

Hitting the TARGET in primary care

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Addenda

Summary

Life expectancy of people is growing worldwide and so does the prevalence of chronic conditions. Not rarely, people have more than one condition at once. This makes adequate management of their health and well-being complex, especially because a considerable number of people encounters challenges in other areas of life as well, such as a poor social network or poverty. Given these comprehensive needs of patients, it is not surprising that the – to date – still largely fragmented and medically-oriented healthcare systems lead to inefficiencies and frustration, for patients as well as professionals. In policy and practice, ‘integrated, person-centred care’ is considered a promising, new model of care that takes the needs of people (not conditions) as starting point to offer streamlined care and realize ‘the right care in the right place’. But figuring out ‘how’ to design integrated, person-centred care, as well as how to implement and evaluate it in a meaningful way, remains a challenge. This dissertation addresses this challenge with the overarching aim to advance the field of integrated, person-centred care. To do so, two overarching objectives were formulated:

1. To increase insight into how an integrated, person-centred program for people with chronic conditions should be designed, taking into account the needs of this patient population as well as the organizational innovations needed to accommodate those needs.
2. To translate those insights into the TARGET integrated care program, prepare the implementation of this program and gather first implementation insights.

The scientific studies included in this dissertation came about in the context of a participative research commissioned and funded by Dokter Drenthe (formerly known as ‘Huisartsenzorg Drenthe’), a primary care group that unites and promotes the interests of general practitioners (GPs) in the north of the Netherlands. The Dutch health insurance company Zilveren Kruis (Stichting Achmea Gezondheidszorg) was a second funder of this scientific work.

Chapter 1, the general introduction, describes the context in which this scientific work was performed. It is outlined how the traditional disease management approach has been beneficial to the healthcare system, but at the same time leads to suboptimal care for patients and a growing burden on healthcare professionals. The movement to integrated care is then discussed, including the use of population segmentation (i.e. allocating people to subgroups based on a similar profile of characteristics), which is an important starting point for integrated care. Before the research aims are discussed, this first chapter provides a description of the Dutch context, particularly the northern, predominantly rural region covered by primary care group ‘Dokter Drenthe’, in which this dissertation came about.

Chapter 2 is a large quantitative study about people with chronic conditions who use primary care most often, the so-called high-need, high-cost (HNHC) population. As this population has a large share of the total consumption of care, it is an interesting population to focus on if one wants to decrease work pressure. Chronically ill patients were included in the HNHC population if they belonged to the top 10% of care utilizers and/or suffered from multimorbidity and had an above-average care utilization. To understand what clinically relevant subgroups of HNHC patients could be unravelled, we used a sophisticated person-centred analysis technique called latent class analysis (LCA). Using a large dataset of 12,602 patients containing demographic, biomedical, socioeconomic and care utilization data, we were able to identify four distinct HNHC subgroups: 'older adults living with partner' (subgroup 1; 39.3% of patients), 'older adults living alone' (subgroup 2; 25.5% of patients), 'middle-aged, employed adults with family' (subgroup 3; 23.3% of patients), and 'middle-aged adults with social welfare dependency' (subgroup 4; 11.9% of patients). Although the subgroups have distinct characteristics in terms of demographic and socioeconomic characteristics, they are more similar in their most common chronic conditions, i.e. the most common condition is diabetes in all subgroups. This study suggests that the HNHC population in primary care is a heterogeneous population, which includes not only older adults but also groups of younger people, who more often have socioeconomic issues and mental health issues and thus need distinct types of care and support.

In order to validate the HNHC subgroups and discuss how the organization of care needs to be changed to accommodate their needs, a qualitative study was performed (**Chapter 3**). In five focus groups, 42 primary care professionals were interviewed about barriers and solutions with regards to person-centred, efficient care delivery to HNHC patients. Analysing the qualitative results from the perspective of the SELFIE framework for integrated care for multi-morbidity, we found out that the HNHC population, as expected, often has to deal with complex, biopsychosocial problems which are insufficiently addressed by the current system of care. Professionals mainly discussed barriers and solutions that were related to the doctor-patient interaction (micro-level) or practice organization (meso-level). In short, professionals mentioned a lack of time to take a comprehensive approach to patients, an insufficient number of skilled professionals to address the multidimensional needs of patients, and inefficient inter-professional patient information retrieval and sharing. However, on a macro level, professionals reported policies (unintentionally) leading to transferral of tasks from other, social or more specialized settings to primary care.

