

Priorities in integrating primary and secondary care: a multimethod study of GPs

Integrated
care: a
multimethod
study of GPs

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Abstract

Purpose – Throughout the world, healthcare policy has committed to delivering integrated models of care. The interface between primary–secondary care has been identified as a particularly challenging area in this regard. To that end, this study aimed to examine the issue of integrated care from general practitioners' (GPs) perspectives in Ireland.

Design/methodology/approach – This multimethod study involved a cross-sectional survey and semi-structured interviews with GPs in the Ireland East region. A total of 1,274 GPs were identified from publicly available data as practising in the region, of whom the study team were able to identify 430 GPs with email addresses. An email invite was sent to 430 potential participants asking them to complete a 34-item online questionnaire and, for those who were willing, an in-depth interview was conducted with a member of the study team.

Findings – In total, 116 GPs completed the survey. Most GPs felt that enhancing integration between primary and secondary care in Ireland was a priority ($n = 109, 93.9\%$). Five themes concerning the state of integrated care and initiatives to improve matters were identified from semi-structured interviews with 12 GPs.

Originality/value – The uniqueness of this study is that it uses a multimethod approach to provide insight into current GP views on the state of integrated care in Ireland, as well as their perspectives on how to improve integration within the Irish healthcare system.

Keywords Delivery of healthcare, Integrated care, Multimethod, General practice, Primary healthcare, Secondary care

Paper type Research paper

Introduction

Integrated care is an approach to care delivery that aims to address fragmentation of care services. It seeks to improve continuity of care and places patients, their families and communities at the

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centre of care (Kodner and Spreeuwenberg, 2002). The World Health Organisation (WHO) meanwhile defines integrated care as an “organisation and management of health services”, one which aims to provide people with “the care they need, when they need it”, and in ways that are “user-friendly” and that “achieve the desired results and provide value for money” (Waddington and Egger, 2008). Evidence concerning the benefits of healthcare integration is mixed and integrated care outcomes are the focus of much ongoing study (O’Farrell *et al.*, 2021). Nonetheless, the reported benefits of integrated care are many and notably include better patient health outcomes (Martínez-González *et al.*, 2014; Busetto, 2016; Murtagh *et al.*, 2021; Schöttle *et al.*, 2013), and patient care experiences (Fogolino *et al.*, 2016), reduced hospital readmissions (Damery *et al.*, 2016) and care service delivery improvements (Butler *et al.*, 2011; Martínez-González *et al.*, 2014).

The need to implement integrated care policies has become increasingly urgent throughout the world due to growing healthcare challenges posed by ageing populations with rising co-morbidities and chronic diseases (Lopez *et al.*, 2006; Organisation, 2011). The development and implementation of integrated healthcare policies has grown steadily in recent years including the “WHO global strategy on people-centred and integrated health services” report (World Health Organization, 2015).

Healthcare in Ireland is delivered through a hybrid system of public and private healthcare. GPs are the first port of call for most medical problems and serve as the gateway through which patients are referred to hospital-based specialists. In Ireland healthcare is currently undergoing major reforms, at the core of which is enhancing access to, and integration of care. The publication of “Slaintecare” (Houses of the Oireachtas, 2017) has resulted in a framework that now allows a model of healthcare which is primary care centred with an emphasis on community care. However, integrating primary and secondary care services can be particularly challenging. Research shows that primary–secondary care integration is negatively affected by various issues, including poor communication between care providers (Darker, 2013; O’Dowd *et al.*, 2017; Kozłowska *et al.*, 2018), inadequate referral pathways (O’Dowd *et al.*, 2017) and a lack of integrated care evaluation practices (O’Farrell *et al.*, 2021).

It has been suggested that the commitment and enthusiasm of care stakeholders is the key to the success of integrated care and given their position at the primary and secondary care interface, general practitioners (GPs) have a central role in this process (Valentijn *et al.*, 2013; McGeoch *et al.*, 2019; Ramagem *et al.*, 2011). To that end, this multimethod study examined GP perceptions of integrated care in Ireland. The study aimed to highlight GPs’ views on the current state of integrated care in Ireland, as well as GPs’ suggestions for initiatives that might improve integration within the Irish care system.

