




An Investigation on Irritable Bowel Syndrome Patients to Evaluate the Effectiveness of Compassion-Focused Therapy

Supat Chupradit¹, Mohammed Nader Shalaby², Holya A. Lafta³, Shaymaa Abed Hussein⁴, Yasser Fakri Mustafa⁵, Trias Mahmudiono⁶, Rodin M.N. Sechenov⁷, Abduladheem Turki Jalil⁸, Daniella D. Zolochevskaya⁷

¹ Department of Occupational Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai, Thailand

² Associate Professor, Department of Biological Sciences and Sports Health, Faculty of Physical Education, Suez Canal University, Egypt

³ Al-Nisour University College, Baghdad, Iraq

⁴ Al-Manara College for Medical Sciences, Maysan, Iraq

⁵ Department of Pharmaceutical Chemistry, College of Pharmacy, University of Mosul, Mosul, Iraq

⁶ Department of Nutrition, Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia

⁷ Sechenov First Moscow State Medical University, Moscow, Russian Federation

⁸ Faculty of Biology and Ecology, Yanka Kupala State University of Grodno, Grodno, Belarus AND College of Technical Engineering, The Islamic University, Najaf, Iraq

Corresponding Author: Supat Chupradit; *Department of Occupational Therapy, Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai, Thailand*

Email: supat.c@cmu.ac.th

Quantitative Study

Abstract

Background: Irritable bowel syndrome (IBS) is a gastrointestinal disease characterized by chronic abdominal pain, defecation changes, and lack of organ causes for these symptoms. The present study examined the effects of compassion-focused therapy (CFT) on depression, self-care, and quality of life (QOL) in IBS patients.

Methods: This quasi-experimental study was conducted with a pretest-posttest design, experimental and control groups, and follow-up investigation. Purposive sampling was used to select all IBS patients in Bangkok, Thailand. The 40 patients were randomized into experimental and control groups. The Beck Depression Inventory-II (BDI-II; Beck, 1996), the Self-Care Questionnaire (Lou, 1996), and the Quality of Life Scale (QOLS; Burckhardt and Anderson, 2003), were the tools that were utilized in the collection of data. The collected data were analyzed using repeated measures analysis of variance (ANOVA) in SPSS software. The significance level chosen for the tests was 0.05.

Results: In the experimental group, CFT significantly improved depression (group*time effect: $P < 0.001$; group factor effect: $P < 0.038$), self-care behaviors (group*time effect: $P = 0.001$; group factor effect: $P = 0.057$), and QOL (group*time effect: $P < 0.001$; group factor effect: $P = 0.043$) in the posttest and follow-up stages. Throughout the length of the trial, the control group's depression levels, self-care practices, and QOL remained unchanged.

Conclusion: CFT can assist patients diagnosed with IBS in terms of sadness, QOL, and self-care habits. CFT can be an effective method for lowering depression, enhancing self-care

practices, and enhancing QOL. This mode of therapy can help patients with IBS by alleviating their psychological issues.

Keywords: Compassion-focused therapy; Quasi-experimental; Irritable bowel syndrome

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Introduction

Irritable bowel syndrome (IBS) is a common gastrointestinal dysfunction that is defined by abdominal pain and changes in bowel habits (diarrhea, constipation, or both) and occurs in the absence of a detectable physical abnormality (Yamamoto, Pinto-Sanchez, Bercik, & Britz-McKibbin, 2019; Wilms et al., 2020). IBS is observed in 25 to 50% of gastroenterology cases (Raes, 2010; Wilson, Mackintosh, Power, & Chan, 2019). This syndrome is the cause of a significant number of visits to general practitioners and the second cause of absence from work, after the common cold (Mackintosh, Power, Schwannauer, & Chan, 2018). Many studies have investigated the role of psychological factors in IBS. The severity of the symptoms of this syndrome varies in different patients and is divided into the three categories of mild, moderate, and severe. These individuals have a high incidence of stress, anxiety, and depression, all of which are associated with the onset and degree of severity of symptoms (Nan et al., 2020). Moreover, people who suffer from anxiety disorders, including generalized anxiety disorder, may be prone to gastrointestinal upset (Frostadottir & Dorjee, 2019; Ghanavati & Joharifard, 2019).

