

A qualitative analysis of staff-client interactions within a breast cancer assessment clinic

NIGHTINGALE, Julie <<http://orcid.org/0000-0001-7006-0242>>, MURPHY, F., EATON, C. and BORGAN, R.

Available from Sheffield Hallam University Research Archive (SHURA) at:

<https://shura.shu.ac.uk/22048/>

This document is the Accepted Version [AM]

Citation:

NIGHTINGALE, Julie, MURPHY, F., EATON, C. and BORGAN, R. (2016). A qualitative analysis of staff-client interactions within a breast cancer assessment clinic. *Radiography*, 23 (1), 38-47. [Article]

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

A qualitative analysis of staff-client interactions within a breast cancer assessment clinic

Introduction

Breast cancer is the most common female cancer in Western civilisations,¹ and early diagnosis is essential for improved prognosis. Following mammographic breast cancer screening, the majority of women will have a negative result. However in England, 7.9% of women attending for their first (prevalent) screen and 3% of women attending for subsequent (incident) screens in 2013-14 were referred on to an assessment clinic for further evaluation.² The percentage of women subsequently found to be clear of cancer is variable, but previously noted to be 57.43% in the study centre.³ However there is some evidence to suggest that these false positive [FP] women are at greater risk of interval cancers and larger cancers at presentation.^{2;4;5} Re-engagement with routine screening following a FP result is therefore essential. A systematic review and meta-analysis of over 340,000 attendances^{6,7} identified that, within Europe, FP women are just as likely to re-attend routine screening as those who had a normal mammogram result; however in some countries such as Canada FP women were less likely to re-attend.

The assessment clinic client experience can be intensely stressful, with increases in anxiety, worry and intrusive thoughts.⁸ Brett et al⁹ reported the experience as a shock, with 37% (n=109) of women in one study reporting their referral for assessment to be either 'very scary' or the 'scariest time in my life'.¹⁰ Negative psychosocial consequences have been identified six months after FP diagnosis, experienced at a similar level to women who had received a diagnosis of cancer.¹¹ Three years later women still reported negative psychosocial consequences¹¹; this timeframe coinciding with an invitation for the next routine screen in some countries such as the United Kingdom.

Clients attending an assessment clinic may have a combination of diagnostic tests in a single visit; some studies suggest the nature of the diagnostic workup does not influence re-attendance rates,¹² yet others note adverse effects on re-attendance following needle sampling or biopsy.^{13;14} While the one-stop clinic may be resource efficient the clients may feel they are on a diagnostic conveyor-belt, potentially bewildered by the process and some of the complex medical terms used.¹⁵ The

client journey may involve several different client-health professional encounters, and while these are expected to be highly professional and empathetic, this may not always be the case.¹⁴

A retrospective six year audit undertaken within a UK breast screening service identified that the percentage of eligible FP women failing to re-engage with screening was considerably lower than non-engagement in the general screening population (15% compared to 29%).³ However, those undergoing biopsies were more likely to return for routine screening than those undergoing minimally invasive assessment (93% compared to 82.5%).³ This was at odds with published literature^{12;14} and suggested that the additional support received by women having biopsies has a beneficial effect on their future re-engagement with screening.³ A qualitative study was initiated to explore in detail the nature of staff-client interactions within a breast assessment clinic affiliated to the NHS Breast Screening Programme.^{17;18}

Methodology

The study site is a breast screening service with a three year screening population of 88,000 women, covering a wide geographical area and serving a largely socially deprived, mixed ethnicity population in the North West of England. The clinic is staffed by consultant radiologists (physicians), different grades of radiographer (mammography practitioner, advanced practitioner and consultant practitioner), assistant practitioners and breast care nurses. The aim of the research was to study staff-client interaction culture within the assessment clinic using an ethnographic approach.¹⁹ Culture is defined as ‘the customs, civilisation, and achievements of a particular time or people’²⁰ and details the way of life and habits within a societal group. Ethnography is well-suited to producing a detailed description and interpretation to allow others to understand the culture within a social group – in this context a breast assessment clinic. No similar studies have been undertaken within the breast screening assessment environment, although ethnography has been applied within general radiography settings.^{21,22}

The objectives of the study were to:

1. Observe the type and frequency of staff-client communication episodes within the assessment clinic
2. Identify the client perceptions of the assessment clinic
3. Explore staff perceptions of the observation findings
4. Develop a model to capture the culture of staff-client interactions in the assessment clinic

While the ethnographic approach is highly flexible, the central tenets of this methodology are the use of participant observation and prolonged immersion within the culture to be studied.²³ Additional research methods such as focus groups and interviews may be used to give valuable scope for triangulation in ethnographic research, and these were employed within this study. The researcher in this study (female radiography academic with experience of breast screening only as a service user) assumed an 'observer as a participant' role. First described by Gold in 1958,²⁴ this clarifies that observation is the main reason for the researcher's presence but facilitates participation in some activities, in this case for example assisting a client with limited mobility. Purposive sampling ensured all aspects of clinic business were observed over an extended period of several weeks; once the potential 'Hawthorne' effect has been overcome,²⁵ it is more likely that deviation from normal working behaviours is difficult to sustain for any length of time.²⁶

Observations of a natural setting can yield an overwhelming amount of data and are best conducted within an agreed framework. Kurtz et al ²⁷ described a clinical examination as containing five discrete stages, and these were used as '*A Priori*' (known in advance) themes around which the observations were structured (Figure 1). The observation events were captured via a data collection sheet (Appendix 1) and discretely recorded audio observations. A brief semi-structured interview with clients was undertaken at the end of the clinic visit (Appendix 2).

The observation and interview data was transcribed and analysed thematically, and emerging themes were used to inform a focus group schedule. Two staff focus groups were conducted: *practitioners* (radiographers / mammographers, assistant practitioners and reception staff; n=9), and *consultants* (consultant radiographers and radiologists; n=3). The focus groups were facilitated by two additional radiography researchers who had expertise in qualitative research methods,

following a model proposed by Kruegar.²⁸ A pre-arranged question schedule (Appendix 3) sought further information and validation of the observation findings.

The focus group discussions were digitally recorded and transcribed, and analysed using an inductive approach to produce emergent themes using a process aligned to Thematic Content Analysis.²⁹ One researcher conducted the initial analysis which was then peer-reviewed by the second researcher. To ensure the findings reflected the meanings of the participants as closely as possible, the research team adopted the concept of 'trustworthiness'³⁰; strategies included triangulation, member checking, peer review, maintaining audit trails and using direct quotations in context.

