Integrated care: a definition from the perspective of the four quality paradigms

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Abstract

Purpose – The purpose of this paper is to support the ongoing dialogue and shed light on the different views on integrated care. An overarching definition of integrated care is proposed combining the ways of thinking of the four quality paradigms the authors identify. The idea of epistemic fluency offers a way-out of ongoing discussions about "what integration is".

Design/methodology/approach – Four paradigms of quality are presented and applied to healthcare. Epistemic fluency is proposed as the capacity to understand, switch between and combine different kinds of knowledge. The authors compare previously developed definitions of integrated care to the various combinations of paradigms.

Findings – All four paradigms of care quality are present in healthcare and in the most used definitions of integrated care. The Reflective Paradigm and the Emergence Paradigm receive least attention. Some definitions combine more than one paradigm. An overarching definition of integrated care is proposed.

Research limitations/implications – In this paper, only the most prominent definitions of integration have been considered.

Practical implications – Integration research and practice requires a widely accepted definition of integrated care, embracing all four paradigms of care quality. Our suggestion provides a common foundation that may prevent misunderstanding.

Originality/value – The use of quality management paradigms to frame the debate on defining integrated care is new and leads to new insights for teaching, research and practice.

Keywords Integrated care, Emergence, Definition, Quality paradigms

Paper type Conceptual paper

Introduction

Discussions about the definition of integrated care have occurred since the field came into its existence. Armitage *et al.* (2009) uncovered more than 175 overlapping definitions and concepts of integrated care. The term has been applied from several disciplinary and professional perspectives and is associated with a range of aims and objectives (Goodwin, 2013). Goodwin defines integrated care as a simple idea: combining health management activities so that they work to form a whole (i.e. integration) in order to optimise care and treatment to people where fragmentations in care have led to a negative impact on their care experiences and outcomes (Goodwin, 2013, p. 113). This paper wants to make a contribution to the discussion about the definition of integrated care. After several contributions in 2009–2016, the discussion now seems to be silent. However, it did not result in a widely accepted definition in the integrated care community. Still, we think this is necessary to support the development of care, research and education in the integrated care field.

This may facilitate additional learning from other disciplines. Quality management has a lengthy experience in defining their object "quality". Quality appears hard to define and has many faces. It has been pointed out that quality is difficult to define, often using Pirsig (1976) as a reference or Harvey and Green (1993) who called it "a slippery concept".

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Different circumstances require different definitions (Reeves and Bednar, 1994; Sousa and Voss, 2002) making quality a dynamic concept (Pirsig, 1991). Which choice you make depends on your values (Conti, 2006; van Kemenade *et al.*, 2008; van Kemenade and Hardjono, 2019).

Also within the discipline of quality management in the Netherlands, the definition of quality and the underlying values is intensely discussed and studied. Vinkenburg (2006, 2010) discerned three schools in quality management: the empirical, the normative and the reflective school. van Kemenade and Hardjono (2019) called them paradigms. The concept of a scientific paradigm, the shared ideas and concepts that guide a whole area of scientific research were developed by Thomas Kuhn (1962). When old methods will not solve new problems science progresses by replacing old theories with new ones, which he calls a paradigm shift (Orman, 2016). Kuhn argued that each scientific theory preserves a hard core of the knowledge of its predecessor and adds to it. He believed, however, that paradigms are incommensurable and normally science is dominated by a single paradigm. This is in contrast to Lakatos and Musgrave (1970) who claims paradigms may each make predictions that are comparable.

The paradigms in quality management are combined with value systems by Beck and Cowan (2000), who define them as truth force, focusing on authority, morals, rules and tradition (blue); strive drive, focusing on success, growth, consumerism and opportunities (orange); human bond, focusing on community, authenticity, sharing and caring (green); flex flow, focusing on systems, self-organising, networking (yellow) and whole view, focusing on holism, cosmos, spirituality (turquoise) with the quadrants from Wilber (2000), individual/interior ("I"), individual/exterior ("It"), exterior/collective ("Its") and interior/collective ("We").

van Kemenade and Hardjono (2019) selected the four main paradigms, inspired by Spiral Dynamics and called them reflective, reference, empirical and added the emergence paradigm. These paradigms can be seen as four value systems or lenses through which one can see the world. These are used here as a benchmarking for defining integrated care. For each quality management paradigm, its actual manifestation in healthcare practice and in the existing definitions of integrated care is described. This paper will contribute to this argument by illustrating the potential of the notion of the four paradigms as an overarching concept for integrated care.

