Clinical Placements: What do Foundation Trainees Value?

Report of a Q-sort Analysis

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This work builds on an earlier study conducted with core medical trainees. We used the same materials and we acknowledge the input of the team (comprising Constantino Dumangane, Esther Muddiman, Janet MacDonald, Lynne Allery and Suzanne Phillips) to that related study.

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Executive Summary

Background and Purpose

Commissioned and funded by the Wales Deanery, the aim of the study was to systematically explore the views of foundation trainees (F2s) on what makes a good clinical placement. The research question was: how do foundation trainees perceive the value of clinical placements, and do different groups of trainees have different priorities?

Methods

In a Q-sort exercise, 31 participants ranked 41 statements which were possible responses to the question "what are the things that you value most about your clinical placements?" The sample comprised foundation year 2 (F2) trainees recruited from three University Health Boards: Aneurin Bevan, Hywel Dda and Cwm Taf.

Data from the Q-sorts were analysed using principal components analysis with varimax rotation in R. The analysis grouped individuals according to their ranking of statements. Participants also completed a post-sort questionnaire which helped our interpretation of the Q-sort analysis.

Results

The analysis of the Q-sorted statements revealed two distinct groups within the foundation trainee data. These groups displayed different priorities in terms of what they considered to be valuable to a good clinical placement. One group prioritised aspects which related to the organisation and convenience of the placement. The individuals in this group emphasised the importance of a good work-life balance, typified by one participant's comment that "friends and family are the most important thing in life… They are my priority". Along with priorities of life outside of work, those in this group held staffing levels to be of great importance, to both patient safety and their own well-being.

Rather than issues of organisation and convenience, the second group emphasised the importance of the quality of training and supervision received whilst on placement. Those in this group showed an awareness of their junior position, and a desire to develop their professional identities and capabilities. As one participant reflected, "being a young doctor, having good role models helps to shape my practice and make me into the best doctor I can be".

Notably, both groups prioritised a supportive supervision team above other aspects of their placements. Just as a supportive supervision was considered important across all the participants, provision of accommodation was viewed as least important by all.

In terms of characteristics, there was a significantly greater proportion of female respondents in the organisation and convenience group than the group emphasizing training and supervision which had a greater proportion of males. Interestingly, those in the training and supervision group were *more* likely than those in the organisation and convenience group to have family/caring responsibilities.

We compared these findings with those from a previous study with core trainees (CT1/2). Very similar patterns were found in the data from the two groups: one group prioritised convenience, organisation and safety, and another, reputation, supervision and training. A larger proportion of the core trainees associated with the training perspective than did the foundation trainees. This, along with some differences in the placement of items within the different groups, suggests that the core trainees focus more on and prioritise their development needs than the foundation trainees.

Conclusions

The Q-sort analysis provides a valuable insight into trainees' thinking about what is important in a clinical placement. The findings from this study with foundation trainees could be used together with the earlier study with core trainees, to inform the presentation of information about clinical placements in Wales with a view to ensuring good coverage of both priority areas, and perhaps tailoring information to different groups of trainees.

Background and Aim

Funded by the Wales Deanery, the aim of the study was to systematically uncover the views of foundation doctors on what makes a good clinical placement. The research question was: how do foundation doctors perceive the value of clinical placements, and do different groups of trainees have different priorities? This research aimed to inform how the Wales Deanery engages with trainee doctors by enhancing understanding of their perspectives in relation to their clinical placements. This study is important because the Wales Deanery has responsibility for the quality of the education and training of doctors and experience in the workplace is the central element of training. The quality of clinical placements influences how well trainees regard the Deanery and in turn influences recruitment to Wales and retention. A related study has reported core medical trainees' views on what they value about clinical placements in Wales; this study extends our reach to foundation doctors (specifically F2s). We draw attention to comparisons between the two groups of trainees.

Methods

The sample

Thirty-one F2 trainees were recruited from four hospitals across three University Health Boards (UHBs) in Wales: Aneurin Bevan, Cwm Taf and Hywel Dda.

Table 1 - Sample characteristics

Health Board	Males	Females	Total
Aneurin Bevan	9	13	24[#]
Hywel Dda	1	2	4
Cwm Taf	1	3	3
TOTAL	**11**	**18**	**31[#]**

[#]*Two participants did not indicate their gender*

Notably more participants were surveyed in Aneurin Bevan (*n* = 24, 77%) than either Cwm Taf (*n* = 3, 10%) or Hywel Dda (*n* = 4, 13%), partly because the sample was drawn from two hospitals in this UHB. There were more females than males in the sample (females: *n* = 18, 58%; males: *n* = 11, 36%). Table 1 gives the gender distribution by UHB. The mean age of the sample was 26 (*SD* = 2.867) with a range of ages between 24 and 35.

