and immediate results are essential for the evaluation.<sup>12</sup> Therefore, in order to assess the effectiveness of chemical dependency counseling course, a combination of providing satisfaction for beneficiaries' groups model and

Patrick's model of evaluating the effectiveness was used.

According to the provide satisfaction for beneficiaries' group model, for knowing the effectiveness of a curriculum at first you should know effectiveness for whom and from which perspective. In other words, either participant in the course have some expectations or demands, yet organizations and their managers are looking for specific purpose in education. Similarly, teacher, designer of the program and other interested parties could be considered and their goals of participation in course or helping in its implementation could be studied.

Therefore, the main point in the approach of the beneficiaries' group is that the best method of assessing effectiveness is nomination of results for different partners and necessarily importance, value and benefits of training course should be surveyed from their viewpoint. When we say partner, it means the person who interest to have successful educational efforts and yet will be affected from curriculum and expect that the concerned curriculum have distinct results for him or his organization. Such an approach, provides mutual accountability and responsibility and any one of factors alone will be responsible for the success or failure of the course.<sup>13</sup>

Most beneficiaries of chemical dependency counseling course are graduates, teachers, managers and supervisors of drug rehabilitation centers, people in recovery and their families and senior managers of forum.

In Patrick's model, there are four levels for evaluating education:

**Reaction (first level):** This level measures participant feeling about training. These surveys sought the feedback of the participants about training, syllabus, assignments, equipment and training content.

**Learning (second level):** Determines learning skills, techniques and facts that participants have been learned in course and can be measured before and after training courses.

**Behavior (third level):** How and the extent of changes that can be obtained in behavior of participants in training courses. These changes can be measured by assessing the real work environment.

**Results (forth level):** It means that how much of goals that are directly linked to the organization have been obtained. Measurement of this level is very difficult and can be

measured by reviewing evidence such as cost reduction and re-work, increase in products quality, benefit and sale.<sup>14</sup>

Totally, according to table 1, effectiveness of this course was evaluated using survey method and also combination of two explained models.

#### *Population and sample*

The studied population was beneficiaries of chemical dependency counseling course that included graduates, professors, teachers of short-term residential centers, senior managers of forum and people in recovery and their families. The population and sample size of survey have been showed in table 2.

The surveyed population in this study included all of the managers of Tehran's rehabilitation center, teachers of chemical dependency counseling course and senior managers of forum because of their low population size. Appropriate number of graduates was selected using the Morgan table of sampling.<sup>15</sup> Then, a list of graduates, including the first and fourth of Chemical Dependency Counseling courses and their phone number were provided and the subjects were randomly selected equally among courses. In the case of people in recovery and their families, 68 patients were randomly selected due to the unavailability of society.

#### *Data gathering tools*

Each of questionnaires used in this research was assess from one group of beneficiaries viewpoint and ultimately effectiveness of chemical dependency counseling course was

examined. Reliability of questionnaires was evaluated using Cronbach's Alpha. These questionnaires were as follows:

**1- Evaluation from graduate's viewpoint:** In this questionnaire, questions 1-5 concerned the selection process, questions 6-11 concerned to the content of course, questions 12-16 were about course plan, questions 17-23 concerned the implementation and ultimately questions 24-27 was about evaluation at the end of the term. Its reliability was 86%.

**2- Evaluation from teachers' viewpoint:** In this questionnaire, questions 1 and 2 concerned assessment, questions 3-5 concerned goals appointment, questions 6-9 concerned planning, questions 10-12 concerned implementation and questions 13 and 14 concerned evaluation at the end of the term. Its reliability was 84%.

**3- Evaluation from rehabilitation center managers' viewpoint:** This questionnaire contained 13 questions that assessed results of the course considering educational content of the course. Its reliability was 79%.

**4- Evaluation from people in recovery and their families' viewpoint:** This questionnaire contained 11 questions that were adjusted according to goals of the course and its educational content. Its reliability was 80%.

**5- Questionnaires of senior managers of rebirth forum:** This questionnaire had four two-part questions. In the first part, quality, achievements and evaluation of course were examined using Likert scale and in second part, managers were asked to give their views on the same fields descriptively. Its reliability was 87%.