Methods

GPs’ views on integrated care were examined using a concurrent multimethod design (McCusker and Gunaydin, 2015), consisting of a cross-sectional survey and semi-structured interview methods. All participants were GPs in the Ireland East Hospital Group (IEHG) region, i.e. counties Dublin, Wicklow, Wexford, Carlow, Kilkenny, Louth, Meath and Kildare. The IEHG is Ireland’s largest hospital network comprising 11 hospitals, with University College Dublin as its academic partner. The IEHG provides various acute elective inpatient and outpatient services across its hospital sites and provides services on three levels: (1) those serving local catchment areas, (2) specialist/tertiary services delivered to regional populations and (3) quaternary services delivered nationally. The IEHG also works with four Community Healthcare Organisation (CHO) partners and is the largest hospital group in Ireland, serving a population of over 1.1 million people.

Recruitment and data collection

A total of 1,274 GPs were identified from publicly available data as practising in the IEHG region. With 35% female, 74% urban, 92% computerised and 24% single-handed, GPs in this

region are representative of general practice in Ireland (Teljeur *et al.*, 2014). The study team identified 430 GPs with email addresses and an email invitations (and electronic information sheet) were sent to the 430 GPs in January 2020 asking them to complete a 34-item online questionnaire. GPs were also asked to indicate their willingness to complete in-depth semi-structured interviews at a later stage. Those who wished to participate in interviews were asked to provide further contact details and a preferred date/time to complete an interview via telephone. Twelve GPs consented to participating in an in-depth semi-structured interview and interviews were conducted with GPs through July–October 2020.

Study instruments

The survey questionnaire (Appendix 1) and interview topic guide (Appendix 2) were informed by the directives of integrated healthcare policy in Ireland (Darker, 2014), which included, enhancing links between primary and secondary care, improving communication between primary and secondary care, improving co-ordination, collaboration and co-operation between primary and secondary care, issues around responsibility and accountability at the GP-hospital interface. The study's steering group also reviewed and informed the survey questionnaire and interview topic guide prior to use. The questionnaire contained 34 items to assess the following domains (1) GP practice characteristics (e.g. no. of patients attending the practice, practice location, staff numbers), (2) GPs' views on care integration in Ireland, particularly between primary and secondary care and (3) research to enhance links between GPs and hospitals. The questionnaire contained both open and closed participant response options. For participants choosing to complete the semi-structured telephone interview, the interview topic guide included questions prompting more detailed discussion around integrated care and priorities for future research. The topic guide particularly invited participants to expand on initiatives that might enhance integration between primary and secondary care, and it also encouraged discussion regarding the COVID-19 pandemic's impact on care integration in Ireland.

Data analysis

Questionnaire data were analysed using descriptive statistical methods and SPSSv26 software. For the qualitative data, all participants were given a code (e.g. GP1) and thematic analysis was carried out informed by Braun and Clarke (2014) using NVivo V.12 software. Key themes were determined according to whether they referenced something important in relation to the overall research question. Similar concepts from the transcripts were identified and grouped and then overarching themes were identified by examining the similarities and relationships between different concepts. The coded data was analysed until it was determined that the themes identified were an accurate reflection of the participants' experience of the intervention. The "keyness" of a theme was not necessarily dependent on quantifiable measures, but in terms of whether it captured something important in relation to the overall research question. Reliability was enhanced by two authors (SD and GM) independently analysing the transcripts followed by a discussion of codes, themes, charted summaries and interpretations to agree final themes and the senior author audited the final analysis.

Ethical approval

Ethical approval was granted by University College Dublin's Human Research Ethics Committee (Reference: LS-19-02-Cullen).

