ORIGINAL ARTICLE

EMTs and GPs: what do we think of each other?

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Background: Ireland's health services are undergoing dramatic reorganisation. The establishment of general practitioner (GP) out of hours cooperatives and the integration of current ambulance services into a national ambulance service are among the issues that will impact on prehospital care of emergencies. The study aimed to explore the perceptions of GPs and emergency medical technicians (EMTs) of their own and each other's roles in the context of such reforms.

Methods: A census of all GPs (511) and EMTs (301) in three of Ireland's eight health board regions was undertaken. A questionnaire containing 31 statements asked respondents to indicate their agreement (or lack of it) in areas such as general relationships, care, and training, roles in emergencies and future developments.

Results: Of the personnel contacted, 72% of GPs and 75% of EMTs responded. They report excellent working relationships, agree that the ambulance service is of high quality, and that GPs are willing to provide care in emergencies. However, working links are less satisfactory for EMTs, who report a far higher perception of GP use of emergency ambulances than reported by GPs. Both groups are interested in innovative future links.

Discussion: Convergence between the professional groups in different geographic areas and between the disciplines across the areas is striking. They include areas of satisfaction and dissatisfaction. The need for improved liaison between the disciplines is clear.

Ireland's Health Reform Programme formally began in January 2005 with the legal integration of what had been eight health boards into a single national health agency, the Health Services Executive.¹ With that move, plans were unveiled for the development of a national ambulance service from the eight health board ambulance services (Dublin Fire Brigade's ambulance service is a separate agency).² The Health Reform Programme envisages a move from the present 45 acute hospitals (each with an emergency department) to around 13 regional hospitals providing centralised services.³ It also aims to significantly enhance primary care services with a special emphasis on development of general practitioner (GP) cooperatives and improved out of hours services. Such changes have significant implications for the services and personnel involved.

GP cooperatives have developed rapidly in Ireland since the first, Dubdoc, was established in Dublin's south inner city in 1998. In 2002, 11 cooperatives covered 1.8 million of the country's 4 million population and received almost 340 000 contacts.⁴ The cooperatives continue to expand, and closer links with the ambulance services are being examined at a number of levels to ensure mutual support and efficient use of available resources.

In their review of the effects of attempts at integration of National Health Service out of hours primary care services in the UK, Lattimer *et al* showed that call integration to a single centre was possible but was accompanied by an increase in emergency ambulance transports.⁵ In contrast, Munro *et al* had previously demonstrated a reduction in general practice out of hours workload following the introduction of NHS Direct (a 24 hour medical telephone helpline) but had not shown a significant change in ambulance activity.⁶ It is clear that changes in one service may impact on others, but little information exists on how primary care services which deal with emergencies currently perceive or understand each other's roles.

This paper explores the experience, attitudes and understanding of GPs and emergency medical technicians (EMTs)

of their own and each other's roles in the management of emergencies in the community. Such information is a prerequisite to the development of closer working links between the services, whether those links involve shared care, training, protocols, or inter-referral procedures within the new structures. The study also sought to explore the uptake of immediate care training among general practitioners; structured immediate care cardiac and trauma care courses have been available in Ireland for many years.⁷

The context for the study is the Medical Emergency Responders Integration and Training (MERIT) Project, established to explore improved pre-hospital emergency care in three pilot areas: the former North-Western, Mid-Western and East Coast health board areas. These areas are the pilot zones for the implementation of the Health Reform Programme and include major urban, suburban, and rural areas.

METHODS

A questionnaire census of all GPs and all EMTs in the three regions was undertaken in mid 2005. Mailing lists were compiled using HSE primary care unit listings and staff lists from the relevant ambulance services. Staffing structures within individual ambulance services are similar, with EMTs making up the large majority of staff, together with a small number of emergency medical dispatchers and management and training staff; paramedics had not become operational at the time of the study.

The questionnaire was anonymous but included an introductory descriptive section for each group. This was followed by a common core of 31 statements, with which respondents indicated their level of agreement using a 4 point scale (strongly agree at one end, to strongly disagree at the other). The themes included general relationships, care and training, roles in emergencies, and future developments.

