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A Comparative Study of Traditional Kashmiri Remedies and Modern Medical Management for Constipation in Srinagar, India

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A B S T R A C T

Introduction: Constipation is a common gastrointestinal disorder with various causes, significantly impacting quality of life. In Srinagar, India, traditional Kashmiri remedies are frequently employed alongside or as an alternative to modern medical management for constipation. This study aimed to compare the efficacy, safety, and patient satisfaction associated with these two approaches. **Methods:** A randomized controlled trial was conducted involving 200 adult participants diagnosed with functional constipation in Srinagar. Participants were randomly allocated to either a traditional Kashmiri remedies group (n=100) or a modern medical management group (n=100). The traditional remedies group received individualized herbal formulations and dietary recommendations based on traditional Kashmiri medicine principles. The modern medical management group received standard treatments, including lifestyle advice, fiber supplements, and laxatives. The primary outcome was the change in weekly bowel movement frequency. Secondary outcomes included constipation symptom severity, quality of life, patient satisfaction, and adverse events. Data were collected at baseline, 4 weeks, and 8 weeks. **Results:** Both groups demonstrated significant improvements in weekly bowel movement frequency, constipation symptom severity, and quality of life. However, no statistically significant difference was observed between the two groups in the primary or secondary outcomes. Patient satisfaction was high in both groups, with a slight preference for traditional remedies due to perceived naturalness and fewer side effects. **Conclusion:** Both traditional Kashmiri remedies and modern medical management are effective in managing constipation in Srinagar. The choice of treatment should be individualized based on patient preferences, access to care, and cost considerations. Further research is needed to explore the long-term effects and optimal integration of these approaches.

1. Introduction

Constipation, a pervasive gastrointestinal disorder characterized by infrequent bowel movements, straining during defecation, hard stools, and a sense of incomplete evacuation, presents a significant burden to individuals across the globe. This condition transcends age, affects individuals of all demographics, and significantly impacts the quality of life, leading to physical discomfort, abdominal pain, bloating, and diminished productivity. The multifactorial etiology of constipation encompasses a wide range of contributing factors, from lifestyle choices such as inadequate dietary fiber and fluid intake, sedentary behavior, and certain medications, to underlying medical conditions like hypothyroidism, irritable bowel syndrome, and neurological disorders. The intricate interplay of these factors underscores the complexity of constipation and highlights the need for comprehensive management strategies. While modern medical management, with its arsenal of lifestyle advice, fiber supplements, laxatives, and other pharmacological agents, has become a cornerstone in addressing constipation, traditional medicine continues to play a vital role in many cultures, offering

alternative or complementary approaches to managing this prevalent condition.[1-3]

In Srinagar, the summer capital of Jammu and Kashmir, India, nestled amidst the breathtaking Himalayas, a rich tapestry of traditional medicine has been woven through centuries of practice. This tradition, deeply rooted in the region's cultural heritage, boasts a vast repertoire of herbal remedies, dietary modifications, and lifestyle recommendations, meticulously curated to address a wide spectrum of ailments, including constipation. These remedies often passed down through generations of healers and practitioners, harness the therapeutic potential of locally sourced herbs, each carefully selected for its unique properties and meticulously prepared to maximize efficacy and minimize adverse effects. The use of traditional Kashmiri remedies for constipation is deeply ingrained in the region's healthcare practices, with many individuals relying on these time-tested approaches either alongside or in place of modern medical management. This enduring reliance on traditional medicine reflects not only its cultural significance but also the perceived effectiveness and safety of these remedies, often viewed as a holistic approach that addresses the underlying imbalances contributing to constipation.[4-7]

However, despite the widespread use and cultural significance of traditional Kashmiri remedies for constipation, a dearth of robust scientific evidence exists regarding their efficacy, safety, and patient satisfaction compared to modern medical management. This knowledge gap underscores the need for rigorous scientific investigation to evaluate the comparative effectiveness of these two approaches, providing healthcare providers and patients with evidence-based guidance in making informed treatment decisions.[8-10] This study aimed to bridge this gap by conducting a randomized controlled trial to compare the efficacy, safety, and patient satisfaction associated with traditional Kashmiri remedies and modern medical management for constipation in Srinagar. The primary objective was to assess the change in weekly bowel movement frequency, a key indicator of constipation severity and treatment response. Secondary objectives included evaluating constipation symptom severity, quality of life, patient satisfaction, and adverse events associated with each treatment modality.

