

Mastering your Fellowship

Mergan Naidoo,^{1*} Klaus B von Pressentin,² Andrew Ross,¹ Tasleem Ras³

¹Department of Family Medicine, University of KwaZulu-Natal

²Division of Family Medicine and Primary Care, Stellenbosch University

³Division of Family Medicine, University of Cape Town

*Corresponding author, email: naidoom@ukzn.ac.za

Abstract

The series, "Mastering your Fellowship", provides examples of the question format encountered in the FCFP(SA) examination. The series aims to help family medicine registrars and their supervisors prepare for this examination. Model answers are available online.

Keywords: FCFP(SA) examination, family medicine registrars

Introduction

This section in the *South African Family Practice Journal* is aimed at helping registrars prepare for the FCFP (Fellowship of the College of Family Physicians) (SA) Final Part A examination and will provide examples of the question formats encountered in the written examination: Multiple Choice Question (MCQ) in the form of Single Best Answer (SBA – Type A) and/or Extended Matching Question (EMQ – Type R); Modified Essay Questions (MEQ)/Short Answer Question (SAQ), questions based on the critical reading of a journal (evidence-based medicine) and an example of an Objectively Structured Clinical Examination (OSCE) question. Each of these question types is presented based on the College of Family Physicians blueprint and the key learning outcomes of the FCFP programme. The MCQs will be based on the ten clinical domains of family medicine, the MEQs will be aligned with the five national unit standards and the critical reading section will include evidence-based medicine and primary care research methods.

This month's edition is based on unit standard 1 (Critically appraising qualitative research), unit standard 2 (Evaluate and manage a patient according to the bio-psycho social approach)

and unit standard 4 (Facilitate the learning of others regarding the discipline of family medicine, primary health care, and other health-related matters).

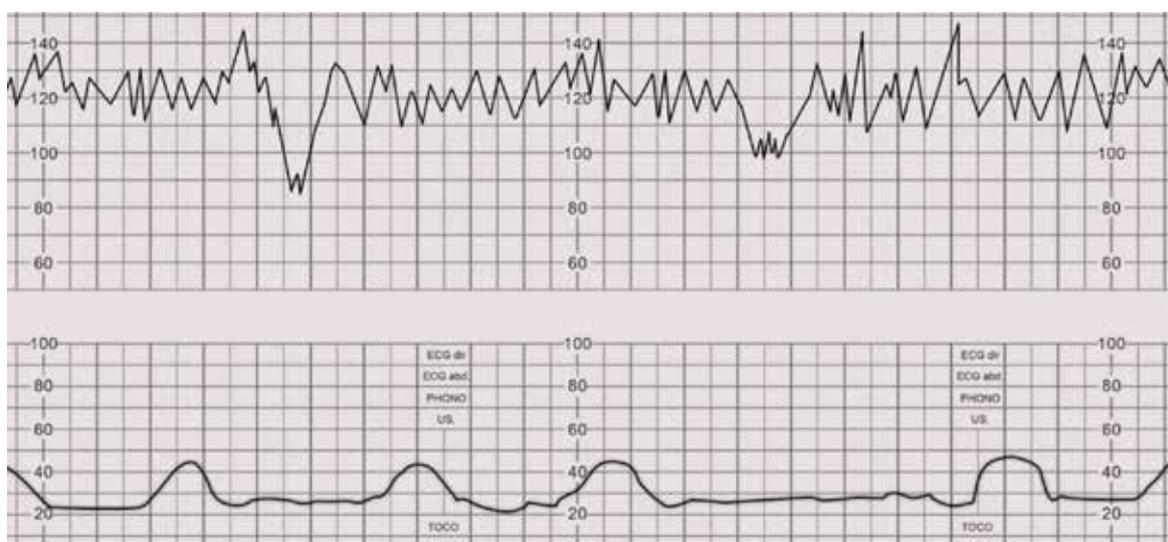
We suggest that you attempt answering the questions (by yourself or with peers/supervisors), before finding the model answers online: <http://www.safpj.co.za/>.

Please visit the Colleges of Medicine website for guidelines on the Fellowship examination: http://www.collegemedsa.ac.za/view_exam.aspx?examid=102

We are keen to hear about how this series is assisting registrars and their supervisors in preparing for the FCFP (SA) examination. Please email us your feedback and suggestions.