Results

Questionnaire

Sample characteristics. A total of 116 of 430 invited GPs participated in the survey (response rate = 27%). Participants were largely based in urban ($n = 57$, 49.5%) and urban/rural

(*n* = 43, 37.4%) locations. In total, 97 practitioners (92.3%) received both private and GMS (*General Medical Service*) patients. Practice patient populations ranged from 700 to 15,000. Sixty-seven (57.8%) participating GPs were male. Eighty (68.7%) were ≥50 years of age, 32 (27.8%) were aged 35–49 years and four (3.4%) were ≤34 years. The number of full-time GPs ranged from 0 to 8, with most practices having either one (*n* = 40, 34.5%) or two full time GPs (*n* = 31, 29.2%). The number of part-time GPs ranged from 0 to 12 per practice, with one (*n* = 20, 18.1%), two (*n* = 34, 30.9%) and three (*n* = 20, 18.1%) part-time GPs most reported. 74 (77.8%) practices had full and/or part-time nursing staff.

Perceptions of integration of care. Most participants felt that enhancing integration between primary and secondary care was a priority for future development (*n* = 109, 93.9%). Participants also reported that integration was lacking between general practice and the following local services: hospitals (*n* = 81, 69.8%), primary care teams (*n* = 83, 71.6%) and health/social care non-governmental organisations (NGOs) (*n* = 96, 82.6%).

Participants identified the following as interventions that would enhance integration between primary and secondary care: enhanced communication (*n* = 60, 56.6%), adjustment in how OPD/clinics are accessed and run (*n* = 17, 16%), improved access to diagnostics (*n* = 9, 8.5%), increased primary care resources (*n* = 8, 7.5%) and increased multidisciplinary team (MDT) input (*n* = 4, 3.8%).

Identified communication initiatives to enhance primary/secondary relations (*n* = 45) included: improved electronic communication (IT system/e-referrals/prescribing systems) (*n* = 30, 62%), enhanced discharge letters (*n* = 5, 11.1%), liaison nurse initiatives (*n* = 3, 6.7%), access to meetings and committees (including Local Integrated Care Committees (LICC's)) (*n* = 8, 17.7%) and increased telephone availability of hospital consultants (*n* = 2, 4.4%).

Integrated care and hospital readmissions. A median of six patients per practice were identified by GPs from patients' chart records as being readmitted to hospital within 30 days of discharge within the past six months. GPs suggested integrated care interventions to prevent such readmissions which are outlined in [Table 1](#).

Integrated care research priorities. Sixty-seven (58.3%) participants said they would like to be involved in research to enhance links between GPs and hospitals. Identified priority areas for future integrated care research included mental health (*n* = 105, 90.4%), cardiovascular disease (*n* = 103, 88.7%), chronic illness (*n* = 98, 84.9%) and cancer (*n* = 91, 78.2%).

Qualitative interviews

Five themes emerged from semi-structured interviews with 12 GPs (the interviews ranged from 14–26 min). The themes were (1) enhanced communication, (2) responsibility and accountability, (3) population health approach, (4) impact of COVID-19 and (5) research/evaluation. Seven of the 12 interviewed participants were female, 10 were based in Dublin, and two were based outside Dublin.

Table 1.
What interventions
might prevent
re-admissions

Response option;	No. of participants choosing this response (percentage)
Nurse liaison	66 (56.9%)
Practice integrated care teams	57 (49.14%)
Case management	45 (39.79%)
Patient education	40 (34.48%)
Review by practice team in the surgery	32 (27.59%)
Telemedicine	27 (23.28%)
Training and education of GPs	14 (12.07%)
Review by practice team at patient's home	12 (10.34%)

Enhanced communication

Improved communication between GPs and secondary care was identified as major integrated care priority.

We need to have an ongoing conversation between GPs and hospitals. (GP 8)

Participants emphasised that improved communication between primary and secondary care would enhance the quality of patient care, care continuity, care efficiency and GP/secondary care relationships. Improved electronic communication technology was often cited as a solution to communication problems between GPs and secondary care.

The communication can be verbal, but it's better written and it's best electronic. (GP 8)

Responsibility and accountability

Several participants indicated that GPs bear a disproportionate amount of responsibility and accountability when it comes to patient care.

