A Quality Improvement Approach to Implementing Care Aims in Children Services: An Action Research based Pilot Study

Abstract:

Background: Care Aims is a population-based, person-centred approach which provides a strategy that encompasses managing a service, informing the population, empowering the workforce around the service user, and supporting the person and their family to manage their own lives wherever possible.

Aims: This pilot study contributes to our understanding of Care Aims in that it takes a multi-professional approach which spans allied healthcare and nursing. It also shows how quality improvement techniques can assist in the implementation of Care Aims.

Methods: Based on action research and a QI education programme, the multi-disciplinary team followed a roadmap which included the use of QI approaches, to assess the referral process and data for each service and test small cycles of change.

Findings: The results of the audit showed up to 25% of referrals/'requests for help' received from various referrers were not appropriate for several reasons including old forms and incomplete information. Five tests of change (PDSAs) were implemented which had a mixed impact.

Conclusion: This pilot study will assist other multi-disciplinary teams who are implementing Care Aims and looking to improve the quality of 'requests for help' received.

Keywords: Care Aims, Children Services, Quality Improvement, Requests for Help, multi-professional, PDSA

Key points:

- The Care Aims framework is a population based, person-centred approach employed to assist with the management of children services in a UK health organisation by empowering the workforce around the service user, and supporting the person and their family to manage their own lives wherever possible.
- The implementation of the Care Aims framework has been supported by multi-professional working and the use of quality improvement (QI) methods.
- A conceptual framework in the form of a roadmap has been piloted that integrates QI and Care Aims approach.
- Using the Model for Improvement and Plan-Do-Study-Act (PDSA) cycles have been used to test small scale changes to improve the referral process for each of the services involved in delivering of children services.

Reflective questions:

- How is the Care Aims framework being implemented in my organisation?
- How can I help support the implementation of quality improvement within the area that I work?
- How can I help to improve the referral and request for help process?
- How can I further develop my learning about quality improvement?
- What forum is available within the organisation for me to share my ideas for improving the area that I work?

Introduction

Care Aims is a population-based, person-centred approach to provision of care based on the principal that all public services have a duty to do the most good and least harm for the most number of people in the populations they serve, within the resources they have available. It is increasingly being employed as a model of care within NHS services, particularly by allied health professionals and traditionally used in uni-professional teams (Waterworth et al. 2015). Care Aims provides a strategy that encompasses managing a service, informing the population, empowering the workforce around the service user, and supporting the person and their family to manage their own lives wherever possible (Malcomess, 2005a, b).

Children services in Hywel Dda UHB started implementing the training for Care Aims in 2018. This article reports on the findings of a pilot study exploring how quality improvement methods could assist in the implementation of the Care Aims approach. This action research involved the leads of the professional services involved in the delivery of children services and members of their teams employing quality improvement techniques to understand key processes within their service and to identify an area of improvement suitable for the pilot activity. The scope of the pilot study was Health Board wide but focused on improving the referral and request for help process a key element of the Care Aims approach.

This paper contributes to our understanding of Care Aims in that it takes a multi-professional approach which spans allied healthcare and nursing. It also shows how quality improvement techniques can assist in the implementation of Care Aims. The research objectives addressed specifically in this paper are:

1. To understand how quality improvement techniques can be used to assist in the implementation of the Care Aims approach
2. To develop and test a roadmap that will support the implementation of the Care Aims approach to service improvement.

Literature review

The focus of Care Aims is on impact and outcomes of care and it encourages evidence-based decision making and for clinicians to identify their main reason for intervening (Waterworth et al., 2015). The Care Aims framework has also been described in various ways. Malcomess (2005a; 2005b; 2015) the developer of framework describes it as an approach for service improvement based on the premise of most good and least harm, within the resources available (Malcomess, 2015). Others have described it as a mechanism to capture the reason to treat which can be used

alongside therapy outcome measures (John, 2011), as a framework for managing workloads based on identifying impact and intended outcomes in planning intervention, and as a model of practice to support clinicians to demonstrate evidence-based practice through systematic reflection (Waterworth et al., 2015).