Findings

Data saturation was reached after analysing twenty-three complete client journeys, which included multiple discrete observation events. Fifteen clients also completed a semi-structured interview at the end of their clinic visit; their feedback was overwhelmingly positive. Initial observation data identified that the individual client journey mirrors the five stages of clinical examination outlined by Kurtz et al;²⁷ these stages aligned well with both the whole patient journey and the journey's component parts (eg. an ultrasound examination) (Figure 1). This 5-step model in this context is multi-directional, with some stages repeated or taken out of order, and others, such as information gathering, commencing prior to patient arrival.

Observation and interview data yielded five initial categories which were discussed within the focus groups for validation and in-depth analysis. This iterative process culminated in three final themes which together form a sequential model of the staff-client interaction process: *breaking down barriers*, *preparing the ground* and *sign-posting* (Figure 2). These themes are discussed and, where appropriate, links to pertinent literature are made.

1. Breaking down barriers

Breaking down barriers is a recurrent theme observed predominantly in initial staff-client interactions, where a range of strategies are employed to attempt to gain the

trust of the client, gauge their level of understanding of the process, and manage their anxiety.

The client interviews revealed that receiving the assessment invitation letter provoked a sustained and heightened level of anxiety, previously identified as a feeling of 'shock'.⁹ Nevertheless women in this study found the letter helpful with reassuring breast cancer facts and figures, and appreciated the option to telephone the clinic in advance. While pre-clinic telephone contact can be very beneficial in this early 'waiting' stage,³¹ only one of the women interviewed had used this facility. Some clients had shared their worrying news with friends, though discussion with social networks can result in heightened anxiety that is disproportionate to the actual risk factors,^{32:33} an issue previously recognised in diagnostic imaging and nuclear medicine patient experience research.^{34:35} Other clients, however, preferred not to inform friends and family:

"I thought don't alarm anybody, tell them after ...because there's a 50/50% chance of it being okay and 50% is good odds, isn't it?" [Client ID 20]

Initial staff-client interactions upon arrival at the clinic were crucial in calming and reassuring the client. Good preparation was seen as vital to instilling an air of confidence in the individual staff and in the unit as a whole. The practitioners were generally attentive and sensitive to the client's needs, and were adept at picking up both verbal and non-verbal cues, noting that:

"Some ladies want a lot of information, other ladies don't...they want you to get on with it... So you've got to gauge it." [Practitioner focus group]

Underlying fears were most overt when clients were questioned about medical and family history, consistent with evidence from the literature.³⁶ Some missed opportunities to respond with empathy were observed, including ignoring the signs or distracting the client with procedural information.³⁷ Consistent with patient consultation literature,³⁸ staff were most concerned about the women who were quiet due to intense worry:

"Sometimes they don't want to talk...it's the silent ones that you worry about."
[Practitioner focus group]

"Some patients are naturally quiet... often it is a one-way street...And then when you tell them everything is OK, they are chatty...." [Consultant focus group]

Extreme anxiety was witnessed during the more invasive procedures, where the client would often become visibly pale or clammy. Clients who were talkative became quiet, often manifested by monosyllabic answers to the practitioner's questions. Practitioners remained fully aware of the client's condition and showed empathy and reassurance; consultants used physical touch and personal connections to break down professional barriers:

"I hold their hand...and I say 'Look, I am 99% certain everything is fine here. But one percent, if you were my wife, if you were my mum, I would want an extra reassurance from a biopsy'. And they like that." [Consultant focus group]

While touch is a fundamental human interaction, it is not well studied in the medical literature. However one study of doctor-patient consultations³⁹ confirmed that patients are incredibly welcoming of expressive touch, while some doctors were reluctant to use touch in certain situations. They recommend raising doctors' awareness about the potential for consciously using expressive touch in consultations as another tool to improve doctor-patient communication.

While touch may be of benefit for comforting the silent or distressed client, the consultants recognised that occasionally practitioner 'silences' due to intense concentration could be anxiety-provoking for the client:

"I don't think the mammographers always realise how long those silences can be."
[Consultant focus group]

Silences have previously been studied within medical consultations (oncology), identifying that the most silences were observed during physical examinations, with patients being silent 71% and physicians 64% of the time.⁴⁰ There was considerable variation in communication styles between practitioners as in the current study - no assumptions can be made about why these were different, but experience, age and cultural factors may be influential. Experienced consultants explained how they recognised and prepared for potential silences:

"I always warn the patient, because otherwise they think silence is sinister."
[Consultant focus group]

However effective team-working often filled these awkward silences, with assistant practitioners initiating 'small talk' when the consultant or practitioner is

concentrating. During more lengthy procedures, experienced practitioners were also able to perform the procedure whilst engaging in 'small talk' to:

“Get them to try and open up and say how they are feeling.” [Practitioner focus group]

Previous studies^{38;41} identified a disparity in the amount of information given to clients depending on whether the client actively seeks information. In this study there was also some evidence of the more inquisitive and informed clients receiving very thorough explanations. While many clients did not ask questions, those having invasive procedures appeared to be particularly anxious and pessimistic about the outcome and asked probing questions about image appearances. Previously described by Rhodes⁴² as the 'concreteness of diagnosis', this refers to a *'historical connection between visual images and the medicalization of the interior of the body, a set of cultural assumptions that make seeing into the body central to confirming and normalizing patients' symptoms...'* (p1189). Fixation on the size of the abnormality was a common theme:

“Is it a big lump.....so they are not tumours as such?” [Client ID: 09]

“Well I just said ‘was it cancer?...and he said ‘whatever it is its only pea sized’. So it’s nothing” [Client ID: 1]

Where additional clarity was required, consultants drew diagrams to explain image appearances to their clients; this strategy to inform understanding of the diagnosis has been previously recognized as good practice within nursing literature.⁴³

Practitioners performing the recall mammograms tended to focus their conversation towards explanations about the procedure. While they introduced themselves by informing the women of their name, they rarely described their job title and this led to the women often assuming they were nurses. This was acknowledged and accepted by the practitioners. Their questions aimed to seek consent, check the status of the patient, check clients' understanding and gather information. The style of seeking consent varied considerably, from direct and focused to gaining compliance in recall mammograms, to a conversational and shared decision making approach during invasive procedures. Gathering information is essential in developing a diagnosis, but staff used 'open' questions as a way of establishing rapport and breaking down barriers while preparing for the procedure:

“So you have no other trouble with your health at the moment?”