I think the hospital tends to like to leave kind of a lot of the responsibility and accountability with GPs. (GP 7)

GPs said that a more even distribution of responsibility/accountability between GPs and hospitals is needed.

The responsibility for patient care falls on lots of people's shoulders and I think that this whole thing of blame in medicine is not good. (GP 5)

Population health approach

A population health approach is aimed at improving the health of an entire population. It includes action to reduce the occurrence of ill health, action to deliver appropriate health and care services and action on the wider determinants of health (Buck *et al.*, 2018). Some participants felt that primary–secondary care integration would benefit from a population health approach whereby the nature of primary–secondary care relations would be standardised to the greatest possible extent throughout Ireland. However, other participants had concerns about this approach.

I think a population approach has its limitations. Services in the east of Ireland are very different from those in the west, and different kinds of problems are more present in certain areas. (GP 1)

Overall, participants were unsure how well a population health approach would work in practice.

It would have to be done on a trial basis to see how it works. (GP 7)

Impact of COVID-19

Participants had mixed feelings concerning the COVID-19 pandemic's impact on primary–secondary care integration. All participants were in agreement that the pandemic ceased many secondary care services for long periods, either partially or completely.

Unfortunately, it shut it (secondary care) down, so I felt we took a retrograde step. (GP 3)

However, many participants also reported that electronic/virtual communications between GPs and hospitals improved in response to the pandemic, and that care delivery benefitted in many ways as a result.

There's been huge improvement in terms of IT systems and electronic prescribing. (GP 10)

Research and evaluation

Participants often said that ongoing assessment and research is needed to evaluate initiatives aiming to improve primary–secondary care integration.

We keep making changes, but we never evaluate how these changes affect healthcare. (GP 3)

Commonly identified priority research areas included integrated care initiatives for vulnerable patient groups (e.g. older, chronic disease, mental health and post-COVID populations), and integrated care's impact on clinical, system level and patient experience outcomes. Participants also said better supports were needed to enhance GP involvement in research. These supports included increased funding, staff, time, technical and education/training supports.

Discussion

These results provide insights into current GPs' views on the state of integrated care in Ireland, as well as their perspectives on how to improve integration within the Irish care system. There were no notable differences in results across the sample in terms of GP characteristics (urban/rural, etc.). The overall respondent characteristics are consistent with those of the overall GP population in Ireland, although it is important to note that due to the method of recruitment, sampling bias may exist in those GPs who are more motivated and enthusiastic about the issue under study are overrepresented amongst those recruited. GPs in Ireland feel that integrated care, particularly between primary and secondary care, is lacking in many respects, and that improving integration between primary and secondary care is a priority issue. Integration issues were deemed to be a product of various problems, most notably poor communication between care providers, and few and/or ineffective care resources such as IT systems, liaison staff, and integrated care committees. A range of initiatives to enhance integrated care were suggested including commitment to improve communications between care providers, better communication technology in care settings, increased liaison staff, a fairer sharing of responsibility and accountability between primary and secondary care providers, population level integrated care frameworks and more research concerning integrated care management of vulnerable patient groups, and the efficiency of implemented integrated care initiatives. GPs also suggested integrated care interventions to prevent hospital readmissions (Table 1), including nurse liaison, practice integrated care teams, patient education and increased use of telemedicine. However, research to examine the effectiveness of these interventions is required. Additionally, respondents' strong support for involvement in future research that aims to enhance links between GP and hospital care is notable. Expressed priority areas for research of mental health, cardiology, chronic illness and cancer are consistent with major drivers of hospital readmissions and overall healthcare costs (Hourigan *et al.*, 2018; Moloney *et al.*, 2004; Fabbian *et al.*, 2015). GPs' responses in the qualitative interviews provide additional insight into these perspectives, with an emphasis on continuing assessment and research of new initiatives following their implementation.

