**Supplemental Digital Content 2: Summary of the studies excluded from the systematic review**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| Denmark (Begtrup *et al.*, 2013) | Diagnosis (IBS) | *Design*: RCT (2-arm)  *Sample*: Patients aged 18-50 years suspected of having IBS referred from primary care (n=302) | *Setting:* Tertiary care *Service:* Positive diagnosis-provided by gastroenterologist *Delivery Mode:* Patient consult  *Timing:* Initial consult, testing and follow-up all completed within 4 weeks | *Comparators:* Diagnosis of exclusion  *Outcomes:* Health related quality of life, gastrointestinal symptoms, satisfaction with management, use of resources. Diagnosis at 1 year | *Results:* Positive diagnostic strategy is cheaper. No difference in outcomes between two strategies was observed  *Limitations:* Long-term differences in the two groups was not assessed. Patients were young <50 years of age | Positive diagnosis for IBS in patients under 50 years of age is safe and cost-effective, and does not decrease patient satisfaction with management or increase subsequent use of healthcare resources |
| Sweden (Bengtsson *et al.*, 2006) | Management-Patient Education (IBS) | *Design:* Before-After, 1,6 & 12-month follow-up *Sample:* Women 18-65 years, diagnosed in-house with IBS 1998-2002 (n=29) | *Setting*: Tertiary care  *Service :* Multidisciplinary team management (dietician, physician, nurse & social worker, plus care nurse)  *Delivery Mode:* Group workshop *Timing:*  One 8-h session | *Comparators:* Diagnosis of exclusion  *Outcomes:* Psychological well-being, health care and medicine use, sick leave | *Results:* No change in symptoms/psychological well-being/hospitalisations/medicine use/sick leave; reduced abdominal pain and increased vitality; reduced healthcare utilisation  *Limitations:* No control group. Women only sample. Small sample size. Tertiary referral sample rather than primary care. | MDT workshops may be useful in reducing pain and healthcare utilisation. Differences in tertiary vs primary care patients not known. Timing/type of workshop may inadequate to maximise outcomes. |
| Australia (Birtles *et al.*, 2013) | Management-Self CBT (IBS) | *Design:* RCT (2-arm)  *Sample:* Specialist and community patients fulfilling Rome III criteria for IBS; no other details provided | *Setting:*  Primary and tertiary care *Service:* Self-CBT  *Delivery Mode:* Online website  *Timing:* Available 8 weeks | *Comparators:* Waitlist  *Outcomes: Patient coping, symptom severity* | *Results:* Patients with low-moderate symptoms and positive coping significantly improved in outcomes after intervention, as compared to other groups; Comparison to control NOT reported  *Limitations:* Abstract only: full data unavailable, control group data not presented | Patients with low-moderate symptoms may benefit from web based CBT self-management |
| United States (Choi *et al.*, 2011) | Management-Patient Education (FD) | *Design*: RCT (2-arm), 6-month follow-up  *Sample:* Patients fulfilling Rome III criteria recruited from a GI and from an internal medicine clinic; (n=30); no other details provided | *Setting:*  Not stated *Service:* Patient education  *Delivery Mode: Written, and reviewed with someone Timing: Not stated* | *Comparators:* Treatment as usual  *Outcomes:* Understanding of FD, symptom severity, health related quality of life | *Results:* Patient understanding was improved, although still low; no difference observed in symptom severity or quality of life  *Limitations:* Abstract only: full data unavailable, control group data not presented | Interventions need to be more than just education regarding pathophysiology. |
| United States (Colwell *et al.*, 1998) | Management-Patient Education | *Design:* Observational study - 1 & 6-month follow-up  *Sample:* Adult outpatients with IBS (n=52) | *Setting:*  Tertiary care  *Service:* Nurse-led multidisciplinary team management (Registered nurse, dietician, physical therapist, and behavioural psychologist) *Delivery Mode:* Group workshop  *Timing:*  One 3-h class (1-6 patients | *Comparators:* n/a  *Outcomes:* Health-Promoting Lifestyle Profile, frequency and severity of symptoms | *Results:* Reduced pain at 1 & 6 m, variable improvement in exercise and stress management; reduction in lifestyle interference and physician visits at 6m, no change in medications used  *Limitations:* No control group. | Nurse led model of management may improve patient health outcomes. |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| United States (Dorn *et al.