

Co-production in healthcare services: What we know, how we can evaluate it

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1 Background

In times of increasing population aging, higher incidence of chronic diseases and higher expectations regarding public service provision, healthcare services are under increasing strain to cut costs while keeping quality. In this context, debates on the importance of promoting systems of co-produced health between stakeholders have gained considerable traction both in the literature and in policy debates of the public sector (Dunston, 2009; Verschuere et al, 2012; Voorberg et al. 2015; Palumbo, 2016). Co-production occurs “when public service organizations partner with external entities, including other public organizations, third sector, or service user, to jointly produce services that they previously produced on their own” (Thomas, 2013, p. 788).

2 Research objectives

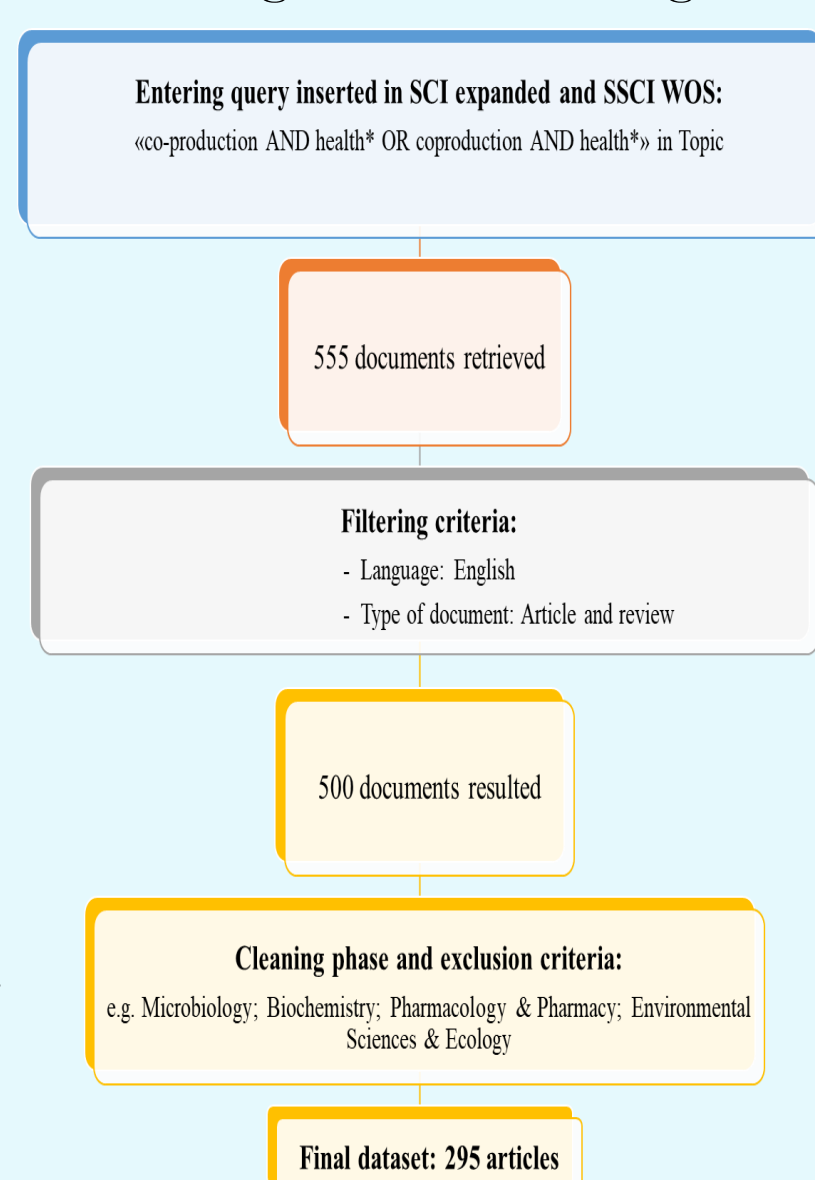
This study aims to:

- 1) quantify the research field and describe its main outputs;
- 2) define the intellectual structure;
- 3) map the social structure of the field;
- 4) identify main themes and research gaps.

3 Methodology

- Quantitative bibliometric analysis (Cobo et al., 2011; Zupic and Čate, 2015), using Bibliometrix software (Aria and Cuccurullo, 2017):
 - performance analysis co-citation analysis;
 - scientific collaboration analysis.
- Source: WoS
- Inclusion criterion: “co-production AND health* OR coproduction AND health*” in topic (launched on May 10, 2019).
- Filtering criteria: language (english) and type of publication (article and review)
- Final dataset, after cleaning phase: 295 papers.

