

Clinical Application of Orem's Self-Care Theory in Traditional Chinese Medicine Retention Enema for Patients with Ulcerative Colitis

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Abstract

Objective This study applied Orem's self-care theory to traditional Chinese medicine retention enema treatment for ulcerative colitis and analyzed the effects of this protocol on patients' clinical symptoms and inflammatory response.

Methods A total of 84 ulcerative colitis patients who received inpatient treatment in our hospital from February 2020 to February 2023 were selected as research subjects and divided into experimental and control groups (42 cases each) using the envelope method. Both groups received retention enema treatment; on this basis, the control group received conventional nursing intervention, while the experimental group received Orem's self-care theory intervention in addition to conventional care. Clinical symptoms, inflammatory response, and quality of life were compared between the two groups.

Results Following intervention, both groups exhibited decreased scores in the UCDAI index for hematochezia, diarrhea, endoscopic findings, and physician's rating compared with baseline values ($P < 0.05$), with the experimental group showing lower scores than the control group. Levels of TNF- α , IL-6, and IL-8 in both groups decreased compared with baseline values ($P < 0.05$), with the experimental group showing lower levels than the control group. Scores for bowel symptoms, systemic symptoms, emotional function, and social function in the IBDQ decreased in both groups compared with baseline values ($P < 0.05$), with the experimental group showing lower scores than the control group.

Conclusion The application of Orem's self-care theory in traditional Chinese medicine retention enema treatment for ulcerative colitis can effectively improve patients' clinical symptoms and inflammatory response, and enhance patients' quality of life.

Full Text

A Clinical Study on the Application of Orem Self-Care Theory in Traditional Chinese Medicine Retention Enema for Ulcerative Colitis Patients

Abstract

Objective: This study applied Orem self-care theory to traditional Chinese medicine retention enema treatment for ulcerative colitis and analyzed the impact of this approach on patients' clinical symptoms and inflammatory responses. **Methods:** A total of 84 ulcerative colitis patients hospitalized in our hospital from February 2020 to February 2023 were selected as study subjects and divided into experimental and control groups (n=42 each) using the envelope method. Both groups received retention enema treatment; the control group underwent routine nursing intervention, while the experimental group received Orem self-care theory intervention in addition to routine care. Clinical symptoms, inflammatory responses, and quality of life were compared between the two groups. **Results:** After intervention, the UCDAI scores for bloody stools, diarrhea, endoscopic manifestations, and physician evaluation decreased significantly compared with pre-intervention levels in both groups ($P < 0.05$), with the experimental group showing lower scores than the control group. The levels of $\text{TNF-}\alpha$, IL-6, and IL-8 also decreased significantly post-intervention in both groups ($P < 0.05$), with the experimental group lower than the control group. The IBDQ scores for intestinal symptoms, systemic symptoms, emotional function, and social function increased significantly after intervention in both groups ($P < 0.05$), with the experimental group higher than the control group. **Conclusion:** Applying Orem self-care theory to traditional Chinese medicine retention enema treatment for ulcerative colitis can effectively improve patients' clinical symptoms and inflammatory responses, thereby enhancing their quality of life.

Keywords: Orem Self-Care Theory; Traditional Chinese Medicine Retention Enema; Ulcerative Colitis; Clinical Application

Introduction

Ulcerative colitis is a chronic inflammatory disease of unknown etiology, with pathogenesis closely related to environmental, dietary, and immune dysfunction factors. The disease typically affects the intestinal mucosa and deeper layers, though it may spread to the intestinal wall surface in some patients. Characterized by systemic fatigue, decreased appetite, and weight changes, ulcerative colitis is a chronic condition with a relatively long disease course that causes significant physical harm, making nursing care critically important. Orem's Self-Care Theory, proposed by American nursing scholar Dorothea Orem in the 1970s, posits that individuals possess autonomy and capacity in self-care. The goal of nursing is to help individuals maintain, improve, or restore their

self-care abilities to meet health needs. The theory places individuals' self-care capabilities and nursing needs at its core, emphasizes personalized care plans, and provides a systematic framework to help nurses assess self-care abilities, identify care needs, and develop appropriate interventions.

Traditional Chinese medicine enema, a therapy with a long history, is widely applied due to its simple operation, significant efficacy, and low cost. Modern physiology has revealed that the intestinal wall functions as a semipermeable membrane with selective absorption and excretion capabilities. Drug enemas can increase local medication concentration in the rectal mucosa, reduce hepatic metabolism, prevent drug destruction by gastrointestinal digestive fluids, and improve bioavailability. As a characteristic therapy of traditional Chinese medicine, retention enema offers unique advantages in treating ulcerative colitis, providing definitive efficacy with direct access to lesions and no toxic side effects. Based on these considerations, this study selected 84 ulcerative colitis patients hospitalized in our hospital from February 2020 to February 2023 to analyze the impact of applying Orem self-care theory to traditional Chinese medicine retention enema treatment on clinical symptoms and inflammatory responses.