1. MCQ (multiple choice question: single best answer) Theme: Women's Health

A 25-year-old POG1 patient with no known comorbidities is 41 weeks pregnant and is in labour at your district hospital. She progresses well and is now 8 cm dilated. The midwife contacts you because she is worried about the cardiotocograph (CTG) shown below (calibration 1 cm = 1 minute).



The most appropriate next step is to:

- a. Ask the mother to lie on her side and administer oxygen.
- b. Ask the mother to lie on her side and run the CTG for 90 minutes.
- c. Ask the mother to lie on her side, administer oxygen and run CTG for 30 minutes.
- d. Augment labour with oxytocin to facilitate delivery.
- e. Perform intrapartum resuscitation and book an urgent Caesarean delivery.

Short answer: b)

Long answer:

The CTG above represents variable decelerations and these usually represent compression of the umbilical cord. In South Africa, we follow the NICE (National Institute for Health and Care Excellence) guidelines which use three features to interpret a CTG. These are shown in Table 1 below which is extracted from the NICE guidelines. The variable decelerations shown in the MCQ are within the “reassuring” category.

For variable decelerations that drop by less than 60 beats/minute (as depicted in the example above) to be “non-reassuring”, they need to have concerning characteristics or be present for at least 90 minutes. The CTG depicted above shows variable decelerations in which a normal baseline foetal heart rate drops by less than 60 beats/minute. The concerning features of variable decelerations are those that:

- i. Last more than 60 seconds.
- ii. Have reduced baseline variability within the deceleration.
- iii. Fail to return to baseline.
- iv. Have a biphasic (W) shape.
- v. Have no shouldering present.

CTG traces are categorised as normal, suspicious (1 non-reassuring feature) or pathological (1 abnormal feature or 2 non-reassuring features). Action is needed for the latter two classifications.

It is very important that one holistically assesses the patient by using the partogram in conjunction with the CTG. In South Africa, we are faced with an increased risk of maternal death due to Caesarean deliveries (CDs) and in some instances these CDs are not indicated. The rapidly increasing numbers of medical litigation associated with obstetric care and neonatal encephalopathy has caused a major change in clinicians’ attitudes and behaviour when monitoring a woman in labour resulting in many unnecessary CDs. In the public sector the CDs rates are far more than those recommended by the WHO. Reducing litigation and unnecessary CDs requires a good standard of obstetric care that is “comprehensive and flexible to respond to the clinical and social needs of women and their families.”

Further readings:

- National Institute for Health and Care Excellence. Intrapartum care: care of healthy women and their babies during childbirth. Clinical Guideline 190, Published February 2017. Available: <https://www.nice.org.uk/guidance/cg190>

Table 1: 2017 NICE guidelines on CTG interpretation

Description	Feature		
	Baseline (beats/ minute)	Baseline variability (beats/ minute)	Decelerations
Reassuring	110 to 160	5 to 25	None or early Variable decelerations with no concerning characteristics* for less than 90 minutes
Non- reassuring	100 to 109† OR 161 to 180	Less than 5 for 30 to 50 minutes OR More than 25 for 15 to 25 minutes	Variable decelerations with no concerning characteristics* for 90 minutes or more OR Variable decelerations with any concerning characteristics* in up to 50% of contractions for 30 minutes or more OR Variable decelerations with any concerning characteristics* in over 50% of contractions for less than 30 minutes OR Late decelerations in over 50% of contractions for less than 30 minutes, with no maternal or foetal clinical risk factors such as vaginal bleeding or significant meconium
Abnormal	Below 100 OR Above 180	Less than 5 for more than 50 minutes OR More than 25 for more than 25 minutes OR Sinusoidal	Variable decelerations with any concerning characteristics* in over 50% of contractions for 30 minutes (or less if any maternal or foetal clinical risk factors [see above]) OR Late decelerations for 30 minutes (or less if any maternal or foetal clinical risk factors) OR Acute bradycardia, or a single prolonged deceleration lasting 3 minutes or more

Abbreviation: CTG, cardiotocography.

* Regard the following as concerning characteristics of variable decelerations: lasting more than 60 seconds; reduced baseline variability within the deceleration; failure to return to baseline; biphasic (W) shape; no shouldering.

† Although a baseline foetal heart rate between 100 and 109 beats/minute is a non-reassuring feature, continue usual care if there is normal baseline variability and no variable or late decelerations.