Abbreviations: EMT, emergency medical technician; GP, general practitioner

Table 1 Response rates and characteristics

	Number	Response rate	Age >50 years	Mainly urban practice
GPs				
Area 1	183	76%	47.9%	75.4%
Area 2	151	62%	39.6%	27.6%
Area 3	177	76%	38.3%	5.3%
EMTs				
Area 1	67	77%	17.7%	13.7%
Area 2	100	77%	11.7%	5.2%
Area 3	134	73%	17.3%	1.0%

A second mailing was undertaken and data were collated and analysed using SPSS (version 11; SPSS Inc., Chicago, IL, USA). Statistical analysis included *t* test for paired samples using GP/EMT pairs from the same areas.

Results are presented in tables indicating only "agree/strongly agree" data for clarity. In general "disagree/strongly disagree" data contributed no additional information.

RESULTS

Of 511 GPs consulted, 369 (72%) responded (range 76 to 62% across the three areas). Of 301 EMTs consulted, 226 (75%) responded (range 77 to 73%). Table 1 summarises the key characteristics of both groups. EMTs tended to be younger and less likely to have a predominantly urban practice.

Overall, 72.3% of GPs (86.2–62.0%) had attended an immediate care cardiac course at some point, while 46.7% (60.6–32.4%) had attended an immediate care trauma course.

Table 2 summarises statements regarding the general relationships between the groups. Their relationships are agreed to be excellent; however, EMTs are less confident in their mutual awareness of working procedures. In addition, 30.4% of EMTs felt that current working links are adequate, while 59% of GPs felt they are adequate. Neither group felt strongly that newly developed GP cooperative arrangements had improved links; 37.9% of GPs and 42.7% of EMTs agreed that an improvement had occurred.

Table 3 shows that both groups agree that most contacts are about non-emergency cases, that EMTs are more confident than GPs in the ability of GPs to manage serious medical or trauma emergencies and that strong agreement exists on the value of a contribution by EMTs and ambulance services to general practice training.

A significant difference exists between the groups in their estimates of the frequency of 999/112 calls by GPs each year, with 68% of GPs indicating less than five such calls per year; by contrast, EMT estimates of such calls were far higher.

Table 4 summarises attitudes towards care in the future. Both groups strongly endorse close links between ambulance services and GP cooperatives, with support for inter-referrals,

common protocols and mutual support. Although statistically different, GPs and EMTs strongly agree on the introduction of paramedics with advanced training, and GPs are clearly not threatened by the possible contributions of such carers. Prehospital thrombolysis and general practice defibrillation are also strongly endorsed.

DISCUSSION

This study demonstrates convergence between GPs and EMTs on a wide range of issues, but also indicates important differences. The study explores self reported attitudes, and does not have validating practice or observational data, but nevertheless indicates consistent trends within and between the groups involved. It is noteworthy that the range of results is wider among EMTs than among GPs, particularly in the answers relating to general relationships and training.

Agreement between the groups exists on the perceived efficiency of the ambulance service, the predominance of non-emergency cases, and future training and clinical links between the participants. However, differences exist in key areas, and dissatisfaction is also shared in a number of themes.

While both groups indicate that they have excellent working relationships, familiarity with each other's working roles is less assured, particularly among EMTs. A very significant difference emerges in perceived frequency of emergency calls by GPs; EMTs believe that GPs make many more such calls than do GPs themselves. In addition, EMTs are less satisfied with current working arrangements; twice as many GPs report satisfaction with these arrangements, although the analysis does not reach statistical significance.

It is clear that a communication need exists between the groups to address such areas of unfamiliarity and to improve working links. In particular, EMT dissatisfaction with current working arrangements may be driven by the perception of excessive emergency calls by GPs and should be addressed.

Investment in general practice in Ireland in recent years has focused predominantly on the establishment of out of hours cooperatives. It is of concern that around 60% of respondents (both general practitioners and EMTs) do not feel that the establishment of cooperatives has improved their working links. In previous work, staff in Irish cooperatives raised doubts about their role as an emergency service, particularly in areas where they were perceived as "filling in" for a stretched ambulance service.⁸ By contrast, the large majority of respondents to this survey were very positive about shared protocols and inter-referral arrangements between cooperatives and ambulance services. Once again, improved liaison would seem to be essential to address the concerns of both groups and to explore their interest in shared procedures.