Methods

1.1 General Data A total of 84 ulcerative colitis patients hospitalized in our hospital from February 2020 to February 2023 were selected as study subjects and divided into experimental and control groups ($n=42$ each) using the envelope method. The experimental group comprised 27 males and 15 females, aged 32-56 years (mean 41.02 ± 1.39 years), with disease duration of 4 months to 2 years (mean 1.35 ± 0.62 years). Lesion locations included: below junior high school (11 cases), high school (13 cases), and college or above (18 cases). The control group comprised 27 males and 15 females, aged 32-58 years (mean 41.92 ± 1.42 years), with disease duration of 3 months to 2 years (mean 1.62 ± 0.53 years). Lesion locations included sigmoid colon (19 cases), left hemicolon (14 cases), and extensive colon (9 cases). Education levels were: below junior high school (9 cases), high school (14 cases), and college or above (19 cases). No statistically significant differences existed in general data between the two groups ($P > 0.05$).

1.2 Inclusion and Exclusion Criteria **Inclusion criteria:** (1) Diagnosis of ulcerative colitis confirmed by colonoscopy and pathology; (2) Disease duration > 5 months; (3) No other therapies received in recent years; (4) Ability to strictly follow the intervention protocol; (5) Non-infectious colitis.

Exclusion criteria: (1) Severe ulcerative colitis or other serious complications; (2) Use of other medications during treatment; (3) Severe organ dysfunction of heart, liver, or kidney.

1.3 Interventions Both groups received traditional Chinese medicine retention enema: 100ml of Compound Phellodendron Solution (manufacturer:

Shandong Hanfang Pharmaceutical Co., Ltd., national drug approval number: Z10950097) was administered twice daily for 15 days as one treatment course, with subsequent courses repeated every 7 days for a total of three courses. The enema solution was heated to 38°C. Patients emptied their bowels before enema administration, assumed left lateral position, had the rectal tube inserted 10-15 cm, and elevated their hips to maintain position until completion.

The control group received routine interventions including health education upon admission, negative emotion counseling, self-relaxation guidance, nutritional monitoring and dietary instruction (easily digestible, light foods; smoking and alcohol cessation; avoidance of raw, cold, spicy foods; reduced high-fat and high-protein intake), medication guidance, and exercise intervention (encouraging long-term jogging, brisk walking, etc., with appropriate intensity).

The experimental group implemented Orem self-care theory based on the control group's interventions: (1) An Orem self-care team was established, comprising physicians, head nurses, and responsible nurses, all trained in Orem self-care theory, methods, and ulcerative colitis knowledge. (2) **Wholly compensatory system:** Patients received education on ulcerative colitis fundamentals, treatment methods, and rehabilitation materials to understand disease controllability and comply with medical guidance. Patients with significant negative emotions received psychological counseling with family cooperation and exercise-based emotional release (10-20 minutes per session). (3) **Partly compensatory system:** Focused on diet, medication, and exercise. Diet emphasized low-fat, easily digestible foods, avoiding spicy, cold, sour, pickled, and hard foods, with small frequent meals high in vitamins and protein. Medication use strictly followed medical instructions, with immediate reporting of abnormalities. (4) **Supportive-educative system:** A disease cognition questionnaire assessed patients' knowledge levels, classifying them as poor, good, or average. Misunderstandings were analyzed and addressed through tailored health education delivered via WeChat, with regular dissemination of information on disease risks, medication, and dietary restrictions. Random sampling questions assessed mastery, with one-on-one guidance provided for patients with persistent misconceptions.

1.4 Observation Indicators Clinical symptom scores: Pre- and post-intervention clinical symptoms were integrated using the Ulcerative Colitis Disease Activity Index (UCDAI), scoring four aspects (bloody stools, diarrhea, endoscopic manifestations, physician evaluation) from 0-3 points, with lower scores indicating less disease activity.

Inflammatory response: Pre- and post-intervention fasting venous blood samples were tested for tumor necrosis factor- α (TNF- α), interleukin-6 (IL-6), and interleukin-8 (IL-8) levels.

Quality of life: Pre- and post-intervention quality of life was assessed using the Inflammatory Bowel Disease Questionnaire (IBDQ), scoring intestinal

symptoms, systemic symptoms, emotional function, and social function across 32 items (1-7 points each), with higher scores indicating better quality of life.

1.5 Statistical Methods SPSS 25.0 statistical software was used for data analysis. Measurement data were expressed as (mean $\pm$ standard deviation) and compared between and within groups using t-tests. Count data were expressed as [n(%)] and compared using χ^2 tests. $P < 0.05$ indicated statistically significant differences.

