

Primary care since John Fry; a research odyssey:

the Royal Society of Medicine John Fry Prize winner

John Fry was born 100 years ago in 1922. He started as a single-handed GP in Beckenham in 1947 and retired from the same practice 43 years later in 1991. His contribution to general practice was immense. Long before computers, (1974), Fry compiled his *Common Diseases: Their Nature Incidence and Care*. For many decades it was regarded as the single most important source of data on general practice. He was an evidence-based practitioner long before 'evidence-based practice' was invented.

When, as one of the judges for this year's Royal Society of Medicine John Fry Prize, I was asked to set a title for the John Fry Prize essay, I wanted the applicants to actually look at and analyse John Fry's pioneering research. The title chosen was 'When John Fry started his pioneering research, he was a single-handed GP. Today general practice is delivered by the primary care team comprising a broad group of healthcare professionals. Giving referenced examples show how this has influenced current research in general practice.' As evidenced by this winning entry below, I think we succeeded.

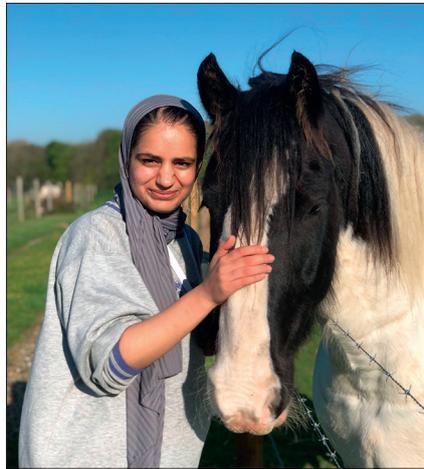
(Joseph Spitzer, council member, section of general practice with primary care, Royal Society of Medicine)

JOHN FRY

Today, if one was to ask who John Fry was, many would reply with 'John who?' Prior to current research methods in primary care, there were individual GPs who studied their patients' problems thoroughly and then extrapolated relevant information for practice-based research. Among these GPs were the notable individuals John Fry, William Pickles, and Curtis Gordon Hames.

For some, John Fry was considered one of the doyens of general practice. He was an evidence-based practitioner who has played one of the most prolific roles in general practice to date. He was one of the founding members of the College of General Practitioners, a member of various committees on the Medical Research Council, and a consultant to the World Health Organization and the British Army. But, most importantly, John Fry had authored and co-authored over 60 books and was a well-known publisher for some of the most prestigious journals such as the *British Medical Journal*, *Lancet*, and many others.

Some of his published research includes the 'Natural history of hypertension: a case for selective non-treatment'. John



Salwa Ahmad.

Fry demonstrated how research could be produced from just being a GP by observing, studying, and analysing each patient's problems as they came through the door.

THE PRIMARY CARE TEAM

Primary care has evolved from being the sole responsibility of a GP to a multidisciplinary team (MDT) collaboration. While there has been some debate on who constitutes the primary care team, Kirti Doekhie and colleagues reported that one's perception consists of three factors: team familiarity, regular knowledge exchange between all members of the team, and sharing a synonymous view on caregiving. Due to the subjective nature of the definition, each general practice within England employs different members within their practice. For example, at Balham Park Surgery there are doctors, practice nurses, a prescription team, healthcare assistants, phlebotomists, physiotherapists, a social prescriber, as well as a physician associate. But if we were to compare that to Meadow View Surgery, then their primary care team consists of only doctors, practice nurses, a healthcare assistant, and a phlebotomist.

One of the methods used to discover how the MDT has influenced current research in

primary care was to go on the *British Journal of General Practice* website and compare the role of the authors between present times and the past, going as far back as 1953. In the 1953 'The pendulum swings' newsletter it stated that 'evidence has come to light that a great deal of research work is being done by General Practitioners' with no reference to an MDT. But this would be of no surprise, as Brian Frost-Smith mentioned that during the 1950s a normal general practice would include the GP and on some occasions a secretary, which in many cases would be the GP's wife because many doctors could not afford one at the time.

Some of the first mentions of the importance of certain roles in primary care were in the research article 'Rheumatoid arthritis. Occupational therapy' in 1969, and 'The practice nurse—a review' in 1984. When analysing all the research articles and reports dating from 1953, initially they would only be authored by one person, who would be a GP. This remained the case until November 1959 when an article titled 'A survey of patients with chronic illness in a general practice' was co-authored by two doctors, JG Bancroft and CAH Watts. Whether they were part of the same general practice or a different one, the lesson remains the same: this was the beginning of a shift from solo GP work to collaborative work within the medical field.

In current times many professional bodies have been founded for many healthcare professional roles, with some issuing their own journal, for example, the Royal College of Nursing. These journals include recent research articles on various subjects among different medical fields and illustrate the variety of authors associated with primary healthcare research.