2. Methods

The study was conducted in Srinagar, the summer capital of Jammu and Kashmir, India, a region renowned for its rich tradition of herbal medicine and its diverse healthcare landscape. This setting provided a unique opportunity to explore the comparative effectiveness of traditional Kashmiri remedies and modern medical management for constipation, reflecting the real-world healthcare choices available to individuals in this region. Ethical approval for the study was obtained from the Institutional Ethics Committee of the participating healthcare institution, ensuring adherence to all relevant ethical guidelines and regulations. Prior to enrollment, all potential participants were provided with detailed information about the study's purpose, procedures, potential benefits and risks, and their right to withdraw from the study at any time without any consequences. Written informed consent was obtained from all participants before their inclusion in the study.

Participants were recruited from outpatient clinics in Srinagar, targeting individuals seeking healthcare for constipation-related complaints. To ensure the homogeneity of the study population and minimize the influence of confounding factors, specific inclusion and exclusion criteria were applied during the recruitment process. The study included adult participants aged 18 to 65 years who fulfilled the Rome IV criteria for functional constipation. These criteria, widely recognized for their diagnostic accuracy, encompass a constellation of symptoms, including infrequent bowel movements (less than three per week), straining during defecation, lumpy or hard stools, a sensation of incomplete evacuation, and the use of manual maneuvers to facilitate defecation. By adhering to these criteria, the study aimed to ensure that the participants represented a well-defined population with functional constipation, excluding individuals with secondary constipation due to underlying medical conditions or other contributing factors. Several exclusion criteria were applied to

further refine the study population and minimize the potential for confounding factors. These criteria included; Secondary constipation: Individuals with constipation secondary to underlying medical conditions such as hypothyroidism, irritable bowel syndrome, neurological disorders, or obstructive conditions were excluded from the study. This exclusion aimed to isolate the effects of the interventions on functional constipation, preventing the influence of other medical factors on the outcomes; Pregnancy and lactation: Pregnant and lactating women were excluded due to the potential impact of hormonal changes and the transfer of herbal components or medications to the fetus or infant through breast milk. This exclusion aimed to protect vulnerable populations and prevent any potential adverse effects; Recent laxative use: Participants who had used laxatives within the past two weeks were excluded to avoid any carryover effects that could influence the outcomes of the interventions. This exclusion ensured that the observed effects were attributable to the interventions under investigation rather than residual effects of prior laxative use.

To ensure the statistical power of the study and the ability to detect meaningful differences between the two intervention groups, a sample size calculation was performed. This calculation considered the primary outcome, the change in weekly bowel movement frequency, and aimed to achieve a power of 80% with a significance level of 0.05. Based on previous studies and clinical experience, a clinically meaningful difference in weekly bowel movement frequency was estimated to be 1.5 bowel movements per week. The sample size calculation, considering these parameters and an estimated standard deviation of 2 bowel movements per week, indicated that a minimum of 85 participants per group would be required. To account for potential dropouts, a total of 200 participants were recruited, with 100 allocated to each intervention group.

Following the recruitment and screening of eligible participants, a rigorous randomization procedure was implemented to ensure the unbiased allocation of participants to either the traditional Kashmiri remedies group or the modern medical management group. A computer-generated randomization sequence was employed, with participants assigned to each group in a 1:1 ratio. This randomization process aimed to minimize selection bias and ensure the comparability of the two groups at baseline, enhancing the internal validity of the study. Due to the nature of the interventions, blinding of participants and practitioners was not feasible. Participants were aware of the treatment modality they were receiving, and practitioners could not be blinded to the interventions they were administering. This lack of blinding could potentially introduce bias, as participants' expectations and practitioners' beliefs about the interventions could influence the outcomes. However, to mitigate this potential bias, the statistician responsible for analyzing the data was blinded to the treatment allocation. This blinding ensured that the statistical analysis was conducted objectively, minimizing the influence of any preconceived notions about the interventions.

The two intervention groups received distinct treatment modalities based on either traditional Kashmiri remedies or modern medical management for constipation. Each intervention was meticulously designed and implemented to reflect the standard practices within each healthcare approach. Participants allocated to the traditional Kashmiri remedies group received individualized herbal formulations and dietary recommendations tailored to their specific needs and the nature of their constipation. Experienced practitioners of traditional Kashmiri medicine, with extensive knowledge of herbal remedies and their therapeutic applications, conducted comprehensive assessments of each participant. These assessments considered various factors, including the individual's constitution, the duration and severity of constipation, associated symptoms, and dietary habits. Based on these assessments, practitioners formulated individualized herbal preparations using locally sourced herbs renowned for their laxative, carminative, and digestive properties. The selection of herbs and their dosages were carefully determined based on the principles of traditional Kashmiri medicine, considering the individual's unique characteristics and the specific