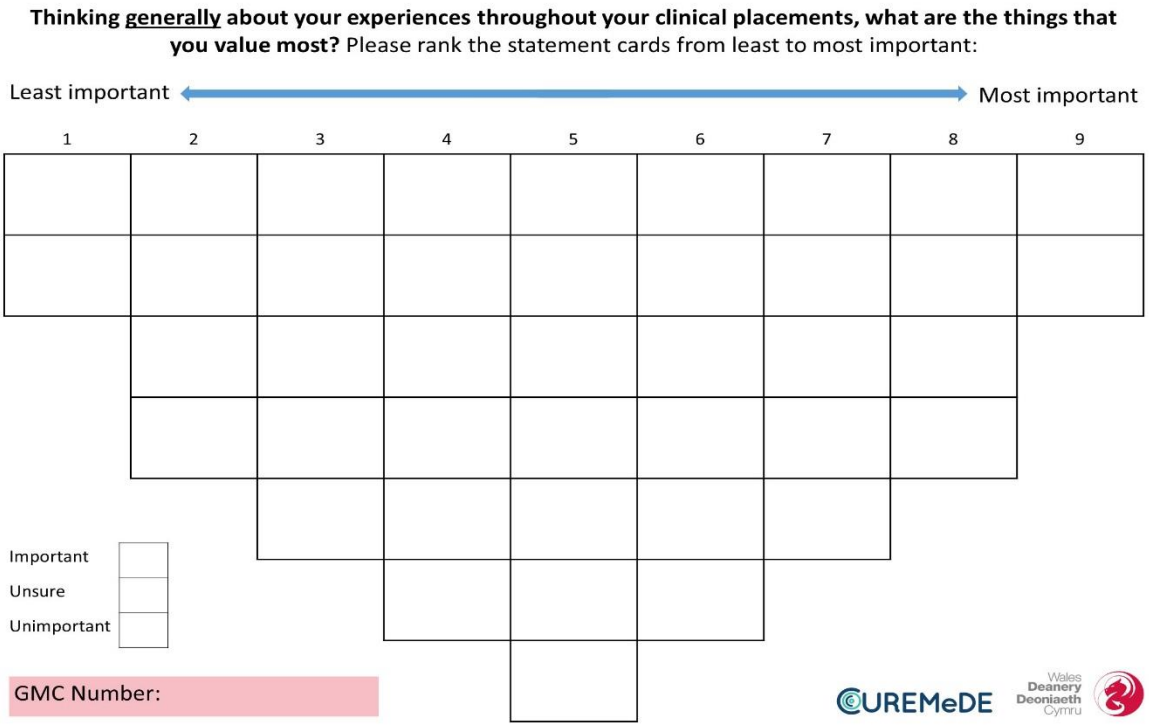
The Q-sort

In the Q-sort exercise, participants ranked 41 statements which were possible responses to the question "what are the things that you value most about your clinical placements?" The final statement set was developed from discussion with senior Deanery staff and trainees and informed by the literature. We used the same set as was used with a sample of core medical trainees. The set of 41 statements is given in Appendix 1.

Participants were instructed to first sort the statements into three piles: those judged to be important, those thought to be least important and those about which the participant could not decide (unsure). Participants then arranged in turn each pile of statements onto the Q-sort grid (see Figure 1).

After completing the Q-sort, participants were invited to fill in the post-sort questionnaire (see Appendix 2 for details).

Figure 1 - The Q-sorting grid



Note: the numbers above the columns (1-9) are replaced by a scale of -4 to +4 in the subsequent analysis.

The Q-sort analysis

Using PCA software we conducted an analysis of the Q-sort data using varimax rotation in R (using the qmethod package). We used inverted principal components analysis to identify shared perspectives from the original individual Q-sorts. Those participant Q-sorts that load significantly onto each component are flagged as exemplars and are collated, based on weighted averages to produce a single 'ideal' configuration for each component.

Information contained in the post-sort questionnaire was used to inform our interpretation of the Q-sort analysis: we looked at the characteristics of the participants (such as training gender and place of medical degree) and how they grouped onto the different factors.

The Results

Overall levels of agreement

Before embarking on the full Q-sort, participants were asked to sort the statements into three piles: most important, unsure, and least important. This pre-sort procedure allows participants' overall levels of agreement with the statements to be assessed. As can be seen in Table 2, on average participants tended to place the majority (56%) of the items into the most important pile. Further, the minimum number of items placed in this pile was 10. In contrast, on average, participants tended to place relatively few items in the least important pile (12%), with a minimum number in this pile of 0. This suggests that

participants held quite a high level of agreement with the importance of the statement set. This should be borne in mind when interpreting the factors; participants tended to think most of these statements are important, and a placement towards the lower (left-hand side) of the scale might suggest a weaker notion of importance rather than sense of *un*importance (a subtle but notable distinction).

Table 2 - Agreeability measures

	Median	Minimum	Maximum
Most important	23	10	34
Unsure	13	0	21
Least important	5	0	13

Principal components analysis

We considered multiple solutions to the analysis through both statistical information and substantive interpretation. The final solution decided upon was one which found two groups within the data. These two groups, A and B, accounted for 49% of the total variance within the data. Group A accounted for the majority of this variance, at 39%. Although less, Group B still accounted for a sizeable amount of the variance at 10%. Despite the large difference in variance explained between the components, the participants were relatively well distributed across each. All participants' perspectives were accounted for by the two components, with 18 participants' sorts significantly loading onto Group A (58%) and 13 significantly loading onto Group B (42%). Table 3 details the number of participants in each group and the variance explained.

Table 3 - Number of participants and variance explained by group

	***n* participants**	**Variance explained**
Group A	18	39%
Group B	13	10%
Total	**31**	**49%**

In Table 4 we show the position of the 41 statements on each of the two groups in terms of the scale from -4 (least important) through to +4 (most important). The two most important items are highlighted in dark pink (Group A: #35 and #39; Group B: #1 and #3). The lowest ranked items, those considered least important, are highlighted in dark blue (Group A: #24 and #37; Group B: #7 and #24). The lighter colours denote the other items' relative positions in the differing groups: light pink shows that the item is ranked more highly in this group than in the other group; light blue shows that the item is ranked lower relative to the other group. Those items whose positions are tied are highlighted in yellow. Further to this information the table also shows consensus and distinguishing statements. Distinguishing statements are those which participants in one group were likely to place in a significantly different position along the scale than those in the other group. These items are shown in bold, italicised text.

Although the number of distinguishing statements (26; 64%) suggests that the two groups are highly distinct from one another, there was also some amount of commonality between the two, demonstrated by a moderate inter-correlation between the groups of

0.59. This commonality suggests that there is some level of agreement between the two groups – that their perspectives are common to some degree. These are indicated by consensus statements in the analysis (marked by an X in Table 4 and given again in Table 5). Consensus statements are those which the participants in each group agree upon, i.e. the location of these items on the scale is very similar, if not exactly, the same in each group. The items upon which the participants agreed can be seen in Table 5, where they are listed from most important to least important. Whilst the two groups will be described in greater detail in the following sections, it is worth bearing in mind the similarities between the two. This is particularly true where items at the extreme ends of the groups' arrays are the same. In this case, Table 5 shows that a supportive supervision team was considered to be one of the most important aspects of a placement across both groups. Indeed on closer inspection we can see that this statement was given an average placement (median score) of 3, with no participant placing it on the 'least important' side of the scale. It can also be seen from Table 5 that provision for accommodation is considered to be one of the least important aspects of a placement for both groups' arrays. This is further supported by an average placement (median score) of -3.