Figure 1. Research design



4 Findings

Performance Analysis

- The dataset coverage a period ranging from 1994 to 2019 (May).
- There is an increasing attention on the co-production topic, as highlighted by an annual percentage growth rate of about 25% and by the 28 articles published in the first five months of 2019.
- It is a multidisciplinary and fragmented field:
 - The 148 source journals belong to different research areas (medicine, management, economics and social Science) and only 46 (31%) journals have published more than two article. The two most productive journal are also among the most generalists, i.e. BMJ Open (19), Public Management Review (13).
 - The 10 top most productive authors are mostly academics, working in different fields (medicine, nursing, management, informatics). The psychological research focus on the use of technologies to support older people (Joe Wherton) and on recovery-focused services in mental health (Sarah Gordon)

Figure 2. Annual scientific production

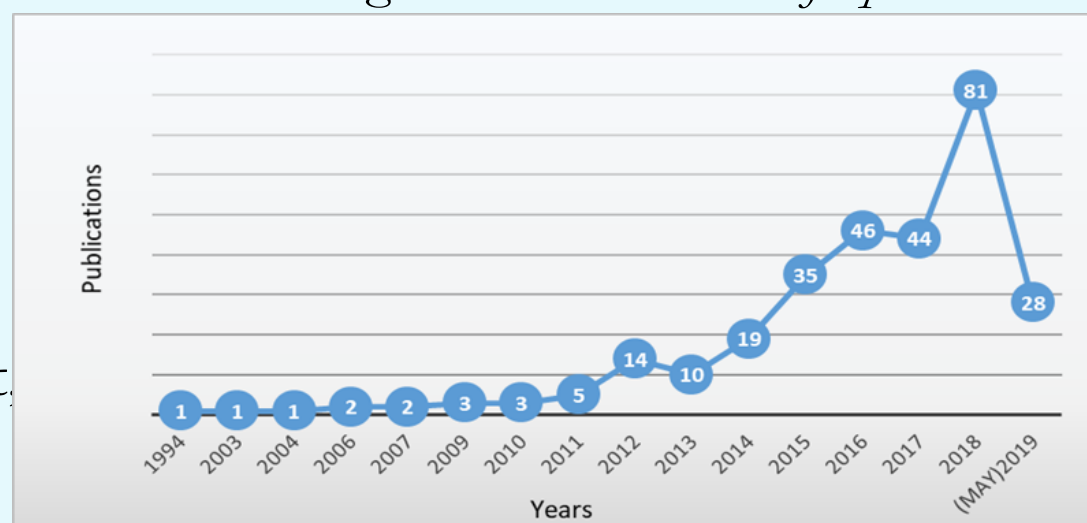
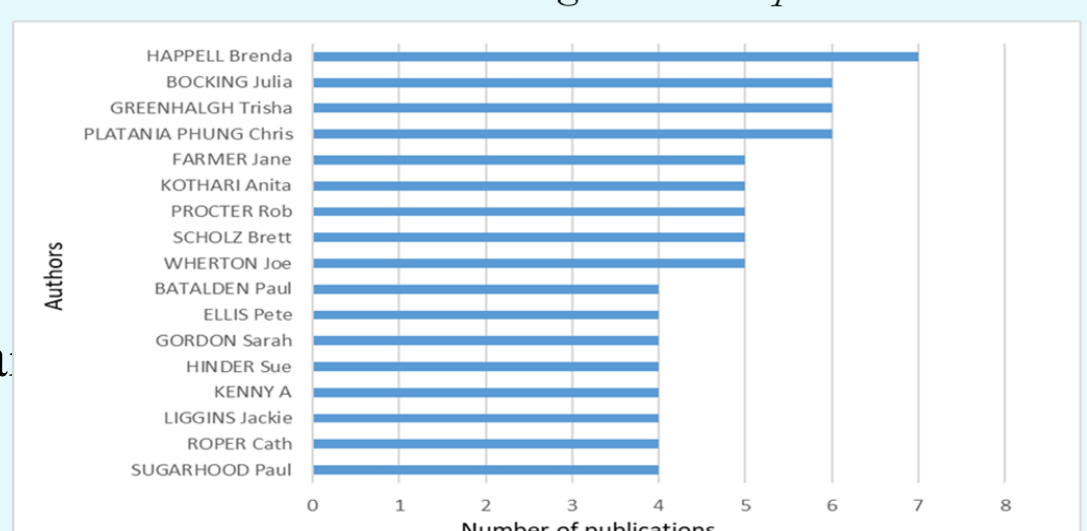


