

Medical Student learning in the Pre-Hospital Environment; an untapped resource?

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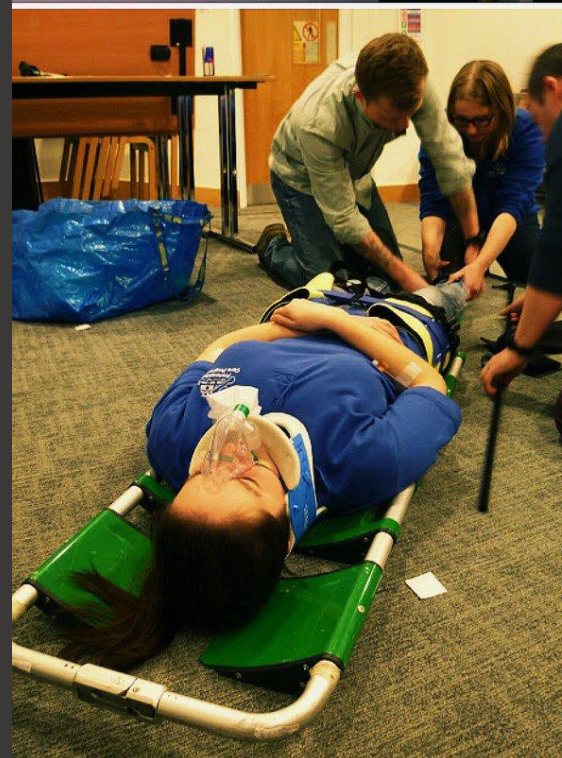
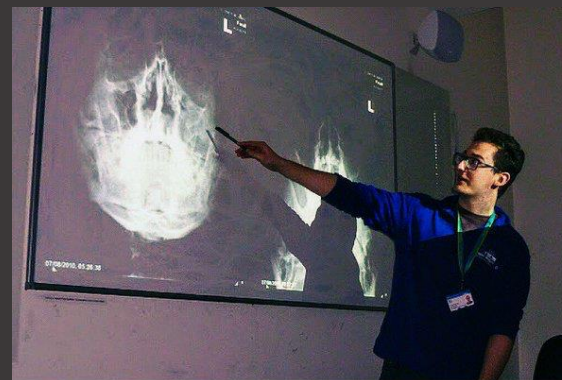


Medical Student learning in the Pre-Hospital Environment; an untapped resource?









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Why?

Undergraduate

Community health care eg:
virtual ward,
geriatric
outreach, HITH

Reflect current healthcare
needs

Holistic care

Patient journey

Changing learning priorities

Communication skills

Inter-disciplinary team
work

Patient's perspective

Acknowledging culture within illness

Managing diagnostic uncertainty

7 Working with colleagues

- Know about, understand and respect the roles and expertise of other health and social care professionals
- Be able to demonstrate effective teamworking and leadership skills
- Be willing to lead when faced with uncertainty and change.

49 Clinical education must reflect the changing patterns of healthcare and provide experience in a variety of environments including hospitals, general practices and community medical services.

50 From the start, students must have opportunities to interact with people from a range of social, cultural and ethnic backgrounds. This might involve visiting families expecting a baby, visiting an elderly or disabled person, or taking part in community projects that are not necessarily medically related. Such contact with patients encourages students to gain confidence in communicating with a wide range of people, and can help develop their ability to take patients' histories and examine patients. During the later years of the curriculum, students should have the opportunity to become increasingly competent in these skills and in planning patient care.

'Tomorrow's Doctor', General Medical Council. 2009

2

MEDICAL EDUCATION AND TRAINING RESPONSIVE TO COMMUNITY HEALTH NEEDS

Promoting medical education and training that is responsive to the workforce needs of the Australian community

Actions

- 2.1** We will ensure that the changing health care needs of Australian communities and changes in health delivery are reflected in the requirements for medical professional practice and education.
- 2.2** Using the accreditation standards and procedures, we will work with medical training providers to demonstrate how medical programs respond to the community needs for medical workforce.