*, 2015) | Management-Self | *Design:* Observational, pilot study  *Sample:* Adults aged 18–80y with physician-diagnosed, Rome III criteria-positive IBS (n=40) | *Setting:*  Not stated *Service:* Self-CBT  *Delivery Mode:* Web-based with email support  *Timing:* Access to website for 12 weeks | *Comparators:* Web-based without email support  *Outcomes:* Program utilization, self-efficacy and quality of life | *Results:* Significantly improved knowledge about IBS. 75% reported at least some relief relative to baseline. No clinically meaningful changes in self-efficacy or health-related quality of life.  *Limitations:* No control group. Patients had very mild symptoms at baseline. Differences in outcomes with levels of access of the site not analysed. Rolling recruitment led to low activity in forum. Website was static for duration of access. | Web-based self-management improves knowledge and may reduce symptoms. Unknown which patient group it might be more effective in, and whether forums are useful. |
| United Kingdom (Everitt *et al.*, 2010) | Management-Self (IBS) | *Design:* RCT, 6 week, 3,6 & 12-month follow-up *Sample:* Patients aged 16-60y presenting to general practice with symptoms of IBS fulfilling Rome III criteria (n=135) | *Setting:*  Primary care *Service:* Self-CBT  *Delivery Mode: Interactive w*eb-based with expert chatrooms and peer-to-peer networks  *Timing:* 8 sessions over 6 weeks | *Comparators:* No website access, With/without Mebeverine or Methylcellulose  *Outcomes:* Symptom severity, quality of life, global assessment of relief | *Results:* No observed differences in outcomes between groups. Subjects global assessment of relief was improved at 12-week mark  *Limitations:* Factorial design combining drug trial led to very small sample size in pure web based groups (n=15), possible Type II error | Web-based CBT may be useful, but larger scale trials needed |
| United States (Gerson & Gerson, 2003) | Management-Collaborative Treatment (IBS) | *Design*: RCT (3-arm)  *Sample:* Patients diagnosed IBS 1998-2001, aged 20-60y, fulfilling Rome I criteria (n=41) | *Setting:* Tertiary care *Service:* Combined gastroenterologist & psychologist consultation  *Delivery Mode:* Individual patient consult  *Timing:* Timing: 3 x 45 min sessions (bi-weekly) | *Comparators:* Gastroenterology care alone (2 visits in 6 weeks) versus psychological care alone (6 x 45 min weekly visits)  *Outcomes:* Symptom severity, quality of life, quality of personal relationships, anxiety, depression, global *assessment,* | *Results:* Collaborative group had improved global assessment and symptom severity, whereas the other treatment groups did not improve. Psychological measures were also stable in all 3 groups  *Limitations:* | Combining psychological management with gastroenterology management leads to improved patient outcomes. |
| Sweden (Hakanson *et al.*, 2011) | Management-Patient Education (IBS) | *Design:* Before-After *Sample:* Patients with IBS symptoms > 3 years, fulfilling Rome II criteria, on the waiting list for the education program (n=51) | *Setting:* Tertiary care *Service:* Nurse-led, multidisciplinary team management (IBS Nurse, GE, Psychologist, Biofeedback nurse, Anaesthesiologist, Dietician, Physiotherapist, Hospital deacon)  *Delivery Mode:* Group workshop  *Timing:* 1-h individual nurse appointment ; plus groups workshops 5 h/day for 5 consecutive days | *Comparators: Baseline*   *Outcomes:* Symptom severity & coping | *Results:* Significant and clinical reduction in symptom severity following group program, which was associated with changes in coping strategies used  *Limitations:* No control group, short follow-up time frame | Nurse-led group based management program is effective in the short-term |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| United States (Halpert *et al.*, 2010) | Management-Patient Education (IBS) | *Design:* RCT (2-arm), 1,3 & 6-month follow-up  *Sample:* People with IBS - No other details provided (n=100) | *Setting:* Tertiary care *Service:* Tailored education provided by gastroenterology nurse practitioner that builds on learner’s past experience and focuses on problem solving not information giving  *Delivery Mode:* Individual consult  *Timing:* One, 30 min session | *Comparators:* Read IBS brochure for 30min  *Outcomes:* IBS specific quality of life, disease related cognition/coping, severity, and health care utilization | *Results:* Improved symptom severity, and health beliefs and attitudes at 1 and 3 months, but no difference to control group. No differences in other outcomes  *Limitations:* Abstract only: full data unavailable | 1) NURSE-LED educational consultation may improve patient outcomes, 2) IBS brochure may be just as effective, 3) Effect of more than one NURSE-LED session is unknown |