Poor integration between primary and secondary care is well documented in existing literature (Darker, 2013; O'Dowd *et al.*, 2017; Kozłowska *et al.*, 2018) but research exploring GPs' views of integrated care in Ireland is limited. This study advances the state of existing integrated care literature by providing a comprehensive and detailed account of GPs' views on integrated care in Ireland. Meanwhile, the proposed causes of fragmentation within Ireland's care system (e.g. communication and resource issues) largely resemble those cited in previous research (O'Farrell *et al.*, 2021; Kozłowska *et al.*, 2018). Other identified causes of fragmentation (e.g. the COVID-19 pandemic and disproportionate burden for patient care placed on GPs) are less apparent in the existing literature. Many of the initiatives suggested by GPs to improve primary–secondary care integration (e.g. communication initiatives, increased staff, population health frameworks) have also been well documented, and

occasionally evaluated by previous studies. Thus, this study's findings suggest that despite country specific differences (e.g. population level care needs and availability of care resources), integrated care priorities are largely universal.

This study's findings have significant implications for the understanding of integrated care in Ireland, particularly with regards to integration between primary and secondary care. The findings also indicate that greater effort should be made to improve integrated care in Ireland, and that policy initiatives to enhance matters such as communication, resource availability (e.g. liaison staff and IT systems), management of vulnerable groups and evaluation practices will have considerable benefits. As mentioned, it was also apparent that many of this study's findings resemble those of previous studies conducted in other countries. Thus, it is likely that the initiatives proposed by GPs in this study will resonate with care stakeholders worldwide. It is unclear whether the more novel initiatives proposed by GPs in this study (e.g. attempts to lessen GP patient care burden) will resonate with international stakeholders to the same extent. Future research concerning such matters in other countries may be necessary. Other recommended areas for future research include secondary care professionals' views on integration between primary and secondary care, the COVID-19's impact on integrated care, and integrated care management of vulnerable and/or comorbid patients. Increased use of telemedicine is an intervention GPs are eager to continue post-pandemic (Murphy *et al.*, 2021), especially for vulnerable and/or co-morbid patients and research to date has shown a high level of acceptability for its use by both patients and practitioners (Hincapié *et al.*, 2020). However further research is required to optimise the use of telemedicine in general practice.

In terms of methodology, this study's use of multimethod was beneficial as it facilitated a more comprehensive and richer understanding of the study topic than would have been possible using either quantitative or qualitative methods alone (Shorten and Smith, 2017). Online survey methods also proved to be efficient and feasible as they permitted a rapid and user/resource friendly way of distributing questionnaires and collecting questionnaire responses. Further, it should also be said that whilst conducting qualitative interviews in-person would have been ideal, telephone interviews were sufficient in terms of achieving our study aims, and they were also considerably more feasible as strict COVID-19 restrictions were in place in Ireland during the data collection period. Participant recruitment meanwhile substantially benefitted from the public availability of GP data. Having said this, participant recruitment might have been more successful had GP email addresses been more publicly available than they were. Lastly, it is possible that because the survey was limited to the Ireland East region of Ireland, the findings may not be representative of GPs' views throughout Ireland, as well as internationally.

Conclusion

This study's findings show that GPs feel that there is room for considerable improvement of integrated care in Ireland, particularly between primary and secondary care, and that much work is needed if matters are to improve. GPs believe that integrated care in Ireland will benefit from various initiatives, particularly those concerning improved communications and sharing of responsibility between care providers, increased provision of resources and greater emphasis on evaluation of care practices. Going forward, integrated care research, practice and policy, both in Ireland and internationally, should consider these findings, as well as the views of GPs and other key care stakeholders more generally.

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(The Appendix follows overleaf)

Appendix 1: Enhancing GP / hospital links – Questionnaire

Appendix 2: Interview Schedule for Semi Structured Interviews with GPs

Appendix 1: Enhancing GP / hospital links – Questionnaire

Enhancing integration of care

1. Is enhancing integration between primary and secondary care a priority area for future development?

Yes No

2. Can you think of one initiative that would do this?

Your answer

3. In the past six months, approximately how many patients who had been discharged from hospital were re-admitted again within 30 days?