Examining Table 5 further, we can see it is statements which the foundation trainees consider to be least important upon which they agree. As well as provision for accommodation, all participants appear to place less importance on access to activities in the area, availability of refreshments and facilitation of individual circumstance to be of least importance to a good placement. The consensus statements tell us, by omission, that it is the other end of the scale, what participants consider to be of importance to their clinical practice experience, which distinguishes these two groups.

Table 4 - Group arrays, consensus and distinguishing statements

#	Statement	GA	GB	Consensus
1	A supportive supervision team	3	4	X
2	***Being closely supervised***	-1	0	
3	***Good role models for the doctor I want to become***	2	4	
4	Timetabled clinics that I am able to attend	-2	-2	X
5	A department/unit with a good reputation	-1	-1	X
6	***A placement close to where I live***	2	-1	
7	***Opportunity to avoid certain ward/clinic/theatre work***	-3	-4	
8	***A flexible rota***	2	-1	
9	***A supervisor who demonstrates up-to-date evidence-based practice***	0	3	
10	***Regularly receiving constructive feedback***	1	3	
11	***Working with experts in the field***	-2	1	
12	***Access to parking***	0	-1	
13	***A smaller hospital where everyone knows you***	-2	-3	
14	Induction handbooks and a supervisory team prepared for my arrival	-1	-1	X
15	***A safe and non-threatening environment***	2	1	
16	Availability of refreshments 24/7	-3	-3	X
17	***Access to a doctors' mess/rest area***	1	-2	
18	***Evidence of high quality training (e.g. GMC survey)***	-2	1	
19	***Opportunities to take on additional responsibilities***	-1	0	
20	***Opportunities to teach juniors***	0	2	
21	***A rota that is planned in advance***	2	0	
22	***The opportunity to do research/present at conferences***	-1	0	
23	***Matches my own development needs***	0	3	
24	Provision for accommodation	-4	-4	X
25	A pro-active supervisor who seeks out opportunities for me	1	1	X
26	Being treated as a colleague	3	2	X
27	Being trusted to carry out tasks and procedures (e.g. writing notes)	1	2	X
28	***Practical exposure to a focussed set of clinical skills***	0	2	
29	Modern facilities and equipment	-2	-2	X
30	***Being able to leave work on time***	3	-1	
31	***Being close to friends, family and other contacts***	3	0	
32	Access to social, cultural and sporting activities in the vicinity	-3	-3	X
33	***A supervisor who is a skilled trainer***	1	3	
34	***Being given autonomy***	1	1	
35	***A well-staffed ward***	4	2	
36	Pay banding/opportunities for on-call	0	0	X
37	***High exam pass rates associated with the post***	-4	-2	
38	***Variety of ward, clinic and theatre work***	0	1	
39	***Being able to take annual leave when I need it***	4	0	
40	Reliable access to IT facilities	-1	-2	X
41	Facilitates my individual circumstances (e.g. religious/cultural)	-3	-3	X

Table 5 - Consensus statements

#	Statement	GA	GB
1	A supportive supervision team	3	4
26	Being treated as a colleague	3	2
27	Being trusted to carry out tasks and procedures (e.g. writing notes)	1	2
25	A pro-active supervisor who seeks out opportunities for me	1	1
34	Being given autonomy	1	1
36	Pay banding/opportunities for on-call	0	0
5	A department/unit with a good reputation	-1	-1
14	Induction handbooks and a supervisory team prepared for my arrival	-1	-1
40	Reliable access to IT facilities	-1	-2
4	Timetabled clinics that I am able to attend	-2	-2
29	Modern facilities and equipment	-2	-2
16	Availability of refreshments 24/7	-3	-3
32	Access to social, cultural and sporting activities in the vicinity	-3	-3
41	Facilitates my individual circumstances (e.g. religious/cultural)	-3	-3
24	Provision for accommodation	-4	-4

Describing the groups

Before describing each group, we give consideration to the distinguishing statements (in bold, italicised text in Table 4). These statements are those that participants from the differing groups position in a way that is dissimilar from one another. For ease they are also given in Table 6; listed from those which are ranked most differently between the groups. The distance between the relative positions of the items goes some way to understanding the distinctiveness of the item in characterising the two groups.

Using the distinguishing statements presented in Table 6 we can see that those participants associated with Group A are most concerned with the flexibility and convenience of their placement. This is highlighted with high rankings of statements concerning flexible rota and leave arrangements: 'a flexible rota' (#8), 'being able to take annual leave when I need it' (#39). This is complemented by high rankings of 'being able to leave work on time' (#30) and 'a rota that is planned in advance' (#21). The importance of issues of organisation were echoed with the high ranking and relative importance given to 'a well-staffed ward' (#35). Additionally participants in this group prioritised the location of their placement, with higher rankings of 'a placement close to where I live' (#6), and 'being close to family and friends' (#31). As well as issues of convenience, of relative importance to this group were statements that concerned amenities available to them. This is highlighted with the relatively higher placements of 'access to a doctors' mess/rest area' (#17) and 'access to parking' (#12).

The distinguishing statements detailed in Table 6 also highlighted the distinctiveness of the perspective captured by Group B. Examination of these statements showed that this group was characterised by both the absolute and relative importance given to the quality of the supervision and training received at their placement. The importance of supervision was demonstrated by the high ranking, and distance from the other group's position, of statements such as 'a supervisor who demonstrates up-to-date evidence-based practice' (#9), 'a supervisor who is a skilled trainer' (#33), and 'good role models for the doctor I want to become' (#3). In terms of the relative importance of supervision, this was also supported by the higher, relative placement of 'working with experts in the field' (#11) and

'being closely supervised'. In terms of the importance of quality training, this was particularly focussed on training in terms of participants' own development needs. This was demonstrated by the absolute and relatively high placements of 'regularly receiving constructive feedback' (#10) and 'matches my own development needs' (#23), and relatively high placement of 'evidence of high quality training (e.g. GMC survey)' (#18). Additionally, this group gave relatively high placement to items 'practical exposure to a focussed set of clinical skills' (#28) and 'opportunities to teach juniors' (#20).