| Denmark (Hansen *et al.*, 1998) | Diagnosis (FD) | *Design:* Clinical study (Not RCT)  *Sample:* All adults with dyspeptic symptoms seen in primary care in one city (n=668) | *Setting:* Primary care *Service:* Primary health care provider stated provisional diagnosis and proposed management strategy. Upper endoscopy performed to determine predictive value of provisional diagnosis.  *Delivery Mode:* Individual consult  *Timing:* At diagnosis | *Comparators:* 1. Non-responders 2. Another group referred for open access endoscopy  *Outcomes:* Predictive value of symptom based provisional diagnosis and management | *Results:* 1/3 patients categorised inappropriately, low predictive value of unaided provisional diagnosis  *Limitations:* study conducted prior to Rome criteria, standardised form of positive diagnosis was not used | Non-standardised, symptom based diagnosis for dyspepsia may be unreliable |
| Finland (Heikkinen *et al.*, 2000) | Diagnosis (FD) | *Design:* Clinical study (Not RCT) *Sample:*  Dyspepsia patients in primary care 1993-1994 (n=400) | *Setting:* Primary care *Service:* Primary care working diagnosis  *Delivery Mode:* Individual consult  *Timing:* At diagnosis | *Comparators:* GE diagnosis following structured testing and extra investigations if needed  *Outcomes:* Sensitivity, specificity and positive/negative predictive values of GP diagnosis, and management outcomes | *Results:* Clinical diagnoses of dyspepsia unreliable  *Limitations:* PHCP decision to investigate or not was purely theoretical as all were investigated as part of the study. | Standardised clinical pathways utilising criteria predictive of organic disease in dyspepsia might be useful. |
| United States (Heitkemper *et al.*, 2004) | Management-Self (IBS) | *Design:* RCT (3-arm), 6 & 12-month follow-up  *Sample:* Women with IBS (Rome I) aged 18-48 years, recruited through community advertisement and local health organisation (n=144) | *Setting:* Not stated *Service:* Psychiatric nurse practitioner led, multi-component, non-pharmacologic intervention (Diet, education and reassurance, relaxation, and CBT).  *Delivery Mode:* Individual consult  *Timing:* 8, 1-h weekly sessions | *Comparators:* Treatment as usual or brief multi-component intervention (one 90 min session plus workbook)  *Outcomes:* symptoms, psychological distress, health-related quality of life, and stress-related hormones at after completion | *Results:* Reduced gastrointestinal symptoms, psychological distress, disruption to daily living, and enhanced quality of life out to 12 months. Comprehensive intervention more effective than the Brief intervention  *Limitations:*  Delivered by advanced practice nurses with Masters and experience in mental health. | Nurse-led group based management program is effective over the long term |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| United States (Jarrett *et al.*, 2009) | Management-Self (IBS) | *Design:* RCT (2-arm), 12-month follow-up  *Sample:* Adults with IBS (Rome II) diagnosed in primary care, with current symptoms, recruited through community advertisement (n=188) | *Setting:* Not stated *Service:* Comprehensive self-management facilitated by psychiatric nurse practitioner  *Delivery Mode:* Individual consult  *Timing:* 9-weekly in-person sessions versus 9-weekly sessions (3 in person, 6 telephone) | *Comparators:* Treatment as usual  *Outcomes:* Symptom severity, disease specific quality of life; psychological distress, cognitive beliefs, workplace productivity and activity. | *Results:* Improved patient outcomes in intervention not controls, and persisted to 12-month follow-up  *Limitations:* Telephone intervention also had 3 in-person consults, so not strict non-contact intervention. | In person and combined in person/telephone delivered management are viable options. Allows flexibility for patient preferences. |