Table 1. Combination of used evaluating the effectiveness models

Education beneficiaries	Level of effectiveness measure			
	Reaction	Learning	Behavior	Results
1 Graduates	■	■		
2 Managers of rehabilitation center			■	■
3 Teachers of Tehran's chemical dependency counseling course	■			
4 Senior managers of forum	■			■
5 People in recovery and their families			■	■

Table 2. Population and sample size of research

Group	Volume of statistical	Sample size
1 Graduates	236 person	140
2 Managers of Tehran's rehabilitation center	13 person	13
3 Teachers of chemical dependency counseling course	12 person	12
4 Senior managers of forum	10 person	10
5 People in recovery and their families	-	68

## Results

Using one sample t-test we studied effectiveness of chemical dependency counseling course from viewpoint of graduates, managers of rehabilitation centers, teachers of chemical dependency counseling course, senior managers of forum, people in recovery and their families.

Table 3 shows significant difference comparing averages in processes of selection, content, performance and total scores with 3 as the test value, but in evaluation process there was not any significant difference. Therefore, from viewpoint of graduates all levels of chemical dependency counseling course were effective except evaluation.

Table 4 shows that there was no significant difference between test value (3) and averages in processes of assessment, goals determination, planning, evaluation and total scores, but in performance process there was a significant difference. Accordingly, from viewpoint of teachers, chemical dependency counseling course was effective only in performance level.

As calculated t with degree of freedom of 11 in 0.05 level is smaller than critical value of t (1.96), so it can be said that with 95% of confidence that from viewpoint of managers of rehabilitation center, chemical dependency counseling course was effective [Average  $50.1 \pm 7.19$  (mean  $\pm$  SD), test value = 3,  $t = 3.80$ , difference from average = 11.1,  $P = 0.013$ ]. From viewpoint of people in recovery and their families, chemical dependency counseling course was effective (Average  $41.5 \pm 44.4$ , test value = 3,  $t = 15.7$ , difference from average = 8.5,  $P < 0.001$ ). From viewpoint of senior managers of rebirth society, chemical dependency counseling course was effective. (Average  $15.4 \pm 2.5$ , test value = 3,  $t = 3.02$ , difference from average = 3.4,  $P = 0.039$ ).

## Discussion

Our findings showed that from viewpoint of graduates, all levels of chemical dependency counseling course (selection, content of the course, planning and performance) were effective except evaluation. However, teachers had different attitude and considered

Table 3. One sample t-test to determine effectiveness of chemical dependency counseling course from viewpoint of graduates

Level of measurement	Average	Standard deviation	t	Degree of freedom	Test Value = 3*			Significant level
					Difference from average	Confidence interval of the mean		
						Minimum	Maximum	
Selection	17.42	2.72	8.83	139	2.42	1.87	2.96	< 0.001
Course content	23.26	3.05	17.42	139	5.26	4.66	5.86	< 0.001
Course planning	17.09	1.91	10.88	139	2.09	1.71	2.47	< 0.001
Performance	23.38	3.62	6.54	139	2.38	1.66	3.10	< 0.001
Evaluation	12.00	2.51	1.10	139	0.29	-0.30	0.17	NS**
Total	93.16	9.22	45.48	139	42.16	40.32	44.00	< 0.001

\* Average intended for mean population (based on a Likert scale of 5 degrees) in order to compare with the sample mean

\*\* Not significant

Table 4. One sample t-test to determine effectiveness of chemical dependency counseling course from viewpoint of teachers

Level of measurement	Average	Standard deviation	t	Degree of freedom	Test Value = 3			Significant level
					Difference from average	Confidence interval of the mean		
						Minimum	Maximum	
Assessment	6.60	1.57	1.20	11	0.60	-0.52	1.72	NS*
Goals determination	7.90	2.02	-1.71	11	-1.10	-2.54	0.34	NS
Course planning	12.50	3.30	0.48	11	0.50	1.86	2.86	NS
Performance	12.10	2.98	3.64	11	5.12	0.49	1.17	0.022
Evaluation	6.80	1.81	1.39	11	0.80	0.49	2.09	NS
Total	44.80	8.50	1.04	11	2.80	-3.28	8.88	NS

\* Not significant

assessment, goals determination, and planning and evaluation levels of chemical dependency counseling course as ineffective. It seems that from teachers' viewpoint, better conditions were expected for performance of chemical dependency course, taking into account their scientific levels and expectations. In the next part we explain some of their suggestions for improving the quality and quantity of course. Furthermore, from viewpoint of managers of rehabilitation center, people in recovery and their families and senior managers of rebirth society, chemical dependency counseling course was effective.