Four quality paradigms and its application to healthcare

In this paragraph from each of the four quality paradigms, the focus, the definition of quality, the motto, the preferred scientific and methodological approach as well as their metaphorical potential and risks will be detailed. We mention the occurrence of the paradigm in healthcare. However, we do not elaborate on the healthcare quality concept, since in this paper we are focusing on the application of quality management to integrated care. The paradigms are not mutually exclusive. As Chevallier (2016) states that is not needed in the complexity we are dealing with, rather overlaps and interconnections are a central feature of the issue (of defining quality and integrated care). These four paradigms are discerned at this moment in time and might not be collectively exhaustive. In the future another paradigm might emerge.

The empirical paradigm: quality as conformance to requirements

During the 1920s, the systematic approach of quality management began to focus on the end product. The advent of mass production meant it became too costly to inspect every single product. Through Statistical Process Control, sampling became available as a way of quality control. In line with these developments, the empirical paradigm came to focus on standards and developed strategies on how quality could be achieved. The Empirical Paradigm derives its name from its methodology. It is about objective knowledge, gathered by measurements and its objective results are expressed in quantitative data. Quality is

perceived as conformance to requirements (Crosby, 1979) and its motto is: "to measure is to know".

The preferred methodology uses mainly quantitative methods and statistics, epitomised in the Randomised Controlled Trial. The manager is in charge and needs to exercise control (Freidson, 2001). A suitable metaphor for this way of thinking is the army with its hierarchical structures whilst any risks to quality management are perceived to originate in bureaucracy.

When Harteloh (2003) states that quality of care is the optimal balance between possibilities realised and a framework of norms and values, he relates to this paradigm. In healthcare, we recognise the empirical paradigm in certification systems like the ISO9000-series, in Joint Commission International Accreditation as well as in standardisation of care practices (protocols) and evidence-based medicine.

In integrated care, this way of thinking with the manager in charge is clearly echoed by Contandriapoulos *et al.* (2003) in what Goodwin (2016) calls the manager's definition:

> The process that involves creating and maintaining overtime, a common structure between independent stakeholders for the purpose of coordinating their interdependence in order to enable them to work together on a collective project. (Goodwin, 2016, p. 1)

Similarly, the WHO Regional Office for Europe (2016) gives the following definition:

> Integrated health services are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course. (WHO, 2016, p. 8)

Although Goodwin calls this the health system-based definition, the definition focuses on management, delivery and co-ordination, all elements of the empirical paradigm.

The reference paradigm: quality is fitness for use

However, not everything can be easily measured quantitatively. Particularly in health, concerns such as trust, care, commitment and wisdom are difficult to quantify. Consequently, the starting point in this paradigm is not reality as quantified entity, but how reality may be perceived. Within this paradigm, quality models are designed, guidelines are produced and terms of reference are formulated to guide care processes. We call this the reference paradigm.

Key mechanisms for quality improvement are national awards which are used by management to improve organisational performance. The reference paradigm uses models like the EFQM Excellence model, the Balanced Score Card and the Plan-Do-Check-Act-cycle. Quality in this paradigm may be defined as fitness for purpose or fitness for use (Juran *et al.*, 1974).

In management sciences, methods used are patient or client satisfaction surveys, focus groups, the Delphi-method, self-evaluations or internal audits. A metaphor for this way of thinking is a Google Home or Echo, the voice-activated home virtual assistant machines that are tailored to customer's needs like an interactive robot. In terms of Freidson (2001), the "customer is in control". The risk of this paradigm is "pampering", the situation where the patient or client gets annoyed by too much attention.

The Donabedian (1988) model to improve the quality of care identifies three domains in which healthcare quality can be assessed: structure, process and outcomes, fits in the reference paradigm. In healthcare, we see this paradigm in the Omaha system, the International Classification of Nursing Practice, the Nursing Intervention Classification, the Nursing Outcomes Classification or the International Classification of Functioning, Disability and Health. Healthcare institutes are managed like companies with strategic planning, missions, visions and quality improvement officers. An example is Lean management.