The comparison of these groups and the resultant distinguishing statements, reveal two clearly distinct perspectives. Group A represents a perspective that prioritises issues of convenience and organisation, whereas Group B represents a perspective that priorities the quality of training and supervision received. The participants were fairly evenly spread across these two groups with 18 associated with Group A and 13 associated with Group B. It is also worth noting here that all of the participants' viewpoints, as demonstrated by their individual Q sort, are accounted for and represented by the two groups. It is important to recognise that although these groups demonstrated different priorities, this analysis is a relative comparison and does not mean that the participants necessarily think those items that they have ranked towards the 'least important' end of the scale are *un*important, simply that they are *less* important than items at the other end.

Table 6 - Distinguishing statements

#	Statement	GA	GB	Distance
30	Being able to leave work on time	3	-1	4
39	Being able to take annual leave when I need it	4	0	4
6	A placement close to where I live	2	-1	3
8	A flexible rota	2	-1	3
9	A supervisor who demonstrates up-to-date evidence-based practice	0	3	3
11	Working with experts in the field	-2	1	3
17	Access to a doctors' mess/rest area	1	-2	3
18	Evidence of high quality training (e.g. GMC survey)	-2	1	3
23	Matches my own development needs	0	3	3
31	Being close to friends, family and other contacts	3	0	3
3	Good role models for the doctor I want to become	2	4	2
10	Regularly receiving constructive feedback	1	3	2
20	Opportunities to teach juniors	0	2	2
21	A rota that is planned in advance	2	0	2
28	Practical exposure to a focussed set of clinical skills	0	2	2
33	A supervisor who is a skilled trainer	1	3	2
35	A well-staffed ward	4	2	2
37	High exam pass rates associated with the post	-4	-2	2
2	Being closely supervised	-1	0	1
7	Opportunity to avoid certain ward/clinic/theatre work	-3	-4	1
12	Access to parking	0	-1	1
13	A smaller hospital where everyone knows you	-2	-3	1
15	A safe and non-threatening environment	2	1	1
19	Opportunities to take on additional responsibilities	-1	0	1
22	The opportunity to do research/present at conferences	-1	0	1
38	Variety of ward, clinic and theatre work	0	1	1

Group A: organisation and convenience

To further examine the perspective captured by Group A, we present the sorting pattern in Table 7. This table gives the top two most important statements and the bottom two least important statements in Group A's perspective. It also provides the statements which were placed higher and those placed lower than Group B. It can be seen that this pattern reiterates the importance of organisation and convenience in this group's perspective. It is also worth noting here that 'being treated as a colleague' is important to this group (though there is only one point difference in placement with the Group B).

Table 7 - Group A: sorting pattern

		Location
Top two items		
39	Being able to take annual leave when I need it	4
35	A well-staffed ward	4
Items sorted higher		
6	A placement close to where I live	2
7	Opportunity to avoid certain ward/clinic/theatre work	-3
8	A flexible rota	2
12	Access to parking	0
13	A smaller hospital where everyone knows you	-2
15	A safe and non-threatening environment	2
17	Access to a doctors' mess/rest area	1
21	A rota that is planned in advance	2
26	Being treated as a colleague	3
30	Being able to leave work on time	3
31	Being close to friends, family and other contacts	3
Items sorted lower		
1	A supportive supervision team	3
2	Being closely supervised	-1
3	Good role models for the doctor I want to become	2
9	A supervisor who demonstrates up-to-date evidence-based practice	0
10	Regularly receiving constructive feedback	1
11	Working with experts in the field	-2
18	Evidence of high quality training (e.g. GMC survey)	-2
19	Opportunities to take on additional responsibilities	-1
20	Opportunities to teach juniors	0
22	The opportunity to do research/present at conferences	-1
23	Matches my own development needs	0
27	Being trusted to carry out tasks and procedures (e.g. writing notes)	1
28	Practical exposure to a focussed set of clinical skills	0
33	A supervisor who is a skilled trainer	1
34	Being given autonomy	1
38	Variety of ward, clinic and theatre work	0
40	Reliable access to IT facilities	-1
Bottom two items		
24	Provision for accommodation	-4
37	High exam pass rates associated with the post	-4

We explore the perspective of Group A further by considering the post-sort question responses in which they explain why they placed certain items at the extremes of the array (see Table 8). These respondents considered a well-staffed ward to be important to patient safety and care, as well as considering the detrimental impact it can have on their own development and stress levels. One respondent touched on how an under-staffed ward might mean staying late which chimes with reasons given for other statements of importance to this group. 'Being able to take annual leave when I need it' was placed in the (joint) primary position of importance for those in this group, although not by a huge number of the respondents. It is worth considering the reason given in Table 8, concerning family commitments, in light of the position of statement #30 and #31, 'being able to leave work on time' and 'being close to friends, family and other contacts'. Many of those in Group A placed these latter statements of highest importance for similar reasons of family commitments, e.g. 'I am a mother and have children in school… it is extremely important to me and my children that I am home when I should be' (#30) and 'have a husband and son and they wouldn't be able to move' (#31). Along with specific family commitments this group expressed a desire to maintain a 'good work life balance' (#31), with other respondents using reasons such as 'I have a life outside of medicine' (#30) and 'Friends and family are the most important thing in life – job is a side order, friends/family is the main course. They are my priority.' (#31).

Some of the reasons given for why provision for accommodation was a low priority for this group are similar to those given for why other statements were of importance (see Table 9). Roughly half the participants who placed gave this statement least importance did so because of prior commitments, i.e. they already own their own home and, as one participant put it, 'would not accept a job that would require me to move from my home'. It is worth noting that the other half simply stated that they would prefer to find their own accommodation. A further low priority statement was that of 'high exams rates associated with the post'. Whilst this does take the focus away from issues of convenience and organisation, it furthers our understanding of this group's perspective. It demonstrates an awareness of self-determination in terms of how well they will fare in their placement, with an apparent focus on outcome, rather than the training focus that Group B brings to the fore. This is demonstrated with such reasons as 'I don't think that will necessarily be a fair reflection of my chances of passing' and the confidence of 'exams will be passed anyway'.

Table 8 - Group A: reasons given for highest priority statements[1]

35	**A well-staffed ward**
	A well-staffed ward is important for patients' safety. Understaffed wards make it tiring for the doctor covering the ward and make it impossible and unsafe to look after the patients.
	Having a well-staffed team allows your workload to be such that the job is not merely service provision - giving you time to learn/develop.
	Main source of stress as a junior is being left alone, unsupported, to complete a ward round of 30 patients. Unfortunately this is the norm.
	Poor staffing leads to more stress/staying late/no inter-colleague friendships/increasing pressure, forcing more staff out, leading to even fewer staff.
	Understaffed/poor staff makes life much harder and effects patients.