**Suggestions:** It seems that chemical dependency counseling course was effective and led to change in attitudes, combination of knowledge and experience and ultimately increase the efficiency of counseling. However, according to opinions of students, teachers, senior managers of forum and researchers experiences, some suggestion have been made to increase effectiveness and quality of chemical dependency course.

It is necessary to updated resources that are taught in this course, in order to meet the skills and new needs of counseling. Therefore, there should be a lesson group with the experts and professors specializing in this area.

Bias in selection should be completely controlled and test and proper scientific interviews should be conducted. All of these require a comprehensive system of evaluation and education. Unit of forum should have required authority to make it possible that appropriate persons be able to participate in the course.

Project or theses are very important in the curriculum because they provide context of practical engagement of counseling with one of the important issues of addiction. Accordingly, it is necessary that framework to engage learners and explore a problem is provided to acquire necessary skills to solve problems that may be encountered in future.

In the training course, it is necessary that

enforceable supervision to be accomplished by the teachers and reports are prepared regularly to make counseling be able to implement what they learned.

The certification was one of the things that learners complained of delays in its delivery. Provision must be made to provide timely reduction of certificates.

Some learners look at this course as an academic degree, so it is necessary that before starting each course their opinions be modified and they realize that the goals of this course are acquaintance with non-medical protocols training, adding experience and increasing efficiency.

As the content of the course is specialized, so more care should be taken place in selection of the learners, because the level of education (diploma is the minimum that is necessary) facilitates transferring the concepts by the teachers to learners and learning becomes smoother and deeper.

It is necessary that learners participate in this course with enthusiasm and motivation in order to maximum effectiveness obtained. A mechanism for creating and enhancing motivation among learners should be designed.

In assessment of learners, not only theoretical taught but assessment of skills and ability and also changes in attitudes and behaviors should be considered.

It is necessary that appropriate time for this training be considered and also teachers must abide the principles of adult education. If the class time can be set such that learners could more easily participate in it, class performance and learners eagerness will be increase.

**Conflict of Interest:** The Authors have no conflict of interest.

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## ارزیابی اثربخشی دوره آموزشی مددیاری اعتیاد بر اساس الگوی ذی‌نفعان و پاتریک

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### چکیده

**مقدمه:** برنامه‌های دوازده قدمی از برنامه‌هایی است که برای غلبه بر سوء استفاده از مواد مخدر اجرا می‌شود. در این پژوهش، اثربخشی فرایند «دوره آموزشی مددیاری اعتیاد» از نظر ذی‌نفعان مختلف این دوره‌ها، با استفاده از الگوی ترکیبی مورد ارزیابی قرار گرفت.

**روش‌ها:** پژوهش حاضر از نوع پیمایشی یا زمینه‌یابی و حجم نمونه مورد نظر ۲۴۳ نفر بود که به صورت تصادفی و با روش نمونه‌گیری طبقه‌ای انتخاب شدند. ابزار جمع‌آوری داده‌ها، پرسش‌نامه محقق ساخته بود و داده‌ها با استفاده از آزمون sample t مورد تجزیه و تحلیل قرار گرفت.

**یافته‌ها:** دوره‌های مددیاری اعتیاد از دیدگاه فارغ‌التحصیلان (به جز در سطح ارزشیابی دوره)، مدیران کانون‌های بازپروری، رهجویان و خانواده‌ها و در نهایت مدیران ارشد جمعیت تولد دوباره اثربخش می‌باشد، ولی دوره مددیاری از دیدگاه اساتید و مدرسان، اثربخش نبود. گروه اخیر، دوره مددیاری اعتیاد را تنها در سطح اجرا اثربخش ارزیابی کردند.

**نتیجه‌گیری:** به نظر می‌رسد که در مجموع، دوره مددیاری اعتیاد از اثربخشی مناسبی برخوردار بود و باعث تغییر نگرش، افزایش سطح آگاهی، تلفیق علم و تجربه و در نهایت افزایش کارایی مددیاران گردید.

**واژگان کلیدی:** اثربخشی، دوره آموزشی مددیاری اعتیاد، الگوی ذی‌نفعان و پاتریک.

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