2. SAQ (short answer question): General Medical: the family physician's role as a clinical trainer

You are working as a family physician at a rural district hospital. You supervise two registrars, one of whom recently started the 4-year programme and joined your hospital's team. She had been working previously in a different province and during the morning ward round you noticed that she prescribed a different regimen compared to the locally recommended protocol for managing resistant hypertension in a 50-year-old man with diabetic nephropathy. The prescribed treatment resulted in symptomatic hypotension with the patient experiencing a postural syncopal episode in the ward. Fortunately, there was no permanent dysfunction as a result of the medical mistake and the patient was discharged in a stable condition two days later. (Total 20 marks)

- 2.1 Discuss the type of medical mistake made by the registrar. (3)
- 2.2 How would you approach the situation from the educational perspective of a clinical trainer of postgraduate family medicine students? (3)
- 2.3 Describe the style you would use during the learning conversation with the registrar. (2)
- 2.4 Describe a system of gauging your registrar's level as a learner, as well as how this information will help you tailor your approach to supervising this registrar. (3)
- 2.5 How would you structure your feedback to the registrar during your learning conversation? (4)
- 2.6 How would you approach the capturing of the learning experience of the registrar in her portfolio, and how will the Kolb learning cycle help inform the process of reflecting? (5)

Model answers:

2.1 Discuss the type of medical mistake made by the registrar. (3)

This scenario may be described as a medical error, a type of adverse event which should be preventable within the current state of medical knowledge (we know that overtreatment or incorrect combinations of medications may result in negative outcomes, such as postural hypotension). Not all adverse events are medical errors, as a certain percentage of adverse events may result from complications which cannot be prevented, given the current state of knowledge (the patient may have underlying reasons such as undiagnosed coronary artery disease, which may have caused the syncope). Adverse events can be seen as bad outcomes caused by medical management.

Medical errors may be classified according to the type of healthcare service provided (here we had a prescription issue), the severity of the resulting injury (this was, potentially, a major issue), the type of setting (inpatient care), the type of individual involved (junior registrar), as well as according to the different typologies of error, such as

system vs process error (process error: the registrar did not follow the correct local protocol).

2.2 How would you approach the situation from the educational perspective of a clinical trainer of postgraduate family medicine students? (3)

Everyone makes mistakes. The critical issue is how one responds to the mistake made. A systemic, individual and/or group approach may be followed when dealing with adverse outcomes.

As the clinical trainer (or workplace-based supervisor), you have a duty towards the registrar to provide professional support and facilitate learner-centred, adult learning, to allow the registrar to develop her knowledge and competence, as well as assume responsibility for her own clinical work, which includes addressing safety of care in complex clinical situations.

As a clinical trainer you should develop your skills in mentoring and providing feedback to registrars and other colleagues. In the more formal training relationship with your registrar, you may make use of both opportunistic/informal and regular/formal educational interactions. This medical mistake provides an excellent opportunity for an opportunistic conversation (case discussion or debriefing), depending on whether the timing and environment, as well as the registrar, will allow for such a conversation. It may be that there are time pressures to continue with the clinical workload, or the registrar may not be emotionally ready to receive feedback. Therefore, a formal training relationship built on trust is an essential component to the successful supervisory experience.

2.3 Describe the style you would use during the learning conversation with the registrar. (2)

The principles and skills used in brief behaviour change counselling with patients, may also apply to the learning conversation with your registrar. In this scenario, you may wish to support the registrar in managing the adverse event, providing that you encourage the registrar to lead the process (and not take over, as this may detract from the learning experience). The learner should be the driver, by seeking and receiving feedback. One of the aims of this conversation is to assist the registrar to understand how, when and why the mistake was made, thereby facilitating increased self-awareness. A guiding style will help facilitate this conversation. Key features of such a guiding style include collaborative, empathic, evocative and focused.

2.4 Describe a system of gauging your registrar's level as a learner, as well as how this information will help you tailor your approach to supervising this registrar. (3)

Clinical supervision skills need to be developed and tailored to the learner and context. You need to know at what level your registrar is at as a learner. This level may be described in terms of the developmental model, Miller's Pyramid or another system. Two systems are described here:

- In the developmental model, learners may be classified as beginners, intermediates or advanced based on their behaviour in three areas, namely Self-awareness,

Autonomy and Motivation (SAM). Although the registrar is in her first year, she may be an intermediate or advanced learner, depending on her experience prior to entering the postgraduate programme. These types of learners have a reasonable ability to gauge their limitations (conscious incompetence). She may recognise that her understanding of the local protocol is limited, and this may require her to study it. Conversely, she may be a beginner and not realise that her incorrect prescribing habit resulted in this adverse event (unconscious incompetence).