The prevalence of IBS varies in different geographical areas, between 9% and 22% in Europe and the United States, and 6% and 25% in the Middle East (Bluth & Eisenlohr-Moul, 2017; Ferrari, Hunt, Harrysunker, Abbott, Beath, & Einstein, 2019). A previous research showed that 37% of the population with generalized anxiety disorder met the diagnostic criteria for IBS, and in another study, 34% of patients with IBS had a history of generalized anxiety disorder during their lifetime (Barnard & Curry, 2011; Blackie and Kocovski, 2018). About 50 to 90% of patients with IBS seeking treatment have a history of psychiatric disorders during their lifetime (Addante et al., 2019). This disease can affect different aspects of life, including sleep, occupation, sexual function, recreation, and travel (Abdi-Malekabadi, Tavakoli, & Farzanfar, 2019; Farzanfar, Sedaghat, & Zarghami, 2020). Affected people are absent from work and school three times more than non-affected people (Foroozanfar & Ansari-Shahidi, 2020). Self-compassion therapy is one of several techniques for decreasing depression and improving self-care practices in people with IBS (Germer & Neff, 2013). Compassion has three dimensions: kindness to oneself in the face of self-judgment, a feeling of human commonality in the face of isolation, and awareness in the face of growing absorption (Kamalinejad & Amiri, 2019; Glabska, Kolota, Lachowicz, Skolmowska, Stachon, & Guzek, 2021).

Treatment of IBS disorders can reduce medical illnesses such as cardiovascular disease and psychological issues such as depression and anxiety, and increase patients' self-confidence and quality of life (QOL) (Ashworth, Clarke, Jones, Jennings, & Longworth, 2015; Abdi-Malekabadi et al., 2019). Recently, psychologists have presented alternative conceptualizations for a healthy attitude toward and relationship with oneself. One of these components is the concept of self-compassion. Self-compassion is defined as component instruments including kindness to self-judgment, human sharing versus isolation, and awareness of extreme imitation. The combination of these three interrelated components is characteristic of a person who is self-compassionate (Frostadottir & Dorjee, 2019). Compassion-focused therapy (CFT) is an eclectic approach that has evolved from social, evolutionary, evolutionary, Buddhist, and neuroscience psychology, as well as other treatment models with effective intervention in a variety of mental health problems. Research has shown that people with self-compassion have better mental health than people

without self-compassion. Self-compassion, for example, is more common in people with low levels of depression and anxiety. Compassion is itself associated with positive psychological abilities, such as happiness, optimism, wisdom, curiosity, exploration, and emotional intelligence (Navarro-Gil et al., 2020).

CFT was established for persons with complicated mental health issues, shame, and self-criticism, and a challenging life history (Araghian, Nejat, Touzandehjani, & Bagherzadeh Golmakani, 2020). CFT involves internalizing externally soothing thoughts, factors, pictures, and actions. As the mind responds to external stimuli, it relaxes its internalities (Collins, Gilligan, & Poz, 2018). CFT reduces self-criticism and despair, and increases positive feelings and compassion. Self-compassion has been linked to well-being, happiness, psychological flexibility, and mental health, and anxiety and depression (Zamani Mazdeh, Grafar, Davarniya, & Babaei Gharmkhani, 2019).

The number of IBS patients is increasing. They have severe sorrow, are faced with self-care challenges, and many lack the knowledge and skills necessary to handle these issues. IBS patients can benefit from compassion theory and CFT. The few studies in this regard have mostly used classical and traditional therapies in the treatment, recovery, and disorder of patients with IBS. Moreover, the treatment of compassion using various methods seeks to improve observational learning. Therefore, this approach looks at issues from a different perspective. The purpose of this research was to evaluate the efficacy of CFT in treating depression, as well as on self-care behaviors and overall QOL in individuals diagnosed with IBS.