| United Kingdom (Kennedy *et al.*, 2013) | Management-Self (IBS) | *Design:* RCT (2-arm)  *Sample:* One primary care trust, 2009-2012. Patients with diabetes, chronic obstructive pulmonary disease, or IBS (n=5599) | *Setting:* Primary care *Service:* Primary health care provider practices trained in 1. use of wide range of resources; 2. Tools to assess the support needs of patients; 3. Guidebooks on self-management; 4. Web-based directory of local self-management : 1. Education, 2. Diet (food diary reviewed by dietician to tailor advice), 3. Relaxation, 4. CBT strategies]  *Delivery Mode:* Individual consult  *Timing:* n/a | *Comparators:* Treatment as usual  *Outcomes:* Shared decision making, self-efficacy, and health related quality of life; General health, psychological well-being, self-care activity, enablement, social or role limitations, and energy and vitality | *Results:* Primary care practices using WISE did not differ from control primary care practices in any patient outcome  *Limitations:* No standard approach to WISE. Implementation was variable. | Embedding self-management supports into primary care is difficult. |
| United States (Kinsinger *et al.*, 2015) | Management-Multidisciplinary (FGID) | *Design:* Retrospective, cross sectional study  *Sample:* Patients referred to in-house health psychology unit with chronic gastrointestinal conditions (2101-2011) (n=259) | *Setting:* Tertiary care *Service:* Onsite, integrated GI health psychology service  *Delivery Mode:* Individual consult  *Timing:* as needed | *Comparators:* n/a  *Outcomes:* Uptake of service by referred patients, and health care utilisation | *Results:* Half of referred patients attended psychological service, and a third participated in ongoing treatment; fewer medical procedures in psychological service attenders.  *Limitations:* Sample well educated and affluent - may influence generalisability. Measures of patient improvement not taken, only healthcare utilisation. Psychological services were covered by medical insurance - this is not necessarily the case in every healthcare system | Integrating psychological services within a gastroenterology clinic is practically feasible, used by a significant number of patients, and reduces ongoing medical procedures. |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| Netherlands (Kruimel *et al.*, 2015) | Management-Multidisciplinary (FGID) | *Design:* Prospective, observational, naturalistic, 12-month longitudinal design *Sample:* All FGID patients (Rome III) with moderate-severe symptoms non-responsive to standard treatment, suspected of having psychiatric co-morbidity referred to FGID clinic | *Setting:* Tertiary care *Service:* Multidisciplinary outpatient joint consultation with gastroenterologist and psychiatrist; Evaluation of diagnosis and management. Focus on somatic and psychosocial factors and how they interact.  *Delivery Mode:* Individual consult  *Timing:* as needed | *Comparators:* n/a  *Outcomes:* Gastrointestinal symptoms, anxiety and depression, health related quality of life | *Results:* Reduction in depression/anxiety and health related quality of life persisting to 12 months; independent of symptomatic improvement (no change except diarrhoea)  *Limitations:* No control group; standardised treatment prior to referral not discussed | Use of multi-disciplinary approach to management improves quality of life and psychosocial functioning in patients with persisting symptoms. Joint consultation is a novel approach - possibly restricted by billing criteria. |
| Sweden (Ljotsson *et al.*, 2011) | Management-Self | *Design:* RCT (2-arm) 12 month longitudinal *Sample:* Clinical setting: All adult patients diagnosed with IBS (Rome III) in a tertiary clinic 2008-2009 (n=61) | *Setting:*  Primary and tertiary care *Service:* Self-CBT  *Delivery Mode:* Online website with group discussion forum and access to psychologist via chat  *Timing:* Available 10 weeks | *Comparators:* Waitlist  *Outcomes:* Gastrointestinal symptoms, health economic data, quality of life, cognitive patterns, disability, healthcare use | *Results:* Reduced symptoms, IBS-related anxiety and improved IBS-related quality of life  *Limitations:* Only 43% completed the treatment | Although beneficial to a subset of patients, use of internet CBT may not be acceptable to all patients in a clinic. |
| Sweden (Ljótsson *et al.*, 2010) | Management (IBS) | *Design:* RCT (2-arm), 3 month longitudinal  **Sample:** Self-referred, diagnosed IBS patients (May-June 2008) currently filling Rome III criteria (n=85) | *Setting:*  Primary and tertiary care *Service:* Self-CBT  *Delivery Mode:* Online website with group discussion forum and access to psychologist via chat  *Timing:* Available 10 weeks | *Comparators:* Online discussion forum  *Outcomes:* Symptom severity, quality of life, cognitive patterns, disability, depression, treatment credibility | *Results:* Reduced symptoms post treatment and at 3 month follow up, improvement in all secondary outcomes  *Limitations:* Control group expectation of improvement was low, as they were offered crossover to intervention at completion - limiting comparison of the two groups | In self-selected patients, web-based, CBT grounded self-help with access to groups forum is beneficial in reducing symptoms and improving quality of life |
