**Script for Critical Voices presentation, 13th June 2015**

**Martha**

Slide 1. showing examples of drawings (Oxford/ BSMS)

We are researchers in the College of Arts & Humanities at the University of Brighton. As a research partnership we are interested in a variety of drawing practices that occur in the health system. Many of these practices are deeply embedded and widely prevalent in health care. There are specifically three types of drawing that we will be looking at today; what we refer to as ‘Manual drawing’ shown here on this slide, but also, secondly, traditional ‘Medical Illustration’ and thirdly ‘Graphic Medicine’.

There is, we are discovering, a great deal of drawing involved in the professions of medicine, surgery, nursing and others. What we are interested in, in much of our research, are the manual drawings that are made ‘in the moment’ between health professionals, or between health professionals and patients. For example; a quick diagram made for a patient, or a plan showing how an aneurism has been repaired for a nurse caring for a patient. These drawings, or rather, this kind of drawing process, appears to form a key part of the communication about diagnoses and treatments.

We were presenting these research ideas of ours at an illustration and science conference in Oxford, in 2013, when we came across the cardiothoracic surgeon, Francis Wells, based at Papworth Hospital, Cambridge. Francis is a noted expert in the repair of the mitral valve. He has made drawings as part of his surgical practice for many years and he also draws for himself, as an art practice. Luckily for us, Francis was keen to be part of our study about clinical drawing and has become a key collaborator.

**Philippa**

Slide 2. Example(s) of medical Illustrations

Illustration, as a discipline, uses graphic representations to ‘visualise’ or ‘depict’, and illustrations are to varying extents intended to provide decoration, enlightenment and clarification. Medical illustration is a specific, defined field in its own right and there are specialist centres, such as at Johns Hopkins University in the USA and the Universities of Dundee and Cardiff here in the UK, which train medical illustrators, requiring very high standards both in medical knowledge and artistic ability. Medical illustration provides a visual form for the comprehension of complex scientific information. So why is this relevant to our research? A key question for us is why, with such extraordinary, high quality medical illustrations and 3d digital models available, do health practitioners and patients alike continue to make and engage with manual drawings. Why is there still so much low-tech, ‘live’, in-the-moment drawing?

Slide 3. Blood Drawing still We have included this slide to explain in a little more detail why the surgeon Francis Wells was interested in our clinical drawing research. This image shows Francis drawing in blood, post-operatively. He makes these drawings to commit his surgical procedure to memory, to reflect very quickly on his practice and, often, to elucidate aspects of the operation to visiting or trainee surgeons. For Francis, using surgical instruments and the blood of the chest cavity for drawing in this way is quite natural. It is normally an exchange that takes place with just one or two colleagues, however - it is not normally filmed or viewed beyond the operating theatre. The blood drawings themselves cannot be taken out of the theatre and have to be incinerated. This ‘still’ was taken from the film Swab Drawings, made in 2003 by the artist Jane Prophet, and was a one-off capturing of the surgeon’s drawing practice.

The sketchbook shown in this slide (4. Sketchbook), along with the film just mentioned, was also included in a drawing exhibition that Martha and I curated at the University of Brighton in 2014. The open sketchbook shown here reveals drawings made by Francis Wells at cardiac clinics he has run in Ethiopia. Here, the drawings are made in pencil or pen, they are annotated, and intermittently a photograph has been clipped to the pages. These sketchbooks can be seen as containing images that combine elements of medical ‘illustration’ and clinical records, and they are produced once Francis has left the operating theatre but before the details of the specific procedure have become less clear in his memory. This slide (5. Exhibition) shows the sketchbooks with any identifying details redacted, being displayed as part of the drawing exhibition in the art school in Brighton.

**Martha**

So, Francis became known to us as someone for whom drawing was intuitive and fully integrated within his practice as a surgeon. What we want to focus on today, though, was an offshoot of this collaboration with Francis. Whilst we were interested in how graphic depictions were being made by doctors and others in their daily work, it became clear that Francis was interested specifically in how illustrators might represent particular, thorny issues within his own specialism. Could they, for example, help health professionals learn more holistically about the cardiac patient’s journey through illness and recovery – rather than focusing on the mechanical and technical dimensions? Could they find new ways of depicting the dramatic, complex and differential nature of cardiac patients’ experiences and the impacts on those around them? Could there be, to put it plainly, a graphic novel of the heart?