manifestations of their constipation. Commonly used herbs in the formulations included; Ispaghula husk (Plantago ovata): A bulk-forming laxative that absorbs water in the intestines, increasing stool bulk and promoting regularity; Saunf (Foeniculum vulgare): A carminative herb that helps relieve bloating and gas, often associated with constipation; Zeera (Cuminum cyminum): A digestive stimulant that enhances digestive function and promotes bowel movements; Harad (Terminalia chebula): A laxative and digestive tonic that helps regulate bowel movements and improve digestion. In addition to herbal formulations, participants received personalized dietary recommendations aimed at promoting regular bowel movements and addressing any underlying dietary imbalances. These recommendations emphasized; Increased intake of fruits, vegetables, and whole grains: These foods are rich in fiber, which adds bulk to the stool and promotes regularity; Limited consumption of processed foods, red meat, and refined carbohydrates: These foods are often low in fiber and can contribute to constipation; Adequate fluid intake: Maintaining proper hydration is crucial for softening the stool and facilitating its passage through the digestive tract. Participants received detailed instructions on preparing and consuming the herbal formulations, adhering to the dietary recommendations, and incorporating lifestyle modifications such as regular physical activity and establishing a consistent toileting routine. Regular follow-up consultations were provided to monitor progress, address any concerns, and adjust the treatment plan as needed. Participants in the modern medical management group received standard medical care for constipation, encompassing lifestyle advice, fiber supplements, and laxatives, as indicated. Healthcare providers, trained in modern medicine, provided comprehensive lifestyle recommendations, emphasizing; Increased fluid intake: Maintaining adequate hydration is crucial for softening the stool and facilitating its passage; Regular physical activity: Engaging in regular physical activity stimulates intestinal motility and promotes regular bowel movements; Establishing a regular toileting routine: Developing a consistent toileting routine can help regulate bowel movements and prevent constipation. Fiber supplements, such as psyllium husk or methylcellulose, were prescribed to increase stool bulk and promote regularity. These supplements, derived from natural sources, act by absorbing water in the intestines, forming a gel-like substance that adds bulk to the stool and facilitates its passage. Participants received detailed instructions on the appropriate dosage and usage of fiber supplements, as well as potential side effects such as bloating and gas. Laxatives, including osmotic laxatives (e.g., polyethylene glycol) and stimulant laxatives (e.g., bisacodyl), were used judiciously based on the severity and frequency of constipation. Osmotic laxatives work by drawing water into the intestines, softening the stool and increasing its bulk, while stimulant laxatives stimulate intestinal contractions, promoting bowel movements. Participants received clear instructions on the appropriate use of laxatives, including dosage, frequency, and potential side effects such as abdominal cramps and diarrhea. Regular follow-up consultations were provided to monitor participants' progress, address any concerns, and adjust the treatment plan as needed. This ongoing monitoring ensured that participants received appropriate care and that any adverse events were promptly identified and managed.

To evaluate the effectiveness, safety, and patient satisfaction associated with each intervention, a comprehensive set of outcome measures was employed. These measures captured various aspects of constipation and its impact on individuals' well-being. The primary outcome was the change in the number of bowel movements per week from baseline to 8 weeks. This measure provided a quantitative assessment of the interventions' impact on bowel regularity, a key indicator of constipation severity and treatment response. The change in bowel movement frequency was calculated by subtracting the baseline frequency from the frequency at 8 weeks, providing a measure of the improvement or worsening of constipation over the study period. The severity of constipation symptoms was assessed using the Constipation Scoring System (CSS), a validated questionnaire that evaluates various aspects of

constipation, including stool frequency, consistency, straining, pain, and abdominal discomfort. The CSS provides a comprehensive assessment of constipation severity, capturing the multifaceted nature of this condition and its impact on individuals' daily lives. The impact of constipation on quality of life was assessed using the Patient Assessment of Constipation Quality of Life (PAC-QOL) questionnaire, a validated instrument that measures various dimensions of quality of life affected by constipation, including physical discomfort, psychosocial well-being, worries and concerns, and satisfaction with treatment. The PAC-QOL provides a comprehensive assessment of the impact of constipation on individuals' overall well-being, capturing the broader consequences of this condition beyond its physical symptoms. Patient satisfaction with the interventions was assessed using a 5-point Likert scale, ranging from 1 (very dissatisfied) to 5 (very satisfied). This subjective measure captured participants' overall satisfaction with the treatment they received, considering factors such as effectiveness, tolerability, convenience, and perceived benefits. The safety of the interventions was evaluated by monitoring and documenting any adverse events experienced by the participants during the study period. Adverse events included any unfavorable or unintended signs or symptoms, such as abdominal pain, bloating, diarrhea, nausea, or other discomforts, that emerged or worsened after the initiation of the interventions.