| New Zealand (Moss-Morris *et al.*, 2010) | Management (IBS) | *Design:* RCT (2-arm), 8 month longitudinal (n=64)  *Sample:* Adult patients recruited from previous study database of confirmed IBS patients (Rome I or II) | *Setting:*  Primary care *Service:* Self-management for a chronic condition  *Delivery Mode:* Manualised program, plus one in-person consult, and two telephone consult  *Timing:* 7-week manualised program plus one-hour face to face therapy (beginning), and 2 x 1-h phone therapy sessions (middle and end) | *Comparators:* Treatment as usual  *Outcomes:* Global assessment of relief, and symptom severity; work and social adjustment, anxiety and depression | *Results:* Improvement in symptom severity and impact on life, which persisted to 6 months. Intervention group had reduced anxiety at 6 months compared to baseline, but comparable to control. Patient acceptability of program was high  *Limitations:* Educated cohort, also with low-moderate symptoms - possible generalisability issues. | Self-management with minimal psychologist input is acceptable and effective for some patients. |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| Netherlands (Oerlemans *et al.*, 2011) | Management (IBS) | *Design:* Open label RCT (2-arm), 3 month follow up  *Sample:* Patients with IBS (Rome III) aged 18-65 y recruited from primary care 2007-2008 (n=76) | *Setting:*  Primary care *Service:* Self-management plus e-psychologist feedback  *Delivery Mode:* Personal digital assistant (PDA) plus written feedback (sms)  *Timing:* Patients completed electronic diary 3x per day, for 3 weeks. | *Comparators:* Standard care  *Outcomes:* GI symptom related cognitions, disease specific quality of life, pain catastrophising, abdominal pain | *Results:* Improved quality of life, pain, catastrophising at 4 weeks, with improvement in catastrophising persisting at 3 months  *Limitations:* Long term follow-up not conducted. Unknown whether continued monitoring is beneficial or not | Use of monitoring system in conjunction with tailored feedback is beneficial. PDA also acceptable format for some patients |
| United Kingdom (Pavlidis *et al.*, 2013) | Diagnosis (IBS) | *Design:* Retrospective clinical practice study  *Sample:* Patients aged 18-45y, with GI symptoms (with/without alarms) tested for faecal calprotectin in primary care 2010-2011 in a primary trust | *Setting:*  Primary care *Service:* Faecal calprotectin pathway  *Delivery Mode:* Individual consult  *Timing:* at diagnosis | *Comparators:* n/a  *Outcomes:* Final diagnosis | *Results:* Faecal calprotectin useful in ruling out organic disease. Cut-off values and re-testing strategies are needed  *Limitations:* Individual variation in investigative strategies used may lead to partial verification bias. | Faecal calprotectin is a useful component of a diagnostic pathways |
| Denmark (Pedersen *et al.*, 2014) | Management (IBS) | *Design*: Case report  *Sample:* Patients with IBS (Rome III) aged 18-74 y (2011-2012( (n=19) | *Setting:*  Tertiary care *Service:* Self-based symptom tracker  *Delivery Mode:* Web-based  *Timing:* Weekly for 12 weeks | *Comparators:* n/a  *Outcomes:* symptoms, quality of life | *Results:* Symptom improvement achieved during control period of symptom tracking as well as when dietary intervention applied. Quality of life improved in dietary intervention, not control period  *Limitations:* Small sample size. Impact of adherence to low FODMAP diet not assessed. Short time frame of follow up | The use of a symptom tracker which flags symptoms with a traffic light symptom, may help patients to identify factors which contribute to symptoms and self-manage their condition |