Methods

This quasi-experimental study was conducted with a pretest-posttest design, follow-up investigation, and experimental and control groups. Individuals diagnosed with IBS were selected through purposive sampling method. Thus, 40 patients from Bangkok, Thailand, were randomly divided into two equal experimental and control groups. The number of participants was 20 in each group based on the effect size of 0.40, alpha of 0.08, and power of 0.95. The participants included patients diagnosed with IBS according to the Rome III criteria by a gastroenterologist and no psychiatric therapy in the last 3 months (Yadavaia, Hayes, & Vilaradaga, 2014; Kovalenko et al., 2019). The exclusion criteria included gastrointestinal bleeding, fecal hemorrhage, fever, 10% weight loss in the past 6 months, a family history of colon cancer, serious psychiatric disease, and immediate family, or neighbors (Pauley & McPherson, 2010; Navarro-Gil et al., 2020). IBS patients were randomly assigned to experimental and control groups. The 2-month intervention was presented to 2 randomly selected groups of 10 individuals in 8 sessions (1 session per week for 90 minutes). Patients in both groups received routine treatment for IBS by a gastroenterologist, but in addition to routine treatment, the experimental group received CFT designed with an executive protocol. Individuals were assured that their information would be kept confidential and would be used for research purposes only. For privacy reasons, the participants' first and last names were not registered. The procedures were approved by the Medical Research Ethics Committee of Chulalongkorn University (ID: 03/2009). The content of the sessions is presented in table 1 (Shiralinia, Cheldavi, & Amanelahi, 2018).

The Beck Depression Inventory-II (BDI-II), the Self-Care Questionnaire, and the Quality of Life Scale (QOLS) were the tools that were utilized in the collection of data (Van Dam, Sheppard, Forsyth, & Earleywine, 2011; Werner, Jazaieri, Goldin, Ziv, Heimberg, & Gross, 2012). The BDI-II is a self-report questionnaire with 21 questions. Each question is scored on a 4-point scale ranging from 0 to 3.

Table 1. The content of sessions

Sessions	Description
1	Introduction of participants to one another and explanation of the ideas of self-compassion and empathy in general
2	A discussion of the many forms of self-critical education, the benefits of doing so, the drawbacks, the reasons, and the potential remedies to the problem of excessive self-criticism
3	Training on acceptance of one's own shortcomings without condemnation, and discussion on the causes of errors, the drawbacks and repercussions of refusing to forgive, and advice on how to move beyond such setbacks are all part of the process of learning to forgive.
4	Mindfulness training and instilling in students a variety of abilities, including self-examination and deep breathing, learning to persevere through adversity, accepting setbacks, cultivating compassion, and gaining insight into the struggles of others
5	The advantage of self-worth education, the disadvantage of self-esteem education, and strategies for improving low self-worth
6	Learning to produce compassionate and relaxing pictures using mental imagery (color image, locale and compassionate traits) (color image, place and compassionate features) Teaching styles and techniques of showing compassion and utilizing these approaches in everyday life
7	Teaching principles of compassion such as knowledge, attention, logical thinking, warmth, support and kindness, teaching the attributes of compassion, motivation, sensitivity, empathy and kindness
8	Teaching inner conversation between the patient and self-defined, explaining the many aspects of self-existence, learning to write a caring letter to oneself, and obtaining feedback from group members on the ideas taught, and evaluating and summarizing earlier content

The cut-off point on this scale is 13. Its 1-week retest reliability was 0.91 and internal consistency via Cronbach's alpha was 0.89 (Wang & Gorenstein, 2013). The Self-Care Questionnaire includes healthy diet, physical exercise, stress management, smoking, and health awareness. The Self-Care Questionnaire consists of 9 question in 22 items. Each question is scored on a scale ranging from 1 to 5. The average of questionnaire score was 83.9 and Cronbach's alpha of the questionnaire is 0.87 (Loven et al., 2019). The QOLS is a 36-item inventory with questions on a wide range of topics, such as health and happiness. The score of each domain of the questionnaire ranges from 0 to 100. Higher scores suggest a better QOL. The questionnaire's alpha was reported to be 0.8 (Burckhardt & Anderson, 2003). The frequency tables, and mean and standard deviation were utilized. Data were analyzed using repeated measures ANOVA in SPSS software (version 22; IBM Corp., Armonk, NY, USA). The significance level chosen for the tests was 0.05.

Results

The descriptive findings of this study include statistical indicators such as average, standard deviation, number of sample subjects, as well as frequency and percentage table. The variables studied in this research are presented in table 2. The mean of research variables in the experimental and control groups are presented in table 3. Based on the results of this study, it can be said that there was no significant difference between the two groups in terms of gender distribution, marital status, age group, and level of education. It should be noted that the mean age of the participants was 29.64 years.

To evaluate the significant difference among depression score and quality of life and self-care, repeated measures ANOVA was used. Before performing repeated measures ANOVA, to observe the defaults, the results of Box's M and Mauchly's sphericity test were checked. The homogeneity of variance-variance matrices was not rejected since Box's M test was not statistically significant for any of the research variables.

