

# Jak pomóc osobom niepełnosprawnym w poprawie ich codziennego życia? – raport z badań z użyciem Racjonalnej Terapii Zachowania

How to Help Persons with Disabilities to Improve Their Everyday Life? - Report from Study with the Rational Behavior Therapy Application

Aleksandra Sierant<sup>1(C,D,E,F)</sup>, Monika Łetocha<sup>2(C,D,E,G)</sup>, Paweł Grzybek<sup>1,2(A,B,E,F,G)</sup>, Kamila Pytowska<sup>2(E)</sup>, Anna Wiśniewska-Małek<sup>3(A,B,G)</sup>, Marek Kiljański<sup>4,5,6(B,E,F)</sup>, Wojciech Kiebzak<sup>4,7(C,D,E,F,G)</sup>

<sup>1</sup>Poradnia Pomocy Psychologicznej, Świętokrzyskie Centrum Onkologii w Kielcach, Polska / Outpatient Clinic for Psychological Assistance, Świętokrzyskie Cancer Center in Kielce, Poland 
<sup>2</sup>Wydział Pedagogiczny i Artystyczny, Uniwersytet Jana Kochanowskiego w Kielcach, Polska / Faculty of Education and Arts, Jan Kochanowski University in Kielce, Poland 
<sup>3</sup>Fundacja Wspierania Profilaktyki i Edukacji Zdrowia "Źródełko", Polska / Foundation for Support of Health Prophylaxis and Education "Źródełko", Poland 
<sup>4</sup>Wydział Lekarski i Nauk o Zdrowiu, Uniwersytet Jana Kochanowskiego w Kielcach, Polska / Faculty of Medicine and Health Science, Jan Kochanowski University in Kielce, Poland 
<sup>5</sup>Pabianickie Centrum Medyczne PCM, Pabianice, Polska/SP ZOZ Rehabilitation Center in Pabianice, Poland 
<sup>6</sup>Wyższa Szkoła Informatyki i Umiejętności w Łodzi, Polska/University of Computer Science and Skills, Lodz, Poland 
<sup>7</sup>Świętokrzyskie Centrum Pediatrii, Wojewódzki Szpital Zespolony w Kielcach, Polska / 
Świętokrzyskie Region Center of Pediatrics, Provincial United Hospital in Kielce

Wstęp. Osoby niepełnosprawne doświadczają w codziennym życiu wielu obciążeń / doświadczeń / zdarzeń stresowych. Stanowi niepełnosprawności często towarzyszy utrata pracy i społeczna izolacja, ponadto bariery architektoniczne w znaczący sposób utrudniają życie osób niepełnosprawnych i obniżają jego jakość. Osoby niepełnosprawne są szczególnie narażone na zachorowanie na depresję i wystąpienie myśli samobójczych, dlatego należy otoczyć je szczególną opieką. W związku z tym istnieje potrzeba znalezienia metody i systemu wsparcia, który będzie skuteczny w pomocy terapeutycznej dla tej grupy osób. Potwierdzona skuteczność w leczeniu stanów kryzysowych, w tym zaburzeń psychicznych, a także zwalczania stresu dnia codziennego, mają metody poznawczo-behawioralne. Racjonalna Terapia Zachowania jest metodą poznawczo-behawioralną stworzoną przez profesora Maxie Maulsby dla pacjentów z zaburzeniami psychicznymi oraz osób doświadczających stanów kryzysowych. Celem tej metody jest przeformułowanie myślenia na bardziej przystosowawcze, co w rezultacie powoduje zmniejszenie nasilenia negatywnych emocji, a także niepożądanych zachowań.

Cel. Celem pracy jest ocena metody RTZ w pracy z osobami niepełnosprawnymi.