Previous research has largely focused on uni-professional teams working predominantly in allied health professionals (Waterworth et al., 2015; Mowles et al., 2010; Stansfield 2011). For example, McCarthy et al (2001) report on an audit that was implemented to ensure uniformity of the implementation of Care Aims definitions across speech and language therapies in the South West Thames region in the UK. The outcome of the audit showed Care Aims had been adopted in a flexible way to meet the needs of patients in the locality and provided SLTs with a tool to reflect on the types of interventions provided to clients. More recently Waterworth et al's (2015) case research examined the impact of implementing Care Aims in an integrated community health team. The results indicated Care Aims has potential to support integrated team working and provision of integrated care. The authors also highlight Care Aims may be more challenging to implement to some professional groups than others and that ongoing training and support is required to fully support the implementation of Care Aims. Waterworth (2016) also investigates the Care Aims approach and the effect of culture and context on integrated team working. This doctoral research concludes the more integrated a team is then the more successful Care Aims implementation is likely to be.

Given Care Aims was introduced over a decade ago, there is still a dearth of literature which examines the implementation of the Care Aims framework (Waterworth et al., 2015) and particularly when linking this to service or quality improvement. There are clearly similarities between improvement and Care Aims which have been outlined in table 1. Drawing on the well-established Model for Improvement (Langley et al., 2009), the Care Aims framework and key improvement tools we have developed a roadmap that was employed within this study, which provides a structured framework to test small cycles of change and encourages interdisciplinary teams to consider three key questions: What are we trying to accomplish? How will we know that a change is an improvement? and what changes can we make that will result in improvement? The Plan-Do-Study-Act cycle was employed to operationalise the small cycles of change in the clinical settings (Joshi et al., 2020).

Table 1. Similarities between Care Aims and Quality Improvement

Care Aims framework	Quality Improvement
Person-centred approach	Understanding value from user perspective
Evidence-based decision making	Evidence based and data driven
Reduce variability of outcome	Reduction of non-value adding activity
Common language for communicating professional reasoning	Standardisation where appropriate
Promoting transparency	Visualising the process/pathway
Continual evaluation	Continuous improvement
Improve effectiveness of services	Improve efficiency and effectiveness

Methodology

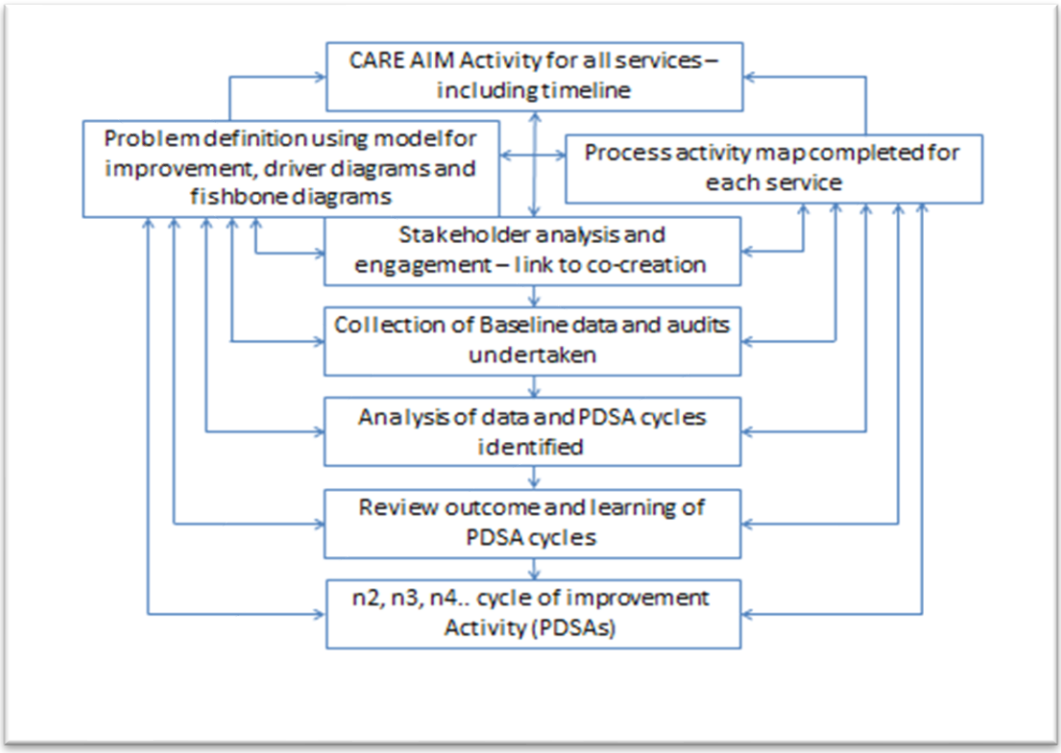
This pilot study focuses on a case study of implementing Care Aims in the delivery of Children's Therapy and Nursing Services in one Health Board in Wales, UK. The Health Board provides acute, primary, community, mental health and learning disabilities services via general and community hospitals, health centres, and other sites which are located across three local authority areas. The authors of the paper were involved in a nine month quality improvement collaborative programme run by the Health Board which enabled members of the Care Aims team to pilot the use of QI techniques to improve the referral process. The team included service leads and colleagues from physiotherapy (n=1), occupational therapy (n=1), nursing (n=2), speech and language therapy (n=2), dietetics (n=2) and QI facilitators (n=2).

