



The Effectiveness of Acceptance and Commitment Therapy Method on the Life Expectancy of Patients with Various Diseases in Iran: A Literature Review Study

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Abstract

Context: Acceptance and commitment therapy (ACT) is a cognitive-behavioral psychotherapy method focusing on acceptance and commitment to life values.

Objectives: This study aimed to evaluate the effectiveness of the ACT method on the life expectancy (LE) of patients with different diseases.

Evidence Acquisition: The present study is a literature review that collects findings from past related studies in the last two decades. For this purpose, the essential and common Medical Subject Headings (MeSH) terms were first identified. Then, the desired MeSH terms were searched in the most reliable and essential international databases, including Google Scholar, Scopus, PubMed, Web of Science, and national databases, including Magiran, SID, Iran doc, etc. First, 265 articles were identified, and then 18 were selected as final studies considering the inclusion and exclusion criteria.

Results: The findings of 18 studies were extracted for the present study. Some different types of patients, including those with rheumatoid arthritis, depression, multiple sclerosis, asthma, diabetes, liver transplants, chronic pain, cancer, physical-motor disabilities, drug addiction, and others, were shown to increase LE through the use of the ACT method. The main finding of the present study was that using the ACT method to increase LE in patients with various diseases has a significant effect, which was clearly highlighted in all the selected studies.

Conclusions: Based on the findings, ACT is an effective and high-efficiency method in increasing patients' LE. Acceptance and commitment therapy can improve LE, resilience, quality of life, compliance with treatment, and other patient benefits, thus improving the speed of recovery for patients. Therefore, the ACT method, which is a non-pharmacological method, can be used by specialists and clinical psychology experts for different patients.

Keywords: Cognitive-Behavioral Psychotherapy, Acceptance and Commitment Therapy, Patients, Diseases, Life Expectancy, Mindfulness, Quality of Life, Iran

1. Context

Acceptance and commitment therapy (ACT) is a psychotherapy approach developed in the late 1980s and early 1990s by Hayes et al., which is based on the psychology of the behavioral tradition and pragmatic philosophy. The emergence of this approach was a response to the limitations of cognitive-based therapy. Instead of controlling and changing unpleasant thoughts and feelings, this approach emphasizes accepting inner experiences and engaging with life values (1). Acceptance and commitment therapy is

mindfulness-based psychotherapy that encourages one to focus on the present and accept thoughts and emotions without judgment. This approach focuses on moving forward through difficult emotions so that you can heal instead of focusing on negative feelings. With the therapist's help, the patient can achieve a set of personalized coping mechanisms to use throughout his life and manage challenging experiences (2).

The fundamental concepts in ACT include: (a) "Acceptance": Accepting inner thoughts, feelings, and experiences rather than trying to suppress or change them; (b) "Mindfulness": Conscious moment-to-moment

presence in internal and external experiences; (c) "Cognitive disconnection": Distancing oneself from thoughts and merely observing rather than identifying with them; (d) "Values": The value orientations that a person cares about and intends to live according to, and (e) "Committed action": Performing actions consistent with one's values (3).

Acceptance and commitment therapy is a cognitive-behavioral psychotherapy method focusing on acceptance and commitment to life values. This therapy helps people accept them and, at the same time, move towards their important goals and values. Instead of trying to eliminate or control painful thoughts and feelings (4). In ACT, people practice mindfulness and cognitive exercises to distance themselves from difficult thoughts and feelings and try to increase their commitment to their values. The ultimate goal of this treatment is to create a fruitful and meaningful life based on individual values and, as a result, increase life expectancy (LE) in people (5-8).

Life expectancy is a statistical index that shows the average lifespan of people in a society or their expected lifespan (9). Economic development, improvement of environmental conditions and living standards, and advancement of medical services during the last century have significantly increased LE (10). For example, this index was between 30 and 40 years old in Europe until the 18th century but increased more than twice from 1900 onwards (11). Life expectancy, which measures the level of development and progress, differs in each country and depends on several factors. The main factors affecting LE include individual characteristics, gender, genetics, childhood living conditions, social and economic conditions, lifestyle, nutrition, stress, exercise, smoking, alcohol consumption, marital status, and education level (12-16).

2. Objectives

An essential use of ACT is to increase LE in patients (6-8), so the primary purpose of this narrative review was to evaluate the effectiveness of the ACT method on LE of patients with various diseases.

3. Evidence Acquisition

This literature review refers to the results of past related studies in the last two decades to collect its findings. For this purpose, the essential and common Medical Subject Headings (MeSH) terms were first identified. Then, the desired MeSH terms were searched in the most reliable and essential international databases, including Google Scholar, Scopus, PubMed,

Web of Science, and national databases, including Magiran, SID, and Iran doc. After the end of the search, 265 articles were identified, and then 18 articles were selected as final studies considering the inclusion and exclusion criteria. In addition, the words "AND" and "OR" were used to perform an advanced search and combine words.