Materiał i metoda. Badaniu poddano 13 osób niepełnosprawnych w wieku aktywności zawodowej w wieku od 30 do 52 lat, średnia wieku 41 lat, odchylenie standardowe 6,13. Za pomocą termometru dystresu zmierzono poziom stresu oraz dyspozycyjnego optymizmu przed i po 2-dniowych warsztatach RTZ. W ramach warsztatów osoby niepełnosprawne otrzymywały przydatne informacje dotyczące mechanizmu funkcjonowania emocji oraz metod radzenia sobie ze stresem, następnie wykonywały ćwiczenia pod okiem doświadczonych terapeutów, interwencja była wzbogacona przez projekcje filmów ilustrujących przedstawiony materiał.

Wyniki. Stwierdzono istotną średnią redukcję poziomu stresu z 7,54 przed warsztatami RZT do 2,62 po warsztatach. Średnia częstotliwość wszystkich badanych problemów (praktycznych, rodzinnych, emocjonalnych, fizycznych) uległa zmniejszeniu. Zauważono istotny wzrost poziomu optymizmu po zastosowaniu terapii.

Wniosek. Otrzymane wyniki potwierdzają wstępną przydatność metody RTZ w pomocy osobom niepełnosprawnym. Jednakże potrzebne są dalsze badania wieloośrodkowe mające charakter podłużny, które potwierdzą skuteczność takich interwencji.

### Słowa kluczowe:

Stres, Terapia poznawczo-behawioralna, RTZ, Niepełnosprawność, Problemy emocjonalne, Restrukturyzacja poznawcza

Introduction. People with disabilities face in their everyday life many challenges / difficult experiences / incidents of stress. Disability status is often accompanied by the lack of employment and by social isolation, moreover, the architectural barriers significantly hamper the lives of the people with disabilities, and reduce the life's quality. Disabled persons are particularly vulnerable to depression and to suicidal thoughts, and therefore a special care should be devoted to them. Thus, there is the need to establish methods and support system, which would be effective in the therapeutic work with this group of persons. Proven effectiveness in the treatment of critical situations, including the mental disorders, as well as coping with the everyday life stress, have the cognitive-behavioral methods. The Rational Behavior Therapy is a cognitive-behavioral method of therapy developed by Professor Maxie Maulsby for patients with mental disorders and those, who have experienced crisis situations. The aim of this method is to reformulate a person's thinking to more adaptive model, which should result in reduction in severity of the negative emotions and the undesirable behavior.

Aim. The aim of this study is to evaluate the RBT method, while working with disabled persons.

Materials and Methods. In the study participated 13 persons with disabilities, belonging to professionally active age group - 30 to 52 years old, with mean age of 41 years, and standard deviation of 6.13. Using a distress thermometer, we measured stress level and the dispositional optimism, before and after two days of the RBT workshops. During workshops, the persons received useful information about mechanism in which emotions function, and about methods for coping with stress, and then, they performed exercises under the supervision of experienced therapists, and the whole session has been complemented by the presentation of films, illustrating the introduced materials.

Results. A significant reduction in the average level of stress has been determined, from 7.54 before the RBT workshops, to 2.62 after the workshops. The average incidence rate of all tested problems (practical, family, emotional, physical) has been reduced. After application of the therapy, a significant increase in the level of optimism has been noted.

Conclusion. The obtained results confirm the initial usefulness of the RBT method, in assisting the people with disabilities. There are, however, further multicenter longitudinal studies required, which would confirm the effectiveness of such intervention.

#### **Kev words:**

Stress, cognitive-behavioral therapy, RBT, disability, emotional problems, cognitive restructuring



#### Introduction

Persons with disabilities, according to the 2011 statistical data, amount to 13.9% of the Polish population, and in Europe it is about 25% of the population. It is therefore important to look closer at their particular needs and at their psychological condition. The problems, which persons with disabilities face every day, and the challenges they must overcame, are rather great, according to our observation [1]. The disability itself is a complex issue, and the recognition of a person as a disabled one depends on a number of criteria. Regarding the above, there function the major models: medical and social [2].