As Care Aims is a service wide philosophy it was necessary for the pilot study to narrow the scope of the improvement project to an area of the service that was common to all specialisms and was doable within the 9 month collaborative programme. From compiling a process map of all services, the referral process was identified as an area that required attention. The team were trying to move from the use of traditional referral methods (e.g. consultant letter, email) to 'requests for help' which were initiated by the family rather than being led by a clinician. The QI Collaborative provided a structured education programme on QI tools and techniques. In between the education sessions the team undertook action research, which can be employed effectively when embarking on QI (Chenoweth and Luck, 2003) to test the feasibility, acceptability, effectiveness and sustainability of their QI learning. Action research is commonly used to improve conditions and practices in healthcare (Lingard et al., 2008) and involves healthcare practitioners in bringing about change in their working environment (Parkin, 2009).

The IHI Model for Improvement was used to provide a structured approach to create a model for change, test proposed changes measure the results, accept or modify the proposed changes, identify the next cycle of change (Langley et al, 2009). During the education programme a roadmap (see

figure 1) was developed which included various improvement tools and techniques to help with problem definition, problem solving, gathering and analysing baseline data. This is an iterative process which continually links back to the Care Aims activity and workflow.

Figure 1 Roadmap for an integrated approach to quality improvement and Care Aims approach



Findings and Discussion

Following on from the initial Care Aims training programme in 2018, a high level process map was developed by the multi-professional team which visualised the child's journey and the interactions with each of the services. It was evident from this high level review that the demand on these specialist services was greater than the clinical capacity resulting in long waits with the possibility of those in greatest need being adversely impacted. A cause and effect (fishbone) diagram was used to capture possible reasons as to why capacity did not meet demand (see figure 2).The team felt they were not making the best use of their specialisms or optimising the impact of the community based services. It was also recognised there was a need to improve and integrate existing services and processes across the health board. From completing this exercise the referral process was identified by all the professions as an area that all services needed to improve, particularly with the drive to move to requests for help. A driver diagram was completed to help visualise the team's theory of what would drive and contribute to the achieving this aim (see figure 3).