Figure 3. Most productive authors



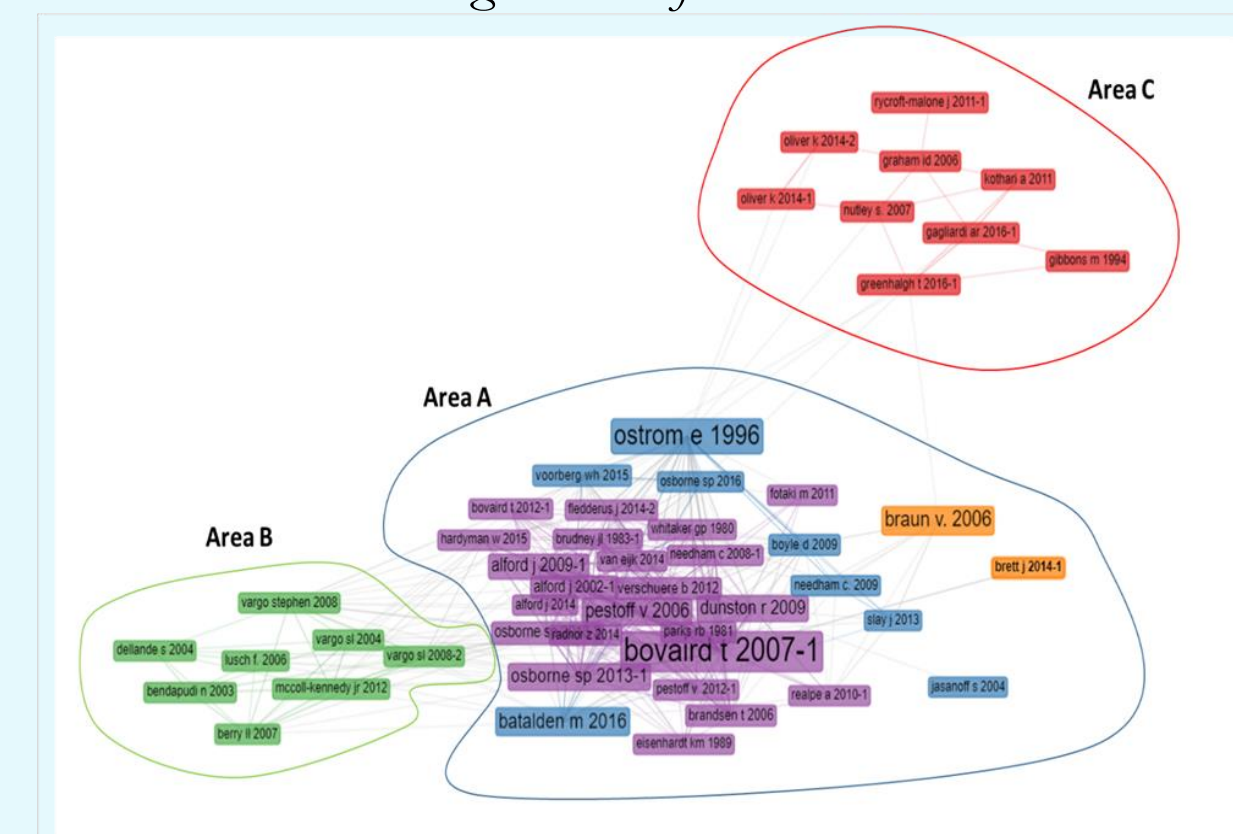
Co-citation analysis: the intellectual structure of the field

The intellectual structure is defined as «the examined scientific domain's research traditions, their disciplinary composition, influential research topics and the pattern of their interrelationships. These publications are the foundations upon which current research is being carried out and contain fundamental theories, breakthrough early works and methodological canons of the fields» (Zupic and Čate, 2015, p. 438).