- The registrar's competency level for a skill or managing a clinical scenario may also be described in terms of Miller's Pyramid, from *knows*, *knows how*, *shows* and *does*.

This more in-depth formal reflection may be better suited for a conversation in a private space later (the ideal is to provide structured feedback in a timely manner: it needs to be specific and occur close to the actual event). During this conversation, you may build on your trusting supervisory relationship, by encouraging each other to "lay your cards on the table." This represents a developmental conversation, which is a "proactive dialogue geared towards identifying and tackling needs in a positive and enthusiastic way". Such conversations can only happen if both the learning environment and relationship are optimised.

2.5 How would you structure your feedback to the registrar during your learning conversation? (4)

It is important that you provide feedback in a structured manner, by using an established model such as Pendleton's rules or ALOBA (Agenda Led Outcome Based Analysis). A few principles apply:

- Start with the learner's agenda: ask the registrar to prioritise the learning needs that arose from the clinical scenario.
- Encourage self-assessment and self-problem solving first: ask her to reflect on the scenario and come up with suggestions on how to deal with it.
- It may be a great learning conversation within a small group – if appropriate, the registrar may be encouraged to share her learning around the hypertension management protocol with other registrars within the training complex, and with other medical officers at your district hospital.
- Use feedback that describes observed behaviour (based on your own observations of the registrar in the clinical environment) to encourage a non-judgemental approach.
- Provide a balance of positive and negative feedback. Make offers and suggestions and generate alternatives of how to achieve the desired outcomes. It may be that the local protocol needs revision and discuss ways of developing a local guideline on how to approach resistant hypertension and avoiding overtreatment.

2.6 How would you approach the capturing of the learning experience of the registrar in her portfolio, and how will the Kolb learning cycle help inform the process of reflecting? (5)

A portfolio of learning allows a structured, flexible way to present evidence of learning in the clinical context. Portfolios can take on many formats. In South Africa, the College of Family Physicians and the South African Academy of Family Physicians (SAAFP) have agreed on a paper-based portfolio of learning. An electronic version of this portfolio is being piloted in the Western Cape Province at present.

The learning conversation around the clinical scenario may happen both as an informal conversation at the patient's bedside (discussion) or as a formal educational meeting between the registrar and supervisor (as described above). This learning conversation should be captured in the portfolio of learning as an educational meeting. The registrar should be encouraged to use the Kolb learning cycle to inform the process of reflecting on this concrete learning experience in the workplace. The four steps in this cycle have been described as follows:

- Feeling (concrete experience): what are the registrar's feelings when reflecting on the adverse event within the context of her daily professional life?
- Looking (reflective observation): the registrar may reflect on the experience and should be encouraged to create some cognitive distance between herself and this experience. Is there new information or added feedback provided by the supervisor?
- Thinking (abstract conceptualisation): the registrar should be enabled to conceptualise or identify in more abstract terms what she has learnt and/or what she still needs to learn.
- Doing (active experimentation): the registrar should document her plan to incorporate this new knowledge/competency into her clinical work environment, as well as to meet her newly identified learning needs. The supervisor may support this process of active experimentation by delegating new tasks to the registrar and offering support while she gains confidence.

The registrar should be encouraged to manage her own learning portfolio and the supervisor should engage with the portfolio in an active manner (such as providing feedback on the quality and depth of document reflection).

Further reading:

- Couper I. How to deal with a medical mistake (chapter 167). In: Mash B, Blitz J, eds. South African Family Practice Manual. 3rd ed. Cape Town: Van Schaik; 2015:572-3.
- Kumar M, Charlton R, Mehay R. Effective clinical supervision (chapter 26). In: Mehay R, ed. The essential handbook for GP training and education. London: Radcliffe; 2012 (last accessed 11 February 2018):369-77. Available from: <http://www.essentialgptrainingbook.com/>.
- Mash B. How to mentor a colleague (chapter 176). In: Mash B, Blitz J, eds. South African Family Practice Manual. 3rd ed. Cape Town: Van Schaik; 2015:600-2.
- Jenkins L. How to use a portfolio of learning (chapter 175). In: Mash B, Blitz J, eds. South African Family Practice Manual. 3rd ed. Cape Town: Van Schaik; 2015:597-9.
- Jenkins L, Mash B, Derese A. The national portfolio of learning

for postgraduate family medicine training in South Africa: experiences of registrars and supervisors in clinical practice. *BMC Medical Education*. 2013;13(1):149.