An important factor, related to the disability issue, would be the self-image, as seen by the person. Huge impact on on this factor would have the social environment and contacts with other people. It is therefore important to create the proper approach to persons with disabilities, and to work on the appropriate attitudes in the social environment [3].

In cognitive-behavioral therapy, the treatment begins with formulation of the conceptualization, that is with the understanding of individual patients (of the patterns of thought they use). The task of the therapist is to bring about a cognitive change - modification of the way of thinking and of the belief system of the patient - in order to cause the lasting emotional and behavioral change [4].

In 2010, there was made a meta-analysis of 27 research projects, involving the cognitive-behavioral therapy. In the projects participated persons with depression, who had various somatic disorders. Therapeutic intervention in the case of each study was 6 or more therapeutic sessions. The studies have shown, that the cognitive-behavioral therapy is effective in the treatment of depression associated with the various types of somatic disorders [5].

In another study, researchers investigated the usefulness of cognitive-behavioral methods in reducing anxiety and depression symptoms in patients with the implantable cardioverter. The cognitive-behavioral intervention included two group sessions and five sessions over a telephone. The results have shown a significant decrease in anxiety and depression, measured after 6 and 12 months [6].

Still another study involved five people diagnosed with the type 2 diabetes, with a clinical diagnosis of depression or dysthymia. The study has established, that after the intervention patients had a greater acceptance for their disease and for the treatment, and their laboratory results have also improved. In 3 of the 5 examined patients, there has been also apparent decreased depression indicator [7].

A comprehensive program, based on the cognitive-behavioral approach, has been developed by Carl Simonton for oncological patients and their families. During many years of observation it has been found, that patients who cannot find any purpose and reason to live tend to die quicker than those, who have hopes and objectives, which they want to accomplish, despite the same stage of the disease in both groups [8].

So how does one think to live longer and function better? According to the 5 principles of the healthy thinking. It is



based on facts and helps to protect our life and health, helps to accomplish nearer and further objectives, helps to avoid most undesirable conflicts with others or to resolve them, helps us feel just how we want to feel. If at least 3 of the above principles are fulfilled, then our thinking is healthy, if not, then we must change it. It is the Rational Behavior Therapy (RBT), developed by American psychiatrist Maxie Maultsby [9].

Situations which cannot be changed often cause stress. The stress symptoms depend on the importance we assign to the problem, which caused stress. Research shows, that the response to stressful events in life may increase the risk of suicidal thoughts and actions. Persons with disabilities, due to the numerous stressful experiences, belong to the group with high risk of such thoughts and actions (10). Emotion control strategies help to change the non adaptive response to stress. Using the cognitive-behavioral methods we can both, reduce the importance of the problem and/or the consequences it may cause, and help the patient to increase his/her ability to handle the problem. Due to the psychological problems experienced by persons with disabilities, and the similarity between the situation of persons with disabilities and the situation of oncological patients, we decided to use the RBT method to help persons with disabilities [11].

#### Aim of the Study

The aim of this study is to adapt the RBT method for work with disabled persons.

### **Materials and Methods**

In the study participated 13 persons with disabilities, belonging to professionally active age group, living in the area of Przemyśl district. Vast majority of the patients were women, holding a secondary education. The age range of the patients was 30 to 52, mean age of the patients was 41, and standard deviation 6.13.

For the study we have used the Distress Thermometer Questionnaire - translation and adaptation based on the consent of the American Cancer Society, 2008 - and the Test LOT-R by M. F. Scheier, C.S. Carver and M. W. Bridges - adapted by R. Poprawa and Z. Juczyński, used to measure the Dispositional Optimism. In our study we have measured twice certain parameters in the same group of persons, before the workshops and after their completion. In the case of each of the five groups of problems, about which we asked study participants, responses of the individuals, who constituted a random sample of the general population of persons with disabilities, were the basis for conclusions regarding the studied characteristics. Tests for the significance of results assume a confidence level of 95% (which means, that with certainty of 95% the results are valid). All statistical tests were performed using the statistical package R. The McNemara Test, was carried out, which compares the proportions of occurrence of a given factor in the different samples selected from a population. In the study we took into account the dependent samples of low abundance. The program included familiarization with ABCD emotions model, presentation of 5 principles of healthy thinking, and providing basic



information on communication. The patient were shown how to practically proceed with the reformulation of unhealthy thoughts by working with their beliefs. At the end of the workshops, the participants were asked to provide feedback by completing specially prepared forms.