Data were collected at three time points: baseline, 4 weeks, and 8 weeks. This longitudinal data collection approach allowed for the assessment of changes in outcome measures over time, providing insights into the interventions' short-term effects and their sustainability. Standardized questionnaires and participant interviews were employed to ensure consistency and minimize bias in data collection. At baseline, participants underwent a comprehensive assessment, including a review of their medical history, a physical examination, and the completion of baseline questionnaires. The questionnaires captured demographic information, constipation history, symptom severity, quality of life, and any current medications. Follow-up assessments were conducted at 4 weeks and 8 weeks to monitor participants' progress and assess changes in outcome measures. These assessments included the completion of follow-up questionnaires, capturing changes in bowel movement frequency, constipation symptom severity, quality of life, and patient satisfaction. Participants were also interviewed to inquire about any adverse events experienced during the study period.

The collected data were meticulously analyzed using appropriate statistical methods to address the study's objectives. Descriptive statistics were employed to summarize the baseline characteristics of the participants and the outcome measures at each time point. Continuous variables were presented as means and standard deviations, while categorical variables were presented as frequencies and percentages. To compare the primary outcome, the change in weekly bowel movement frequency, between the two intervention groups, an independent samples t-test was performed. This test assessed whether the mean change in bowel movement frequency differed significantly between the traditional Kashmiri remedies group and the modern medical management group. Secondary outcomes were analyzed using appropriate statistical tests based on the nature of the data. Chi-square tests were employed to compare categorical variables, such as the proportion of participants experiencing adverse events, between the two groups. Independent samples t-tests or Mann-Whitney U tests were used to compare continuous variables, such as constipation symptom severity (CSS score) and quality of life (PAC-QOL score), depending on the normality of the data distribution. All statistical analyses were performed using SPSS version 25.0 (IBM Corp., Armonk, NY, USA), a widely used statistical software package. Statistical significance was set at a p-value of less than 0.05, indicating that the observed differences between the groups were unlikely to have occurred by chance alone.

3. Results and Discussion

Table 1 presents the baseline characteristics of the 200 participants enrolled in the study, divided into two groups: those receiving Traditional Kashmiri Remedies and those receiving Modern Medical Management for

constipation. Both groups had a similar average age (around 42 years old), with comparable standard deviations. This suggests that the participants were relatively similar in age across the two treatment groups. The proportion of females was slightly higher in the Traditional Kashmiri Remedies group (59%) compared to the Modern Medical Management group (57%). However, this difference is small and unlikely to be clinically significant. The average duration of constipation was almost identical in both groups (approximately 14 months), with similar variability. This indicates that both groups had been experiencing constipation for a similar length of time. The average number of bowel movements per week at the start of the study was slightly lower in the Traditional Kashmiri Remedies group (2.3) compared to the Modern Medical Management group (2.4). However, this difference was small and the standard deviations overlapped, suggesting that the baseline bowel movement frequency was not substantially different between the two groups.

Table 1. Participant characteristics.

Group	Age (years)	Female (%)	Constipation duration (months)	Baseline bowel movements/week
Traditional Kashmiri Remedies	42.3 (12.1)	59	14.2 (8.5)	2.3 (1.1)
Modern Medical Management	42.7 (12.5)	57	14.5 (8.8)	2.4 (1.2)

Table 2 focuses on the primary outcome of the study, which was the change in weekly bowel movement frequency. It effectively illustrates the effectiveness of both Traditional Kashmiri Remedies and Modern Medical Management in addressing constipation. The p-value of <0.001 for both groups highlights a statistically significant increase in bowel movement frequency from baseline to week 8. This strongly suggests that both interventions were successful in improving this key aspect of constipation. Participants in both groups experienced a noticeable increase in how often they had bowel movements, indicating a positive response to the treatments. The p-value of 0.32 for the comparison between groups indicates that while both interventions were effective, there was no statistically significant difference in the *amount* of improvement between the two groups. In simpler terms, both Traditional Kashmiri Remedies and Modern Medical Management led to similar increases in bowel movement frequency. This suggests that both approaches have comparable efficacy in addressing this core symptom of constipation. While the statistical analysis shows no significant difference between the groups, it's important to consider clinical significance. Even though the difference wasn't statistically significant, both groups showed a clinically meaningful improvement in bowel movement frequency. This means the improvement was likely enough to make a noticeable difference in the participants' lives and alleviate their constipation symptoms.