[Client ID: 11, Ultrasound]

“Have you got any lumps and bumps or anything that is bothering you?”

[Client ID; 12, Ultrasound]

However once the procedure had commenced the practitioners seldom used ‘open’ questioning, especially when time is limited and the practitioner is concentrating on the task rather than the client. This was noticeable during stereo biopsies where practitioners were intensely concentrating. Here information gathering was much more purposeful, for example checking on the client status:

“Are you OK?” “Are you alright?” “Cope with that?”

2. Preparing the ground

Preparing the ground is a theme describing a process of carefully managing the flow of information to the client, such that their diagnosis is delivered in a sensitive manner by the appropriate person at the right time. The delivery of good or bad news should be seen as a process rather than a one-off event.

The consultant focus group discussed the concept of a hierarchy of information, explaining that too much information too soon could confuse the client, and too little could lead to rumour, supposition and increase anxiety, though clients did not make this connection within the interviews. Consultants also described a gradual cascade of information, commencing at the first presentation in the clinic:

“Most of the patients at that stage don’t ask for lots of information...most patients are quite happy to know what the process is going to be, what it is going to entail, what is going to happen to them...and may be who is going to tell them and at what point in time” [Consultant focus group]

The consultants recognised that at this early stage it is important to manage clients’ expectations appropriately. They describe initial consultations as keeping the dialogue ‘open’, using several pre-prepared and rehearsed statements that allow for various eventualities to unfold as greater clarity in the diagnosis is achieved. The experienced practitioner controls the situation by giving clear information and

politely deflecting or 'closing down' further discussion at that point. Consultants discussed the difficulties of blurred role boundaries:

"I have never found, in my experience, they [practitioners] have said too much. They are more likely to be too cautious; they are frightened of over-stepping the mark."
[Consultant focus group]

Indeed on several occasions early in the client journey their concerns were not addressed by an over-cautious practitioner, and the clients appeared to be yearning for information about their diagnosis:

"We are waiting for a snippet of information we can hang on to" [Client ID: 7]

However the consultants and breast care nurses, being present at the end of the client journey, were able to offer more reassurance as they possessed additional information:

"I can't remember the exact wording, but he implied that...this was just a check to make sure that it was nothing...you feel a bit more relaxed ...you're listening for that reassurance." [Client ID: 12 – interview with researcher]

Several studies^{15;44;45} identify that the terminology used by practitioners can be easily misinterpreted by patients. In preparing the ground for a subsequent diagnosis, practitioners were observed to consciously avoid the use of the word *cancer*, and instead used descriptors such as *worrying* or *suspicious*. Consultants described taking a lead from the client:

"And if they use the 'C' word, then I will maybe use it, but otherwise I never, ever use that word of my own volition..." [Consultant focus group]

The practitioners stated that their clients avoided using the word *cancer*, which is at odds with the observation and interview findings, where clients readily and appropriately used cancer-related terminology such as *tumour*, *benign*, *malignant* and *cancer*. This finding was also conflicting with a study by O'Connell which showed that there is widespread misunderstanding of terminology used within a breast clinic.¹⁵ O'Connell notes that breast clinics are often very busy, which may lead to the inadvertent use of medical terminology without explanation to save time. However in our study, where practitioners were pressed to explain suspicious findings on images, they endeavoured to use lay terminology:

“Your images show a type of chalk, a calcification that grows in the breast. The reason the chalk is there is for a lot of different reasons, some of them are very innocent, they can be caused by cells dying which make little bits of chalk”

[Client ID: 1, Breast examination]

However there were inconsistencies in the analogies for micro-calcifications (*chalk; white dots; grains of salt*), and this may have been detrimental to the client as they were handed on from one practitioner to another.

Preparing the ground is a phrase used regularly within the consultant focus group – breaking good news is done quickly and efficiently:

“I try to give them good news as soon as possible, because I know they are worried...don’t go and wash your hands and turn your back and all that sort of stuff.”

[Consultant focus group]

Where there is a high degree of uncertainty, practitioners have to balance honesty about the lack of information, raise suspicions, yet be reassuring:

“I have measured it at about 7mm, so tiny, tiny, and tiny, obviously you are worried and you want to know what is going on. I cannot give you a definitive answer today, but I am suspicious of what I see. If it is anything to worry about, it is still very, very small, OK?” [Client ID: 7 – Ultrasound]

Breaking bad news is now generally accepted as a process, not a one-off event,⁴⁶ and this was the strategy employed by the consultants who took time to build background information, “*fire warning shots*” and gauge the client reaction for what comes next:

“I wouldn’t tell the patient straight away, first thing I met them, but I would say that there is an abnormality...we need to look at it further.” [Consultant focus group]

“The bad news, well you need to take your time with that and you need to do it slowly in a step-wise fashion...” [Consultant focus group]

While this is clearly a compassionate approach, the consultant goes on to explain that there is also a practical reason for keeping the client calm, which is that subsequent biopsies will be more difficult with a patient who is upset. Nevertheless, a range of strategies were clearly employed by the consultants to deliver bad news

in a sensitive and empathetic way, and many of these strategies aligned well to those recommended to breast radiologists by Harvey et al.⁴⁷

Sign-posting

Sign-posting is a theme that was observed both at the end of the whole clinic journey, but also at the end of each of its component parts (e.g. ultrasound). It encompasses testing of client understanding of what has already taken place, alongside an explanation of what is to come.

At the end of the assessment process clients who had a 'clear' result following mammography assessment were discharged with instructions to re-engage with routine screening at the next invitation. All clients left the clinic with a baseline set of information, though the level of detail was contingent on the questions asked by the client, and on the individual providing the information. Many clients believed they were given sufficient opportunity to ask questions but did not need to ask anything, however some revealed that they did not know what questions to ask, or thought of them 'too late':

"He said, 'Have you any questions for me?' ... but I should have asked him...It's too late now...but you're not really thinking so straight." [Client ID: 20]

The anxiety experienced by clients may be a barrier to them absorbing information given to them on the day, and questions may arise subsequent to their visit. For clients having a biopsy, they would have time to reflect and ask further questions when they returned for results one week later. This opportunity is lost for clients returned to routine screening, and indeed Ong and Austoker⁴⁸ had identified that many clients returned to routine screening had lingering doubts about the reason for their re-call. For this reason, practitioner-mediated mammography online social media networks may have an important role in offering women support and reassurance not only before they attend for mammography screening,⁵⁰ but also after the mammogram or assessment clinic experience.