| United States (Pimentel *et al.*, 2010) | Diagnosis (IBS) | *Design:* Observational *Sample:* Patients aged 18+y, diagnosed with IBS-D, IBD, coeliac disease (n=99) | *Setting:*  Tertiary care *Service:* Questionnaire regarding stool form and frequency  *Delivery Mode:* Questionnaire  *Timing:* at diagnosis | *Comparators:* Compare IBS stool form and frequency to IBD/coeliac stool form and frequency  *Outcomes:* Utility of a single question regarding stool form and frequency | IBS-D patients had greater number of stool forms per week, this feature was diagnostically significant.  Utility in distinguishing other types of IBS is unknown, as is utility in patients with co-existing organic/functional disorders | History regarding stool form and frequency may be a useful tool in distinguishing between IBS-D and IBD/coeliac disease. More research is needed |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| Sweden (Ringstrom *et al.*, 2009) | Management-Patient Education (IBS) | *Design:* Before-After, 3, 6, 12-month follow-up *Sample:* IBS patients (Rome II) attending tertiary outpatient gastroenterology clinic (n=12) | *Setting:*  Tertiary care *Service:* Multidisciplinary team management (nurse, gastroenterologist, dietician, physiotherapist, psychologist)  *Delivery Mode:* "IBS School" Group (5-7 people)  *Timing:* 6 weekly, 2-h sessions | *Comparators:* Baseline  *Outcomes:* Perceived knowledge about IBS, symptom severity, health related quality of life | *Results:* Symptom and quality of life improvement at 3 and 6 months; improved knowledge and satisfaction with knowledge  *Limitations:* Small sample size; Tertiary care patients may have more severe symptoms and be more motivated to attend | Group based education programs might be effective in helping patients manage their FGID. |
| Sweden (Ringström *et al.*, 2010) | Management-Patient Education (IBS) | *Design:* RCT (2-arm), 3 & 6-month follow-up  *Sample:* IBS patients (Rome II) aged 18-70y referred from primary, secondary & tertiary care (n=143) | *Setting:*  Tertiary care *Service:* Multidisciplinary team management (nurse, gastroenterologist, dietician, physiotherapist, psychologist)  *Delivery Mode:* "IBS School" Group (8-10 people)  *Timing:* 6 weekly, 2-h sessions | *Comparators:* Booklet  *Outcomes:* Perceived knowledge about IBS, symptom severity, health related quality of life, anxiety, depression | *Results:* IBS School participants had greater reduction in symptom severity, anxiety, increased perceived knowledge; no difference in depression noted  *Limitations:* Most patients were recruited from secondary/tertiary care, thus generalisability to primary care patients is unknown | Group based education is superior to written information and might be a valuable management tool for patients |
| Sweden  (Ringstrom *et al.*, 2012) | Management-Patient Education (IBS) | *Design:* RCT (2-arm), 3 & 6-month follow-up *Sample:* IBS patients (Rome II) aged 18-70y referred from primary, secondary & tertiary care (n=80) | *Setting:*  Tertiary care *Service:* Short nurse-led patient education  *Delivery Mode:* "IBS School" Group (8-10 people)  *Timing:* 3 weekly, 2-h sessions | *Comparators:* Multi-disciplinary group sessions, 6 weekly, 2 hr sessions  *Outcomes:* Perceived knowledge about IBS, symptom severity, health related quality of life, anxiety, depression | *Results:* Participants in both groups had reduced symptom severity, anxiety, and increased perceived knowledge.  *Limitations:* | Short nurse led version of IBS School is as effective as longer multi-disciplinary team |
| Sweden  (Ringstrom *et al.*, 2013) | Diagnosis (IBS) | *Design:* Qualitative *Sample:* Patients diagnosed with IBS referred to a FGID clinic 2003-2007 (n=20) | *Setting:*  Tertiary care *Service:* 1. Structured diagnostic workup of patients already diagnosed with IBS (small bowel manometry, rectal balloon distension, oro-anal transit time); 2. Follow up inc. explanation of mechanisms underlying symptoms and how to reduce, symptoms. *Delivery Mode:* Individual consults with nurse and physicians  *Timing:*  4 visits over 6-month period | *Comparators:* n/a  *Outcomes:* Patients lived experiences | *Results:* 1) Suffering caused by symptoms and poor management;  2) Patients were motivated to endure discomfort and pain in the diagnostic workup;  3) Increased capacity for resilience because of learning more about their body and IBS during the workup;  4) validation of their experience  *Limitations:* Delay between workup and interview. Unable to determine whether the workup or the clinician approach was more important | Diagnostic workup in conjunction with adequate explanation, reassurance, validation is valued by patients. However, this workup is extensive and not recommended by current guidelines |