In integrated care, this way of thinking is found in the definition of Kodner and Spreeuwenberg (2002). The WHO (2016) calls this a process-based definition; Goodwin (2016) calls this the social science-based definition:

> Integration is a coherent set of methods and models on the fundings, administrative, organisational, service delivery and clinical levels designed to create connectivity, alignment and collaboration within and between the cure and care sectors. The goal of these methods and models is to enhance quality of care and quality of life, consumer satisfaction and system efficiency for people by cutting across multiple services, providers and settings. Where the result of such multi-pronged efforts to promote integration lead to benefits for people the outcome can be called 'integrated care. Goodwin (2016, p. 1)

An example of the reference paradigm is the Rainbow model (Valentijn *et al.*, 2013). This model proposes a framework that places person-focused and population-based care as the guiding principles for achieving integration across the care continuum and provides a visual understanding of how different integration processes play interconnected roles on the macro- (system integration), meso- (organisational, professional) and micro-level (clinical, service and personal integration). Valentijn *et al.* (2013) do not make a distinction between integration and integrated care. They aim to provide a framework to make systematic and comparable descriptions of initiatives for integrated care. Valentijn *et al.* (2015) added a taxonomy, based on a Delphi study with experts (but without patients). This taxonomy aims to provide a consensus-based terminology regarding the development of integrated service models and operational consensus within a primary care context. Based on this research, the author developed a tool, the value-based care explorer to measure the integration of care.

The reflective paradigm: quality is subjective

The reflective paradigm, introduced by Vinkenburg (2006), starts with the thesis that different realities exist, resulting in individual perceptions and interpretations. This thesis asserts that everyone has his own reality, which may differ across time. This paradigm thus pays attention to the differences amongst individual perceptions, makes them explicit and reflects on them. Knowledge is developed through conversations, group meetings and internal conversations. The truth is what we know through our senses (i.e. what we see, hear, taste, etc.) to be true. This way of thinking goes back to the correspondence theory of truth that demands that we rely on our own personal experience to be able to figure out if something is true or not (Russell, 2001; Kunne, 2003).

Its scientific approach is philosophical. Its methodology is reflective, often manifesting itself in editorials or viewpoint papers. As quality cannot be defined, but just discussed (Pirsig, 1976) a suitable formulation would be "Quality is not a thing, it is an event".

A metaphor for this paradigm is the statue of Rodin called "Le penseur". Professionals on the front line are in charge, since they know best what to do (Freidson, 2001). The predominant risk of this paradigm is professional conceit.

The Institute of Medicine (2001) defines healthcare quality as the degree to which healthcare services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. Especially the last addition relates it to the reflective paradigm. We recognise the reflective paradigm in peer review as it is used in healthcare visitations, in peer meetings, in medical and nursing disciplinary procedures, and in a doctor or nurse compliant with clinical practice protocols. We see it in the operating room, when a time out procedure is done. However, this way of thinking is rarely found in integrated care definitions. In the reflective paradigm, integrated care may be defined as the extended collaboration and entanglement of particular identity roles as medical experts, care coordinators, and team members, depending on their

perceptions of not only the complexity of patients' medical needs, but also the particularities of the clinical and organizational contexts in which they operate.

The definition above is based on Touati *et al.* (2019, p. 6), although they point to the fact they did not find this extended collaboration in practice. Similarly, the definition of Hardy *et al.* (2003) emphasises co-operation amongst professionals and informal carers: "Integrated care as a coherent and co-ordinated set of services which are planned, managed and delivered to individual service users across a range of organizations and by a range of co-operating professionals and informal carers" (Hardy *et al.*, 2003, p. 9). However, even here, the co-ordination, planning, management and delivery of care echo the main thrust of the empirical paradigm.

The emergence paradigm: quality is defined intersubjectively

The emergence paradigm befits the current era of continuous change (Miller and Cangemi, 1993; Wolfe, 2001). Emergence is a concept from systems theory, and more specifically, complexity theory. It relates to the development of complex adaptive systems that have characteristics irreducible to their individual parts. Emergence is the process where new characteristics come into existence through interactions between simple entities that did not exhibit these characteristics before. A perfect example would be the self-organisation of ants who collectively produce an anthill. Emergence is not a product of prior design and its result cannot be predicted. Research methodologies in the vein of the Emergence Paradigm are based on shared values, and key scientific mechanisms are dialogue, championing action research and realist evaluation (Pawson *et al.*, 2005).

The emergence paradigm is about the lack of order, of which we continuously have to make sense intersubjectively. Quality is defined as a dialogue with all stakeholders, not just the manager, but also the customer or professional. As quality does not exist, but arises, decisions are made based on the best available knowledge. Quality is perceived as a dynamic concept that fits the emergence paradigm (Pirsig, 1991). Ultimately, there is not one correct way to organise a business, or no single way to manage people or to manage quality (Burnes, 1996). This approach may resemble conducting a symphony (Crosby, 1992, pp. 14, 15). Or, alternatively, we may see it as a jazz combo that continuously improvises its tune. Management tools may be quality circles, appreciative inquiry or the Socratic café circle. However, the emergence paradigm is scarcely adopted in practice, and this extends to healthcare. The current shift to integrated care may, however, make this way of thinking more prominent (Evans *et al.*, 2014).