However clients who had undergone ultrasound or biopsy would normally meet with a consultant or a breast care nurse prior to leaving the clinic. The consultations with the breast care nurse were conducted in a quiet room after the procedures had been completed. The atmosphere was calm, there were no interruptions and the

women appeared more relaxed and able to talk freely about their concerns. Open questioning was effectively used by breast care nurses to explore the client's understanding, and to 'join up' the different elements of the client journey:

"What has the doctor said to you so far?" [Client ID; 10 Breast Care Nurse Interview]

The breast care nurses had more time during their consultations for information gathering and benefitted from information gathering earlier in the process by the practitioners, including information about family history, personal circumstances or anxiety levels. While a one-stop clinic approach with several different staff-client interactions could be de-personalising, the client interviews revealed a very positive reflection on their experience:

"There was no rush, you wasn't on a conveyer belt which I liked, they treat you as an individual...I am not asking for a lot of sympathy...it is nice to be chatted to on a one to one level..." [Client ID:23 – interview with researcher]

However both consultant and practitioner focus groups believed the clinic journey could be improved by the addition of a client guide to facilitate personalised care. Farrante et al previously identified that a 'patient navigator' responsible for managing the breast client journey had resulted in more satisfaction with care and a reduction in anxiety.⁴⁹ Aware of funding constraints, both focus groups discussed a compromise where a named practitioner could 'meet and greet' the client when they first arrived in the clinic, catching up with the client at the end of their journey to debrief them:

"I think if they've got a familiar face they are more likely to ask questions...they have formed a bond with them..." [Practitioner focus group]

Practitioners recommended that this 'guide' could speak to both client and their partner before they were directed to the waiting area, where anxiety can be heightened. A client guide may be in a position to alleviate some of the seemingly mundane concerns such as parking issues experienced by clients and their partners, and to reduce the feelings of 'institutionalisation'; having to wait where and when you are told, partially undressed, and often separated from partners. The important role of the 'significant other' was recognised by practitioners, as was the

role of receptionists providing a welcome point of contact and reassurance for the clients:

“It helps them not think they have been forgotten...you start thinking ‘oh gosh, I have been abandoned’.” [Consultant focus group]

Both practitioners and clients believe the sign-posting ‘meet and greet’ and the ‘debrief’ should be undertaken with the client fully dressed:

“...when you are undressed on your own, you are less likely maybe to take in what is being said to you because you are a bit more vulnerable...” [Practitioner focus group]

“It would have been nice to have met the radiographer whilst I was actually clothed and sat up, rather than lying down. Well you feel more vulnerable...and you feel exposed...” [Client ID: 18 – interview with researcher]

A dedicated patient guide role was also supported by the consultants, though one consultant radiologist explained that in an ideal scenario this would be best undertaken by a doctor or non-medical consultant.

Conclusions

This study was the first to explore staff-client interaction culture within a breast assessment clinic. While these findings cannot be generalised, it is assumed that there is a high degree of similarity between breast assessment units in terms of environment and culture due to the stringent requirements issued within national screening programmes. Twenty-three client journeys were documented, yielding emerging themes which were subsequently explored within the focus groups. This enabled validation and triangulation of data which represented client, staff and researcher perspectives.

Client feedback was overwhelmingly positive, however one of the limitations is that the interviews lacked depth. The research team recognised that many women were anxious to leave following an obviously stressful experience. Additionally, the researcher’s presence through their client journey may have inadvertently (positively) affected their experience and this is a recognised limitation of participant observation within ethnographic research. However when the influence of the researcher upon the clinic staff was explored in the focus groups, it was clear that

the presence of the researcher had not in any way changed their practice. This was most likely a positive effect of the prolonged researcher immersion within the clinic.

A model of staff-client interaction within a breast assessment clinic has emerged from this research. The model includes three over-arching themes [*breaking down barriers, preparing the ground and sign-posting*] which document the cultural values surrounding staff-client interaction within the assessment clinic, including how anxieties were expressed by clients, and responded to by staff. Breaking down barriers describes how staff use a range of strategies to gain the trust of the client, gauge their level of understanding of the process, and manage their anxiety. Preparing the ground describes a process of carefully managing the flow of information to the client, such that their diagnosis is delivered in a sensitive manner by the appropriate person at the right time. Sign-posting was observed both at the end of the whole clinic journey and of its component parts, including testing of client understanding of what has already taken place, alongside an explanation of what is to come. These three themes encompass positive and patient-centred values that appeared to be shared consistently by all staff within all aspects of the clinic. While some strategies employed in particular contexts and by particular individuals were more effective than others, there was an unspoken yet shared understanding of what was necessary to achieve a consistently positive client experience.

Recommendations

The research team identified a series of recommendations (Table 1), most having been already implemented within this innovative team. Some recommendations required a subtle cultural shift to enable sharing of best practice and blurring of role boundaries. This included consultants being prepared to 'let go' of some roles and practitioners being prepared to shoulder increased expectations, including taking on a patient navigator role. This recommendation has the greatest potential for positive cultural change and improving the client experience, particularly for those clients who are subsequently discharged back into the screening programme. These recommendations may be informative and serve as a 'best practice' checklist for other breast assessment units.

Recommendations for further research include an evaluation of the effectiveness of the patient navigator role, and this would include being sensitive to the timing of gaining the patient perspective to facilitate a deeper level of engagement.

Acknowledgements

Thanks to the East Lancashire breast screening unit, and to staff and clients for participating in the study. Thank you also to Ann Ward, our breast cancer service user who gave sound advice from inception to completion of the study.