Integration

Integration includes both horizontal (within a program segment or year) and vertical (across successive program segments or years) integration of related subject matter. The process of integration allows students to see how scientific knowledge and clinical experience are combined to support good medical practice.

Interdisciplinary learning

Interdisciplinary learning occurs when medical practitioners from two or more medical disciplines learn about, from and with each other to enable effective collaboration and improve health outcomes.

Interprofessional learning

The AMC uses the World Health Organization definition of interprofessional education:

'Interprofessional education' occurs when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes.

- Professional is an all-encompassing term that includes individuals with the knowledge and/or skills to contribute to the physical, mental and social well-being of a community.

Collaborative practice in health-care occurs when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, carers and communities to deliver the highest quality of care across settings.

- Practice includes both clinical and non-clinical health-related work, such as diagnosis, treatment, surveillance, health communications, management and sanitation engineering.³

Decreased lecture
theatre/classroom time

Increased placements with non-medical specialties

Increased longitudinal learning

Changing learning methods

Increased simulation

Increased reflection

Increased experiential learning

Increased community placements

Table 4.2 (continued): Emergency department presentations, by triage category and arrival mode, states and territories, 2015–16

Triage category and arrival mode	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total ^(a)
Non-urgent									
Ambulance, air ambulance or helicopter rescue service	12,873	4,245	4,246	1,575	2,094	590	n.a.	814	26,437
Police/correctional services vehicle	2,225	268	946	520	403	1,967	n.a.	411	6,740
Other ^(b)	358,555	142,840	63,628	56,320	30,944	12,935	n.a.	13,314	678,536
Not reported	148	0	0	26	9	125	n.a.	0	308
<i>Total</i>	<i>373,801</i>	<i>147,353</i>	<i>68,820</i>	<i>58,441</i>	<i>33,450</i>	<i>15,617</i>	<i>n.a.</i>	<i>14,539</i>	<i>712,021</i>
All triage categories^(c)									
Ambulance, air ambulance or helicopter rescue service	584,483	402,047	460,663	151,507	144,255	42,037	n.a.	27,339	1,812,331
Police/correctional services vehicle	12,433	8,407	13,687	9,839	3,771	3,556	n.a.	4,527	56,220
Other^(b)	2,135,764	1,269,432	964,793	667,725	333,812	105,647	n.a.	116,593	5,593,766
Not reported	840	0	0	360	51	2,301	n.a.	0	3,552
<i>Total</i>	<i>2,733,520</i>	<i>1,679,886</i>	<i>1,439,143</i>	<i>829,431</i>	<i>481,889</i>	<i>153,541</i>	<i>n.a.</i>	<i>148,459</i>	<i>7,465,869</i>

(a) Excludes data for the Australian Capital Territory, which were not available at the time of publication.

(b) *Other* includes presentations where patients either walked into the emergency department or came by private transport, public transport, community transport or taxi.

(c) Includes almost 4,200 presentations for which the triage category was not reported.

Note: See Box 1.1 and appendixes A and B for more information on terminology, data limitations and methods.

- 24% patients arrived to ED by ambulance service (2015-2016)
= 1,812,331

‘Emergency Department Care, Emergency Department Statistics 2016-2017’, Australian Government Institute of Health and Welfare.

<https://www.aihw.gov.au/getmedia/ed894387-423b-42cd-8949-90355666f24d/20407.pdf.aspx?inline=true>



Why?

Postgraduate

Shared mental model

Patient perspective

Evolving disease process

Community
care/admission
avoidance

Continuity of care

Social
circumstances

Allied health
interventions

Shared decision making

Multi-agency
involvement



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[Clin Teach](#). 2012 Jun;9(3):168-72. doi: 10.1111/j.1743-498X.2012.00528.x.

Introducing medical students to prehospital care.

[Ahmad M](#)¹, [Goodsman D](#), [Lightbody E](#).

[+ Author information](#)

Abstract

BACKGROUND: Studies show that prehospital care is an important, yet often neglected part of the medical undergraduate curriculum. Thus, the Prehospital Care Programme (PCP) was introduced at Barts and the London School of Medicine and Dentistry in 2008, aiming to expose medical undergraduates to this unique area of medicine.