Table 2. Comparison of frequency and comparison of demographic characteristics of the research units

Demography variables	Compassion-focused therapy	Control group	P
Gender			
Male	16	8	0.331
Female	4	12	
Marital status			
Single	5	7	0.872
Married	15	13	
Age (year)			
< 30	10	14	0.402
31-40	6	5	
41-50	4	1	
Education level			
High school	3	0	0.111
Diploma	2	6	
Undergraduate	15	14	

Mauchly's sphericity test results for QOL were significant. Therefore, the hypothesis of equality of variances within the subjects (sphericity hypothesis) was rejected. Therefore, the Greenhouse–Geisser test was used to evaluate the results of univariate test for intragroup effects and interactions. According to the obtained probability values, the averages of the tests were significantly different in terms of the effectiveness of compassion theory training on research variables. The Greenhouse–Geisser test with a value of 0.135 ($p > 0.001$) showed a major difference between the two groups' judgments of the efficacy of compassion theory training in lowering depression, boosting QOL, and fostering self-care.

Table 4 displays the results of ANOVA in the comparison of pretest, posttest, and follow-up in the experimental and control groups. Both the group*time effect ($P < 0.001$) and the group effect ($p = 0.038$) were significant in ANOVA of the depression variable. Moreover, ANOVA indicates that the group*time impact was significant ($P < 0.001$). In addition, ANOVA of the QOL variable was significant for the group*time effect ($P < 0.001$) and group effect ($P = 0.057$), and the self-care behavioral variables were significant for the group*time effect ($P < 0.001$) and group effect ($P = 0.043$).

The Bonferroni post hoc test was used to examine the differences in the pretest and posttest stages and follow-up in each of the variables, the results of which are presented in table 5. According to table 5, the posttest depression scores in the experimental group were significantly lower than their pretest scores ($P = 0.001$). The depression scores in the follow-up stage differed significantly from that in the pretest phase ($P = 0.001$). There was also a statistically significant difference between the posttest and follow-up phases ($P = 0.037$). However, the posttest QOL score in the experimental group was lower than the pretest QOL score ($P = 0.001$). In the follow-up phase, the QOL score was significantly different from the pretest phase ($P = 0.001$). There was also a statistically significant difference between the posttest and follow-up phases ($P = 0.012$) in term of QOL.

Table 3. Mean (SD) of research variables in the experimental and control groups

Variable	Group	Pretest		Posttest		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Depression	CFT	13.22	1.12	9.87	1.51	10.63	1.43
	Control group	12.10	1.17	12.91	1.20	12.53	1.29
Quality of Life	CFT	159	5.55	166	6.61	168	6.21
	Control group	155	5.58	161	6.23	166	5.96
Self-care	CFT	32	3.71	36.12	4.65	38.13	4.99
	Control group	29	3.88	31.20	4.18	33.57	5.1

Table 4. Repeated measures analysis of variance for comparison of pretest, posttest, and follow-up in the experimental and control groups

Variable	Effect	df	F	P-value	Eta square
Depression	Time	2	162.11	< 0.001	0.88
	Group	1	8.99	0.038	0.31
	Group*Time	2	121.12	< 0.001	0.85
Quality of life	Time	2	159.23	< 0.001	0.80
	Group	1	23.11	0.057	0.81
	Group*Time	2	125.12	< 0.001	0.56
Self-care	Time	2	126.50	< 0.001	0.83
	Group	1	4.23	0.043	0.22
	Group*Time	2	69.13	< 0.001	0.76

In addition, the self-care variable was lower in the experimental group in the posttest stage compared to the pretest and follow-up stages ($P < 0.001$). However, there was a statistically significant difference between the posttest and follow-up phases in terms of this variable ($P = 0.032$). In the follow-up phase, the efficacy of CFT decreased for depression, QOL, and self-care behaviors.

Discussion

This study evaluated the effects of CFT on different aspects of life of IBS patients. A previous study has shown that CFT improves depression. The CFT group had much less depression in the follow-up period than the control group. In fact, in CFT, instead of judging yourself ruthlessly and criticizing yourself for your weaknesses and flaws, compassion allows you to be kind and self-aware when faced with personal problems (Wilson et al., 2019). Who said you have to be perfect? You can change your ways so that you can be healthier and happier. You can achieve this when you value and accept that you are a human being. CFT leads to acceptance of one's true self. In addition, it helps individuals with IBS better deal with their sadness and gives them the opportunity to adjust to the symptoms of their disease. Foroozanfar and Ansari-Shahidi (2020) conducted a research on the benefits of treatment focused on self-compassion training in decreasing psychological disorders, including symptoms of depression.