#### Results

Our study allowed to collect and analyze the results, which are presented in Table 1 and Table 2. We have established the reduced level of stress in persons with disabilities after the RBT workshop, when compared to the stress level prior to the intervention. In addition, we have noted statistically significant change in the area of problems: practical, emotional and physical, and only in the area of family related problems we have not observed a statistically significant change. For each of the four problem categories, we have separately evaluated the impact of the workshops, each patient assessed the presence of each kind of the problem. We have examined the prevalence of the selected problems of a given type in the group of persons with disabilities.

Table 1. The results of statistical survey in the areas of practical, family, emotional and physical problems

	Practical problems	Family problems	Emotional problems	Physical problems
df	1	1	1	1
x2	9.0909	2.25	15.059	48.02
p.value	2.569 • 10-3	0.134	1.042 • 10-4	4.219 • 10–12
Number of observations	60	24	72	252

In order to verify if the RBT workshop had real impact on the average number of physical, practical, family, emotional problems in the examined group of persons, we have applied the McNemara Test, comparing the proportions in populations on the basis of the obtained sample. The test verifies if the average number of the evaluated physical, practical, emotional problems in the group of persons participating in the workshops remained unchanged, or if it significantly changed. For the study, level of p <0.05 was adopted. It was assumed, that:

H0 - Average number of problems raised by the study participants before and after the examination is the same.

H1 - Average number of problems raised by the study participants before and after the examination is different.

In the group of physical problems, statistics  $\chi^2$  amounted to 48.02, p-value equaled 4.219 •  $10^{-12}$ , which allows to reject the hypothesis of equal proportions in the population and provides the grounds to conclude, that workshops lower the average number of physical problems. This dependency is statistically significant. In the examined sample the number of physical problems declined by 67%. Based on the data analy-



sis it has been determined, that in the area of practical problems, statistics  $\chi^2$  amounted to 9.0909, p-value equaled 4.569 • 10<sup>-3</sup>, which allows to reject the hypothesis of equal proportions in the population and provides the grounds to conclude, that workshops lower the average number of practical problems. This dependency is statistically significant. In the examined sample the number of practical problems declined by 55%. The research material, within the area of family problems, indicates, that statistic  $\chi^2$  amounted to 2.25, p-value equaled 0.134, which does not allow this reject the hypothesis of equal proportions in the population. This dependency is not statistically significant. In the area of physical problems, statistics  $\chi^2$  amounted to 15.059, p-value equaled 1.042 • 10<sup>-4</sup>, which allows to reject the hypothesis of equal proportions in the population and provides the grounds to conclude, that workshops lower the average number of physical problems. This dependency is statistically significant. The research material, within the area of emotional problems, indicates that the statistics  $\chi^2$  amounted to 15.059, p=1.042 • 10<sup>-4</sup>. In the examined sample, the number of emotional problems declined by 38%, and this does not provide the grounds to generalize this result for the entire population. Our research shows, that the application of the Rational Behavior Therapy can effectively help in coping with the practical, emotional and physical problems, and only to the area of family problems, there was no statistically significant dependency found.

Table 2. Results of the statistical survey of dispositional optimism

	Positive attitude	Negative attitude
df	11	11
x2	-1.913	2.2637
p.value	0.04106	0.0224

In the second part of the study, we have examined the level of dispositional optimism, the questions were divided into two groups: regarding positive and negative attitude of the participants. It was assumed that:

H0 - Average indicator of positive/negative attitude before and after the examination is the same.