The inclusion and exclusion criteria for choosing the final studies included the following points:

- Studies about evaluating the effect of ACT on LE were selected.
- Studies conducted in Iran were selected.
- Studies focused on one or more diseases were selected.
- Studies on social problems were excluded from the final search list.
- Studies with low sample sizes were excluded.
- Studies published in journals and non-authoritative scientific databases were removed from the list of found studies.
- Articles and reports published on public and non-scientific websites were not considered.

4. Results

The main aim of the present study was to evaluate the transient effect of ACT on the LE level of people with different diseases in Iran. The findings showed that the most dominant method for designing the evaluated studies was a semi-experimental study with pretest and posttest design with the control group (7, 17-32). Only one study was conducted as a single-subject study (33).

There have been studies investigating the effectiveness of the ACT method for some negative consequences related to divorce, low quality of life, the elderly, social damage, and suicide (23, 24, 34), but in this study, only the essential diseases were studied. The findings of this study showed that the use of the ACT method to increase LE in different patients, including rheumatoid arthritis, depression, multiple sclerosis, asthma, various types of diabetes, liver transplantation, chronic pain, different types of cancer, physical-motor disabilities, drug addiction, and it is not exclusively assigned to a specific class of diseases (Table 1).

The main finding of the present study was that the use of the ACT method to increase LE in patients with various diseases has a significant effect, and this outstanding finding is highlighted in all the selected studies (7, 17-32). In explaining these findings, ACT helps patients to achieve a lively, purposeful and meaningful life by integrating acceptance and mindfulness interventions to provide solutions (strategies) of

Table 1. The Summary of the Methodology and Findings of Past Studies

Author(s), Year, Ref	Study Type	Gender	Age (Year)	Sample Size	Type of Disease	Key Findings
Poorseyed and Moradi, (2023), (33)	Single subject study	Female	NR	3	Rheumatoid arthritis	The combined effect of ACT and positivity on the recovery rate of LE variable in the post-treatment phase and the follow-up phase was equal to 53.3% and 51.03%, respectively.
Golestanifar and DashtBozorgi, (2021), (7)	Semi-experimental study with pretest and posttest design with CG	Female and male	IG (70.8 ± 2.1), CG (70.6 ± 2.2)	25 (IG), 25 (CG)	Elderly nonclinical depressed patients	ACT significantly improved the LE level of IG patients.
Ghadampour et al., (2017), (17)	Experimental with pre-test, post-test and follow-up and, control group	Female and male	20 - 40 (31.1 ± 6.2)	15 (IG), 15 (CG)	Multiple sclerosis	ACT significantly improved the LE level of IG patients.
Moslem Khani et al., (2019), (18)	Semi-experimental study with pretest and posttest design with CG	Female and male	NR	15 (IG), 15 (CG)	Multiple sclerosis	ACT significantly affected patients' hope, increasing this index by 54% in IG.
Aghili et al., (2023), (19)	Semi-experimental study with pretest and posttest design with CG	Female and male	NR	15 (IG), 15 (CG)	Multiple sclerosis	ACT significantly improved the LE level of IG patients.
Bahramiabdolmala ki et al., (2021), (20)	Semi-experimental study with pretest and posttest design with CG	Female and male	20 - 60	15 (IG), 15 (CG)	Asthmatic patients	ACT significantly improved the LE level of IG patients.
Nikrouy et al., (2022), (21)	Semi-experimental study with pretest and posttest design with CG	Female and male	IG (40.2 ± 8.1), CG (41.3 ± 9.4)	15 (IG), 15 (CG)	Type 2 diabetic	ACT significantly improved the LE level of IG patients.
Zarezadeh et al., (2021), (22)	Semi-experimental study with pretest and posttest design with CG	Female and male	IG (46.3 ± 10.6), CG (42.2 ± 10.0)	15 (IG), 15 (CG)	Patients with liver transplantation	ACT significantly improved the LE level of IG patients.
Mahmoodabadi, (2020), (23)	Semi-experimental study with pretest and posttest design with CG	Female	26 - 40	20 (IG), 20 (CG)	Patients with gestational diabetes	Mindfulness-based ACT caused a significant increase in the LE level of the IG.
Azarbayejani et al., (2020), (24)	Semi-experimental study with pretest and posttest design with CG	Female	30 - 40	18 (IG), 18 (CG)	Depressed housewives	ACT significantly improved the LE level of IG patients.
Razavi et al., (2019), (25)	Semi-experimental study with pretest and posttest design with CG	Female	18 - 60	10 (IG), 10 (CG)	Chronic pain	ACT caused a significant increase in the hope level of IG.
Moghadamfar et al., (2018), (26)	Semi-experimental study with pretest and posttest design with CG	Female	IG (42.1), CG (44.2)	15 (IG), 15 (CG)	Breast, cancer under chemotherapy	ACT significantly improved the LE level of IG patients.
Momeni, (2017), (27)	Semi-experimental study with pretest and posttest design with CG	Female and male	NR	15 (IG-male), 15 (IG-female), 15 (CG)	Leukemia	ACT caused a significant increase in the LE level of the IGs (women and men), and its effectiveness was significantly higher in women than in men.
Binaei, (2022), (28)	Semi-experimental study with pretest and posttest design with CG	Female	NR	15 (IG), 15 (CG)	Children with physical-motor disabilities	ACT causes significant improvement in the Academic Resilience of, Children of the IG also increased the LE level of mothers of the IG.
Abed et al., (2021), (29)	Semi-experimental study with pretest and posttest design with CG	Female	IG (35.5 ± 9.1), CG (35.4 ± 1.8)	15 (IG), 15 (CG)	Children with physical-motor disabilities	ACT caused significant improvement in the LE level of others in children with physical-motor disabilities.
Kashfi et al., (2023), (30)	Semi-experimental study with pretest and posttest design with CG	Male	NR	20 (IG), 20 (CG)	Recovering addicts	After intervention with ACT, the LE score in IG was significantly higher than CG.
Khalaj et al., (2023), (31)	Semi-experimental study with pretest and posttest design with CG	Female and male	IG (30.7 ± 7.1), CG (33.1 ± 5.5)	17 (IG), 17 (CG)	Patients with acquired immunodeficiency syndrome	ACT significantly improved the LE level of IG patients.
Saeidmanesh et al., (2021), (32)	Semi-experimental study with pretest and posttest design with CG	Male	17.5	15 (IG), 15 (CG)	Students with drug-dependent parents	ACT caused a significant increase in the hope level of IG students.