- Blitz J. Developing the primary care team (chapter 9). In: Mash B, ed. *Handbook of Family Medicine*. 4th ed. Cape Town: Oxford University Press Southern Africa; 2017:386-405.

3. Critical appraisal of qualitative research

Please answer the questions which follow in relation to the linked article:

Ross A, Pillay G. Portrait of a rural health graduate: exploring alternative learning spaces. *Medical Education* 2015;49:499-508. doi: 10.1111/medu.12676. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/medu.12676/epdf>

Introduction (4 marks)

- 3.1 Summarise the argument that the authors make for the social value of this study. (2)
- 3.2 Summarise the argument that the authors make for the scientific value of this study. (2)

Methods (14 marks)

- 3.3 How do qualitative researchers decide on a sample size? (2)
- 3.4 Critically appraise the approach to sample size used in this study. (2)
- 3.5 What is meant by purposeful sampling in qualitative research? (2)
- 3.6 Critically appraise the approach to sampling used in this study. (2)
- 3.7 The authors used unstructured long interviews. Explain the key characteristics of an unstructured interview. (2)
- 3.8 The authors state that Reid's four-quadrant framework was used to conceptualise and arrange the data. This would be considered to be a deductive approach to content analysis. What are the key differences between a deductive approach and an inductive approach to content analysis? (2)
- 3.9 Describe the steps followed when analysing qualitative data. (2)

Findings; Discussion; Conclusion (6 marks)

- 3.10 In qualitative research the issue of transferability is used instead of generalisability to make sense of the external validity of the findings. Critically appraise the article in terms of how transferable the findings are to your own practice setting. (2)
- 3.11 The authors state that triangulation was used to improve the validity of the study. Explain what you understand by the concept of triangulation in qualitative research and critically appraise their claim. (2)
- 3.12 How well do you think the authors accounted for the reflexivity of the researchers? (2)

Application (6 marks)

- 3.13 Reid's framework of learning was originally applied to CPD activities among rural teachers in Scotland. Using the framework, outline a learning activity in each of the quadrants relevant to your context. (4)
- 3.14 Discuss two insights from this study which could be applied to student learning at a rural district hospital. (2)

Model answers:

Introduction (4 marks)

3.1 Summarise the argument that the authors make for the social value of this study. (2)

Appropriate numbers of health care professionals (HCPs) are necessary to achieve key health outcomes. With rural areas impacted more by staff shortages than urban areas, support, training and development of students of rural origin at institutions of higher learning should be an integral dimension of healthcare provisioning as HCPs of rural origin are those most likely to work in rural areas and to contribute to improved health outcomes.

Insight into these learning experiences and the spaces in which they happen has potential for opening what and how we train and develop competent, professional and socially responsible HCPs.

3.2 Summarise the argument that the authors make for the scientific value of this study. (2)

There is no published South African data on the learning experiences of rural origin HCPs working in rural settings in SA. This article addresses this gap and is framed by the research question "What are the learning experiences of HCPs of rural origin within the context of training at IHL in SA?". Insight into these learning experiences and the spaces in which they happen has potential for opening up what and how we train and develop competent, professional and socially responsible HCPs.

Methods (6 marks)

3.3 How do qualitative researchers decide on a sample size? (2)

A qualitative sample is not intended to generate numerical information that can be generalised to the whole study population. It is not necessary therefore to perform a statistical sample size calculation. The sample is intended to be sufficient to explore the phenomenon of interest and the quality of the people's experience and willingness/ability to share their experience are the key factors. Typically, the concept of saturation is used to determine a sample size – interviewing enough people to the point at which no new themes are emerging. Usually the researchers commit to interview a minimum number of people (5–15 people) and to then continue interviewing until saturation is obtained. This may require some kind of concurrent analysis of the data.

3.4 Critically appraise the approach to sample size used in this study. (2)

This study included 6 people interviewed through long interviews with the information supplemented by photomemory, artefact retrieval and collage inquiry. This is certainly consistent with the usual numbers of people included in qualitative research. However, the authors make no reference to how they decided on these numbers or to the concept of saturation. In addition, the experiences of only 1 participant are reported in this manuscript although the authors indicate that his experiences are similar to the experiences of the other participants.

3.5 What is meant by purposeful sampling in qualitative research? (2)

In qualitative research, participants are usually selected purposefully because they are likely to be information-rich and to help the researcher fully explore the phenomenon of interest. There are various approaches to implementing this, such as extreme case sampling, criterion sampling, snowball sampling, purposeful random sampling. The quantitative approach of probability sampling (each person having an equal chance of selection by means of randomisation, systematic sampling, etc.) does not apply, non-probability sampling is used.