Based on the insights gained from Chapters 2 and 3, and in close cooperation with primary care group Dokter Drenthe and related steering groups, the TARGET program was developed. TARGET is the acronym for 'Targeting Advanced Resources in General practice to create Efficient, Tailored and holistic care for chronically ill patients'. To

prepare TARGET's first implementation and evaluation, two studies were performed. In the study reported in **Chapter 4**, we prepared the evaluation of TARGET methodologically by taking the first steps towards a realist evaluation (RE) of the program. This means that the initial program theory (IPT) of TARGET, specifying 'how, why and under what circumstances' the program is supposed to work, was elicited in a phased process. By describing the process of theory elicitation in detail, this paper also served to illustrate how RE could be applied and what benefits it has for the field of integrated care. A preliminary version of the IPT was developed by using existing theories on integrated care and insights from previous integrated care studies, including Chapters 2 and 3. During interviews with experts in RE, the IPT was finalized. A separate IPT for both professionals and patients was unravelled. Both IPTs are linked to each other and include 'confidence' as well as 'mutual trust' as key 'soft' mechanisms of change (often described as determinants of social behaviour), which only 'fire' when a supporting context is created, such as sufficient resources for integrated care (e.g. time). This study illustrated how RE has the potential to help researchers finding out 'how and why' integrated care works (or not), as opposed to the focus of traditional evaluation approaches on 'if' programs work. As such, RE delivers transferable insights, which are highly needed in order to advance successful implementation of integrated care.

To support the person-centred needs assessment (PCNA), one of the key program components of TARGET, we translated and contextualized a promising biopsychosocial tool, the Patient Centered Needs Assessment (PCAM), to Dutch in **Chapter 5**. To create a contextualized translation, the World Health Organization (WHO) guidelines about the process of translation and adaptation of instruments were followed. Furthermore, there were knowledge gaps regarding the psychometric properties and value of the tool for integrated care. Therefore, we assessed the (face) validity, reliability, value and feasibility of the PCAM as implemented during the TARGET pilot study. It was found that the tool has mainly value for scientific measurement of patient needs and to support determining required follow-up actions for patients after a needs assessment. Hence, the PCAM has good reliability (Cronbach's alpha is 0.83). The four-factor structure that was tested, with a factor for each of the four biopsychosocial domains, showed adequate fit. As the PCAM was not fully tested as conversation tool during the pilot of TARGET, conclusions about the tool in this function should be drawn carefully. Still, the criticism on the PCAM in this function uncovers the difference between the biopsychosocial model of illness underlying the tool, which is more comprehensive than the medical model but still is more conservative than the broad concept of person-centred care. As professionals argued that the main focus should be on how patients experience their health and what they prioritize, development of a patient version of the tool is recommended.

The preparatory steps taken in the chapters described above, among others, enabled a small-scale pilot test of the TARGET program in practice, described in **Chapter 6**. Main aims were to get insight into the program's feasibility and acceptability, and to learn first lessons about the preconditions for successful larger-scale implementation of TARGET in the future. Seven frontrunner general practices experimented with the first two program components of TARGET, including accompanying tools and trainings: the digital population segmentation tool to identify the subgroup of patients (with chronic conditions) with the highest care needs, and the PCNA which is a comprehensive assessment about the biopsychosocial needs of patients and required follow-up actions. The pilot lasted six months and started in August 2020. Different methods were used: a review of the digital segmentation tool, observations of trainings and 15 PCNAs, and interviews with professionals (n= 15) and patients who received a PCNA (n= 12). Findings suggest that the content of the program is feasible and acceptable for both professionals and patients: the offered tools and trainings enable professionals to use the segmentation tool and engage in the PCNA. The PCNAs were highly valued by both professionals and patients, as these assessments provide new insights into patients' health and well-being. However, the process of implementation needs more attention: team commitment to TARGET is key and to enhance cooperation and referral, professionals need stronger network ties and patients need more encouragement to be referred to for instance mental health or social services.

To conclude, in **Chapter 7**, a reflection was given on the main findings of this dissertation from a theoretical and methodological perspective. This resulted in recommendations for practice, policy and research. Firstly, both 'integrated care' and 'person-centred care' are umbrella terms with slightly different meanings. It is argued that this 'dynamic' nature of terminology is helpful (instead of troublesome from a traditional research approach) to make terms relevant for different stakeholders. Secondly, the population segmentation approaches presented in this dissertation are partly similar to well-known international approaches, but unique because of the social comprehensiveness of underlying data. Thirdly, while TARGET bears similarity to other Dutch integrated care initiatives, it is more innovative in its focus on transforming rather than reforming the current approach to chronic care. Regarding the methodological considerations, the broad science-practice collaboration underlying TARGET, with a predominant and deliberate focus on healthcare professionals, was firstly discussed. The findings of this dissertation at the same time underline the need to get more insight into patient experiences and barriers in relation to integrated care. Secondly, in Part I of this dissertation, a mixed-methods approach was employed in order to develop a segmentation approach based on a comprehensive dataset and subsequently make the segments actionable. Despite these benefits, also acknowledged internationally, segmentation approaches are rarely designed based on mixed methods. Last methodological consideration is related to RE. This dissertation, especially Part II,

highlights the need to think more critically about methodological choices, which should not be determined by the traditional 'hierarchy of evidence pyramid' but rather by the study aims, setting and stakeholders.