[1] These tables list all of the reasons for the placement of each item in the highest/lowest positions.

39	**Being able to take annual leave when I need it.** For similar reasons (to being able to leave work on time), I am only able to take my children on holiday during half term, otherwise I get fined. Having annual leave when they do is therefore really important.

Table 9 - Group A: reasons given for lowest priority statements

24	**Provision for accommodation.**
	Prefer to have own accommodation/live away from hospital site.
	Happy to source my own accommodation privately. Would rather live off site for better work/life balance
	Prefer to live off site.
	I own a house so did not need accommodation
	Don't use the accommodation.
	Accommodation is something that can be resolved and would rather live with partner.
	Accommodation can be found anywhere and often hospitals are not in best locations.
	I have my own property, so would never need this.
	I would not accept a job that would require me to move from my home.
37	**High exam pass rates associated with the post.**
	Not a reflection on the quality of the placement.
	I personally do not think that those with the highest exam marks make better doctors and therefore this is not important to me.
	I don't think that will necessarily be a fair reflection of my chances of passing.
	Exams will be passed anyway.
	High exam pass rates doesn't necessarily indicate how well you will perform personally.

Group B: quality of training and supervision

In

Table **10** we provide the sorting pattern for Group B, showing the top, most important, and bottom, least important, statements, as well as those statements ranked higher and lower than Group A. As taken from examination of the distinguishing statements above, this group's priority lies with the supervision and training received, rather than the convenience and flexibility important to Group A. As can be seen in

Table **10**, this group ranks statements concerned with supervision and training, along with issues of autonomy, i.e. being able to carry out tasks and procedures, more highly than Group A. Conversely, the issues important to Group A, concerning convenience and organisation are ranked as less important.

Table 10 - Group B: sorting pattern

		Location
Top two items		
1	A supportive supervision team	4
3	Good role models for the doctor I want to become	4
Items sorted higher		
2	Being closely supervised	0
9	A supervisor who demonstrates up-to-date evidence-based practice	3
10	Regularly receiving constructive feedback	3
11	Working with experts in the field	1
18	Evidence of high quality training (e.g. GMC survey)	1
19	Opportunities to take on additional responsibilities	0
20	Opportunities to teach juniors	2
22	The opportunity to do research/present at conferences	0
23	Matches my own development needs	3
27	Being trusted to carry out tasks and procedures (e.g. writing notes)	2
28	Practical exposure to a focussed set of clinical skills	2
33	A supervisor who is a skilled trainer	3
34	Being given autonomy	1
37	High exam pass rates associated with the post	-2
38	Variety of ward, clinic and theatre work	1
40	Reliable access to IT facilities	-2
Items sorted lower		
6	A placement close to where I live	-1
8	A flexible rota	-1
12	Access to parking	-1
13	A smaller hospital where everyone knows you	-3
15	A safe and non-threatening environment	1
17	Access to a doctors' mess/rest area	-2
21	A rota that is planned in advance	0
26	Being treated as a colleague	2
30	Being able to leave work on time	-1
31	Being close to friends, family and other contacts	0
35	A well-staffed ward	2
39	Being able to take annual leave when I need it	0
Bottom two items		
7	Opportunity to avoid certain ward/clinic/theatre work	-4
24	Provision for accommodation	-4

This group appears to be more concerned with their clinical practice training and development than the work-life balance expressed by Group A. Reasons given for why good role models are important for this group centre on the inexperienced, junior position

that they are in their careers (see Table 11). There seems to be a recognition of this and desire to develop their professional identity and capabilities. This is demonstrated in reasons given for placing good role models as one of the most important statements, summarised well by one participant: 'being a young doctor, having good role models helps to shape my practice and make me into the best doctor I can be'. The significant role senior others within the workplace has for this group is reiterated with the high importance given to a supportive supervision team, particularly considering 'long hours [worked] in a stressful job'.

This concern with development and training is further demonstrated with the low placement of being able to avoid certain types of work. Those in this group are quite vehement that this is something that should not be avoided with statements such as 'it's your responsibility as a junior doctor [to participate in all types of work]' and 'shouldn't be able to pick and choose' (see Table 12 for these and other reasons). The participants who placed this item here are clear that it is important to their training that they participate in all types of work, indeed as far as expressing an interest, reasoning that it is all a learning opportunity. Similar to Group A, the other low priority statement was that of 'provision for accommodation'. Reasons given for this were also similar to those given by Group A: either one of preference or practicality (i.e. they already own their own home).

Table 11 - Group B: reasons given for highest priority items

1	**A supportive supervision team**
	It is important to have a supportive team whilst in the hospital environment.
	I have noticed great differences with the teams that I work with and even just having someone to support decision making is a godsend sometimes. At times I have gone home with a sick feeling and a sunken heart because I felt not supervised/supported.
	When working long hours in a stressful job having a supportive team is key.
3	**Good role models for the doctor I want to become**
	Both [with reference to having a supervisor who demonstrates up-to-date evidence based practice] aid in developing and becoming the best doctor you can be.
	Being a young doctor, having good role models helps to shape my practice and make me into the best doctor I can be.
	I want to be inspired at work and gain exposure to clinicians I can learn from.

Table 12 - Group B: reasons given for lowest priority items

7	**Opportunity to avoid certain ward/clinic/theatre work**
	I look to engage in all clinical activities as I feel I can learn/take something away from even doing tasks which I don't enjoy.
	Shouldn't be able to pick and choose what you do just because you don't like it.
	I would like to get involved in all aspects of clinical practice.
	I enjoy going to clinics/wards/theatres as an opportunity to learn. Attending clinic I learn a great deal.
	The job I want to do is histopathology (and therefore lab based) however exposure to all clinical environments are learning opportunities.