The initiative by the Faculty of Pre-Hospital Care to establish a code of practice between immediate care doctors and NHS ambulance trusts is an excellent example of such liaison.⁹ It demonstrates professional and interdisciplinary

Table 2 Statements regarding general relationships (all answers are numbers who agreed/strongly agreed)

	GPs, % (range)	EMT, % (range)	p
GPs and EMTs have excellent working relationships	85.9 (88.7 to 84.0)	63.1 (87.7 to 46.8)	0.229
GPs and EMTs are very familiar with each other's working procedures	48.7 (50.0 to 47.8)	29.7 (50.0 to 19.5)	0.184
Working links between GPs and the ambulance service are adequate for current needs	59.0 (60.6 to 56.7)	30.4 (50.0 to 15.6)	0.098
The ambulance service responds promptly and efficiently to emergency or urgent calls	87.9 (93.0 to 83.6)	87.0 (89.8 to 84.3)	0.839
GP cooperatives have significantly improved working links between ambulance services and GPs	37.9 (46.2 to 30.3)	42.7 (60.2 to 32.5)	0.697

Table 3 Statements regarding care and training (all answers are numbers who agreed/strongly agreed)

	GPs, % (range)	EMT, % (range)	p
Most contacts between GPs and the ambulance service are about cases which are not emergencies	64.0 (73.9 to 54.2)	63.0 (76.7 to 43.9)	0.937
Most GPs call an ambulance in an emergency less than five times per year	68.1 (71.8 to 63.8)	17.7 (27.3 to 10.2)	0.008*
Most GPs are adequately trained to deal with serious medical emergencies	36.0 (54.3 to 25.4)	54.1 (81.6 to 39.2)	0.059
Most GPs are adequately trained to deal with serious injuries	27.9 (41.5 to 19.0)	39.7 (62.3 to 25.5)	0.121
In emergencies, GPs are always willing to provide medical assistance	84.0 (89.4 to 77.5)	43.3 (80.6 to 44.2)	0.116
EMTs /ambulance services can make a useful contribution to the ongoing training of GPs	88.8 (91.5 to 85.2)	94.6 (100 to 87.8)	0.387

*Significant.

Table 4 Statements regarding future care models (all answers are numbers who agreed/strongly agreed)

	GPs, % (range)	EMT, % (range)	p value
If requested by the ambulance service, GPs should provide assistance in all emergencies	83.4 (87.2 to 81.3)	84.5 (86.7 to 80.6)	0.584
GP coops and ambulance services should have common protocols to respond to certain types of calls	88.6 (96.8 to 81.0)	96.0 (98.0 to 93.9)	0.326
In certain cases the ambulance service should be able to refer callers to their GP or to a GP cooperative instead of sending an ambulance	75.6 (79.8 to 70.1)	87.5 (93.5 to 82.7)	0.187
Paramedics capable of intravenous access, drug administration and advanced airway management would improve emergency care in my region	90.5 (92.6 to 88.0)	95.8 (97.4 to 94.1)	0.033*
Paramedics will undermine the role of GPs	3.9 (7.6 to 0)	6.0 (9.1 to 3.9)	0.317
All GPs should have access to a defibrillator	85.6 (95.7 to 73.9)	97.3 (98.0 to 96.1)	0.212
Pre-hospital thrombolysis should be widely available	73.0 (84.0 to 60.6)	93.7 (94.9 to 92.2)	0.091

*Significant.

practice focused on achieving the best results for patients, both in the short and longer terms.

More than 70% of GPs who responded to this study have attended immediate care cardiac training at some point and almost half have attended immediate care trauma training. However, only a minority of GPs are confident of their ability to manage serious medical emergencies or serious injuries. Although EMTs are more confident in the ability of GPs in these situations, a clear training need arises that may not be addressed by "coursework"; the interest displayed by both groups in shared training is impressive and may provide an opportunity for ongoing continuing medical education activity to maintain skills and ensure familiarity between the agencies.

This study has demonstrated shared interest by GPs and EMTs in a wide range of issues, has identified a clear need for improved communication between the groups, and has shown that both groups are keenly interested in working together on training and service initiatives in the future. It may act as a model for further attitudinal research among these groups and will certainly provide a baseline against which to measure progress.

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