**Philippa**

We began to consider the issues Francis had raised, particularly the possibilities of the comic strip format. Slide 6. Montage of novels or screen grab from GM website

As you probably know, there has in recent years been a significant growth of interest in Graphic Medicine as a genre and an expansion in the amount of contemporary graphic medicine novels being published. Works included under the Graphic Medicine label often experiment with black humour and satire, they explore some of the darker corners of human experience and their approach to their topics suggest that nothing need be ‘off-limits'. These novels tend to be aimed at fairly wide-ranging readerships, exploring health issues in ways that invite curiosity and empathy and which can, arguably, be seen as a counterpoint, or perhaps a complement to more traditional medical illustration.

**Martha**

We invited Francis Wells to spend a day with Illustration undergraduates and invited two published graphic novelists (Slide 7. NS & IW) to plan a workshop that could bridge these very different worlds; narrative illustration and surgery. Ian Williams, on the right, is a GP and author of the *Bad Doctor* and Nicola Streeten is author of *Billy, Me & You*. They are part of the Graphic Medicine genre and as such their work translates medical and patient experience into sequences of images and text to tell a story. They prompted debate on the tensions between knowledge and representation, asking questions about the iconic image in relation to anatomical accuracy and to what extent it matters to a non-specialist reader if the diagram of the heart is not strictly ‘accurate’.

So to take the ‘iconic’ status of the heart first; the heart occupies a special place in our cultural world and symbolic language. It has an impressively long history in constructing meaning; our hearts sink, they leap, they can be in our mouths, they can stop, race, jump, skip a beat. The heart shaped silhouette is an international symbol representing love for either a person or New York and so complex an organ and saturated in meaning that it provided a fertile focus for this workshop.

(Slide 8. warm up exercise) An initial exercise was to work in three’s to make a short ‘heart’ themed story in just 9 frames. This images here is of the story that Philippa, colleague Fiona Wilson and I made during the workshop.

For the second workshop objective, exploring the notion of anatomical accuracy, Francis Wells joined us (Slide 9. FW) and discussed the difficulties of drawing the heart as a two dimensional representation. The heart is a complex, twisted, three dimensional shape that doesn’t yield to such flattening simplification. Additionally he explained that a heart, once removed of muscle function and therefore not ‘inflated’ is an undefined mass and therefore difficult to observe and draw.

So it was fascinating to hear, and see, (Slide 10. FW) him discuss the drawing methods he employs to record surgical procedures and for him (Slide 11. FW drawing) to draw for us showing how he treats the tricky nature of his subject.

**Philippa**

And what did the students get out of this encounter? (Slide 12. Students) They learned firstly about the theory and art of graphic novels from two articulate, successfully published graphic novelists. They also heard the views of a leading surgeon about the need for a different kind of approach to illustrating ‘the story’ of cardiac surgery. Thirdly, they had the opportunity to discuss how ‘information accuracy’ can be interpreted in very different ways.

These were the more formal achievements of the day. But, as we know, social and learning encounters are more complex, messy and unpredictable than this. There were moments where we noticed that the students were surprised and maybe a little in awe of Francis: his confident bearing, his life-saving aura, his knowledge and expertise. Yet Francis was also self-confessedly nervous about the situation – about being in an art school. He commented on the difficulty of presenting to a roomful of creative students within an art school environment and particularly about drawing in front of them: he clearly indicated that he was in a territory of ‘otherness’, a quite different professional domain.

In later discussions with the students about his operating theatre blood drawings, examples of which we showed you at the beginning of this talk, Francis found himself under a battery of challenging questions about the ethics of his practice and the implications for the patients. For both the heart surgeon and the illustration students, then, this workshop seemed to provide an opportunity to encounter and engage with a completely different world view.