[Emerg Med J](#). 2010 Feb;27(2):147-50. doi: 10.1136/emj.2008.066654.

Improving medical students' understanding of prehospital care through a fourth year emergency medicine clerkship.

[Merlin MA](#)¹, [Moon J](#), [Krimmel J](#), [Liu J](#), [Marques-Baptista A](#).

[+ Author information](#)

Abstract

OBJECTIVES: The objective of this study was to survey medical students for a measurable opinion or knowledge increase in prehospital care after a fourth-year clerkship in emergency medicine (EM). The goal of the mandatory prehospital care aspect of the clerkship was twofold: to diminish the prehospital knowledge gap in medical school by teaching students about prehospital protocols and disaster medicine and to increase student interest.

Oxford University medical students to be England's first Student Responders

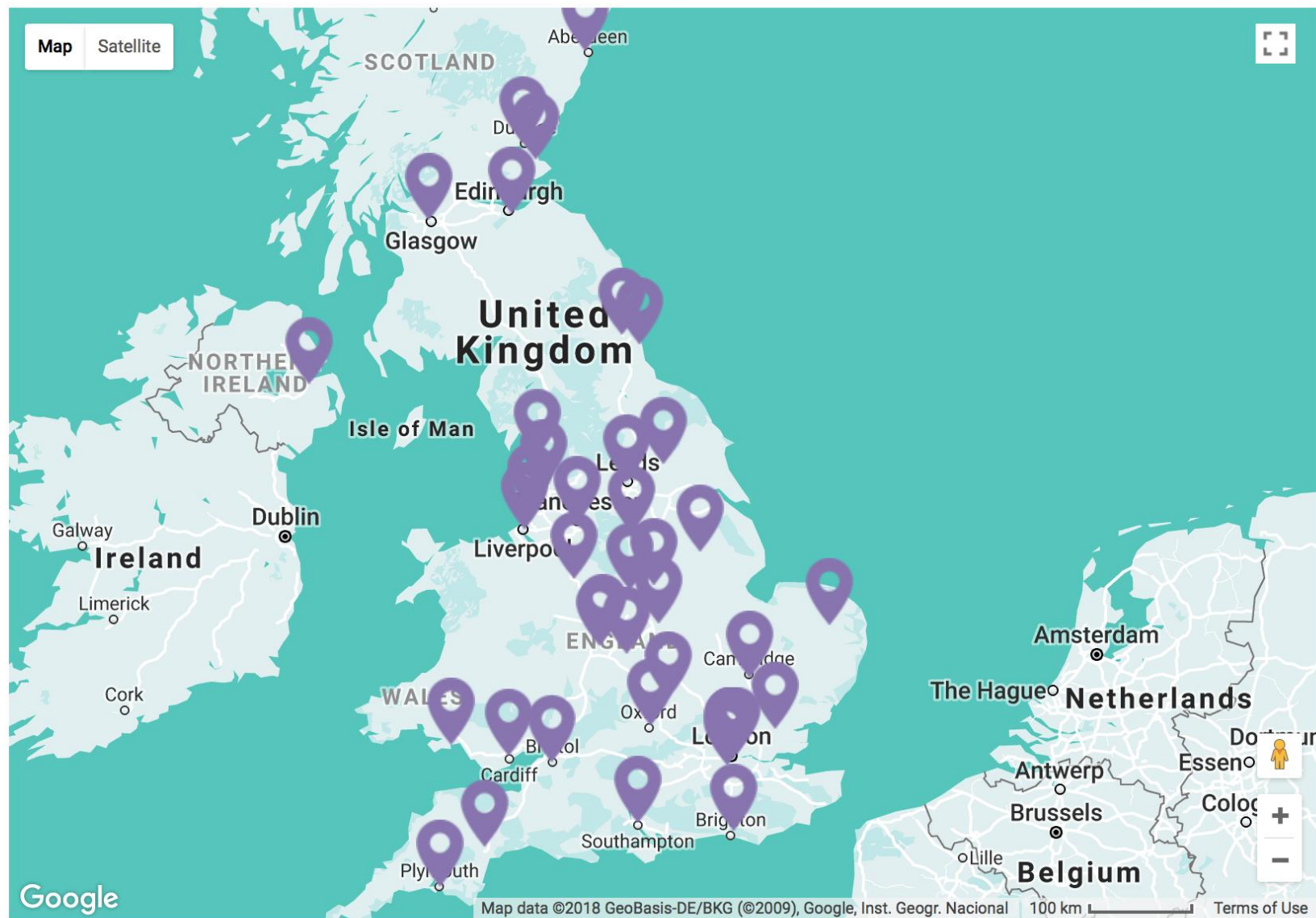
[t Share](#) [G+Share](#)