Sturmberg (2019) relates to the emergence paradigm, stating that quality in healthcare is a cultural commitment that experience will meet or exceed expectations, for which everyone throughout the health-and-wellness supersystem is responsible (p. 293). We see the emergence paradigm in healthcare in aspects like shared decision making, the person-centred care movement, community-based programmes for health and well-being and the proposed concept of positive health (Huber *et al.*, 2016).

As a definition based on the perspective of the patient as partner Goodwin mentions the definition of National Voices (2013): "I can plan my care with people who work together to understand me and my carer(s), allow me control, and bring together services to achieve the outcomes important to me" (p. 5). Singer puts forward a similar definition: "Patient care that is coordinated across professionals, facilities and support systems; continuous over time and between visits; tailored to the patient's needs and preferences; and based on shared responsibility" (Singer *et al.*, 2011, p. 147). The definition formulated by Martin and Sturmberg (2009) reflects the role of the patient as well as its attendant complexity and context: "Integrated care is the emergence of health in individuals and communities through adaptability, self-organization and empowerment" (Martin and Sturmberg, 2009, p. 571).

The characteristics of the four paradigms in care are presented in Table I.

Characteristics of the four quality paradigms	Empirical paradigm	Reference paradigm	Reflective paradigm	Emergence paradigm
Focus	Rules and control	Models and improvement	Principles and reflection	Shared values
Definition of quality	Q = conformance to requirements	Q = fitness for use	Q = an event	Q = dynamic
Adage	To measure is to know	Not everything can be measured	Quality cannot be defined, just discussed	There is no one right way
Science	Statistics	Management sciences, organisational development (OD)	Philosophy	Systems theory and complexity theory
Methods	Statistical process control, RCT, evidence based	National awards, guidelines, processes, patient satisfaction surveys and development of theoretical models	Discussions, peer review, inner conversations, editorials and viewpoints	Narrative methods, action research, dialogue and realist evaluation
Metaphor	The army	Interactive devices	"Le Penseur" Rodin	An improvising jazz-combo
Risk	Bureaucracy	Pampering	Professional conceit	Chaos
Healthcare	Accreditation protocols evidence-based medicine	Customer service	Peer review, time out	Integrated care shared decision making

Table I.
Characteristics of the four quality paradigms

Looking for epistemic fluency in integrated care

Kuhn (1962) states that paradigms are incommensurable. The history of science reveals proponents of competing paradigms failing to make complete contact with each other's views. Quality management in the twenty-first century, however, requires a combination of ways of thinking and the use of several tools and methods from different paradigms depending on the context. Complexity science embraces paradigm diversity by attaching value to what can be learned about system behaviour from within any particular paradigm perspective (Cooksey, 2001). Also Barouch and Ponsignon (2016) support a multi-paradigm approach. The four paradigms presented need to be integrated. van Kemenade and Hardjono (2019) have called this total quality management (TQM). TQM needs to be eclectical (Rosman and Wilson, 1991; Guillen, 1994) and use tools from each of the paradigms depending on the problem to be able to cope with context and change.

In the end, Kemenade and Hardjono propose epistemic fluency (van Kemenade and Hardjono, 2019). Markauskaite and Goodyear define epistemic fluency as the capacity to understand, switch between and combine different kinds of knowledge and different ways of knowing about the world (Markauskaite and Goodyear, 2016). In the same sense, the paradigms need to be combined.