Conflict of interest statement

None

Funding source

None

Ethical Approval

(Submitted separately in title page)

References

1. Ferlay J; Soerjomataram I; Dikshit R; Eser S; Mathers C; Rebelo M; Parkin DM; Forman D; Bray F. Cancer incidence and mortality worldwide: Sources, methods and major patterns in GLOBOCAN 2012. *Int. J. Cancer* 2015; 136(5):1097-0215
2. Health and Social Care Information Centre. Breast Screening Programme, England, Statistics for 2013-14 Published 18 February 2015. Available from <http://www.hscic.gov.uk/pubs/brstscreen1314>
3. Nightingale J, Borgen R, Szczepura K, Porter-Bennett L. An audit to investigate the impact of false positive breast screening results and diagnostic work-up on re-engagement with subsequent routine screening. *Radiography* 2015; 21(1):7-10
4. McCann J, Stockton D, Godward S. Impact of false-positive mammography on subsequent screening attendance and risk of cancer. *Breast Cancer Res* 2002; 4: R11
5. Kerlikowske K, Zhu W, Tosteson AN, Sprague BL, Tice JA, Lehman CD, et al. Identifying Women With Dense Breasts at High Risk for Interval Cancer: A Cohort Study. *Ann Intern Med* 2015;162:673-681

6. Brewer NT, Salt T, Lillie SE. Systematic review: the long term effects of false-positive mammograms. *Ann Intern Med* 2007; 146(7): 502-510
7. Salz T, DeFrank J, Brewer N. False positive mammograms in Europe: do they affect re-attendance? *Breast Cancer Res Treat* 2011; 127(1):229-231
8. Rimer BK, Bluman LG. The psychosocial consequences of mammography. *Journal of National Cancer Institute Monographs* 1997; 22: 131-138
9. Brett J, Bankhead C, Henderson B, Watson E, Austoker J. The psychological impact of mammographic screening: A systematic review. *Psychooncology* 2005; 14(11): 917-938
10. Schwartz LM, Woloshin S, Fowler FJ, Welsh HG. Enthusiasm for cancer screening in the United States. *J Am Med Assoc* 2004; 291:71-8.
11. Brodersen J, Siersma VD. Long-term psychosocial consequences of false-positive screening mammography. *Annals of Family Medicine* 2013;11(2):106-115
12. Signeurin A, Exbrayat C, Laberere J, Delafosse P, Poncet F. Association of diagnostic work-up with subsequent attendance in a breast screening program for false-positive cases. *Breast Cancer Res Treat* 2011; 127(1): 221-228
13. Fitzpatrick P, Fleming P, O'Neill S, Kiernan D, Mooney T. False-positive mammographic screening: factors influencing re-attendance over a decade of screening. *J Med Screen* 2011; 18(1): 30-3
14. Maxwell AJ, Beattie C, Lavelle I, Sinnatamby R, Garnett S, Herbert A. The effect of false positive breast screening examinations on subsequent attendance: retrospective cohort study. *Journal of Medical Screening* 2013; 20: 91–98
15. O'Connell RL, Hartridge-Lambert SK, Din N, St John ER, Hitchins C, Johnson T. Patients' understanding of medical terminology used in the breast clinic. *Breast* 2013; 22(5): 836-838
16. Murphy FJ. Act, scene, agency: the drama of medical imaging. *Radiography* 2009; 15: 34-39
17. National Health Service Breast Screening Programme. *Consolidated guidance on standards for the NHS Breast Screening Programme*. NHSBSP Publication No. 60 (Version 2), April 2005. Published by NHS Cancer Screening Programmes
18. National Health Service Breast Screening Programme. *Clinical Guidelines for Breast Cancer Screening Assessment*. NHSBSP Publication No 49, June 2010. Published by NHS Cancer Screening Programmes
19. Goodson L, Vassar M. An overview of ethnography in healthcare and medical education research. *J Educ Eval Health Prof* 2011; 8: 4
20. *The Concise Oxford Dictionary of Current English*: Main edition August 2011 London
21. Strudwick RM. The radiographic image: A cultural artefact? *Radiography* 2014; 20:143-147
22. Hayre CM; Blackman S; Eyden A. Do general radiographic examinations resemble a person-centred environment? *Radiography* 2016;0(0) ahead of print. doi: 10.1016/j.radi.2016.07.001

23. Atkinson P, Hammersley M. *Ethnography – principles in practice*. 3rd Edition. Routledge, London
24. Gold RL. Roles in sociological field observations. *Social Forces* 1958; 36: 217-223
25. McCambridge J, Witton J, Elbourne DR. Systematic review of the Hawthorne effect: New concepts are needed to study research participation effects. *Journal of Clinical Epidemiology* 2014; 67(3):267-277
26. Mulhall A. In the Field: notes on observation in qualitative research. *Journal of Advanced Nursing* 2003; 41(3): 306-313
27. Kurtz S, Silverman J, Benson J, Draper J. Marrying content and process in clinical method teaching enhancing the Calgary-Cambridge Guides. *Academic Medicine* 2003; 78(8): 803-9
28. Kreuger R, Designing and conducting focus group interviews. Accessed 27.04.15. <http://www.eiu.edu/~ihec/Krueger-FocusGroupInterviews.pdf>
29. Burnard P. A method of analysing interview transcripts in qualitative research. *Nurse Education Today* 1991; 11: 461-6
30. Murphy FJ, Yelder J. Establishing rigour in qualitative radiography. *Radiography* 2010;16(1):62-67
31. Pineault P. Breast cancer screening: women's experiences of waiting for further testing. *Oncology Nursing Forum* 2007; 34(4): 847-853
32. Sauven P. Guidelines for the management of women at increased familial risk of breast cancer. *European Journal of Cancer* 2004; 40(5): 653–665
33. Andersen MR, Smith R, Meischke H, Bowen D, Urban N. Breast cancer worry and mammography use by women with and without a family history in a population-based sample. *Cancer Epidemiol Biomarkers Prev* 2003; 12: 314–320
34. Murphy FJ. How was it for you? Imaging technology and the patient experience. *Synergy* 1999; July: 4-5
35. Nightingale J, Murphy FJ, Blakeley C. 'I thought it was just an x-ray': a qualitative investigation of patient experiences in cardiac SPECT-CT imaging. *Nuclear Med Communications* 2012; 33(3):246–254
36. Beach WA, Easter DW, Good JS, Pigeron E. Disclosing and responding to cancer 'fears' during oncology interviews. *Social Science and Medicine* 2005; 60(4): 893 -910
37. Hsu I, Sha S, Korhuis PT, Sharp V, Cohn J, Moore RD, Beach MC. Providing support to patients in emotional encounters – a new perspective on missed empathetic opportunities. *Patient Education and Counselling* 2012; 88: 436-442
38. Silverman J, Kurtz S, Draper J. *Skills for communicating with patients*. 3rd Edition. 2013. CRC Press, London
39. Cocksedge S, George B, Renwick S, Chew-Graham CA. Touch in primary care consultations: qualitative investigation of doctors' and patients' perceptions. *Br J Gen Pract* 2013; 63(609): e283-e290
40. Eide H, Graugaard P, Holgersen K, Finset A. Physician communication in different phases of a consultation at an oncology outpatient clinic related to patient satisfaction. *Patient Education and Counseling* 2003; 51(3):259-266