3.6 Critically appraise the approach to sampling used in this study. (2)

Criterion based purposeful sampling was used with a set of inclusion criteria. Participants were chosen based on their willingness to participate, fluency in English, and representation of a range of HCPs who had studied at a variety of training institutions, were working in a rural setting and had been supported by Umthombo Youth Development Foundation (UYDF). A balance of men and women was also intended as well as a range of universities where they had studied. The article does not describe in detail how these specific participants were selected in practice based on these criteria and they were probably sampled conveniently, which implies they were selected more for the convenience of the interviewer but would have had to meet pre-determined criteria. There may have been other rural origin HCPs who meet the inclusion criteria and no reason is given why these participants were chosen and not others.

3.7 The authors used unstructured long interviews. Explain the key characteristics of an unstructured interview. (2)

An unstructured long interview is just that – unstructured with no predetermined questions to be asked. It usually starts with a general introduction to the topic and allows the person being interviewed to take the discussion where he/she wants to go. There may be a broad interview guide but no detailed questions to be asked in the interview. **Unstructured interviews** flow like an everyday conversation and tend to be more informal and open-ended.

3.8 The authors state that Reid's four-quadrant framework was used to conceptualise and arrange the data. This

would be considered to be a deductive approach to content analysis. What are the key differences between a deductive approach and an inductive approach to content analysis? (2)

A deductive approach implies that some prior theory informs the choice of codes (Reid's four-quadrant framework in this study) and that the researcher starts with predetermined categories (*a priori*). The researcher then tries to see if the data can be explained by fitting it into the categories identified.

An inductive or grounded approach allows 'the data to speak for itself'. In theory, in an inductive approach the researcher comes to the data with no categories and no framework and constructs an explanation of the phenomena from the data.

3.9 Describe the steps followed when analysing qualitative data. (2)

In general analysis of qualitative data follows the following process:

- Transcribe the audiotapes verbatim and check that they are accurate.
- Familiarise yourself with the data by listening to the tapes and reading the transcripts.
- Identify the key codes needed to analyse the data and organise them into a thematic index under a number of categories.
- Use these codes to code all of the data sources systematically.
- Bring together the data related to a single code or category in one chart where it can be viewed in an integrated way.
- Interpret the chart in terms of the type and range of themes as well as the relationships or associations between themes.
- Validate your interpretation by checking with the respondents (not always possible).

Findings; Discussion; Conclusion (6 marks)

3.10 In qualitative research the issue of transferability is used instead of generalisability to make sense of the external validity of the findings. Critically appraise the article in terms of how transferable the findings are to your own setting. (2)

To transfer the findings to one's own setting you need to look at the context of the study and whether this is similar to one's own setting – a thick description. This also requires that the researchers describe their context in sufficient detail. In this article the context of training rural origin health care professionals is described. The candidate should reflect on the similarity to their own practice context.

The second issue to look at is the source of information – who was interviewed using purposeful sampling. In this case rural origin health care professionals who had been supported by UYDF were chosen. The interviewees are

well defined in the study. The candidate should reflect on whether their practice population is similar or not.

3.11 The authors state that triangulation was used to improve the validity of the study. Explain what you understand by the concept of triangulation in qualitative research and critically appraise their claim. (2)

Triangulation refers to improving the trustworthiness of the study by corroborating the findings from different types of individuals, different types of data, or methods of data collection. In this study the researchers combined data from long interviews, photomemory, artefact retrieval and collage inquiry (different methods of data collection), but used the same type of data (qualitative) and the same type of individuals (same criterion used in selection).

The value of combining data from long interviews, photomemory, artefact retrieval and collage inquiry is discussed in the methods. Long interviews were constructed to ensure that participants were able to express their views. Alternative methods of data collection were used to broaden the way participants thought about and remembered their experiences.