19 June 2013 [General](#)

Medical students from the University of Oxford, trained by South Central Ambulance Service NHS Foundation Trust (SCAS), are England's first Student Responders.

[SIMILAR STORIES](#)





Core activities

- Local resources

Leadership structure

Sustainability

Curriculum mapping

Aims and Objectives



Recruitment

Room bookings

Stake holders

- ED Physician
- London Ambulance Service (LAS)
- UCL Dean

Detail detail detail

Persistence!

Phase 1

- Start of the academic year
- 6 students
- 24 hours shadowing with LAS
- Monthly forum attendance
- Reflective journal
- Extended academic piece of writing

Phase 1

- Throughout academic year
- 12 students
- 48 hours shadowing with LAS
- Monthly forum attendance
- Reflective journal
- Extended academic piece of writing









Herts Air Ambulance

Phase 1

- 48 hours shadowing with LAS
- Monthly forum attendance
- Reflective journal
- Extended academic piece of writing
- Simulation training

Phase 2

- 24 hours shadowing with LAS
- 18 hours shadowing with WNS
- Monthly forum attendance
- Reflective journal
- Extended academic piece of writing
- Simulation training

Phase 3

- 36 hours clinical shadowing with LAS
- Monthly forum attendance
- Reflective journal
- Extended academic piece of writing
- Clinical audit
- Simulation training

Phase 4

- 4 week placement with Essex and Herts Air Ambulance Service
- CGD attendance
- Reflective journal
- Extended academic piece of writing
- Clinical audit

Year 1

Academic phase 1

- Library project with poster presentation
- Monthly forum attendance
- Simulation training