In a recent issue of the *British Journal of General Practice*, the author is no longer a sole GP but instead a collection of people with varying backgrounds, scientific and non-scientific. In the research article titled 'Association between oral anticoagulants and

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COVID-19-related outcomes: a population-based cohort study, 30 people are credited as authors, with roles ranging from GPs, epidemiologists, and research fellows, to software developers, consultant engineers, biostatisticians, and assistant professors.

The role of software developers in the context of medical research is to develop algorithms for data analysis and biological system modelling. This would allow us to extract the relevant data from national and local databases. As this research required extensive data collection from primary care, antigen testing data, hospital admissions, and death records across England, we would need specialist expertise, which is where the software developers would come in.

Then comes the role of the biostatistician. The biostatistician's agenda is to understand the relevant data received and make valid inferences from it to assist in answering the research question. While the concept of statistics has been around since the late 17th century, there was an explosion of advancement in statistics due to the simultaneous emergence of computers.

HEALTHCARE ASSISTANTS

In the early 1900s, as the research was commonly conducted by GPs themselves, they played the role of collecting population data, extrapolating the relevant data for their research topic, analysing the data, and then making valid inferences. Hence, in a sort of way, they were the biostatisticians of primary care research, but it is important to keep in mind that the data they would collect would commonly only ever involve their own population at risk defined by the location of their affiliated general practice. Both roles have made it possible to complete current primary research studies much faster than ever before. In the case of healthcare assistants, they have been increasingly employed by both primary and secondary care, with different roles depending on the organisation or practice employing them. A healthcare assistant is not governed by any professional body and there is limited research into the effectiveness of the role. While some organisation roles may not include assisting in research and audits in their job descriptions, others may. In a

2004 resource manual produced by the Gwynedd Local Health Board, one of the roles a healthcare assistant would have to undertake included assisting in audits when required and this would involve the role of sampling the notes, data input, and information gathering. This would allow research to be distributed across the primary care team, which means that more of the research would incorporate a range of staff members from the primary practice and not just the GP alone. In qualitative studies where interviews need to be held, if different people with different roles conduct the interviews separately then that allows room for bias. This may include contrast effect bias, variable questioning bias, cultural noise bias, and negative emphasis bias. For example, the *BJGP* qualitative research titled 'Remote primary care during the COVID-19 pandemic for people experiencing homelessness: a qualitative study' was carried out at three different sites made up of a community nurse-inclusion health service and two primary care services. With an MDT team, every member comes from a different set of socioeconomic backgrounds that can fundamentally improve research outcomes. In this research by Howells *et al*, one researcher had first-hand experience of being homeless. This experience assisted in engaging with the target population. This would not only build a rapport but also allow for more participation in the research and subsequently maximise diverse participation.

Furthermore, as the primary care team is expanding with different roles, more and more research being published is about the effectiveness of certain primary care team roles on the patient outcome. For example, in the research article titled 'Physiotherapist as an alternative to a GP for musculoskeletal conditions: a 2-year service evaluation of UK primary care data', we can first acknowledge that, even though this is primary care research, the research itself was organised by four extended-scope physiotherapists.

As there is an ever-growing ageing population and an increasing birth rate, the GP workload is not the same as it was 50 years ago. Hence, one of the methods to overcome this obstacle is handing some of the GP's workload to other

healthcare professionals who have the skills and training to do it. This research by Downie *et al* concluded that patients with musculoskeletal conditions can be assessed and managed effectively by physiotherapists instead of GPs.

PUBLICATION THEMES

In comparison with John Fry's time, the subject of the article has also shifted. Previously the topics of articles were on statistics of a disease, but now there is variability ranging from the effectiveness of certain healthcare professional roles on patient care to the evaluation of new services such as implementing video group consultations. Prior to COVID-19, there was talk of shifting to dual face-to-face and video consultations, but the pandemic accelerated this implementation. As a result of this mass change across England and the globe, more primary care research is on the topic of evaluating how effective telemedicine is. And, as primary care now includes practice nurses, physiotherapists, and GPs, each of them carries out their own video consultation in their primary care setting. Hence, each publish their own research on the matter, for example, 'Video consultation use by Australian general practitioners: video vignette study' explored the attitudes of Australian GPs towards video consultation, whereas 'Patients' perspective on mental health specialist video consultations in primary care: qualitative pre-implementation study of anticipated benefits and barriers' explored patients' perspectives of mental health specialist video consultations in primary care.

In conclusion, we can see how primary health services have been reformed and restructured with one very important component being the introduction of different healthcare professionals into primary practice. And with that has come the evolution of primary care research, where research does not just involve measuring the disease burden of certain conditions, incidence rates, and studying the effect of medication withdrawals, for example, but now involves the biological, psychological, and social, effectiveness of new services being trialled, and many other topics.

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