3.12 How well do you think the authors accounted for the reflexivity of the researchers? (2)

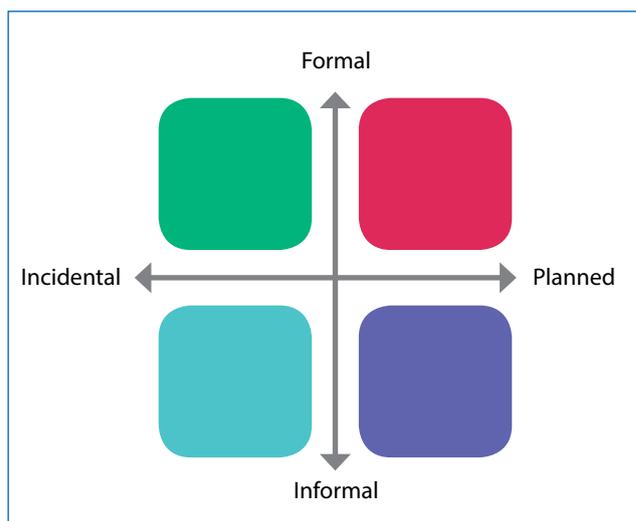
Reflexivity refers to how aware the researcher was as to the influence of themselves on the collection, analysis and reporting of the findings. The researcher's own views, prejudices, pet theories or bias may have undue influence if the researcher is unaware of it or acting alone. One would expect the authors to give some information on who the researchers were and how they attempted to be reflexive.

The author states: AR is the founder of UYDF and currently a trustee but is no longer actively involved in the operational aspects of the scheme. Although all the research participants are known to the authors, none of them have any contractual obligation to the authors or to UYDF.

The limitations section gives some information about the principal researcher and highlights the potential problem of knowing the participant (the personal relationship between AR and the participants could be a limitation or a strength). Participants expressed a willingness to participate and shared intimate details of their experiences, which might not have been accessible to another researcher. However, the relationship could also have resulted in the participant painting a particularly positive picture of the role of UYDF, although this was not the focus of this article.

Application (6 marks)

3.13 Reid's framework of learning was originally applied to CPD activities among rural teachers in Scotland. Using the framework, outline a learning activity in each of the quadrants relevant to your context. (4)



3.14 The World Organisation of Family Doctors describes rural training sites as ideal for knowledge integration, developing professional and ethical behaviour, resource management and learning to work in a team. Discuss two insights from this study which could be used to maximise student learning opportunities at rural district hospitals. (2)

A number of examples could be given here. Some of which might include:

- Recognise that learning occurs in a variety of spaces – not confined to the formal/planned learning spaces such as CPD activities.
- Present the quadrants and discuss where students think that learning occurs best for them.
- Recognise that the experiential learning experience (defined in this paper as occurring in the formal/incidental learning space) is an important motivating influence for students at university, which can make a major contribution to academic success, as students are able to recognise the value of what they are learning and see the application of knowledge learnt in the workplace.
- In addition, recognise that socialisation, mentorship, comments of significant others as well as observing professional behaviour occurring in the informal and incidental learning space are important ways for students to learn what it means to be an HCP and the ethos of the medical profession.

Further reading:

- Reid S, Mash B. African primary care research: qualitative interviewing in primary care. African journal of primary health care & family medicine. Jan 2014;6(1):1-6.
- Mabuza LH, Govender I, Ogunbanjo GA, Mash B. African Primary Care Research: Qualitative data analysis and writing results. African journal of primary health care & family medicine. Jan 2014;6(1):1-5.
- Pather M. Chapter 13: Continuing professional development. In: Mash B, ed. Handbook of Family Medicine. 3rd ed. Cape Town: Oxford University Press Southern Africa; 2011:406-29.

- Riegelman, RK. Studying a Study and testing a test. How to read the medical evidence. 5th ed. Lippincott Williams & Wilkins 2005.
- Resources. Centre for Evidenced Based Health Care [homepage on the Internet]. c2015. Available from: <http://www.cebh.co.za/teaching-resources/>
- Greenhalgh T. How to read a paper: The basics of evidence-based medicine. 5th ed. Wiley & Blackwell 2014.

4. OSCE scenario

Theme: General medical

Instructions for candidate:

History/context

You are working in the OPD of the rural hospital. A lady presents to you with headaches.

Instructions to the candidate:

Please conduct a brief, focussed consultation (history, examination and explanation to patient). Counsel the patient on non-pharmacological techniques that could be used to improve her health.

Marking memorandum

Instructions to the examiner:

Objectives: This station tests the candidate's ability to:

1. Diagnose and treat tension-type headaches.
2. Counsel a patient on stress-management.
3. Apply principles of brief motivational interviewing to achieve behavioural change.

This is an integrated consultation/focused task station in which the candidate has 14 minutes.

Familiarise yourself with the Assessor Guidelines, which detail the required responses expected from the candidate.

No marks are allocated. In the mark sheet, tick off one of the three responses for each of the competencies listed. Make sure you are clear on what the criteria are for judging a candidate's competence in each area.