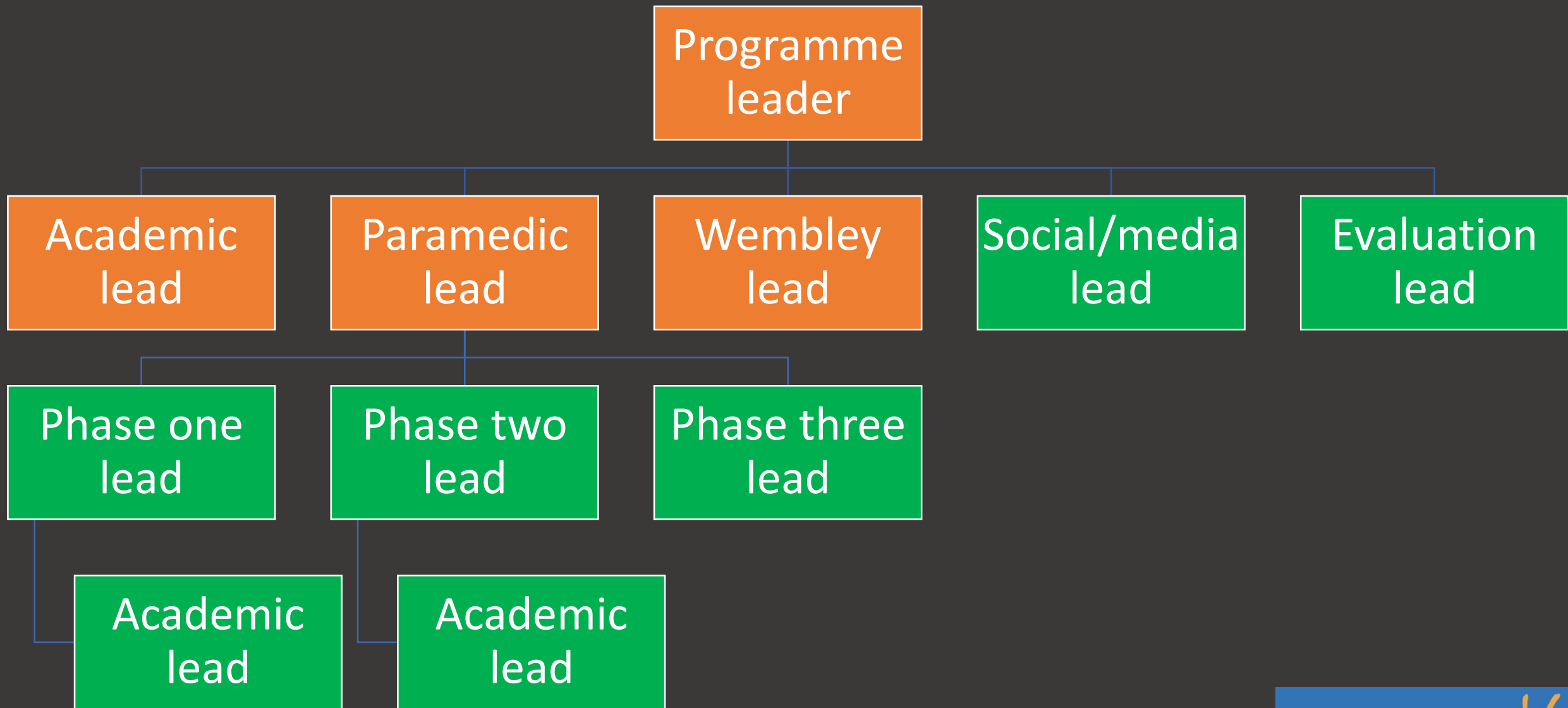
Year 2

Academic phase 2

- Library project with poster presentation
- Monthly forum attendance
- Simulation training

Year 4 (towards year 6)