- Most central and important nodes of the network are Bovaird 2007 and Ostrom 1996.
- It is possible to identify three clusters:

- **Area A: “Public administration and management group”.** It is characterized by a predominance of public management and public administration documents.
 - Co-production is seen as a public policy tool to improve the efficiency of public services.
 - The focus is on the public provider, to which the user/citizen should be added.
- **Area B: Service management group.** It includes works of marketing and service management literature, that mainly adopt the "Service-Dominant" (S-D) logic.
 - Co-production is an essential core component of service delivery
 - The focus is on the interaction between the producer and on its improvement to co-create much value, for the company and for consumer.
- **Area C: “Knowledge translation group”.** It is characterized by documents with the common focus on the co-production of knowledge.
 - The focus is on knowledge translation within researchers and decision-makers (clinicians, managers, policy-makers, etc.).
 - The user's or patient's perspective is, therefore, almost neglected.

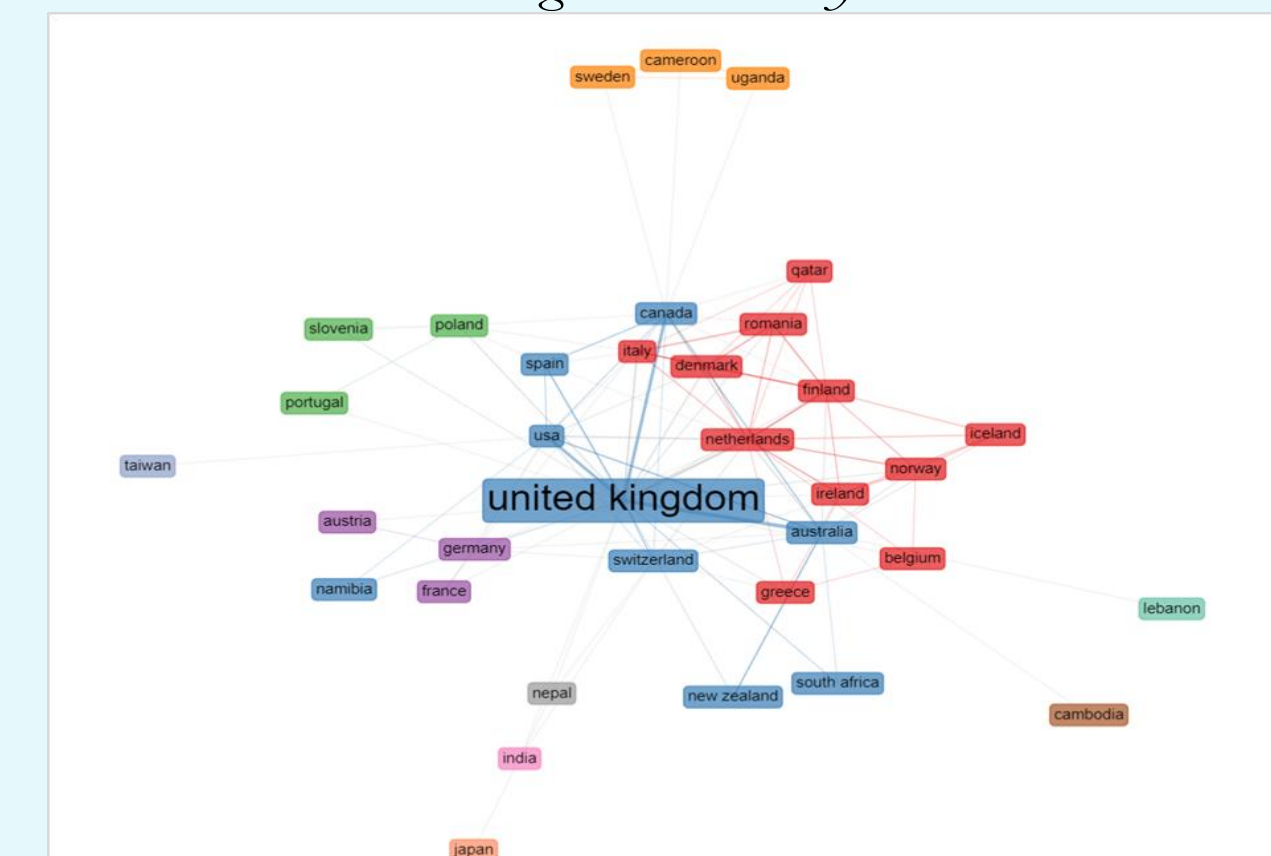
Figure 4. References co-citation network



Collaboration network analysis

- Most important and central node is UK. It can be assumed that the raison d'être besides in the introduction of patient involvement clinical practices since the 1990s (i.e. OPAT therapy), as well as in the strong promotion of these new forms of organization and delivery of healthcare services (but, more generally, of overall public and voluntary sectors) by the government and the NSH, since the early 2000s.
- The other top nodes - for centrality and prestige - are represented by Netherlands, Italy, USA and Canada.