H1 - Average indicator of positive/negative attitude is lower before than after the examination.

Analysis of the research material data for positive attitude shows that the statistic t amounted to -1.913, p-value equaled 0.04106. The p.value below 0.05 gives the grounds for rejecting the H0 hypothesis regarding equal averages, for the alternative hypothesis H1 with a lower average indicator before the examination at significance level of  $\alpha = 0.05$ . The results regarding the negative attitude indicate that statistic t amounted to 2.2637, p-value equaled 0.0224. The p.value below 0.05 gives the grounds for rejecting the H0 hypothesis regarding



equal averages, for the alternative hypothesis HI with a higher average indicator before the examination at significance level of  $\alpha = 0.05$ .

Our research allows to conclude, that the application of the Rational Behavior Therapy has a significant impact on the level of dispositional optimism in persons unemployed and with disabilities.

#### Discussion

The results obtained indicate that the Rational Behavior Therapy can be a useful tool in helping people with disabilities. There have been noted remarkable changes in the researched aspects of the study participants' functioning, and this is a good prognostic for the future. It should be noted however, that our research is of preliminary nature - at this stage conclusions reaching too far would not be appropriate. It is worth noting that the second examination was conducted immediately after the end of the workshops, so we have only a very preliminary data regarding the effectiveness of the application of the aforementioned method. Longitudinal studies are required, which could verify whether the changes persist over a longer period of time. Undoubtedly, however, study participants were given a set of tools and useful information, which can be helpful, provide hope and prompt the patients to search for further forms of support on their own. Offering tools, which patients can use is the primary objective of the cognitive-behavioral approach, foundation of the RBT method. Numerous exercises carried out under the supervision of experienced therapists, can help in acquiring skills needed to cope with stress, by switching over to more adaptive thinking. It is necessary, however, to continue work on revising the learned patterns of thinking and behavior, by implementing and monitoring one's beliefs and raised by them emotions. Like in any therapeutic method, the cooperation between the patient and the therapist is a requirement. The role of a patient is great, he/she is an active participant of the therapy and takes part in building it. As mentioned before, many studies show high effectiveness of this method, but there are also reports that the short-term psychodynamic psychotherapy can be effective in persons experiencing chronic health problems or disabilities. In the studied group, after the intervention, there has been less symptoms of depression and anxiety reported. In these studies however, unfortunately there were no control group introduced - which would be subjected to the cognitive-behavioral treatment, such studies would be desired to assess the usefulness and effectiveness of the two methods [12]. A similar program for oncological patients was carried out by Ewa Wojtyna, it lasted one week and took 30 hours. As the author says in her conclusions, the results obtained indicate, that even very briefly applied group form of the RBT method brings positive effects, improves the patients' quality of life in two months after the intervention ended [13]. On the other hand, in persons with Parkinson's disease, there have been demonstrated efficacy of the relaxation methods in reducing anxiety [14]. Also a report has been prepared (in printing) about the case study using EMDR therapy, this method has proved to be effective in reducing stress related to cancer [15]. Another case study, with the EMDR method applied in patient with the paresis of the lower extremities, has shown the decreased depression, stress and pain sensation [16]. It appears that to help persons with disabilities, a number of methods may be useful. Thus it would be desired to conduct comparative studies, to assess which of them is the most effective.



#### **Conclusions**

- 1 The RBT method may be applied to help persons with disabilities.
- 2 The effectiveness of the RBT method in persons with disabilities is similar to that, observed in the other researched groups.
- 3 The RBT method can help persons with disabilities to reduce stress and to increase their optimism.

Adres do korespondencji / Corresponding author

# Wojciech Kiebzak

UJK Wydział Lekarski i Nauk o Zdrowiu e-mail: kiebzakw@wp.pl

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