Barriers and facilitators to managing childhood constipation

Key points

- Childhood constipation is common and has negative physical and psychological effects on children and families
- Gaps in the knowledge and practices of health professionals mean constipation can be missed or diagnosed late, worsening the problem
- Nurses have a key role in identifying and managing childhood constipation
- Nurse-led clinics that provide individualised treatments, and timely and consistent support for families, may be beneficial

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Abstract Constipation in children is common, and becomes chronic in almost a third of cases. This article reports on a systematic review of factors associated with the success or failure of implementing constipation treatments in children and young people.

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In this article...
- Why childhood constipation can be missed or diagnosed late
- Reasons for poor treatment compliance
- Overcoming barriers to diagnosis and management

Constipation in childhood is a distressing condition, affecting as many as one in three school-age children (National Institute for Health and Care Excellence, 2010). Although it usually resolves quickly with appropriate treatment, it becomes chronic in almost a third of cases (Pijpers et al, 2010). Signs and symptoms include reduced frequency of bowel motions (two or fewer defecations per week), hard or large stools, straining, painful bowel motions, or episodes of overflow incontinence (Rome Foundation, 2016).

Long-term constipation in children is linked to negative outcomes, including pain, embarrassment, social isolation and poor academic performance, as well as psychological issues such as anxiety and low mood (Auth et al, 2012; COMPASS, 2012). The burden also extends to carers and family, reducing quality of life (Collis et al, 2019). These issues are particularly acute for children with autism or learning disabilities (Rogers and Patricolo, 2014). Identification and diagnosis of constipation can be challenging in children, particularly in those with communication difficulties, and lack of recognition and awareness and consequent failure to diagnose are barriers to successful management.

Treatment usually consists of laxatives, in conjunction with other treatments like diet and lifestyle changes, information provision and surgical interventions (NICE, 2010), although these are not always successful. Outcomes improve with prompt identification and treatment, but stigma, embarrassment and lack of understanding surrounding constipation can make the problem worse (NICE, 2010).

Establishing evidence of treatment effectiveness does not guarantee implementation, or adherence to guidelines (Yang and Punati, 2014). Treatment needs to work for the child and family and be implementable in clinical practice. However, there is little understanding of barriers and facilitators and how they affect the real-world delivery of interventions.

This article discusses a systematic literature review of factors associated with implementation success or failure of treatments, which is part of the larger SUCCESS project investigating strategies for childhood constipation (Glasgow Caledonian University, nd).
Clinical Practice

Review

Literature review
A search was made of 10 electronic databases, clinical trial registries and grey literature for studies explicitly reporting data relating to barriers and facilitators. Two researchers independently identified, extracted and coded these studies, using the Consolidated Framework for Implementation Research (CFIR) guide (CFIR, nd). The CFIR has 39 constructs, which potentially act as barriers or facilitators to implementation, organised into five domains: intervention characteristics, outer setting, inner setting, characteristics of the individuals involved, and process (Fig 1). We used a best-fit-framework synthesis approach, combining deductive and inductive thematic approaches to identifying barriers and facilitators, and amalgamated findings in a narrative synthesis organised around the CFIR domains.

Results
From 32,826 records, we identified 106 studies describing barriers and facilitators across the five domains (Fig 1). The main themes for each domain are described below.

Individual characteristics
A common barrier was the evidence gap in how parents, carers and children recognise constipation, and the relationship between early recognition and outcomes (Trajanovska et al, 2020). Parents and carers did not always recognise that constipation was the main problem, and healthcare providers not prioritising constipation meant urgent treatment was often delayed.

Earlier recognition of constipation by parents and healthcare providers can lead to improved outcomes (Tran et al, 2016). Further evidence gaps were how health professionals could facilitate early identification and diagnosis of constipation and education of the workforce to support this (Modin et al, 2018). Gaps in knowledge and practices of health professionals, with identified management responsibilities, meant constipation was frequently undetected or identified late, compounding the initial problem (Trajanovska et al, 2020).

Poor treatment compliance was also a major barrier. Reasons included poor communication between care providers and families, families lacking motivation, and children refusing medication due to the taste, size of the dose, or side-effects (Sobhani Shahmirzadi, 2014).

Nurses used many innovative strategies to overcome these barriers, including use of tangible incentives such as reward charts (Hankinson et al, 2018). One study described a school nurse who reviewed lunch menus to help a student select high-fibre options and helped them complete their bowel diary while at school (Mosca and Schatz, 2013). This study emphasised that nurses should “maintain a positive attitude around the child’s progress with toileting. Punitive approaches and embarrassment should be avoided at all cost. A standard clean-up procedure, carried out matter-of-fact and emotionally neutral, should be protocol” (Mosca and Schatz, 2013).

Nurses helped families understand the problem and treatment rationale. For example, the paediatric Bristol Stool Chart (ERIC, nd) was used to explain what a healthy stool looked like (Windell, 2020). Nurses also actively promoted parental confidence in delivering treatments and providing opportunities for children and young people to improve their self-management. As stated by O’Connor (2012), “You have to get the family on board and ask them what is going to work for their child and come up with such a plan”.