	It's your responsibility to be junior doctor - you shouldn't be able to pick and choose your clinical duties/avoid certain duties because you don't enjoy them - it's all learning.
	I am not particularly picky about opportunities to avoid certain ward/clinic work.
24	**Provision for accommodation**
	I usually prefer to rent a private accommodation outside hospital site.
	Not applicable as not required.
	I have my own home and do not need accommodation.
	I wouldn't want to live on site.
	As I live at home, provision for accommodation does not apply to me.

Group characteristics

All of the participants' perspectives were captured by the two component solution described here; that is all participants loaded onto one of the two components. The participants were reasonably evenly distributed between the two components, with 18 associating with the perspective outlined in Group A and 13 affiliated to Group B. Characteristics of the participants were collected at the same time as their Q sort exercise. We explore the distribution of these characteristics in the two groups. In terms of the health boards, most were currently working in Aneurin Bevan, with little difference between the proportions in the two groups (shown in Table 13). In terms of where individuals in the two groups studied their medical degree, the majority of the participants studied in Wales (23 out of 31). Again there was no real difference in terms of the distribution across the two groups, as seen in Table 14.

Table 13 - Group loadings by university health board

		Group A	Group B
UHB	Aneurin Bevan	13	11
	Cwn Taf	2	1
	Hywel Dda	3	1
	Total	**18**	**13**

Table 14 - Group loadings by where did medical degree

		Group A	Group B
Medical degree	In Wales	13	10
	Elsewhere	4	2
	Total	**17**	**12**

NB One participant from each group failed to answer this question.

Of the demographics the only characteristic which was statistically significantly different between the two groups was that of gender. As shown in Table 15, the majority of Group A (organisation and convenience) were female whilst the majority of Group B (quality of training and supervision) were male. This difference was found to be statistically significant

as measured by Fisher's exact test ($p < 0.05$). This is interesting to note, especially given the importance that Group A places on family and convenience to maintain a balance between work and family commitments. Given this difference in gender between the two groups, further demographic analyses were conducted which broke down the remaining characteristics by both group and gender.

Table 15 - Group loadings by gender

		Group A	Group B
Gender	Male	3	8
	Female	14	4
	Total	**17**	**12**

NB One participant from each group failed to answer this question.

Table 16 gives the proportion of those in the groups who have family/caring responsibilities, whilst Table 19 breaks this down further to those who have children (asked as a separate questions). As can be seen in these tables, there are a similar number in both groups who have family/caring responsibilities, with a smaller but still similar number who have children. However, in terms of proportions it is Group B who have the largest proportion of respondents with family/caring responsibilities (50%). This is somewhat counter to what one might expect given the priority given to issues that concern family-life commitments for Group A; one might have expected Group A to be the group with the largest proportion of family commitments given their stated priorities.

Table 16 - Group loadings by family/caring responsibilities and gender

		Group A	Group B
Has family/caring responsibilities		5	6
	Male	*0*	*3*
	Female	*5*	*3*
No family/caring responsibilities.		12	6
	Male	*3*	*5*
	Female	*9*	*1*
	Total	**17**	**12**

NB One participant from each group failed to answer this question.

Table 17 - Group loadings by having children and gender

		Group A	Group B
Has children		3	2
	Male	*0*	*2*
	Female	*3*	*0*
No children		14	10
	Male	*3*	*6*
	Female	*11*	*4*
	Total	**17**	**12**

NB One participant from each group failed to answer this question.

The last characteristic explored here is that of home ownership (see Table 18 for details). There was little difference between the two groups, with roughly half of those in each group owning their own home. This is not particularly surprising when considering the reasons given by both groups for the low priority status attributed to 'provision for accommodation' in their Q-sorts. Both groups cited owning their own home to be one of the reasons they did not consider this statement to be of high priority, as corroborated by the figures here.

Table 18 - Group loadings by homeowner status and gender

		Group A	Group B
Is a homeowner		9	6
	Male	*1*	*4*
	Female	*8*	*2*
Is not a homeowner		8	6
	Male	*2*	*4*
	Female	*6*	*2*
	Total	**17**	**12**

NB One participant from each group failed to answer this question.

Comparison with the perspectives of core trainees

The same Q-sort procedure as that detailed in this report was previously conducted with core trainees (Dumangane et al., 2016). Briefly, 45 core trainees, split across CT1 and CT2, were asked to sort the same 41 statements as the foundation trainees (as found in Appendix 1). Interpretation of the Q-analysis of these sorts revealed two groups: Group A – 'Quality of Training and Reputation' and Group B – 'Trainee Safety and Convenience'. These two groups were very similar to those found in the analysis of the Foundation trainees' Q-sorts detailed above: Group A – 'Organisation and Convenience' and Group B – 'Quality of Training and Supervision'. Interestingly, the majority of the foundation trainees were associated with the perspective concerned with organisation and convenience. Conversely, the majority of the core trainees were associated with the perspective which prioritised the quality of training and reputation. Although this is a cross-sectional piece of work, this difference in the cohorts may suggest a move towards the prioritisation of training over issues of organisation and convenience as individuals progress through their clinical training.

Along with differences in the proportions of those who ally themselves to one perspective or another, there are slight differences in the details of the perspectives displayed by the groups across the two different training levels. In Table 19 and Table 20 we detail the position given to items in terms of the solutions found for the foundation trainees and core trainees, for the convenience and organisation, and the supervision and training groups respectively. Most of these differences were only of one point, and so were not substantively different. Differences in positions larger than this were considered noteworthy and are highlighted in the tables with bolded text. Examination of these differences reveal slight changes in perspectives between those at different stages of their training. Those who fall into the organisation and convenience group, for example, have differing priorities concerning the rota depending on whether they are in foundation or a CT placement (shown in Table 19).

Table 19 - Comparison of convenience, organisation & safety groups.