In Figure 1, the four paradigms are placed in a fifth quadrant, a continuum within the context, ranging from un-order to order. (We prefer un-order to disorder. The state of un-order is not chaos, just like un-dead that are not dead, but not alive either; it refers to a state between both extremes.) If the situation is stable and predictable one can and should work with standards and protocols, like the empirical paradigm suggests. Or one takes refuge in models and guidelines, as the reference paradigm does. When order is disturbed or uncertain the professional might need to act outside of protocols, based on her professional

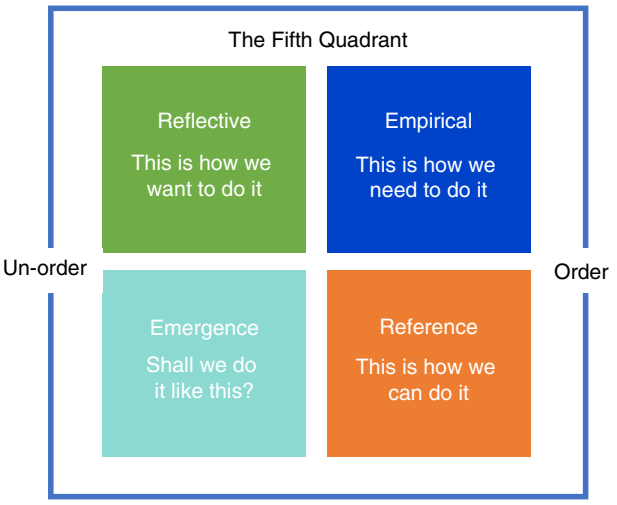

Figure 1.
Epistemic fluency in TQM according to van Kemenade and Hardjono (2019)

judgement, similar to the reflective paradigm. Some situations may be so unpredictable that care staff needs to explore new solutions in co-operation with all stakeholders like the emergent paradigm suggests.

Integrated care and epistemic fluency

Following the reasoning above, integrated care may benefit from an eclectical approach using tools from each of the paradigms depending on the problem with a varying context and change. Certainly defining integrated care could benefit from the epistemic fluency of all four paradigms.

Based on Figure 1, the dominant paradigms in the definitions of integrated care, empirical and reference paradigm, are the best fit when the context is stable. However, healthcare is a state of un-order, where the reflective professional and the emergent network are more critical to management. It is also noteworthy that several definitions of integrated care combine more than two paradigms. Leutz defined integrated care as the "search to connect the healthcare system (acute, primary, medical and skilled) with other human service systems (e.g. long-term care, education and vocational and housing services) to improve outcomes (clinical, satisfaction and efficiency)" (Leutz, 1999, pp. 77-78). This definition implies systems thinking (emergence), the attention to professionals' reflective activities, the attention to continuous improvement, ultimately combining three paradigms.

Epistemic fluency may represent the essence of integrated care. Ettema *et al.* (2017) strive for such an all-encompassing definition for research practice:

> Defining the care problem by identifying working mechanisms and collecting existing effective interventions or develop these (empirical) and bringing together inputs, delivery, management and organization of services and test acceptance by patients, care providers, care system and the rigour of an evaluation study; which are related to diagnosis, treatment, care, rehabilitation and health promotion and a test of effect in an evaluation study (reference), or practice research and/or theory research-oriented (empirical); in order to improve services in relation to access, quality, user satisfaction and efficiency (reference) and enabling the working mechanisms of the intervention in the organized context in clinical practice (emergence); to achieve quality of life and societal participation of citizens by tailor made and cost-effective preventive (primary, secondary and tertiary) care (reference). (Ettema *et al.*, 2017, p. 1)

In the above quote, three of the four paradigms can be recognised, to a varying extent. However, a "definition" of such length is neither complete not workable. Instead, we propose the following overarching definition of integrated care that integrates all four paradigms of quality:

> Integrated care is the process of help, care and service, managed and coordinated by interconnected highly competent professionals, who by their synergy – together with the patient and his family as partners – find solutions and create impact, continuously adapting to the context and circumstances.

Discussion

This paper assumes that benchmarking the ideas of TQM to the arena of integrated care as a new approach is worthwhile in defining our object. This paper sheds light on the four paradigms of quality and shows where these are currently present in definitions of integrated care. It appears that the reflective paradigm and the emergence paradigm are undervalued in the current integrated care literature. Also, other authors address the rise of and the need for another paradigm in integrated care, but from different viewpoints.

Greenhalgh heralded a paradigm shift through complexity science in the extensively cited articles written in 2001 with Plsek (Plsek and Greenhalgh, 2001). However, according to Greenhalgh, we embrace the theme of complexity in name and fail to shift to a new, emergence and paradigm (Greenhalgh and Papoutsi, 2018). Kaehne (2017) recognises this and sees integration itself as a new scientific paradigm, but argues that it fails to develop a strong theoretical and empirical foundation for a robust and stable group commitment that embraces the patient perspective.

Discussion and future research is needed to assess the utility of the various quality paradigms in the field of integrated care and the proposed overarching definition. Based on these paradigms, we, as well as others, propose to champion methodological pluralism in the field of integrated care.

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