41. Garvin B, Moser DK, Riegel B, McKinley S, Doering L, Kyungeh A. Effects of gender and preference for information and control on anxiety early after myocardial infarction. *Nursing Research* 2003; 52(96): 386-392
42. Rhodes L, McPhillips-Tangum C, Markham C, Klenk R. The power of the visible: the meaning of diagnostic tests in chronic back pain. *Social Science and Medicine* 1999; 48(9): 1189-1203
43. Osbourne H. Health Literacy: How visuals can help tell the Healthcare Story. *Journal of Visual Communication in Medicine* 2006; 29(1): 28-32
44. Koch-Weser S, DeLong W, Rudd RE. Medical word use in clinical encounters. *Health Expectations* 2009; 12: 371-382
45. Pieterse AH, Jager NA, Smets EMA, Henselmans I. Lay understanding of common medical terminology in oncology. *Psycho-oncology* 2013; 22:1186-1191
46. Warnock C. Breaking bad news: issues relating to nursing practice. *Nursing Standard* 2014. 28 (45): 51-58
47. Jennifer A. Harvey, Michael A. Cohen, David R. Brenin, Brandi T. Nicholson, Reid B. Adams, Breaking Bad News: A Primer for Radiologists in Breast Imaging, *Journal of the American College of Radiology* 2007; 4(11):800-808
48. Ong G, Austoker J. Recalling women for further investigation of breast screening: womens' experiences at the clinic and afterwards. *Journal of Public Health Medicine* 1997; 19: 29-36
49. Ferrante JM, Chen P, Kim S. The effect of patient navigation on time to diagnosis, anxiety and satisfaction in urban minority women with abnormal mammograms: A randomised controlled trail. *J Urban Health* 2008; 85(1): 114-124
50. Robinson, L, Griffiths, M, Wray, J, Ure, CM, Shires, G, Stein Hodgins, J, Hill, C and Hilton, B. Preparing women for breast screening mammography: A feasibility study to determine the potential value of an on-line social network and information hub. *Radiography* 2015; 21(4): 308-314

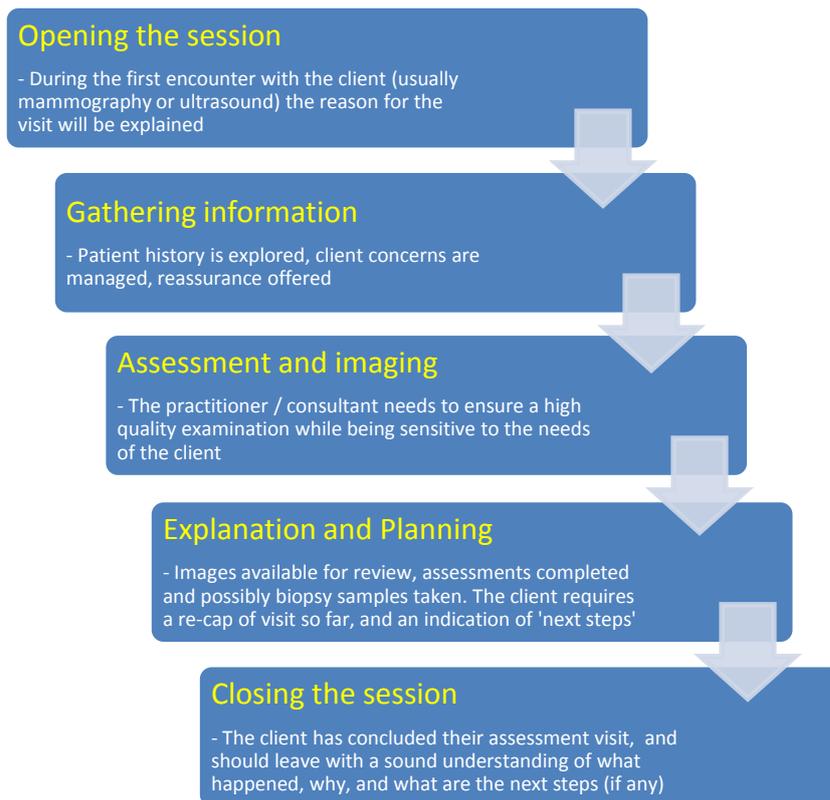


Figure 2 Development of themes throughout each stage of the research.