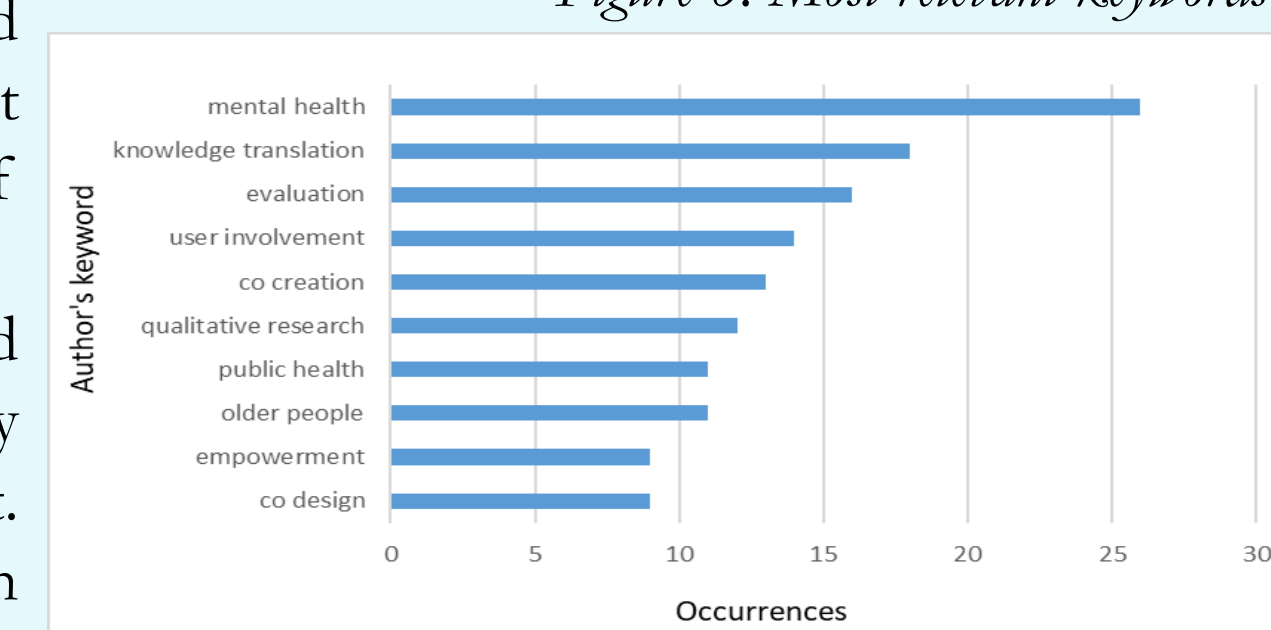
Figure 5. Country collaboration network



Keywords occurrences and explorative thematic analysis

- The most investigated fields include mental, public and primary healthcare. The assistive technology is quite present with reference to solutions that facilitate the monitoring of health and providing services to older people at home.
- The co-production of knowledge, both basic research and co-design, is very widespread; while the studies, especially empirical, on co-delivery/co-management are less present. The impacts of co-production are only explored through subjective evaluation methods.
- The qualitative methodology (thematic analysis, content analysis and case study) is the most used.

Figure 6. Most relevant keywords



5 Conclusion

- The academic interest and the consensus towards co-production have increased considerably in recent years.
- Studies are rather focused both in the disciplinary field (mainly management) and geographic (mainly Anglo-Saxon and European countries), but despite this, the picture that results is still jagged and none of the specific areas of investigation can really be described as mature.
- The contribution of psychology in the study of co-production is still very marginal and the few authors with a psychological background appear only in multidisciplinary articles.
- The most investigated field include mental, public and primary health care; the co-production of knowledge and service co-design; while co-delivery or co-management research still seem to be in an embryonic stage.
- Future researches should assess how the management and the organization of health services change or adapt in order to consider the co-produced practices and what are their real and multidimensional impacts.

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