Table 2. Primary outcome.

Group	Baseline	Week 4	Week 8	p-value (within group)	p-value (between groups)
Traditional Kashmiri Remedies	2.3 (1.1)	3.8 (1.4)	4.4 (1.5)	<0.001	-
Modern Medical Management	2.4 (1.2)	3.9 (1.3)	4.3 (1.4)	<0.001	0.32

Table 3 provides valuable insights into the secondary outcomes of the study, further strengthening the evidence for the effectiveness of both Traditional Kashmiri Remedies and Modern Medical Management in treating constipation. The substantial reduction in CSS scores in both groups (from around

15 to around 8) highlights a significant improvement in constipation symptoms. This means that participants experienced less straining, fewer hard stools, and reduced abdominal discomfort, regardless of the treatment they received. This finding emphasizes that both approaches can effectively alleviate the distressing symptoms associated with constipation. The significant decrease in PAC-QOL scores (from around 2.8-2.9 to around 1.5-1.6) demonstrates a notable improvement in quality of life-related to constipation. This suggests that both Traditional Kashmiri Remedies and Modern Medical Management positively impacted participants' physical discomfort, psychosocial well-being, and overall satisfaction with their condition. This finding underscores the broader benefits of both treatments, extending beyond just relieving physical symptoms. The lack of statistically significant differences between the two groups in terms of CSS and PAC-QOL score improvements (p-values of 0.28 and 0.35, respectively) further emphasizes that both interventions had similar effects on symptom severity and quality of life. This reinforces the notion that both Traditional Kashmiri Remedies and Modern Medical Management are equally viable options for managing constipation, offering comparable benefits in terms of symptom relief and overall well-being.

Table 3. Secondary outcomes.

Group	CSS score (Baseline)	CSS score (Week 8)	PAC-QOL score (baseline)	PAC-QOL score (week 8)	p-value (within group)	p-value (between groups)
Traditional Kashmiri Remedies	15.2 (3.8)	8.5 (2.9)	2.8 (0.7)	1.5 (0.5)	<0.001	0.28
Modern Medical Management	15.5 (3.5)	8.8 (3.1)	2.9 (0.8)	1.6 (0.6)	<0.001	0.35

Table 4 sheds light on the safety and tolerability of the two constipation treatment approaches by presenting the frequency of adverse events experienced by participants. The table clearly shows that the two treatment groups experienced different types of adverse events. The Traditional Kashmiri Remedies group primarily reported abdominal discomfort and bloating, while the Modern Medical Management group mainly experienced diarrhea and abdominal cramping. This difference highlights the distinct mechanisms of action and potential side effects associated with each approach. The higher incidence of diarrhea and abdominal cramping in the Modern Medical Management group (12% and 6%, respectively) is consistent with known side effects of certain laxatives and fiber supplements, which are commonly used in conventional constipation treatment. This suggests that while effective, modern medical management may be associated with a greater risk of gastrointestinal side effects. The adverse events reported in the Traditional Kashmiri Remedies group (abdominal discomfort and bloating) were generally milder and less frequent. This may be attributed to the gentler nature of herbal remedies and the emphasis on individualized formulations and dietary modifications in traditional Kashmiri medicine. Despite the differences in side effect profiles, the overall incidence of adverse events was relatively low in both groups (12% in the Traditional Kashmiri Remedies group and 18% in the Modern Medical Management group). This suggests that both approaches were generally well-tolerated by the participants.

Table 4. Adverse events.

Group	Abdominal discomfort	Bloating	Diarrhea	Abdominal cramping	Total
Traditional Kashmiri Remedies	8 (8%)	4 (4%)	0 (0%)	0 (0%)	12 (12%)
Modern Medical Management	0 (0%)	0 (0%)	12 (12%)	6 (6%)	18 (18%)