**Martha**

(Slide 13. Image of FW’s script) So, for the second main practical workshop task, the students were all given a single short brief written by Francis. This told the story of Sally, an active and apparently healthy woman in her forties who begins to suffer frightening and inexplicable symptoms. The brief describes how Sally’s husband also notices her symptoms. Sally goes to her GP and is then sent to a specialist who uncovers the diagnosis of a malfunctioning mitral valve. The brief provided just enough information for students to work up sample graphic novel spreads, and they only had a couple of days. For this reason, the brief concluded with the recommendation that Sally have surgery, rather than exploring her experience of surgery and life post-operation. But what kind of visual representations would the students make of this scenario? One of the things we wanted to share with you today was some examples of these preliminary and exploratory first attempts to convey the heart patient’s experience in graphic form.

(Slide 14) In this image, the student has focused down from the individual, to the symptoms, to the organ in three simple steps. She’s given her drawings a smudgy, grainy, slightly faux-naïve feel and it is interesting how this deceptively simple sequence of images conveys the drama of a life-threatening event.

(Slide 15) These spreads use a clean and pared back style to convey emotion in a very simple and understated way – you can see how the student has used body posture and gesture to indicate despair or distress, whilst the use of text suggests a more dispassionate narrative voice.

(Slide 16) The brief is then addressed completely differently by this student. Here the images have a strong use of colour and a dream like quality, and the student has decided to invest the neutrally-told story brief with specific interpretations: the drawing of the doctor at the lower left hand corner, for instance, has taken on a rather malevolent aspect. Perhaps this suggests that patients cannot always respond rationally when feeling ill, scared and vulnerable – and that they may not always view medics as saviours.

**Philippa**

(Slide 17) This student’s work shows a completely different, entirely metaphorical take on the brief. Rather than attempting to represent the character or life of a patient called Sally, the student has reinterpreted the notion of the struggling, damaged heart by means of a Viking longboat at sea, whose oarsmen are guided by the heart-like beating of a drum. As the weather closes in, the drummer’s rhythm falters and is under attack…

(Slide 18) In this spread, the student has played with a collage aesthetic of a kind once more typically associated with satire or counter-cultural publications. The student has made the heart a character in Sally’s story, at one point talking back to her: you can see in one frame that the heart is exclaiming, ‘hold up, Sally!”.

(Slide 19) And here the heart takes centre-stage as a surreal character in the story of its own illness, responding to a physical examination by gasping ‘I feel so violated’! Again, whilst this layout is clearly playing with a number of ideas, it raises interesting questions about the experience of medical and surgical interventions from the patients’ point of view. Patients, care-givers and health professionals each come with their own experiences, values and priorities, and they don’t always align.

**Martha**

(Slide 20) Other students produced work that was closer to a more traditional graphic information style, such as this (Slide 21); some went further into a very expressive mode of emphasising the internal emotional experience and some invoked elements of each (Slide 22)

(Slide 23 Collage of all students work) As we can see from these very varied examples, the graphic novel approach can both convey information, a sense of the journey of illness, treatment and recovery, and explore tricky emotional responses.

**Philippa**

So, in our talk we have mentioned three forms of graphic representation in particular that we feel offer a rich exchange in knowledge and understanding between the arts and health. We briefly mentioned the practice of informal manual drawing that takes place between health professionals and patients, which we think is playing a regular but rather ‘unsung’ role within clinical communication. We also mentioned the tradition of medical illustration, with its ability to visually translate and illuminate complex information for specific audiences. And we shared with you highlights from a project that explored the potential of the graphic novel form to produce compelling narratives as well as technical or experiential information about health. In this, the graphic novel form has a particular advantage, allowing multiple viewpoints to be explored, enabling attention to shift between different layers and perspectives on the story.

We believe that each of these illustrative practices makes a valuable contribution within health care. We also think it is likely that, as core NHS services are squeezed further and further, we will need to show compelling research-based evidence of the value they have to patients and professionals. But we would like to think that drawing will be increasingly understood as having a very important place in health communication and understanding.