The findings of the present study are compatible with their findings. Moreover, the findings of this study were compared to those of Ferrari et al. (2019), who investigated the impact of self-centered treatment on elderly patients suffering from dementia, specifically with regard to their levels of anxiety and sadness. Based on the findings of Ferrari et al (2019), it can be seen that CFT has improved the QOL of participants. In addition, the QOL in the follow-up phase in the CFT group increased significantly compared to the control group. To explain this finding, it can be said that self-compassion training can lead to better thinking.

Table 5. Results of the Bonferroni post hoc test for two-way comparison of mean measurement times of the research variables

Variable	Stage	Posttest			Follow-up		
		Mean differences	Standard error	P	Mean differences	Standard error	P
Depression	Pre-test	3.05	0.50	< 0.001	1.47	0.76	< 0.001
	Post-test	-	-	-	0.6	0.60	0.037
Quality of life	Pre-test	1.12	0.59	< 0.001	2.24	0.67	< 0.001
	Post-test	-	-	-	-0.89	0.64	0.012
Self-care	Pre-test	3.42	1.51	< 0.001	-1.81	0.69	< 0.001
	Post-test	-	-	-	2.6	0.68	0.032

People learn how to recognize their unreasonable assessments (Hughes, Brown, Campbell, Dandy, & Cherry, 2021). It prepares people to deal with challenging situations and overcome obstacles. This education will very probably be the driving force behind change, including adjustments in attitudes and ideas and improvement in their level of living. Self-compassion education teaches people how to recognize and correct incorrect and unreasonable thoughts. This reduces stress and enhances overall QOL. The nature of group education has the potential to improve QOL. This is due to the fact that bringing together people who have similar physical problems reduces stress and negative mood, and increases acceptance of reality and coping abilities (Frostadottir & Dorjee, 2019). As a consequence, self-compassion education can improve your QOL or your capacity to successfully deal with adversity.

Self-compassion training encourages individuals with IBS to be as compassionate to themselves as they are to others. In addition, the lessons learnt through this mode of therapy cause individuals to act realistically and to renounce the ideal self and the self imposed on them by others, and therefore, help them obtain greater peace of mind (Germer & Neff, 2013). When living situations become challenging and painful, individuals with IBS concentrate on their inner world to soothe themselves, rather than only concentrating on the outer world and attempting to manage or fix the issue. Self-compassion could help to ameliorate one's suffering in to avoid stress. The findings show that CFT has been very effective in improving self-care behaviors. There was no significant increase in self-care behaviors in the follow-up phase in the CFT group compared with the control group. This result is in line with the results of Ghanavati and Joharifard (2019).

Self-compassion is caring for and empathizing with oneself, a non-evaluative attitude toward oneself in the midst of perceived challenges or deficiencies (Pauley & McPherson, 2010). High self-esteem is associated with psychological well-being and protects individuals against stress. It also entails embracing vulnerable emotions, caring for and being nice to oneself, analyzing one's own failures and failures, and acknowledging one's experiences. Compassionate self-therapy shows the limits and highlights the harmful habits that allow one to make adjustments and promote change to increase well-being (Yadavaia et al., 2014). Therefore, it may be assumed that CFT will have an influence on self-care of individuals with IBS.

The primary limitation of the present study is that only those with a diagnosis of IBS were included in the analysis. This study was only carried out on patients located in Bangkok, which is located in Thailand. It is suggested that more research be carried out using a new sample group, and the results be analyzed. Given the positive effects that CFT has on depression, self-care habits, and overall QOL in patients with IBS, psychologists should consider implementing group CFT.

Conclusion

Patients diagnosed with IBS can benefit from CFT in terms of their mood, QOL, and behaviors related to self-care. Therefore, CFT can be an effective method for improving symptoms of depression, behaviors related to self-care, and overall QOL. In order to achieve this goal, this strategy can be utilized to address the psychological issues experienced by people who suffer from IBS.

Conflict of Interests

Authors have no conflict of interests.

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