#	Item	F2	CT
1	A supportive supervision team	3	3
2	Being closely supervised	-1	-2
3	Good role models for the doctor I want to become	2	1
4	Timetabled clinics that I am able to attend	-2	2
5	A department/unit with a good reputation	-1	-2
6	A placement close to where I live	2	2
7	Opportunity to avoid certain ward/clinic/theatre work	-3	-4
8	**A flexible rota**	**2**	**0**
9	A supervisor who demonstrates up-to-date evidence-based practice	0	-1
10	Regularly receiving constructive feedback	1	1
11	Working with experts in the field	-2	-3
12	Access to parking	0	0
13	A smaller hospital where everyone knows you	-2	-2
14	Induction handbooks and a supervisory team prepared for my arrival	-1	0
15	A safe and non-threatening environment	2	3
16	Availability of refreshments 24/7	-3	-2
17	Access to a doctors' mess/rest area	1	0
18	Evidence of high quality training (e.g. GMC survey)	-2	-2
19	Opportunities to take on additional responsibilities	-1	-1
20	Opportunities to teach juniors	0	-1
21	**A rota that is planned in advance**	**2**	**4**
22	The opportunity to do research/present at conferences	-1	-1
23	**Matches my own development needs**	**0**	**2**
24	Provision for accommodation	-4	-4
25	A pro-active supervisor who seeks out opportunities for me	1	0
26	Being treated as a colleague	3	3
27	Being trusted to carry out tasks and procedures (e.g. writing notes)	1	1
28	Practical exposure to a focussed set of clinical skills	0	1
29	Modern facilities and equipment	-2	-1
30	Being able to leave work on time	3	2
31	Being close to friends, family and other contacts	3	2
32	Access to social, cultural and sporting activities in the vicinity	-3	-3
33	A supervisor who is a skilled trainer	1	1
34	Being given autonomy	1	1
35	A well-staffed ward	4	4
36	Pay banding/opportunities for on-call	0	-1
37	High exam pass rates associated with the post	-4	-3
38	Variety of ward, clinic and theatre work	0	0
39	Being able to take annual leave when I need it	4	3
40	Reliable access to IT facilities	-1	0
41	Facilitates my individual circumstances (e.g. religious/cultural)	-3	-3

Those further along with their training are less concerned with a flexible rota (#8) and more concerned with a rota that is planned in advance (#21) than those in foundation. Those further along in their training also appear to bring issues of training pertinent to their own development needs (#23) more to the fore than did the foundation trainees. This is perhaps unsurprising as the trainees further along will have had more experience so will better know what areas they need to develop, in theory. In terms of the groups who prioritise training and supervision, there were differences in the perceived role of the supervisory team (see Table 20 for details). Whilst both those at the foundation and core trainee stage considered a supportive supervision team (#1) to be a top priority, the associated characteristics of this team that were considered important differed. Those in foundation prioritised good role models (#3), whereas the core trainees were more concerned with their supervisory team seeking out opportunities for them (#25). This somewhat echoes the differences found in the other perspective; overall the core trainees appear to have a slightly more clear focus on their own, individual development needs than the foundation trainees. This is also reflected in the slight difference of proportions between the groups detailed previously.

Table 20 - Comparison of reputation, supervision and training groups.

#	Item	F2	CT
1	A supportive supervision team	4	4
2	Being closely supervised	0	1
3	**Good role models for the doctor I want to become**	**4**	**2**
4	**Timetabled clinics that I am able to attend**	**-2**	**0**
5	A department/unit with a good reputation	-1	0
6	A placement close to where I live	-1	-2
7	Opportunity to avoid certain ward/clinic/theatre work	-4	-4
8	A flexible rota	-1	-1
9	A supervisor who demonstrates up-to-date evidence-based practice	3	3
10	Regularly receiving constructive feedback	3	3
11	Working with experts in the field	1	2
12	Access to parking	-1	-2
13	A smaller hospital where everyone knows you	-3	-3
14	Induction handbooks and a supervisory team prepared for my arrival	-1	-1
15	A safe and non-threatening environment	1	0
16	Availability of refreshments 24/7	-3	-3
17	Access to a doctors' mess/rest area	-2	-2
18	Evidence of high quality training (e.g. GMC survey)	1	1
19	Opportunities to take on additional responsibilities	0	0
20	Opportunities to teach juniors	2	1
21	A rota that is planned in advance	0	1
22	The opportunity to do research/present at conferences	0	2
23	Matches my own development needs	3	2
24	Provision for accommodation	-4	-3
25	**A pro-active supervisor who seeks out opportunities for me**	**1**	**4**
26	Being treated as a colleague	2	1
27	Being trusted to carry out tasks and procedures (e.g. writing notes)	2	1
28	Practical exposure to a focussed set of clinical skills	2	3

29	Modern facilities and equipment	-2	-2
30	Being able to leave work on time	-1	-1
31	Being close to friends, family and other contacts	0	-2
32	Access to social, cultural and sporting activities in the vicinity	-3	-3
33	A supervisor who is a skilled trainer	3	3
34	Being given autonomy	1	-1
35	A well-staffed ward	2	2
36	Pay banding/opportunities for on-call	0	-1
37	**High exam pass rates associated with the post**	**-2**	**0**
38	Variety of ward, clinic and theatre work	1	0
39	Being able to take annual leave when I need it	0	0
40	Reliable access to IT facilities	-2	-1
41	Facilitates my individual circumstances (e.g. religious/cultural)	-3	-4

Summary and Conclusions

With this Q-study we have provided insights into what foundation (F2) trainees consider to be valuable to good clinical placements. Using data from foundation trainees based in UHBs across Wales, we have discovered what aspects they prioritise in similar ways, as well as the ways in which their perspectives diverge. To concentrate on the similarities across participants, they generally held quite high levels of agreement with the statements presented. This suggests that overall these statements are mostly considered to be valuable to a good clinical placement. What we have discovered is therefore a discussion of the *relative* importance of statements. The foundation trainees in this study agreed that a supportive supervision is one of the most valuable aspects of a clinical placement. Among the least important aspects to these students were those of accommodation provision, access to activities and availability of refreshments. It is the former that is of particular interest as this covers those in various circumstances; those that already had their own homes did not value it as it was not required, and those who would seek accommodation for their placement would prefer to do so themselves.

In the context of these similarities across the participants, we discovered two distinct groups who displayed otherwise diverse perspectives on what constituted a good clinical placement. The first of these groups was one that presented a view that prioritised issues of organisation and convenience. This was demonstrated with the high placement of statements which prioritised a "good work life balance" (as one participant put it). Organisation is important to this group, as the high placement of 'a well-staffed ward' demonstrates, for reasons of both patient safety and workload. It also ties into other statements regarded as valuable to this group which relate more to family and other commitments ('leaving work on time', 'being able to take annual leave', 'flexible rota'). Interestingly, this group had proportionally less family commitments than the other group, rather they seem to simply prioritise their life outside of work. As one participant associated with this group stated, 'Friends and family are the most important thing in life – job is a side order, friends/family is the main course. They are my priority'.