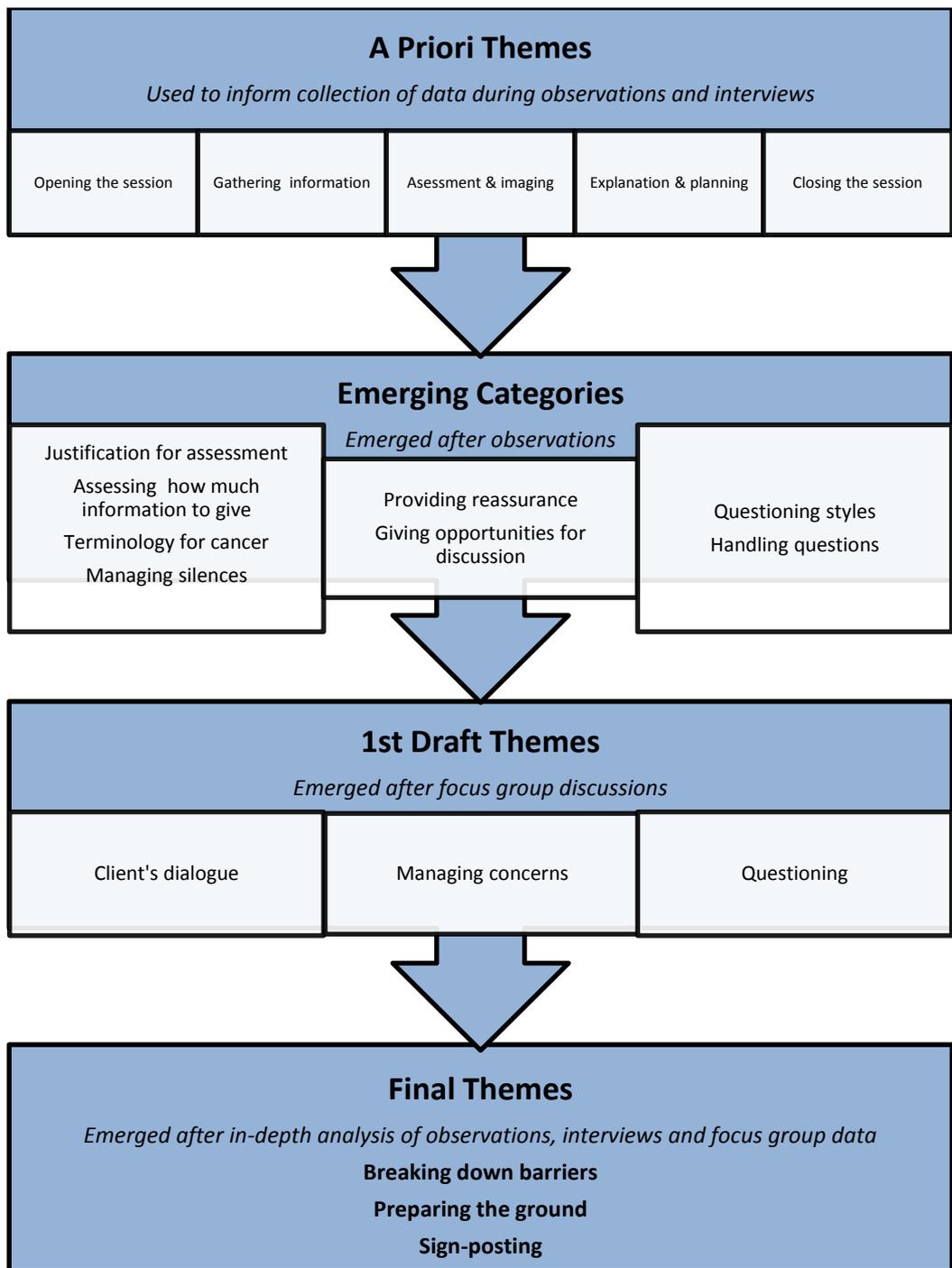
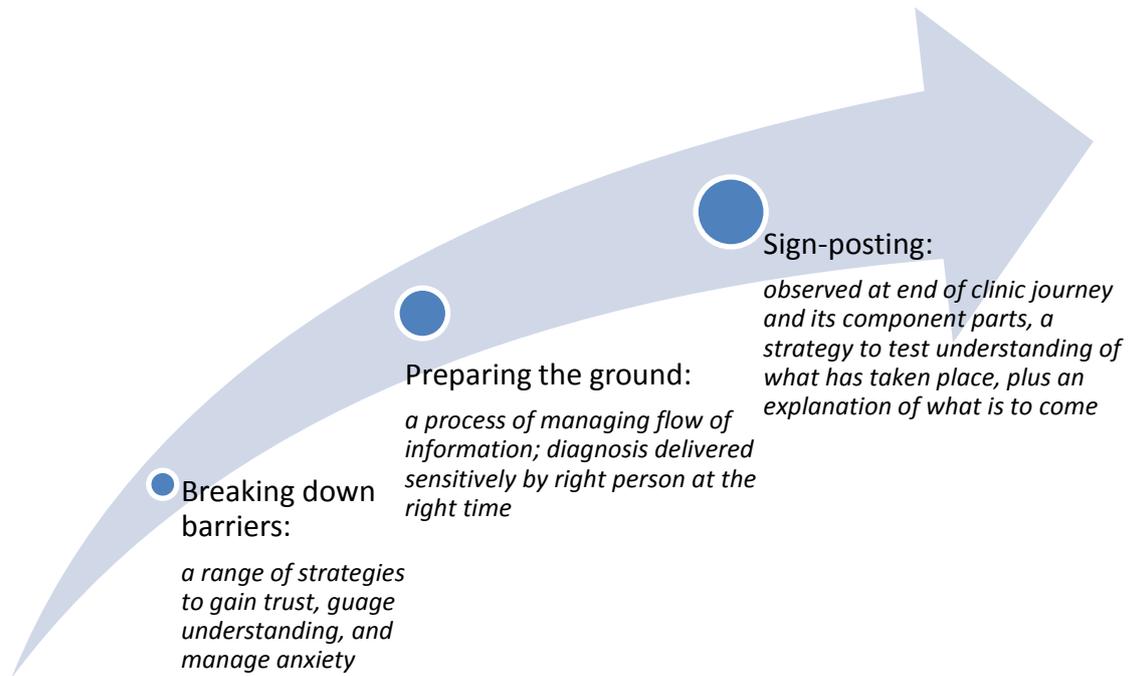
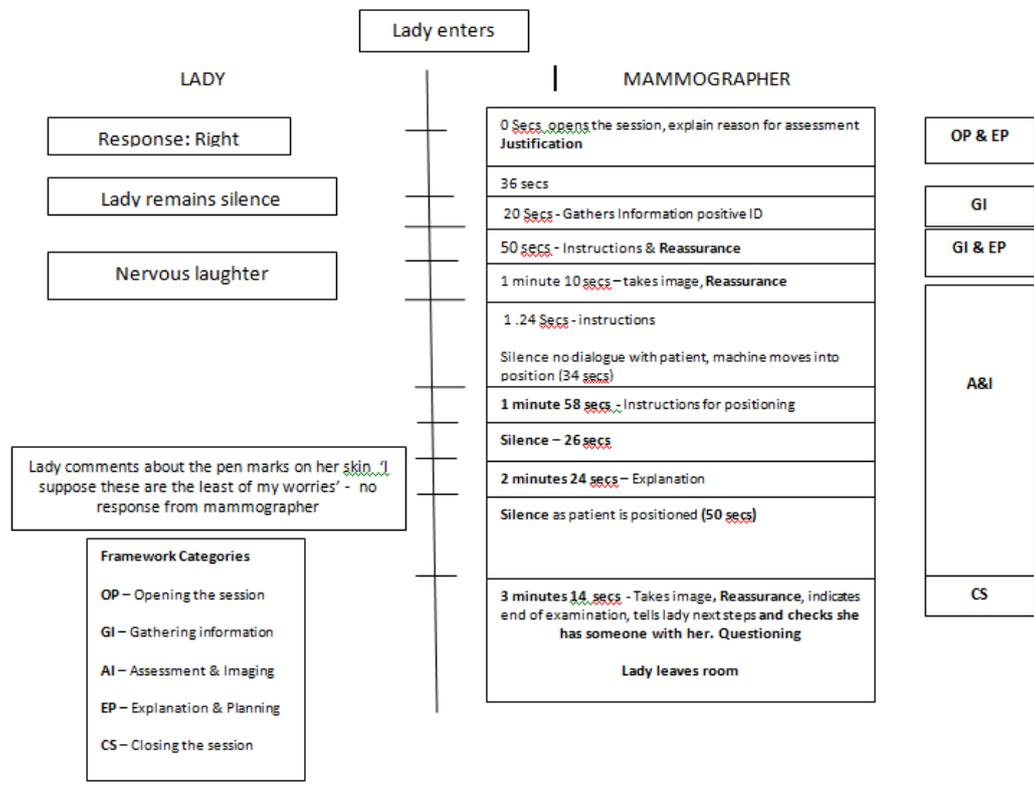