While our study demonstrated comparable clinical outcomes between traditional Kashmiri remedies and modern medical management for constipation, a subtle yet important trend emerged: a slight preference for traditional remedies among participants. This observation, though not statistically significant, beckons a deeper exploration of the intricate interplay between patient preferences, cultural considerations, and treatment choices. In Kashmir, as in many other parts of the world, traditional medicine is not merely a collection of remedies and practices, it is an integral part of the cultural fabric, deeply intertwined with beliefs, values, and social norms. This cultural embeddedness shapes individuals' perceptions of health, illness, and healing, influencing their healthcare choices and treatment preferences. Traditional Kashmiri medicine, with its roots in ancient Ayurvedic principles and enriched by local knowledge and practices, enjoys a profound cultural significance in the region. It is often perceived as a holistic system of healing that addresses not only the physical symptoms but also the underlying imbalances contributing to disease. This resonates with the cultural emphasis on harmony and balance, both within the individual and with the natural world. The cultural acceptance and trust in traditional medicine may explain why some individuals prefer it over modern medical management, even when both offer comparable clinical outcomes. This preference reflects a deep-seated belief in the wisdom of traditional practices, passed down through generations and validated by cultural experience. The perceived naturalness of traditional remedies, derived from plants and other natural sources, may also contribute to their appeal. In a world increasingly concerned about the side effects and potential risks of synthetic medications, many individuals are drawn to the perceived safety and gentleness of natural remedies. Traditional Kashmiri remedies, often prepared from locally sourced herbs and tailored to individual needs, are viewed as a more natural and harmonious approach to healing. This perception aligns with the cultural emphasis on living in harmony with nature and utilizing its resources for health and well-being. Moreover, the relatively low incidence of adverse events associated with traditional remedies in our study may further reinforce the perception of their safety and gentleness. This may be particularly relevant for individuals who are sensitive to the side effects of conventional medications or who prefer to avoid them altogether. The individualized nature of traditional Kashmiri remedies, with practitioners tailoring formulations and dietary recommendations to each person's unique constitution, may further enhance patient satisfaction and contribute to treatment preference. This personalized approach fosters a sense of collaboration and trust between the patient and practitioner, establishing a therapeutic relationship that goes beyond the mere prescription of remedies. In traditional Kashmiri medicine, practitioners take the time to understand the individual's unique constitution, lifestyle, and dietary habits, as well as the specific nature of their constipation. This holistic assessment allows for the development of a personalized treatment plan that addresses the underlying imbalances contributing to the condition. This individualized approach contrasts with the often standardized and protocol-driven nature of modern medical management. While modern medicine offers valuable diagnostic tools and effective treatments, the emphasis on standardized protocols may sometimes overshadow the individual's unique needs and preferences. The personalized care and therapeutic relationship fostered in traditional Kashmiri medicine may contribute to a more positive treatment experience, enhancing patient satisfaction and reinforcing treatment preference. Trust and belief play a crucial role in healthcare decision-making, particularly when individuals are faced with a choice between different treatment modalities. In the context of constipation management, trust in the healthcare provider and belief in the efficacy of the chosen treatment can significantly influence patient satisfaction and adherence to the treatment plan. Traditional Kashmiri medicine, with its deep cultural roots and long history of practice, often enjoys a high level of trust among individuals in the region. This trust is built on generations of cultural experience and

the perceived effectiveness of traditional remedies in addressing various health concerns. Moreover, the individualized care and therapeutic relationship fostered in traditional Kashmiri medicine can further strengthen trust between the patient and practitioner. This trust can empower patients to actively participate in their healthcare decisions and feel confident in the chosen treatment approach. Belief in the efficacy of the chosen treatment is also crucial for patient satisfaction and adherence. Individuals who believe in the effectiveness of traditional remedies are more likely to experience positive outcomes, even if the effects are partly attributable to the placebo effect. The placebo effect, a well-documented phenomenon in healthcare, highlights the powerful influence of belief and expectation on treatment outcomes. Recognizing the influence of patient preferences and cultural considerations on treatment choices is essential for promoting patient-centered care and empowering individuals to make informed decisions about their health. Healthcare providers should strive to understand the individual's cultural beliefs, values, and preferences, and engage in open and respectful dialogue about the available treatment options. This patient-centered approach requires a shift from a purely biomedical model of healthcare to a more biopsychosocial model that considers the individual's cultural, social, and psychological context. By embracing this broader perspective, healthcare providers can tailor treatment plans to individual needs and preferences, enhancing patient satisfaction and promoting adherence to the chosen treatment approach.[11-14]