Your answer

4. What interventions (if funded) might prevent such re-admissions from occurring (please tick all that apply)?

Training and education of GPs

Review by practice team in the surgery

Review by practice team at patient's home

Case management

Patient education

Telemedicine

Practice integrated care teams

Nurse liaison

Other

5. In reviewing a patient who has recently been discharged from hospital, on what areas would you focus (please tick all that apply)?

Appropriate primary care team follow up

Assessment of current health status

Medication review

Appropriate hospital follow up

Other

6. Are you interested in being involved in research that aims to enhance links between GP and hospital care?

Yes No

7. What supports would encourage your practice to become involved in research on such initiatives?

Your answer

For these statements, please rate from 1 to 5, where 1=strongly disagree and 5= strongly agree:

8. General practices and the local hospitals are well integrated

Strongly disagree 1 2 3 4 5 Strongly agree

9. General practices and the local primary care teams are well integrated

Strongly disagree 1 2 3 4 5 Strongly agree

10. General practices and local NGOs involved in health and social care delivery are well integrated

Strongly disagree 1 2 3 4 5 Strongly agree

Priority areas for future research in integrated care

We want to know how important you consider each of these areas for future research that leads to initiatives that enhance GP / secondary care links

Please score from 1 (not at all important) to 5 (very important)

11. Cancer

Not at all important 1 2 3 4 5 Very important

12.	Ophthalmology / ENT						
	Not at all important	1	2	3	4	5	Very important
13.	Cardiology						
	Not at all important	1	2	3	4	5	Very important
14.	Women's health						
	Not at all important	1	2	3	4	5	Very important
15.	Children's health						
	Not at all important	1	2	3	4	5	Very important
16.	Mental health						
	Not at all important	1	2	3	4	5	Very important
17.	Lifestyle and health behaviours						
	Not at all important	1	2	3	4	5	Very important
18.	Chronic illness						
	Not at all important	1	2	3	4	5	Very important
19.	Medical education						
	Not at all important	1	2	3	4	5	Very important
20.	Quality improvement						
	Not at all important	1	2	3	4	5	Very important
21.	Population health / health services research						
	Not at all important	1	2	3	4	5	Very important
22.	Genomics & Clinical Genetics						
	Not at all important	1	2	3	4	5	Very important
23.	Other (please specify)						
	<u>Your answer</u>						

Enhancing GP / hospital links

About you / your practice

Integrated
care: a
multimethod
study of GPs

13

24. Type of practice

Rural

Urban

Mixed

25. Type of practice

Private

GMS

Mixed

26. Postal area

Your answer

27. Age

<35

35-49

>49

28. Gender

Male

Female

29. GPs in practice (fulltime)

Your answer

30. GPs in practice (part-time)

Your answer

31. Practice nurses in practice (fulltime)

Your answer

32. Practice nurses in practice (part-time)

Your answer

33. What IT system does your practice use?

Socrates
Health One
Helix Practice Manager
GP Clinical

34. Approximately how many patients attend your practice?

Your answer

Appendix 2: Interview schedule for semi structured interviews with GPs

1. *Integrated care generally*

- (1) Is enhancing links between primary and secondary care a priority for future development? In what way?
- (2) Can you think of one initiative that would achieve this?
- (3) How might the following areas enhance links between GP/hospital links?
 - Communication
 - Coordination, collaboration, cooperation
 - Responsibility and accountability
 - Population approach

2. *Priority research themes and enablers*

- (1) What are the priority research themes in the area of integrated care?
- (2) Are you interested in collaborating with future research on this issue?
- (3) What supports would support your practice's ability to conduct research on integrated care? In research generally?
- (4) What are priority research themes (in general practice broadly)?

3. *COVID19 and the case for integrated care:*

- (1) How has the pandemic impacted on your practice's links with secondary care?
- (2) Have any healthcare initiatives introduced due to COVID19 impacted on your practice's links with secondary care? What and how? Positive/negative?
- (3) For patients who had COVID-19, how might enhanced links with secondary care improve health outcomes?

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