The second group displayed priorities which lay with the quality of training and supervision received. This group held supportive supervision and having good role models to be the most valuable aspects of a good clinical placement. Other statements given high priorities included those which focussed on training and development aspects, matched to them as individuals. Reasons given for these priorities show an awareness of their junior position

and a desire to improve upon and develop their professional identities and capabilities. This is summarised particularly well by one individual in this group: 'being a young doctor, having good role models helps to shape my practice and make me into the best doctor I can be'.

In terms of characteristics of the two groups, the main difference was that of the gender distribution. There was a significantly greater proportion of female trainees that were associated with the viewpoint expressed by the group concerned with organisation and convenience than there was in the group concerned with training and supervision. Conversely, there were more male participants that were associated with the training and supervision group than the group concerned with organisation and convenience. Contrary to what one might expect, those in the training and supervision group were *more* likely to have family and caring commitments than those in the organisation and convenience group. This indicates that the differing viewpoints presented by the two groups are more about differing priorities than a reflection of outside responsibilities. There was little difference in terms of home ownership.

We compared these findings with those from a precious study which conducted the same sorting task with core (CT1 and CT2) trainees. The groups found in this previous research and those found here bore strong resemblance to one another. There are some differences between the perspectives which, although this is a cross-sectional piece of work, suggest that whilst progressing through clinical training there is a move towards the prioritisation of training over and above issues of organisations and convenience. This was demonstrated with a larger proportion of those in the CT1/2 cohort associating with the training perspective than those in F2. There were some differences found between the cohorts within the corresponding groups. These included a stronger emphasis on their own development needs (organisation and convenience group) and supervisors seeking out opportunities for the trainees (training and supervision group) by the core trainees, when compared to the corresponding groups in the foundation trainee data. Overall, this suggests that the core trainees have a clearer focus on and priority towards their own, individual development needs than the foundation trainees have.

The Q-sort analysis provides a valuable insight into trainees' thinking about what is important in a clinical placement. The findings from this study with foundation trainees could be used together with the earlier study with core trainees, to inform the presentation of information about clinical placements in Wales with a view to ensuring good coverage of both priority areas, and perhaps tailoring information to different groups of trainees.

References

Dumangane, C., Muddiman, E., MacDonald, J., Allery, L., Phillips, S., & Bullock, A. (2016) Clinical Placements: What do Core Medical Trainees Value? Report of a Q-sort Analysis. CUREMeDE, Cardiff University

Appendix 1: Categorised list of statements

Thinking generally about your experiences throughout you clinical placements, what are the things you value most?

Supervision

1 A supportive supervision team
2 Being closely supervised
9 A supervisor who demonstrates up-to-date evidence-based practice
10 Regularly receiving constructive feedback
25 A pro-active supervisor who seeks out opportunities for me
33 A supervisor who is a skilled trainer

Working environment

3 Good role models for the doctor I want to become
11 Working with experts in the field
15 A safe and non-threatening environment
26 Being treated as a colleague
27 Being trusted to carry out tasks and procedures (e.g. writing notes)
34 Being given autonomy
41 Facilitates my individual circumstances (e.g. religious/cultural)

Staffing and organisation

35 A well-staffed ward
4 Timetabled clinics that I am able to attend
14 Induction handbooks and a supervisory team prepared for my arrival
28 Practical exposure to a focussed set of clinical skills
36 Pay banding/opportunities for on-call
16 Availability of refreshments 24/7
17 Access to a doctors' mess/rest area
40 Reliable access to IT facilities

Placement/region

5 A department/unit with a good reputation
6 A placement close to where I live
12 Access to parking
13 A smaller hospital where everyone knows you
18 Evidence of high quality training (e.g. GMC survey)
29 Modern facilities and equipment
37 High exam pass rates associated with the post

Educational experiences

7 Opportunity to avoid certain ward/clinic/theatre work
19 Opportunities to take on additional responsibilities
20 Opportunities to teach juniors
22 The opportunity to do research/present at conferences
23 Match with my own development needs
38 Variety of ward, clinic and theatre work

Lifestyle factors

8 A flexible rota
21 A rota that is planned in advance
24 Provision for accommodation
30 Being able to leave work on time
31 Being close to friends, family and other contacts
32 Access to social, cultural and sporting activities in the vicinity
39 Being able to take annual leave when I need it

Appendix 2: Post-sort questionnaire

1. Looking at the two items you have placed at the far right of your Q sort (column 9: most important), please tell us what these items mean to you? Why do you feel strongly about them?

Most important item 1

Most important item 2

2. Looking at the two items you have placed at the far left of your Q sort (column 1: least important), please tell us what these items mean to you? Why are they the least important?

Least important item 1

Least important item 2

3. Are there any other statements that you think particularly capture your views? If so please list them here with a brief explanation of what that they mean to you.

4. What would be your most important concern/priority when being allocated your placement?

5. Are there any items that you struggled to place?

5a. Can you explain why these items were difficult to place?

6. Are there any statements that you would like to add? If so, please put it into words below:

6a. Where would you have ranked this statement if it had been available to you? Please tick a box:

Least important				***Neutral***				***Most important***
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

We would now like to ask some more questions about you to help us to understand your views and priorities.

7. Looking back, do you think your priorities on clinical placements have changed over time?				Y	N
7a. Please comment…					
8. Looking forward, do you think your priorities on clinical placements will change in the future as you become more experienced?				Y	N
8a. Please comment…					
9. Have you had an out of programme experience?	Y	N	9a. If no, would you consider it?	Y	N
10. Do you have family/caring responsibilities?	Y	N	11. Are you a homeowner?	Y	N
12. Do you have children?	Y	N	13. Did you do your F in Wales?	Y	N
14. Did you do your medical degree in Wales					
15. Are you currently based in:			North Wales	South Wales	

Name:	**Gender:**
GMC Number:	**Year/Grade:**
Email address:	**Age:**

THANK YOU. This is the end of the questionnaire. Please hand it to one of the Cardiff Team