In the realm of healthcare, the safety and tolerability of any treatment modality are paramount, especially when addressing chronic conditions like constipation that require long-term management. Our study revealed that both traditional Kashmiri remedies and modern medical management demonstrated commendable safety and tolerability profiles, with a low incidence of adverse events in both groups. This finding underscores the importance of considering both approaches as viable options for managing constipation, while remaining vigilant about potential side effects and individual sensitivities. Modern medical management for constipation, while generally safe and effective, is not without its potential side effects. Laxatives, in particular, can cause a range of gastrointestinal disturbances, including bloating, diarrhea, abdominal cramping, and electrolyte imbalances. The severity and frequency of these side effects vary depending on the type of laxative, dosage, and individual sensitivity. Osmotic laxatives, such as polyethylene glycol and lactulose, work by drawing water into the intestines, softening the stool and increasing its bulk. While generally well-tolerated, they can cause bloating, gas, and diarrhea, especially at higher doses. Long-term use of osmotic laxatives can also lead to electrolyte imbalances, particularly in individuals with kidney or heart conditions. Stimulant laxatives, such as bisacodyl and senna, stimulate intestinal contractions, promoting bowel movements. They can be effective for occasional constipation relief but are generally not recommended for long-term use due to the potential for dependence and adverse effects such as abdominal cramping, diarrhea, and electrolyte imbalances. Fiber supplements, such as psyllium husk and methylcellulose, are generally safe and well-tolerated, but they can cause bloating and gas, especially when first introduced or taken in large amounts. It is important to increase fiber intake gradually and drink plenty of fluids to minimize these side effects. In our study, the incidence of adverse events in the modern medical management group was relatively low, likely due to the careful selection and dosage of laxatives based on individual needs and the emphasis on lifestyle modifications and fiber supplements as first-line treatments. However, it is crucial to remain vigilant about potential side effects and monitor patients closely, particularly those with underlying health conditions or those taking multiple medications. Traditional Kashmiri remedies, while often perceived as natural and gentle, also require careful consideration of safety and tolerability. Herbal remedies, although derived from natural sources, can still cause adverse effects, especially if used inappropriately or in individuals with certain sensitivities. Accurate identification of herbs and their proper preparation are crucial to ensure safety and efficacy. Misidentification or improper preparation can

lead to adverse effects or diminished therapeutic benefits. Traditional practitioners in Kashmir possess extensive knowledge of local herbs and their proper preparation methods, passed down through generations of practice. Traditional Kashmiri medicine emphasizes individualized formulations, tailored to the patient's unique constitution and the specific nature of their constipation. This personalized approach minimizes the risk of adverse effects and optimizes therapeutic benefits. Practitioners carefully consider the individual's age, health status, and any underlying conditions when formulating remedies. Dosage adjustments are crucial to ensure safety and efficacy. The appropriate dosage of herbal remedies varies depending on the individual's constitution, the severity of constipation, and the specific herbs used in the formulation. Traditional practitioners in Kashmir adjust dosages based on careful observation and ongoing assessment of the patient's response to treatment. Regular monitoring and follow-up are essential to assess the effectiveness of traditional remedies and identify any potential adverse effects. Practitioners closely monitor patients' progress and make adjustments to the treatment plan as needed. This ongoing assessment ensures that the remedies are well-tolerated and that any adverse effects are promptly addressed. In our study, traditional Kashmiri remedies were generally well-tolerated, with only a few participants reporting mild abdominal discomfort and bloating. This low incidence of adverse events highlights the safety of these remedies when administered appropriately by experienced practitioners. However, it is important to acknowledge that herbal remedies can interact with other medications and may not be suitable for everyone, particularly pregnant or breastfeeding women and individuals with certain health conditions. The safety and tolerability of both traditional Kashmiri remedies and modern medical management should be integral considerations in clinical practice. Healthcare providers should engage in open and transparent discussions with patients about the potential benefits and risks of each approach, empowering them to make informed decisions about their treatment. For modern medical management, careful selection and dosage of laxatives are crucial to minimize side effects. Lifestyle modifications and fiber supplements should be emphasized as first-line treatments, with laxatives reserved for cases where these interventions are insufficient. Patients should be educated about potential side effects and encouraged to report any concerns promptly. For traditional Kashmiri remedies, it is essential to ensure that practitioners have the necessary knowledge and experience to properly identify and prepare herbal remedies. Individualized formulations and dosage adjustments are crucial to optimize safety and efficacy. Regular monitoring and follow-up are essential to assess treatment response and address any potential adverse effects.[15-17]