If applicable, provide the following information to the candidate when requested: **sheet with vitals.**

This station is 15 minutes long. The candidate has 14 minutes, then you have 1 minute between candidates to complete the mark sheet and prepare the station.

Please switch off your cellphone.

Please **do not** prompt the student.

Please ensure that the station remains tidy and is reset between candidates.

Marking Template: Tension Headaches

Exam number of candidate:

Competencies (Delete what is not applicable)	Candidate's rating		
	Not competent	Competent	Good

1. Gathering information: history taking	Not competent	Competent	Good
Comment:			

2. Physical examination skills: screening for red flags	Not competent	Competent	Good
Comment:			

3. Clinical reasoning: diagnosing tension headaches and risk factors	Not competent	Competent	Good
Comment:			

4. Explaining and planning: relating findings to complaints and patient's worldview	Not competent	Competent	Good
Comment:			

5. Management: negotiating a plan forward, brief motivational interviewing to change behaviour	Not competent	Competent	Good
Comment:			

Comments:

The following contributed positively/negatively to the candidate's performance:

Examiner's name:

Examiner's signature:

Guidance for assessors

Competencies	Competency descriptors		
	Not competent	Competent	Good
1. Gathering information	Biomedical only, misses important information	Focused, structured, biopsychosocial, identifies risk factors	Patient-centred, encouraging a patient narrative, shows empathy
2. Physical examination skills	Does a vague, general examination, not focussed or efficient	Able to do an efficient screening for possible causes, including red flags: cranial nerves, reflexes, attempts fundoscopy	Engages with patient as the exam proceeds efficiently and thoroughly, explains what each sign is for
3. Clinical reasoning	Makes a biomedical diagnosis only Ignores risk factors	Reaches a diagnosis, including psychosocial issues	Identifies relevant risk factors, and health promotion opportunities
4. Explaining and planning	Uses technical jargon, does not engage with patient	Explains diagnosis simply and effectively; provides a psychosocial context for the physical symptoms	Addresses patient's concerns directly, engages empathically, encourages questions and discussion; reviews patient's understanding
5. Management	Only addresses headache issues Stress management not addressed / inadequately addressed	Provides an evidence-based management plan; suggests stress management options; highlights risk factors for intervention	Uses brief motivational interviewing techniques; checks patient's understanding and acceptance of proposals; concludes a comprehensive plan

Role play – Instructions for actor

32-year-old woman. Well dressed, well spoken.

Opening statement:

"Dr, I've been getting these headaches almost every day, and it's getting too much for me now."

History

Open responses: Freely tell the doctor ...

- Headaches occur almost daily. Usually start around mid-morning and only settle when you've had a Grandpa at lunch. It comes back sometimes, and sometimes stays away.
- Started in the middle of last year.

Closed responses: Only tell the doctor if asked ...

- No other symptoms like vision problems, nausea, dizziness, vomiting, tingling.
- You sleep well, but are tired all the time.
- No epileptic fits, no head injuries, no other medical problems, HIV negative at work 2 weeks ago (no sex for last 6 months – relationship ended badly).
- Good appetite – maybe too good! Mostly processed food as not nice to cook for yourself – fish fingers, chips, noodles/pastas, takeaway.
- Mood is fine, just don't feel motivated for work – have to drag yourself to work every day. Always look forward to weekends.
- Drinks with friends on weekends – from Friday night till Sunday morning – usually gets quite drunk – not sure of amount. Will have occasional beer after work during the week.
- Does not smoke or use any other substances.

Ideas, concerns and expectations

Your neighbour had meningitis and died from it at the age of 22-years. You are worried that this may be something similar.

Would like a diagnosis – "tell me what is wrong, Dr"

Medical history

You are healthy, and the work check-up was also fine last month.

Medication history

Nil.

Social history

- Single, lives alone, no children, relationship ended 6 months ago with partner cheating.
- Works as data capturer for insurance company – office and computer work.
- Extended family in Free State (Bloemfontein) – been in the city alone for the past 7 years – chat with parents about once/month.
- Have some good friends who get together every weekend.

Family history

Nil of note.

Clinical notes

Patient: _____

Date: _____

Vitals:

BP: 150/90

HR: 94/min

RR: 14/min

RBG: 7.6 mmol/L

Height: 1.58 m

Weight: 81 kg

BMI: 32

U-dipsticks: NAD

Acknowledgements:

Prof Bob Mash for his help with reviewing the manuscript.