Figure 2 Fishbone Diagram

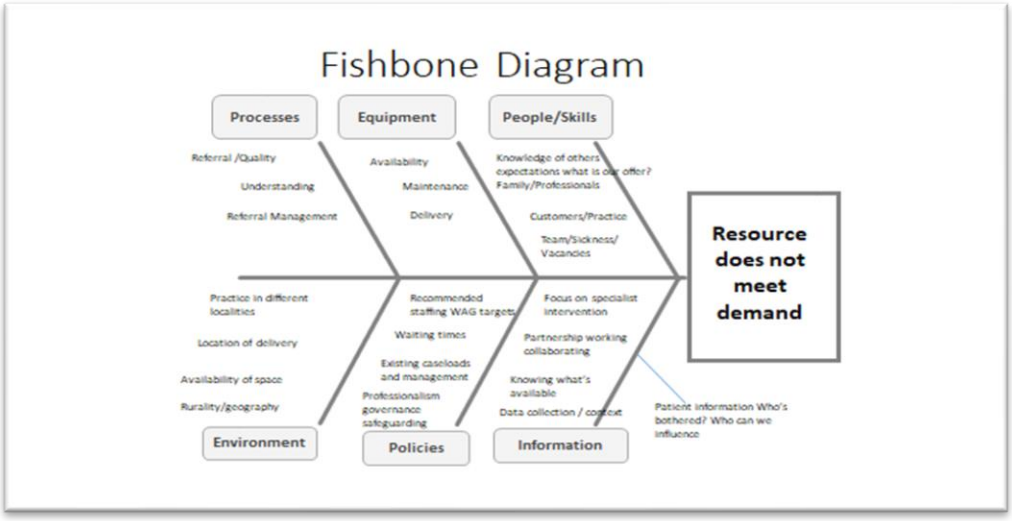
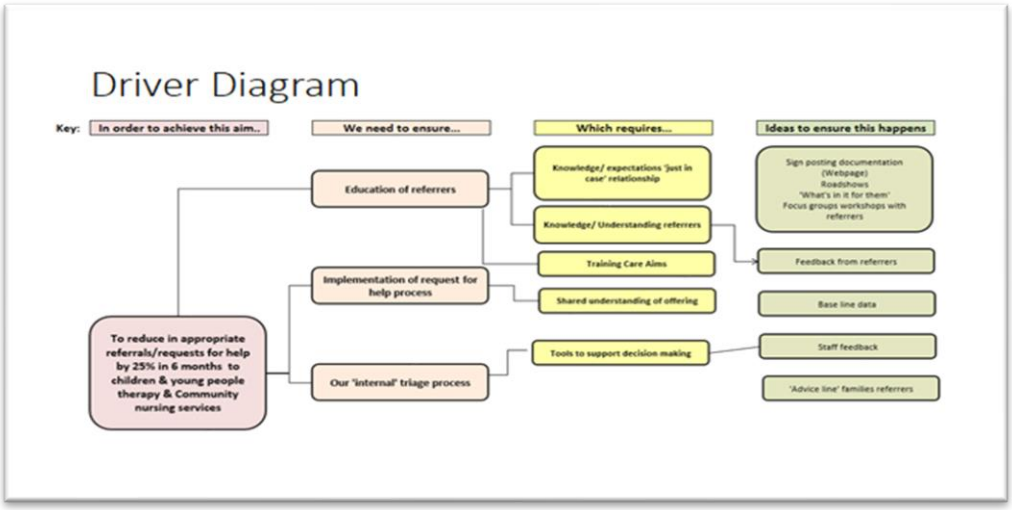


Figure 3 Driver Diagram



Audit data collated by the multi-professional team from across the services showed some of the delays were associated with the poor quality or inappropriate referrals being made to the service. The ethos of Care Aims was to involve families more in the referral process by moving from a traditional referral made by an educator or a health/social care professional to a 'request for help' coproduced with the family and to embed an effective triage system.

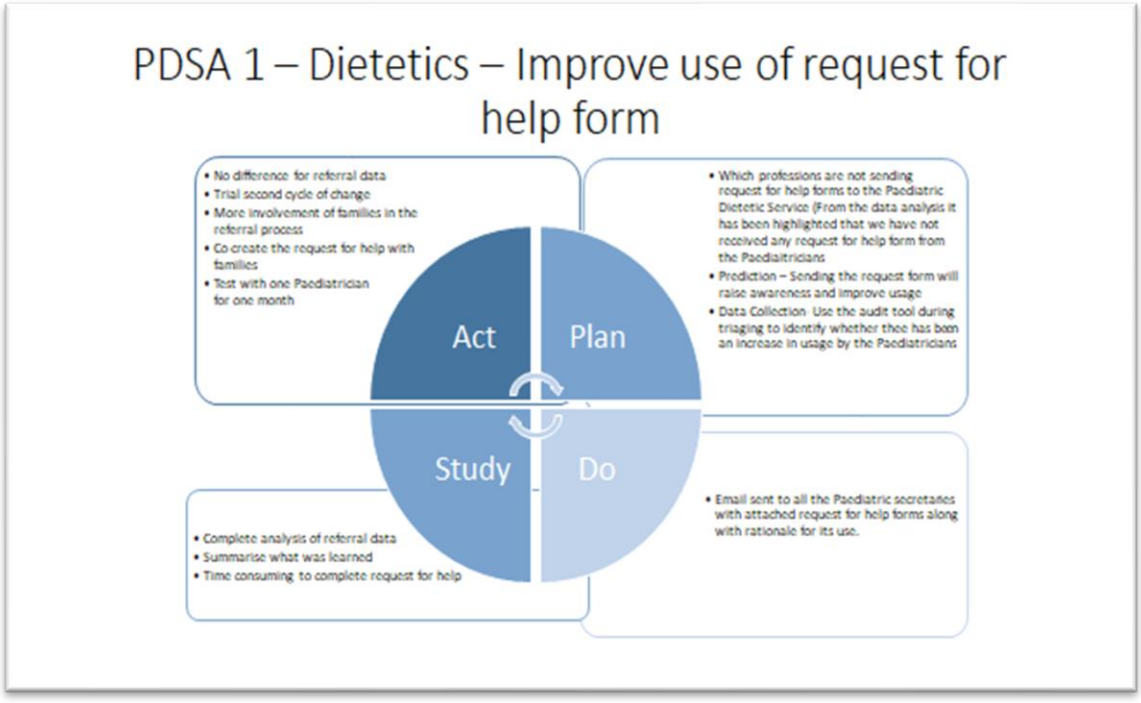
Each of the specialist services collected baseline data and referral data (see table 2), Staff and patient/family satisfaction data were also collected. The results showed up to 25% of requests for help received from various referrers were not appropriate for several reasons including the use of old forms and incomplete information. From this analysis five tests of change (PDSAs) were implemented. Plan-Do-Study-Act improvement cycles of change were used to trial small scale improvements by each of the specialist services, which tested different ways of engaging with