Our study's findings, demonstrating the comparable effectiveness of traditional Kashmiri remedies and modern medical management for constipation, have far-reaching implications for clinical practice and public health initiatives. These findings call for a paradigm shift in how we approach constipation management, embracing a more inclusive and integrative model that acknowledges the value of both traditional and modern medicine. This approach not only expands the treatment options available to individuals but also empowers them to make informed choices that align with their cultural beliefs, values, and preferences. The comparable effectiveness of traditional Kashmiri remedies and modern medical management challenges the prevailing notion that modern medicine holds an exclusive advantage in managing constipation. It underscores the need for healthcare providers to broaden their perspectives and consider both approaches when developing treatment plans for individuals with constipation. This necessitates a deeper understanding of traditional medicine, its principles, practices, and potential benefits. Healthcare providers should familiarize themselves with the commonly used herbs in traditional Kashmiri remedies, their pharmacological properties, potential side effects, and interactions with other medications. This knowledge will enable them to engage in informed discussions with patients about the potential role of traditional remedies in their treatment plan. Furthermore, integrating traditional and modern medicine requires a collaborative

approach, with healthcare providers from both disciplines working together to share knowledge, expertise, and best practices. This interdisciplinary collaboration can foster mutual respect and understanding, leading to more comprehensive and patient-centered care. Patient-centered care lies at the heart of effective healthcare delivery. In the context of constipation management, this means respecting individual needs and preferences, including cultural beliefs, values, and access to healthcare resources. For individuals who prefer natural remedies or have limited access to modern healthcare facilities, traditional Kashmiri remedies may offer a viable and culturally acceptable option. These remedies are often more accessible and affordable than modern medications, and they align with cultural beliefs and values that emphasize harmony with nature and individualized care. Conversely, for those who prioritize convenience or require rapid symptom relief, modern medical management may be more suitable. Modern medications, such as laxatives, can provide quick relief from constipation symptoms, and they are readily available in most pharmacies. Healthcare providers should engage in open and respectful dialogue with patients about their preferences, cultural beliefs, and access to healthcare resources. This shared decision-making approach empowers patients to actively participate in their healthcare and choose treatments that align with their individual needs and values. Public health initiatives play a crucial role in promoting awareness of constipation and its management options. These initiatives should emphasize the importance of individualized care, informed decision-making, and the availability of both traditional and modern approaches to treatment. Educational programs can help bridge the knowledge gap and empower individuals to make informed choices about their healthcare. These programs can be delivered through various channels, such as community health centers, schools, workplaces, and online platforms. They should provide accurate and unbiased information about constipation, its causes, symptoms, and treatment options, including both traditional and modern approaches. Community outreach efforts can further enhance awareness and access to care. These efforts can involve partnering with local organizations and community leaders to organize health fairs, workshops, and awareness campaigns. These events can provide opportunities for individuals to learn about constipation, interact with healthcare providers, and explore different treatment options. Furthermore, public health initiatives should advocate for policies that support the integration of traditional and modern medicine. This includes promoting research on traditional remedies, establishing quality control standards for herbal preparations, and integrating traditional medicine into national healthcare systems. Health disparities, often rooted in socioeconomic inequalities and cultural barriers, can significantly impact access to healthcare and treatment outcomes. In the context of constipation management, individuals from marginalized communities may face challenges in accessing both traditional and modern healthcare services. Public health initiatives should strive to address these disparities by promoting equitable access to care for all individuals, regardless of their socioeconomic status, cultural background, or geographic location. This may involve providing subsidized healthcare services, establishing community health centers in underserved areas, and offering culturally sensitive healthcare services that respect diverse beliefs and practices. The findings of our study support the growing movement towards integrative healthcare models that combine the best of both traditional and modern medicine. These models recognize the value of diverse healing traditions and strive to provide comprehensive and patient-centered care that addresses the individual's physical, emotional, and spiritual well-being. Integrative healthcare models can enhance the management of constipation by offering a wider range of treatment options and promoting a more holistic approach to care. By integrating traditional Kashmiri remedies into modern healthcare practices, we can harness the therapeutic potential of both approaches and provide individuals with constipation with more personalized and culturally relevant care.[18-20]

4. Conclusion

This study demonstrates that both traditional Kashmiri remedies and modern medical management are effective and safe in managing functional constipation in Srinagar, leading to significant improvements in bowel movement frequency, symptom severity, and quality of life. While no statistically significant difference was found between the two approaches, a slight preference for traditional remedies was observed, likely due to cultural beliefs, perceived naturalness, individualized care, and fewer reported side effects. These findings highlight the importance of considering both traditional and modern approaches when developing treatment plans for constipation. The choice of treatment should be individualized based on patient preferences, access to care, cost considerations, and the potential for integrating both approaches. Further research is needed to explore the long-term effects, optimal integration, and mechanisms of action of these treatment modalities, paving the way for a more holistic and patient-centered approach to constipation management.

5. References

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