Intervention characteristics
The evidence base underpinning the success of an intervention was perceived by study participants as both a barrier and a facilitator. They reported that the usefulness of evidence was hampered where there was variation in diagnostic assessment, inconsistent application of constipation definitions, different outcome measures, poor adherence, small sample sizes and general lack of high-quality studies (Kuizenga-Wessel et al, 2016). Conversely, when nurses perceived this evidence as ‘credible’, they conveyed this in a stronger, confident clinical message.

Interventions that were adaptable, simple and flexible, with few side-effects, were reported as easier to implement. Specialist nurse-led and multidisciplinary team clinics allowed treatments and expertise to be brought together flexibly to meet the needs of individual children and their families (Athanasakos et al, 2020; Tappin et al, 2013; O’Connor, 2012).

Inner setting (organisational factors)
The culture of ‘not talking’ about constipation was identified as a major barrier across all healthcare settings. Families reported delaying seeking help because of stigma and embarrassment. To overcome this, studies suggested the need for all health professionals to actively seek opportunities to engage with families, to prevent problems with constipation being dismissed or overlooked: “As healthcare professionals, I think we have a responsibility to have this conversation with people as often as possible, as a poor functioning gut can have such a negative impact on wellbeing. Everyone should pay attention to their bowel habits to know what their ‘normal’ is and when something is ‘not quite right’.” (Windell, 2020)

Another barrier was the lack of specific integrated care pathways for children and young people with disabilities, particularly transitioning from paediatric to adult care. Providing a suitable climate to deliver seamless ‘integrated’ services was seen as a facilitator (Hankinson et al, 2018). This involved closer interdisciplinary collaboration and communication, including working with families, children and involved agencies, such as schools/educators (Sandweiss et al, 2018).
Outer setting (environmental factors)

Despite the availability of diagnostic criteria, such as Rome IV criteria (Rome Foundation, 2016), and guidelines for evaluation and treatment (Tabbers et al, 2014; NICE, 2010), there were barriers to use. Guidelines were often overlooked or dismissed as they did not fit with clinical practice, and this was compounded by a lack of knowledge of current constipation guidelines and recommendations for optimal treatment and care plans (Yang and Punati, 2015).

As a result, Modin et al (2018) observed that “varying therapeutic approaches, with some children receiving inappropriately short or long treatments, ... may cause maladaptation to toilet routines and create unnecessarily complex and costly situations”.

Improved awareness of guideline recommendations, developing treatment protocols that communicate clear messages about treatment, reducing the variability of clinical practice and improving the management of constipation, were identified as facilitators across studies. Yang and Punati (2014) argued there was a need to “encourage pediatrics and gastrointestinal societies to establish simple guidelines to be implemented during the course of medical school education”.

Limited access to knowledge and information about what constitutes a normal bowel movement, and at what age, for families was frequently described as a barrier. This was particularly significant for children with disabilities where diagnostic overshadowing may result in constipation being missed, even though families “desire for information about their child’s care is usually very high” (Ritterband et al, 2005).

Improving families’ access to education and knowledge about treatments, and including families in decision-making, were seen as important facilitators.

Implementation process

Evidence was lacking on the key characteristics of a successful implementation process. The involvement of an informal champion (for example, a parent or carer) or a more formal champion (for example, a nurse) promoted success (Sobhani Shahmirzadi, 2014; Tappin et al, 2013; O’Connor, 2012). Parental involvement as a ‘champion’ was extensive, with parents being key players in documenting and providing information and in the selection and delivery of treatment. Formal champions had a significant role in supporting children and young people, either by building confidence and self-esteem, or by taking practical steps to improve a child’s experience, such as ensuring availability of equipment (such as hygiene supplies and extra clothing) and access to private bathroom for uninterrupted use at school (Mosca and Schatz, 2013).

Implications for nurses

Nurses represent the largest group of health professionals and so are a critical resource for delivering high-quality constipation care across a variety of health and educational settings. Nurses are also frequently responsible for driving forward new initiatives in constipation care, such as nurse-led clinics, while also continuing to meet the individual needs of each child.

There is a crucial role for nurses in breaking down taboos around constipation and addressing the reluctance of children, families, health professionals and wider society to openly engage in discussion about constipation and associated issues. Nurse also have an important role in helping increase understanding of what children and families need and identifying educational gaps around childhood constipation across all agencies involved with children and young people. Models of care, such as nurse-led clinics, which provide treatments that can be adapted to individual needs, along with early support and consistent engagement with families, may be beneficial (Tappin et al, 2013).

Conclusion

Proactive bowel health promotion, alongside timely assessment and treatment for children with constipation, gives the best outcomes. Considering the individual child, and context or environment in which they live, is key. Nurses can act as champions, increasing awareness and providing essential support. They have a significant role in managing childhood constipation, improving the lives of those affected. NT

References


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