referrers to introduce the Care Aims way of working. See for example figure 4 the cycle of change completed by the Dietetics team, who piloted sending the request for help form to the secretaries of paediatric consultants (one of the main referrers to the service).

Table 2 Types of baseline data collated

Waiting times	Referrals
Longest wait (weeks)	What % (n) of referrals is inappropriate by county and service?
Number at longest wait	What are the main reasons for the inappropriate referrals?
Total number on waiting list	Which professional groups are sending referrals and of those groups what % (n) are sending inappropriate referrals?
Case load number at month end	Type of referral (e.g. email, letter, request for help) by % (n)
	Assessment of the quality of referrals e.g. complete and in full

Figure 4 Example of PDSA cycle of change



Regular team meetings were held to review the monthly data and to assess the impact of the PDSA cycles of change being undertaken by the specialist services. The data showed there was an increase in the use of the Care Aims 'request for help' form and across some of the services the quality (e.g. completed in full) of request for help had improved. The pilot with the paediatrics team did not have an impact on the use of request for help form as consultants tend to dictate referrals rather

than the 'request for help' form being used. Following further discussions with the paediatric team, a second PDSA has been designed where families are involved in the co-creation of the 'request for help'. In terms of the impact on waiting lists and caseloads unfortunately this work was interrupted by the Covid-19 pandemic, but it is the intention to resume the data collection as soon as possible.

Conclusion

The first objective of this paper was to assess how quality improvement techniques can support the implementation of the Care Aims approach. Problem definition and base line data helped to identify the issues surrounding the referral process and the need to integrate the use of the Care Aims request for help. Using the Model for Improvement and PDSA cycles the team have been able to test how this can be embedded within Children Services.

It was evident from the audit baseline data that referrals and 'request for help' were received from different partners/stakeholders in each of the services. Therefore, a one size fits all solution for the PDSA improvements was not appropriate. Each service piloted different PDSA cycles of change guided by the analysis of the referral data. This required several PDSA cycles to be run in parallel.

The multi-professional team is not co-located so communication was critical to ensure the learning from the different PDSA cycles was shared and incorporated into the next cycle of change. As different IT systems are used a shared drive was employed as a portal for data and QI outputs. As noted by Waterworth (2016) greater integration across the teams and services would have assisted in the implementation of the roadmap.

The multi-professional nature of the team supported a systems approach to be taken, where the child's journey could be mapped across the various services and professions. Such an approach is integral to both quality improvement and Care Aims, and supports the family-centredness of the 'request for help' which was fundamental to this pilot study.

The second objective of the paper was to develop and test a roadmap that could support the implementation of the Care Aims approach to service improvement. Here we provide details of the roadmap which we now encourage others to test and adapt as needed by the various services that are implementing the Care Aims approach. The team intend to extend the use of quality improvement techniques to other parts of the child's journey, for example assessments and discharge.

This pilot study is limited to one organisation but has examined a service provision which spans the entire health board. The generalisability of the results is limited as the improvement activity largely focuses on one element of the pathway (referrals). The study does however start to explore how

the QI and Care Aims approaches to improving the delivery of healthcare services can be integrated and provides a conceptual roadmap for others to test within their improvement activity. Further research is now needed on a larger scale and to explore how this learning can be extended to other parts of the pathway and other healthcare services. We also need to recognise that this pilot study is limited to a selection of improvement tools and the Model for Improvement. There are other approaches to improvement such as Lean and Six Sigma which should also feature in the future development and integration of improvement approaches within healthcare.

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