Results

2.1 Comparison of UCDAI Index Between Groups Post-intervention UCDAI scores for bloody stools, diarrhea, endoscopic manifestations, and physician evaluation decreased significantly compared with baseline in both groups ($P < 0.05$), with the experimental group lower than the control group ($P < 0.05$). See .

Comparison of UCDAI Index Between Groups (mean $\pm$ SD)

Group	n	Bloody Stools	Diarrhea	Endoscopic Manifestations	Physician Evaluation
Experimental	42	12.13 $\pm$ 0.31	2.29 $\pm$ 0.38	2.01 $\pm$ 0.31	2.12 $\pm$ 0.28
Control	42	12.13 $\pm$ 0.31	2.29 $\pm$ 0.38	2.01 $\pm$ 0.31	2.12 $\pm$ 0.28
P-value		<0.001		<0.001	

Note: a $P < 0.05$ for comparison between pre- and post-intervention data.

2.2 Comparison of Inflammatory Response Between Groups Post-intervention levels of TNF- α , IL-6, and IL-8 decreased significantly compared with baseline in both groups ($P < 0.05$), with the experimental group lower than the control group ($P < 0.05$). See .

Comparison of Inflammatory Response Between Groups (mean $\pm$ SD)

Group	n	TNF- α (ng/mL)	IL-6 (ng/mL)	IL-8 (ng/mL)
Experimental	42	169.15 $\pm$ 22.35	121.46 $\pm$ 19.62	0.89 $\pm$ 0.16
Control	42	169.15 $\pm$ 22.35	121.46 $\pm$ 19.62	0.89 $\pm$ 0.16
P-value				

Note: b $P < 0.05$ for comparison between pre- and post-intervention data.

2.3 Comparison of IBDQ Scores Between Groups Post-intervention IBDQ scores for intestinal symptoms, systemic symptoms, emotional function, and social function increased significantly compared with baseline in both groups

($P < 0.05$), with the experimental group higher than the control group ($P < 0.05$). See .

Comparison of IBDQ Scores Between Groups (mean $\pm$ SD)

Group	n	Intestinal Symptoms	Systemic Symptoms	Emotional Function	Social Function
Experimental	42	53.15 $\pm$ 3.92	19.64 $\pm$ 2.38	24.15 $\pm$ 2.61	59.64 $\pm$ 4.59
Control	42	53.15 $\pm$ 3.92	19.64 $\pm$ 2.38	24.15 $\pm$ 2.61	59.64 $\pm$ 4.59
P-value		<0.001			

Note: $cP < 0.05$ for comparison between pre- and post-intervention data.

Discussion

Ulcerative colitis is a common clinical condition with unclear pathogenesis that may involve genetic, environmental, intestinal microecological, and immune factors. Additionally, poor hygiene and climate changes may contribute to disease onset. The disease course is long and prone to recurrence, necessitating not only active treatment but also strengthened control of daily life and habits. Conventional nursing primarily involves mechanical education and guidance according to medical orders, lacking personalization and specificity. Unidirectional education and guidance make it difficult to produce essential behavioral changes, resulting in suboptimal nursing outcomes for some patients and highlighting the need for further interventions.

This study incorporated Orem self-care theory into ulcerative colitis nursing based on traditional Chinese medicine enema. By providing personalized services according to patients' deficiencies, designing various nursing compensation systems, emphasizing individual differences, and intervening according to patients' self-care needs, the approach maximized patients' self-care capabilities. The results demonstrated that post-intervention UCDAI scores for bloody stools, diarrhea, endoscopic manifestations, and physician evaluation decreased significantly in both groups ($P < 0.05$), with the experimental group showing superior improvement compared to the control group ($P < 0.05$). Post-intervention TNF- α , IL-6, and IL-8 levels also decreased significantly in both groups ($P < 0.05$), with the experimental group demonstrating greater reduction ($P < 0.05$). Post-intervention IBDQ scores for intestinal symptoms, systemic symptoms, emotional function, and social function increased significantly in both groups ($P < 0.05$), with the experimental group achieving higher scores than the control group ($P < 0.05$).

In summary, implementing Orem self-care theory for ulcerative colitis patients receiving traditional Chinese medicine retention enema can effectively improve clinical symptoms, reduce inflammatory responses, and enhance quality of life scores. Through psychological counseling, negative emotions can be reduced,

mental status improved, nurse-patient distance shortened, and patient compliance enhanced. Dietary and exercise guidance provide partial compensation, improving patients' nutritional status and promoting self-care abilities. Building on this foundation, health education via WeChat with regular information dissemination can increase disease awareness and improve understanding of ulcerative colitis management. Under the guidance of self-care theory, this approach effectively improves clinical symptoms, reduces inflammatory reactions, and enhances quality of life in ulcerative colitis patients, offering valuable reference for clinical practice.

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