| **Country/**  **Reference** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| United Kingdom (Robinson *et al.*, 2006) | Management-Patient Education (IBS) | *Design:* RCT (3-arm), 12-month follow-up *Sample:* Patients diagnosed with IBS (by primary healthcare provider or specialist) aged 18+y | *Setting:* Primary care *Service:* Self-management using guidebook  *Delivery Mode:* Written material  *Timing: n/a* | *Comparators:* 1) Guidebook plus 1, 2 hr group session, 2) Treatment as usual  *Outcomes:* Number of primary care consultations, global assessment of symptoms, quality of life. | *Results:* Number and cost of healthcare use was reduced in both intervention; symptoms and quality of life were not improved in either intervention; Concluded no additional benefit from group session  *Limitations:* Lack of effect of guidebook conflicts with other studies and may reflect content rather than the mode of delivery. Likewise, the group results differ from published studies and may reflect the ineffectiveness of 1 short session rather than group based educational interventions. The content of the group based session and qualification of the facilitator is not described and may be a limiting factor. | Guide books and group based interventions can reduce patient healthcare use. Whether the cost of the group offsets the healthcare savings is not known. Attendance at group session was low, suggesting groups may appeal to subsets of patients. Attention to content of the self-help material is required. |
| United States (Saito *et al.*, 2004) | Management-Patient Education (IBS) | *Design:* Prospective, observational study, 6-month follow-up  *Sample:* All adult patients referred to tertiary referral center diagnosed with IBS (1997-1998) (n=211) | *Setting:*  Tertiary care *Service:* Nurse-led, multidisciplinary team; Includes dietician, psychologist, and physical therapist  *Delivery Mode:* Group session  *Timing:* 1 x 3-h class | *Comparators:* Non-attendees  *Outcomes: S*ymptom severity, quality of life, health related behaviours, psychological distress | *Results:* Pain and quality of life improved in both attendees and non-attendees; class attendees had improved symptoms and overall health behaviours compared to non-attendees; no difference in healthcare use between the two groups  *Limitations:* Comparison group is a gastroenterologist consult group within the same centre. It is unknown whether patients would be getting the same advice in their individual consult as the group participants | Group educational session can improve symptoms and promote better health behaviours. Which aspects of the intervention are efficacious is unknown, as is the optimal length/number of sessions |
| United Kingdom (Smith, 2006) | Management (IBS) | *Design:* Before-After  *Sample:* Patients aged 18-64, with IBS (Rome II) (n=75) | *Service:* Nurse led treatment program including education, support and gut-directed hypnotherapy  *Delivery Mode:* Individual consult  *Timing:* 5-7 half hour hypnotherapy sessions over 5 months | *Comparators:* Baseline  *Outcomes:* Symptoms, psychosocial aspects, health related quality of life | *Results:* Symptoms, quality of life, and anxiety improved following gut-directed hypnotherapy, whilst depression did not  *Limitations:* No control group; information pertaining to support and educational components not described or accounted for in results | Hypnotherapy can be successfully implemented by nursing staff in a clinic setting. However, education and support may also play a role in symptomatic improvement |
| **Authors/Year/Country** | **Model Component (Disorder)** | **Study Design & Sample** | **Details of Service Provided** | **Comparators/Outcomes** | **Results/Limitations** | **Practical Implications** |
| United Kingdom (Turvill *et al.*, 2016) | Diagnosis (IBS) | *Design:* Clinical evaluation of primary care pathway *Sample:*  Patients aged 18-60 presenting to primary care with new lower GI symptoms where cancer is not suspected (n=262) | *Setting:* Primary care *Service:* Faecal calprotectin primary care pathway to differentiate between IBS and IBD; >100 g/g repeat test, >250 g/g prompt colonoscopy, <100 g/g IBS  *Delivery Mode:* Individual consult  *Timing: at diagnosis* | *Comparators:* Gastroenterology activity in a neighbouring trust  *Outcomes:* Positive and negative predictive value compared with GP diagnosis | *Results:* Faecal calprotectin pathway had 97% negative predictive value, 40% positive predictive value; diagnostic yield of colonoscopies was greater in the pathway group than gastroenterology comparison group  *Limitations:* | Use of faecal calprotectin as part of a clinical pathway is effective in ruling out IBD in primary care and identifying indicated colonoscopies |