Abbreviations: CG, control group; IG, intervention group; ACT, acceptance and commitment therapy; LE, life expectancy; NR, not reported; No of ref, number of references.

adherence, commitment and change. The purpose of this treatment method is not to change the form, frequency, or feelings, but its primary purpose is to strengthen flexibility and psychological. Acceptance and commitment therapy strengthens the ability to contact the moments of life and change and stabilize behavior.

"Behavior" means a behavior aligned with the individual's values according to the situation (1, 2).

Based on the present study, ACT increases patients' LE through acceptance and rejection and teaches patients to move according to the path of their values and not to abandon their desired values. The mentioned views

generally reduce depression and improve patients' LE (17-19). In ACT, patients are taught to focus on creating a meaningful life rather than changing and reducing symptoms and to accept their thoughts, feelings, and memories without judgment or defense (3-5). This treatment method seeks to help patients to flexibly not submit to their thoughts and laws and instead find ways to interact effectively with their surroundings (35).

People with a particular disease are more resilient and recover faster when expressing feelings. The main goal of treating complex diseases, especially cancer, is that the patient can live with that disease. In other words, patients can live with the disease and maintain their lives at a suitable level. In this regard, the ultimate goal of ACT is to enable patients to identify their strengths, love themselves, and recognize the difference between thought and action. The achievements mentioned in ACT can increase patients' hydration, the speed of their recovery, the level of quality of life, and finally, their LE (36).

People with low LE levels feel no way, and they cannot do anything to get rid of problems, so such people tend to commit suicide and mainly experience negative emotions (34). Therefore, non-pharmacological and effective treatment methods to increase the level of LE in patients are essential. As a multidimensional and potentially powerful complex factor, LE is an important adaptive mechanism in various diseases, especially chronic diseases (34-36). Consequently, patients who believe in the future will have a rewarding life, and their hope will expand on many levels, including their hope of recovery (37). Life expectancy increases flexibility, vitality, failure tolerance, and ability to cope with problems and improves overcoming challenges (38).

The results of various studies collected in the present review show that ACT can improve LE levels and empower patients to recover. The findings of studies conducted in other countries are consistent with those conducted in Iran. For example, Barnes et al. (2017) (34), Petersen et al. (2021) (35), Saks and Gruman (2011) (37), Pakenham et al. (2018) (39), Zho et al. (2021) (40), Dsouza et al. (2018) (41) and Hulbert-Williams et al. (2015) (42) reported that the ACT method increases LE in patients with various diseases.

5. Discussion

The research findings showed that all previous studies have reported an influential and significant effect of ACT in increasing the LE level of patients with various diseases. As ACT can increase LE as well as resilience, quality of life, compliance with treatment, and other patient benefits, it can be concluded that ACT

is effective in increasing recovery times. Therefore, the ACT method, which is a non-pharmacological method, can be used by specialists and clinical psychology experts for different patients.

Footnotes

Authors' Contribution: S.H and K.A.N.B: Designing the study, searching for past studies, extracting and recording the raw results; H.D: Writing the initial draft and revising the final manuscript.

Conflict of Interests Statement: Authors confirm that this study has no relevant competing interests.

Data Availability: The data presented in this study are openly available in one of the repositories or will be available on request from the corresponding author by this journal representative at any time during submission or after publication. Otherwise, all consequences of possible withdrawal or future retraction will be with the corresponding author.

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