Year 6



Phase 1 Pre and Post SSC Questionnaire Results

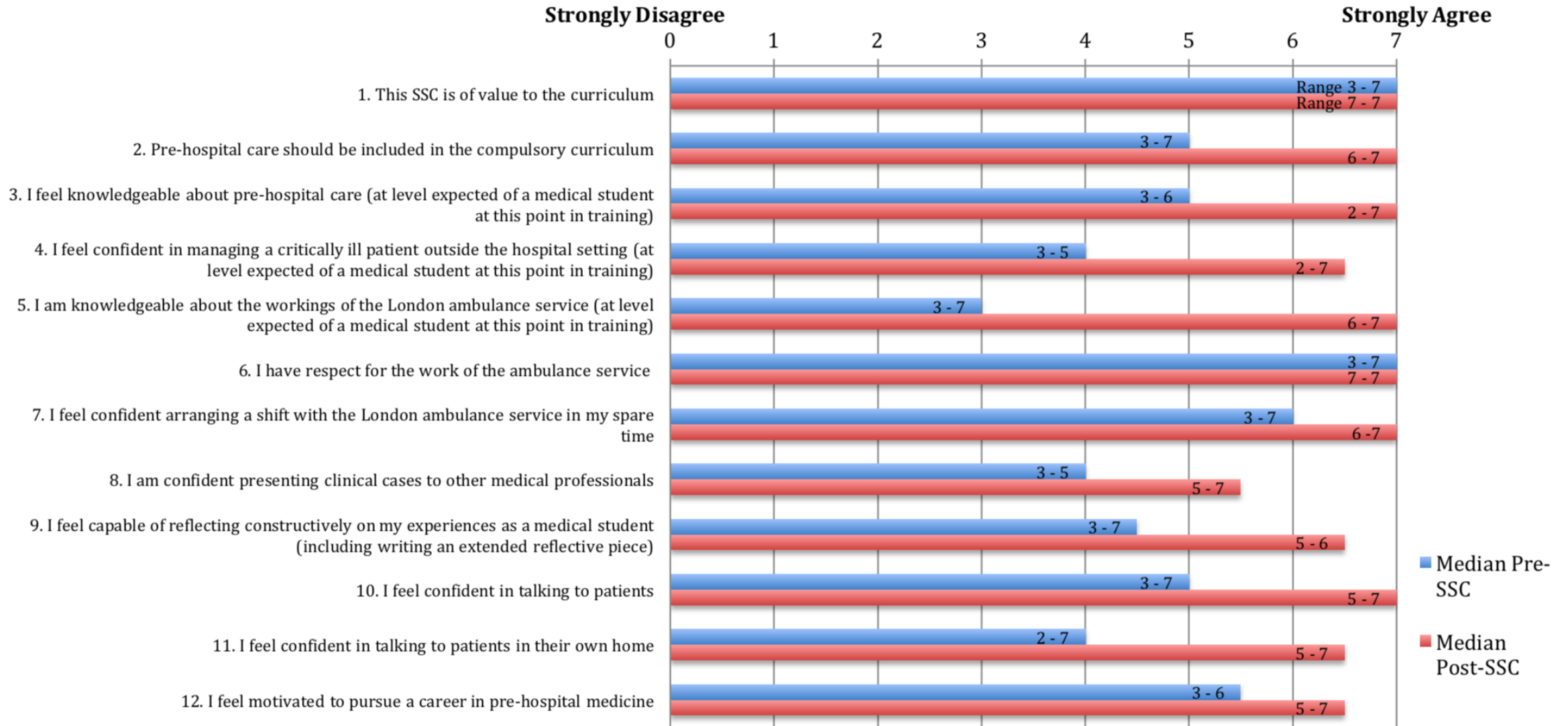


Figure 10: Phase 1 quantitative results

Phase 2 Pre and Post SSC Questionnaire Results

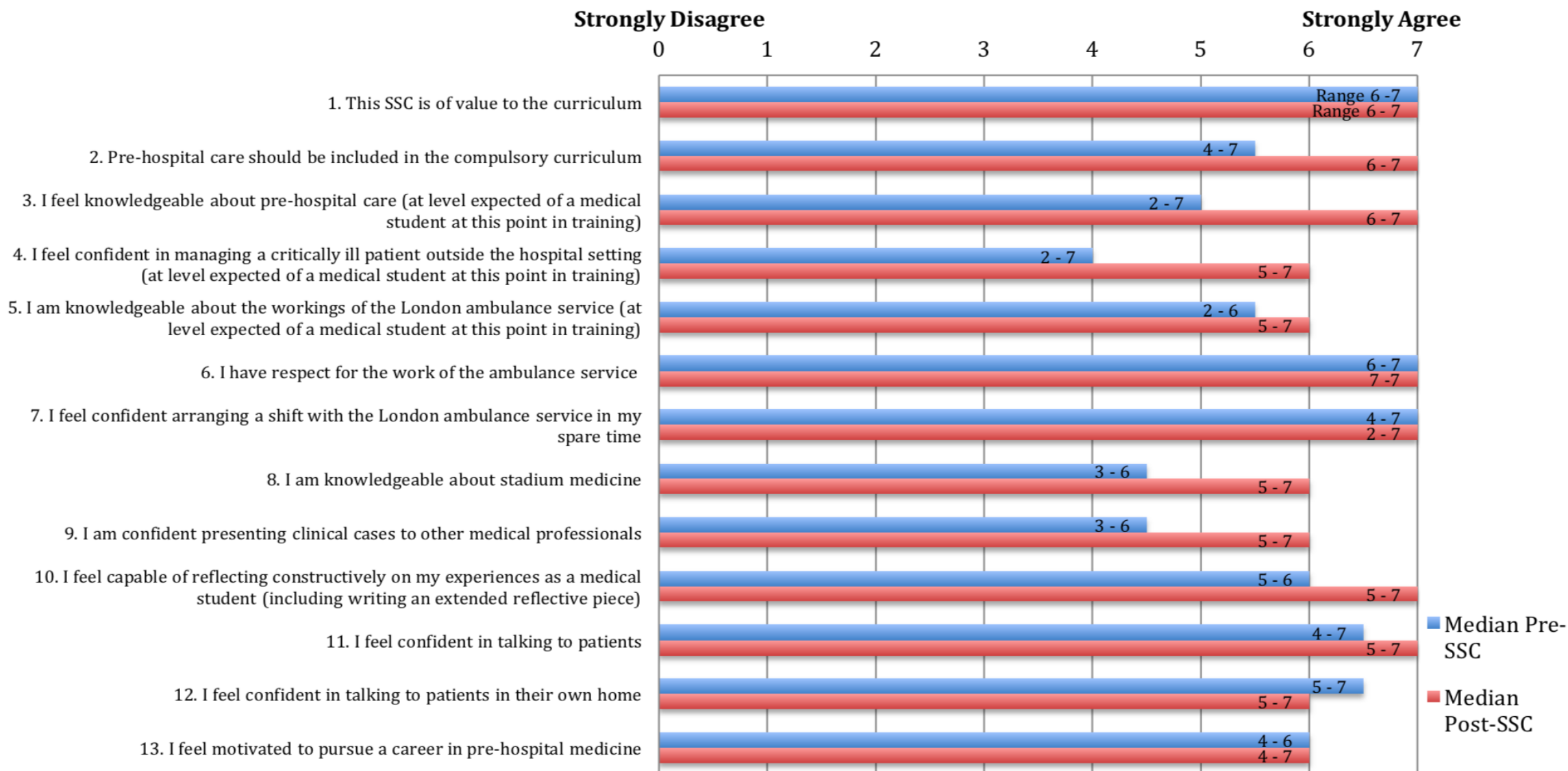


Figure 11: Phase 2 quantitative results

Really reinforced the lecture material covered over the previous two years of [the] MBBS and showed how such conditions manifest themselves in the flesh

....humbling seeing someone in their own home

Greater appreciation of what happens before patients reach hospital and the type of care involved

Greater appreciation of the care involved [in] a patient before they arrive at hospital

[My] communication skills and confidence in talking to patients has greatly improved



Local

- Curriculum mapping
 - Local A+O
 - Local resources
- Curriculum placement
 - Local emergency department
- Previous examples
- Local feedback
- Local leadership
 - Support from the Dean
 - Curriculum development

Local

- Local stakeholders
 - Ambulance service
 - Fire brigade
 - Voluntary organizations
 - Life savers
 - Event medics
 - Search and rescue
- Student welfare
 - Open forum
 - Open leadership

Sustainable

- Do not rely on goodwill
 - Payment
- Not a one person show
- Reciprocity
 - Shared teaching
 - Reciprocal placements
 - Formal recognition for involvement
- Quality assurance
 - Evaluate evaluate evaluate
 - Regular stakeholder engagement

Sustainable

- Sustainable leadership model
 - Rolling mentor programme
 - SOP roles and responsibilities
- Social events
- Branding
 - Clothing
- Recruitment
 - Attainment

Sustainable

- Safety/well-being
 - Safety briefing
 - Student contacts
 - Welfare services
- Be proud
 - Formal academic partners



Article Text

Article

PostScript Letter

Inaugural prehospital care programme: conception, development and delivery

PDF



Longitudinal follow-up

- Student database
 - Post-graduate feedback
 - Relating to patient care and well-being



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Limitations

- Culture
 - From in-hospital
 - From pre-hospital
 - Collaboration
 - First impression
- Doubts over value
 - Within curriculum
 - For ambulance service system and staff

Placement time

Indemnity

Funding

Scope of
practice

Reciprocity



= build it into
the system

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Why



How



Future

- Education subject and provision
- Shared mental model
- Improved patient care

- Local
- Sustainable
- Longitudinal follow-up

- Start small



With thanks to....

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Dr Peta Longstaff

Dr Tom Evens

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