Figure 3 A new perspective on professional values and behaviours demonstrated via a model of staff-client interaction within the breast assessment clinic. The arrow represents the changing focus of staff-client interactions, as practitioners guide the client through a process from initial confusion and distress to an enhanced clarity of understanding.



Appendix 1 - Example of a Completed Observation Checklist / Flow Chart



Appendix 2 Semi-structured interview

Introduction

1. Ensure client is happy to proceed with this part of the study.
2. Ask for agreement for the interview to be digitally recorded and explain why this necessary.
3. Assure confidentiality and anonymity
4. Explain the purpose of the interview, encourage the client to ask questions to seek clarification

Events leading up to attendance at the assessment clinic

1. When did you receive your letter asking you to attend the clinic?
2. Did you find the information in the letter useful?
 - what was good about it?
 - was there anything you didn't understand? If YES did you seek clarification from any one, if so who?
3. How did you feel about being recalled, did you talk to anyone about your feelings, if so who?

Day of appointment

1. Describe what happened between you arriving in the unit and before you went in for imaging?
 - Can you recall which members of staff you spoke to and what was said?
 - Was there the opportunity to ask questions? If so did you take up this opportunity? Did you find this helpful?

Assessment

1. Can you describe your experience of the assessment? Prompts:
 - Staff members, Who? What they did? What they told you?
 - Was there the opportunity to ask questions, if YES can you recall what you asked, were you satisfied with the answer, if NO how could it have been improved.
 - What tests did you have?
 - What information were you given about the tests?
 - Did you understand the explanation? If NO were you given the opportunity to ask questions, did you ask for further explanations?
 - Would you have liked more information about the nature and the purpose of the tests? If YES, what further information would you have liked?
 - Results: Who told you the results? Did you understand what was said? Was there opportunity for you to ask questions? if YES did you ask any questions if YES were you happy with the answer? If NO how could it have been improved?
2. Overall were you happy with the way the assessment was conducted? What improvements could be made? i.e. communication, information.

Post assessment Procedure.

1. Can you describe your experiences after the assessment?
 - Who did you talk to? What information was given to you?
 - Was there opportunity for you to ask questions? If YES did you ask any questions if YES you were happy with the answer? If NO how could it have been improved?
2. Can you describe your overall experience of the assessment clinic, what aspects of the experience could be improved?

Thank you

Thank you very much for your time, do you have anything you wish to add at this stage.

Appendix 3 - Focus Group Schedule (presentation)

TITLE SLIDE - Introductions and purpose of focus group. Ensure Consent.

BREAST ASSESSMENT CLINICS - Check our and their understanding of basic premise

INTRODUCTION - Explain literature base

PROJECT OUTLINE - Explain research methods

CLIENT PERCEPTIONS - The researcher appeared to potentially have changed the journey for the patient, as they were never unaccompanied and had a consistent person with them. Do you think being unaccompanied for short periods of time is a problem? Did the researcher's presence appear to affect your experience as a practitioner?

5 STAGES - What do these stages mean to you (Kurtz et al)? Do they seem to reflect your thoughts about the patient journey? May be the stages occasionally overlap?

JUSTIFICATION FOR ASSESSMENT VISIT

How do you decide how much information to give the client? Do you give this information even if the client doesn't ask for it?

Do you adapt the information to the client, or say the same to all? What sort of things do you say?

Does the amount of information given to any particular client depend on the practitioner?

Do you ever show the client the mammograms at this point? Do you ever feel you avoid discussing image appearances to protect the patient at this stage? Do you feel that a practitioner should discuss this, or best left to a consultant?

GATHERING INFORMATION

Does the questioning of the client depend upon the type of examination? (Eg. less for an assessment mammogram, more for ultrasound)? If so, why is this?

The word 'cancer' may promote anxiety in many clients - what alternative terminology, if any, do you use to refer to 'cancer'? What words do clients use?

How do mammographers feel about answering searching questions? Properly trained for this? Can you give too much information at this stage? How do you avoid information overload?

ASSESSMENT AND IMAGING

How much explanation do you give regarding mammograms, and why they are required again (when they were taken at the screening visit)?

If the client had experienced pain at recent screening visit, how do you deal with this anxiety?

Are you ever aware of periods of silence within the examination? If so, how do you deal with them?

If the client appears embarrassed while undressing for the procedure, how do you deal with this?

EXPLANATION AND PLANNING

In your experience and observations, how is 'good news' best broken to the client?

In your experience and observations, how is it best to prepare the client for possible 'bad news'?

If a practitioner is asked a direct question about the results, how do you respond? How do you check for understanding of the client? How do practitioners / clinicians promote questions or discussion? Do you ever feel it is appropriate to 'deflect' or put off difficult questions?

CLOSING THE SESSION

Who is the last practitioner to speak to the client (the debrief)? Do their relatives accompany them?

Does anybody show the client out of the department? Who would that be? Does the client often have more questions at this stage? Are they sign-posted to a source of information for after they leave?

Does anybody engage with their relatives if desired?

THINKING TO THE FUTURE

Perhaps return to the 'consistent' person (as in the researcher)?